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	Pacific Seabird Group						7E	D
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Craig S. Har Vice Chairm 4001 North Arlington, V	rison an for Conservation 9th Street #1801 irginia 22203				0154° MAR1	40520		
		Ma	rch 9,	1993	USDA Fore Wildlife & Fi	st Service sheries Unit	56	L'A
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#### Re: Removal of Predators from Alaskan Seabird Colonies

Dear Mr. Barton:

The Pacific Seabird Group (PSG) wishes to highlight the importance of removing predators from seabird colonies in Alaska. You will encounter this issue in your capacity as a trustee of the <u>Exxon Valdez</u> Oil Spill trust fund. We are providing this information directly to you because, as a professional forester, you may be unfamiliar with the biological information that has lead PSG to conclude that predator removal is the most important means of restoring seabirds lost in the oil spill.

PSG is an international organization that was founded in 1972 to promote knowledge, study and conservation of Pacific seabirds. Its members are drawn from the entire Pacific Basin, including Russia, Canada, Japan, China, Mexico, Australia and New Zealand. Among PSG's members are biologists who have research interests in Pacific seabirds, state and federal officials who manage seabird refuges, and individuals who are interested in marine conservation.

Federal funding and media attention with respect to seabirds during recent years has been directed toward driftnet fishing and the transportation of petroleum. These issues are certainly important to the conservation of Pacific seabirds. For example, federal biologists estimate that the incidental catch of seabirds

Adop manages

in the high seas driftnet fisheries in the North Pacific was 416,000 birds in 1990. $\frac{1}{}$  The federal natural resource trustees have documented that the spill killed as many as 645,000 seabirds.

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There can be no doubt that alien predators devastate seabird colonies. We enclose a copy of an article that reviews the devastation that rats cause on oceanic islands. After Kaligagan Island was stocked with foxes in 1921, its seabird population plunged so low that the renowned Alaska naturalist Olaus Murie recommended that it continue as a fox farm. In the 1980s, after foxes had died out, Kaligagan had 125,000 burrowing seabirds.<sup>2/</sup> FWS biologists recently described dramatic increases in bird populations after foxes were removed from Nizki-Alaid Island in the western Aleutians.<sup>3/</sup> They found particularly impressive increases for loons, pelagic cormorant, Aleutian green-winged teal, common eider, glaucous-winged gull and tufted puffin. At a 600 hectare island off Newfoundland, twelve foxes consumed 31,000 Leach's storm-petrels in one breeding season.<sup>4/</sup>

We understand that fox or rats occur on at least 59 islands in the Alaska Maritime National Wildlife Refuge. Arctic and red fox were introduced for commercial fox farming and still occur on at least 48 islands in the Alaska Maritime National Wildlife Refuge. Rats occur on at least 18 islands in the refuge, 7 of which also have fox. We cannot estimate with any precision the increase in population if the island ecosystems in Alaska were restored to their natural, predator-free condition. We believe that increases <u>per island</u> would range from 10,000 to 150,000 birds. It is possible that a few decades following predator removal a colony of one million or more birds might be reestablished. Accordingly, alien predators in Alaska depress

1/ Douglas Johnson, Terry Shaffer and Patrick Gould. Incidental Catch of Marine Birds in High Seas Driftnets of the North Pacific. International North Pacific Fisheries Commission Symposium, Tokyo (November 1991).

2/ D.R. Nysewander et al. 1982. Marine bird and mammal survey of the eastern Aleutian Islands, summers of 1980-81. Unpublished FWS report.

<sup>3/</sup> Byrd, Trapp and Zeillemaker. In press. Response of Native Birds to Removal of Introduced Foxes in the Aleutian Islands. Wildlife Society Bulletin.

 $\frac{4}{}$  B.O. Skepkovych. 1986. A predatory behavior and impact of red foxes (<u>Vulpes</u>) on the seabird colonies of Baccalieu Island, Newfoundland. M.S. Thesis, Memorial University of Newfoundland, St. Johns.

seabird populations in the order of one to ten Exxon\_Valdez oil spills.

We hope that you will agree with the other EVOS trustees to develop and implement a program designed to remove alien predators from seabird colonies in Alaska. This approach is by far the most cost effective means to restore Alaska's seabirds and will restore entire island communities for seabirds, waterfowl and shorebirds.

Sincerely,

Craig S. Harm

Craig S. Harrison

Enclosure

# Conservation of ISLAND BIRDS

11

Case studies for the management of threatened island species

Edited by P. J. Moors

Proceedings of a symposium held at the XVIII ICBP World Conference in Cambridge, England, in August 1982 under the Chairmanship of Sir Peter Scott



ICBP Technical Publication No. 3

ICBP Technical Publication No. 3, 1985

#### THE SPREAD OF COMMENSAL SPECIES OF RATTUS, TO OCEANIC ISLANDS AND THEIR EFFECTS ON ISLAND AVIFAUNAS

#### L.A.E. ATKINSON

#### Botany Division, Department of Scientific and Industrial Research, Lower Hutt, New Zealand

#### ABSTRACT

The spread of commensal species of *Rattus* to oceanic islands is traced for the past 3000 years. Until AD1000 the principal species involved was the Pacific Rat (R. exutans). The Ship Rat (R. rattus) became the most commonly dispersed species from AD1000 to AD1700. Then for 130-150 years the Norway Rat (R. norvegicus) became the rat most frequently carried to islands. Since AD1850 R. rattus (nost commonly) and R. norvegicus have both been dispersed to further islands. Commensal rats have now reached 82 percent of the world's major islands and island groups, though rat-free islands remain within some of these groups.

Different effects of commensal rats on birds reflect behavioural differences among the three species. Behaviour and size of the birds preyed upon may also determine whether a rat-bird relationship leads to coexistence (the most common case) or decline of the bird population.

relationship leads to coexistence the most common case by the mediation by rats. The effects are The avifaunas of some islands have suffered drastically from predation by rats. The effects are amplified when rats become food for larger predators, which in turn prey on birds. On a few islands the proportion of bird species that have declined or become extinct following the introduction of R. *rattus* is so great that the term catastrophe is appropriate. Rat-induced catastrophes have occurred most frequently on islands in the temperate zone.

Inost frequently on islands in one temperate concerns on the source of t

would be more likely to coexist with rats than would those without total. Enough is known about rats and their effects to identify those island avifaunas now at greatest risk from rat invasions. This information should be related to the other faunal and floral values of rat-free islands. Islands with only one species of commensal rat also need protection against further invasions. A broadly-based protection plan for both these and other biologically important islands of the world should be implemented.

#### INTRODUCTION

This paper outlines the history of the spread of commensal rats by man to oceanic islands, discusses the different effects they have had on island avifaunas, and shows that



the avifaunas of the world's remaining rat-free islands may not be equally vulnerable to rats.

Commensal species of rats are those commonly associated with man, although the three species discussed can live in completely unmodified habitats. They are the Pacific or Polynesian Rat (Rattus exulans), the Ship or Black Rat (R. rattus) and the Norway or Brown Rat (R. norvegicus). Other species of commensal rodent occur but, apart from mice (Mus musculus), they have seldom spread to oceanic islands. R. rattus may consist of more than one species as Yosida (1980) and his co-workers have shown that there are at least two widespread karyotypic forms of this rat: the Asian type with a diploid chromosome number of 42, and the Oceanian type with 38. On present evidence it is the 38-chromosome Oceanian type that has been spread widely to oceanic islands. Equally, the predation by R. rattus quoted in this paper relates mainly, if not entirely, to the Oceanian type. The name R. rattus as used here includes the slate-coloured 'black' colour morph sometimes referred to as 'R. r. rattus', the brownish-grey colour morph with white underparts (' $R \cdot r$ . frugivorus'), and the colour morph with grey back and slaty underparts ('R. r. alexandrinus'). These colour morphs are known to interbreed freely (Johnson 1962), and therefore the use of these subspecific epithets is not justified.

It is essential to know when a rat species arrived on an island before its impact on the biota can be separated from that of other introduced animals or other environmental changes. A primary aim of this study has been to determine the arrival time of each species of rat present on an island. The method has been to search relevant scientific papers, historical accounts and some unpublished documents for information on the presence and behaviour of rats on each of the world's major oceanic islands. A few island groups of continental shelves have also been included because of their biological interest. The species of rat present, if not reliably identified, can sometimes be inferred from the description of its behaviour. Where no arrival time for a rat species has been published, it is sometimes possible to compare historical comments and infer the most likely period when it established. The results are summarized in Tables 1, 2 and 3 based on data compiled between 1977 and 1983. Islands with interred arrival dates for rats have been distinguished from those where published dates are available, but with the inferred dates space has precluded any detailed argument. It is hoped that publication of this compilation will encourage others to fill gaps in our knowledge of rat arrivals or refine known arrival times where appropriate.

# SPREAD OF RATS TO ISLANDS DURING THE LAST 3000 YEARS

#### Before 1500BC to c. AD1000

R. exulans is presumed to have evolved somewhere in the Indo-Malayan region (Tate 1935). Its movement eastward into the Pacific basin probably began more than 3000 years ago. At that time the Lapita people, a seataring race named from their distinctive Lapita pottery, were voyaging eastwards from the Bismarck Archipelago north of New Guinea (Bellwood 1979); Archaeological studies have shown that R. exulans was often associated with Lapita settlements (e.g. Green 1979). In the absence of precise information the <sup>11</sup>C dates for the earliest known occupation of particular islands by the Lapita people can be used to indicate the likely arrival times of R. exulans on those islands (Table 1). These dates show that by 1100 sc R. evalants is likely to have spread with the Lapita people as far east as Samoa, Tonga and Fiji (Figure 1). The colonizers of eastern Micronesia are also likely to have been Lapita people (Bellwood 1980) and they probably took R. exidans to that part of the Pacific as well. Archaeologists regard the Lapita people as proto-Polynesians ancestral to the Polynesian race as we now know it (e.g. Bellwood 1979, Green 1979).

# Table 1: Dates of introduction of R. exulans. R norvegicus and R. ratius to islands in the Pacific Ocean. The dates given indicate the most likely period during which the species was first introduced. \* indicates that one or more rat-free islands of high biological value were known to be present in the group as recently as 1960

· · ·	R. exulans		R.n	orvegicus	R. ranus		
	Presence and time of carliest known		T	· · · · · · · · · · · · · · · · · · ·	T (	<b>C</b>	
island or island group	settiement	Source of information	lime of introduction	Source of information	I ime of introduction	Source of information	
EAST PACIFIC							
Clipperton 1 * Cocos I	Not present Not present	Ξ.	Not present Pre-1899	Sachet 1962 Coll. 1899. J. Schonewald. in litt. 1979. Snodgrass & Heller 1902	Not present Pre-1906	Sachet 1962 Coll. 1905. J. Schonewald. in htt. 1979	
Desventurados Is Gaiapagos Is*	Not present Not present		Probably not present Pre-1900: Santiago I. only	Requires confirmation Coll. 1899. J. Schonewald. in litt. 1979	Probably not present 1684-c. 1710 (Santiago) and subsequently to other islands	Requires confirmation Pation et al. 1975	
Guadelupe 1 Juan Fernandez Is	Not present Not present	_	Not recorded Present. introduction	Anthony 1925 Torres & Aguayo 1971	Not recorded After 1590	Anthony 1925 Torres & Aguayo 1971	
Maipelo I Revilla Gigedo Is"	Not present Not present		Probably not present Not recorded	Requires confirmation McLellan 1926	Probably not present Present	Requires confirmation McLelian 1926	
Austral 1s (incl. Rapa 1.)	Present: AD1050 but probably settled	Aitken 1930: J. Davidson, pers.	į	-	Pre-1922	Coll. in.1921–2, A. C Ziegler, in litt. 1973	
Cook is	Present: AD950 but probably settled earlier	Williams 1839: J. Davidson, pers.	1850-85	Gill 1885	Pre-1963	Alicata & McCarthy 1964	
Easter I	Formerly present. possibly persists. AD400	Metraux 1940: Jennings 1979	Pre-1934	Metraux 1957	Not recorded	-	
Gambier Is	Present: c. AD1200 but probably settled carlier	Dougias 1969: J. Davidson, pers comm. 1982	?	-	n		
Hawaii"	Present: AD500	Tomich 1969: Jennings 1979	1825-35	Atkinson 1977	1840-80 most probably 1870-80	Atkinson 1977	
Howland and Baker	Possibly still present	Greenway in Howland 1955, King 1973	Pre-1887 (Baker ) only)	Inferred from Ellis 1936, Bryan 1942 Kurknatinek 1960	Not recorded	Kirkpatrick 1966	
ls Johnston Atoll Line Is (Kiribati) Marquesas Is	Not present Present Present. AD300	Kirkpatrick 1966 King 1973 Heverdahl 1940.	Not present Not recorded Pre-1915	Inferred from 1929 copy of notes of M	Pre-1924 c 1915	of notes of M. Le Bronnec held by M-H	
· · · · · · ·		Sinoto 1979		Le Bronnec held by M-H. Sacher	1902-25	Sachet Smith 1902.	
Niue I	Present. AD120 but probably settled	Wodzicki 1971. J. Davidson, pers	Not present	comm. 1975	1885 (Sydney 1 00)	Wodzicki 1973 Ellis 1936	
Phoenix Is	earlier_ Present	Bryan 1942	1828-400 (Gardner Lonix)	Wilkes 1845	100.13441.17 (000)	_	
(Kiribati) Pitcairn Is	Present: AD1160 but probably settled	Williams 1960 J. Davidson, pers		-	1077	interred from Peak	
Samoa	earlier Present: 1030 ± 8080	Marples 1955. Green 1979	18451923	Inferred from Star 1897 and Buxton & Hopkins 1927	[mail:] 24	1848, Stair 1897. Buxton & Hopkins 1927	
Society Is	Present: AD600	Peale 1848 Jennings 1974	1767-1921	Coll. 1921, S Anderson, in litt 1978: Inder 1977	Pre-1920	Coll in 1920, 5 Anderson, in hit 1978 Montheli 1970	
Tokelau is	Present: no archaeological work	Wodzicki 1972	L'nconfirm. introc 1974- م), Atatul	K Wodzicki, pers comm 1982	Notpresent	Twibell 1973	
Тове	done Present; 1100ac	Twibell 1973	Pre-1973	Twibell 1973	Pre-19 3	Interred from	
Tuamotuls	Present: probably before AD8001but	Jennings 1917 Peale 1848 J. Davidson, pers	Pre-1955	Dumbleton 195*	1075 molater	Morrison 1952 J. M. Williams, in htt	
Tuvalu (Ellice Is	no C 13 dates Present: 13(X1-)(X1/BC	Jennings 1475	1851-90	Interred from Walle 1897 and J. M. Williams, in htt. 1983	Invasions [u4i= 2	1982 Tate 1935	
Wallis and	Not recorded	Tate 1935	Pre-1932 (Futuna	Tate 1935			
Futunals				General 196			
MICRONESIA Bonin Is Caroline Is	Not present Present: 130080	Marshall 1962 March 1975	Rats present, species Pre-1932	Korola 1934 Marshall 1962	Pre-1932	Koroia 1934 Johnson 1962 Smith 1968; J. M	
Gilbert Is (Kinbati	Present: 130080	Smith 1905 Marck 1974	Not present	3 M williams, 10 102 1982	2	Williams, in litt 1982 (continued)	

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R. ex		<b>ula</b> ns	R nor	WCRICIO	R. rains		
Island ou stand group	Presence and time of earliest known	Source of information		Source of information		Source of information	
Nano or Manu group	Settlement	Source of Intornation				Source of Information	
Marcus	Not present	Sakagami 1961	Not present	Sakagami 1961	1897-1951	Inferred from Kuroda 1954 and Sakagami 1961	
Mariana Is	Present; pre-1000BC	Marshall 1962. Bellwood 1979	Рте-1819	Inferred from Quoy & Gaimard 1824, and Erevenet 1824	Not recorded	Johnson 1962	
Marshali i	Present: 1300BC	Marshall 1962: Marck 1975	Not recorded		Pre-1932	Koroia 1934	
Nauru I Ocean I	Present	Williams 1979	Not observed	Williams 1979 —	Present 1900–69	Williams 1979 Inferred from Smith 1970	
Palau Is	Present: pre-1000BC	Marshall 1962. Beliwood 1979	Pre-1931	Koroia 1934	Not recorded	Johnson 1962	
Volcano Is Wake I	Not present present	Peale 1848	Rats present: species uni Not recorded	(nown (Greenway 1967) —	1923-51	Inferred from Bryan 1943, Fosberg 1959 and King 1973	
MELANESIA Coral Sea 15	n	<u> </u>	n	_	21845	Hundwood 1964	
Fiji 1s	Present: 1590BC	Pernetta & Watling 1978: Green 1979	1 <b>830</b> –76	Inferred from Moseley 1879 and Derrick 1951	184(-76	Inferred from Moseley 1879, Wilkes 1945 and Peale 1848	
Gt. Barner Reef Is	Recorded by Moulton 1961 from Heron 1. Not confirmed	<del>_</del>	Not recorded		Pre-1964	J. Kikkawa, in htt. 1982	
Loyalty Is New Caledonia (and	Present Present: 900Bc	Tate 1935 Revilliod 1913.	Pre-1912 Pre-1944	Revilliod 1913 Warner 1948	Pre-1912 Pre-1912	Revilliod 1913 Revilliod 1913	
New Hebrides (inc) Banks and Torres Is)	Present: 1300BC	Tate 1935. Green 1979	Pre-1975	Medway & Marshall 1975	Pre-1922	Coll. 1922 (Brit Mus ) M. Feyntein brit 1979	
Rennell and Beliona	Present	Hill 1956	Not recorded	Hill 1956	Notrecorded	Hill 1956	
Rotumai	Present	Allardyce 1886	Pre-1974	Williams 1974	Notrecorded	-	
Santa Cruz Istinci	Present although recent records appear	Green 1976. 1979	Either or both R. norveg	icus and R railus present	(Green 1976)	Coll. in 1920, 1921	
Solomon Is	iacking: 1400BC Present: 1500BC	Johnson 1946: White in Jennings 1979	n	<del>_</del> `	PTE-1920	J. Schonewald, in htt 1979	
						7	
NONTROPICAL PA	ACIFIC OCEAN		Pre-1782	Brechbill 1977	Not recorded		
Alcutian Is	Not present	_	Not present	Warham & Johns 1075	Not present	Taylor 1975	
Antipodes Is '	Not present	-	Not present	Taylor 1975	Not present	Atkinson 1975	
Auckiand Is*	Not present	_	Not present	Atkinson 1978	Notrecorded	Bailey & Sorensen 1962	
Bounty Is* Campbell 1	Not present	_	1830 <del>-</del> 6 <sup>-</sup>	Armstrong in Hector			
Chatham 15"	Formerlypresent	Coll. 1892. J. E. Hill	Pre-1870	Travers 1870	Pre-10"x	Atkinson 1978	
Commander Is	Notpresent	in litt. 1971	1883-1935	Steineger 1883. Barabash-Nikitorov	Not recorded	1938	
			Notobserved	Hough 1975	Notobserved	Hough 1975 Merion 1970	
Diego Ramirez 1."	Not present		1921	Watson 1961	NOTDresent	Hingwood 1940	
Kermadec Is"	Present	Watson 1904	Not recorded	<del>_</del>	1415		
Lord Howe 1*	Formerly present: no known pre-Europea		-		1881-1905	Inferred from Cumpston	
Macquarie 1	Not present	-	Not present	Jones 194	Thus the	1968. R. A. Falla. pers. comm 1977	
New Zealand*	Present: ADR(K)	Watson 1950.	1770-1820	Atkinson 1973	1856-05 Pre-10**	unpub Coll 1978. Atkinson	
Norfolk I	Present: possibly	Coll 1978. Atkinson. unpub : Specht 1977	Not recorded		Not recorded	<b>սոր</b> սի . 	
Pribilof Is*	Notpresent		Introduced many times but do not persist	Emeran 1964	Notpresent	Fineran 1964	
Sagres 1*	Not present	-	Notpresent	1. Colwell, in htt 1982	Not present	<ol> <li>Corwell, in litt. 1982</li> </ol>	
Stiawrence 1	Not present		NOI DIESCIII	Hanna 1920	Notrecorded	Hanna 1920	
St Lawrence i	Not present	-	NOLTECOLUEG				

<sup>14</sup>C errors are not included in this table <sup>2</sup> Reports of unidentified species of rats mentioned by Falla (1965) have not been confirmed

Table 2: Dates of introduction of R rullus and R. norvegicus to islands in the Indian Ocean. The dates given indicate the most likely period during which the species was first introduced. • Indicates that one or more rat-free islands of high biological value were known to be present in the group as recently as 1960

	· · · ·	R. ratius	·	R. norvegicus			
Island or island group	Time of introduction	Source of information	Time of introduction	Source of information			
NORTH INDIAN OCEA	N						
Andamanis	Pre-1900	Liovd 1909: Chasen & Kloss 19.	17 Not recorded	Chasen & Kloss 1927			
Laccadive Is	Pre-1898	Paimer 1898	ŷ	_			
Maldive is	Prc-1886	Rosset 1886	Not recorded	-			
Nuas L (off Sumatra)	Pre-1927	Chasen & Kloss 1927	Not recorded	Chasen & Kloss 1927			
Nicobar is	Pre-1888	Bianford 1888 1891	Not recorded	Chasen & Kloss 1977			
Simenine is (off Sumatra)	Pre-1977	Chasen & Kloss 1927	Not recorded	Chasen & Kloss 1927			
		Children & Nobas 1727	10010000	Chascille Rioss 1927			
SOUTH INDIAN OCEA	N	٠					
Agaicgal	1891	Cheke & Lawley, in press	Not present	Cheke & Lawiey, in press			
Aidabra I	Pre-1893	Abbott 1893: Fryer 1911	Not present	Recorded in error by Abbott 1893			
Amiranie is	Present.introduction time unknown	Stoddart & Poore 1970a	Not recorded	← ·			
Amsterdam I	1795–c: 1900	Inferred from Peron 1824. Dorst & Milon 1964	Not recorded	Dorst & Milon 1964			
Assumption	Rats introduced before 1906:	Nicoli quoted by Stoddari et al. 1970:	species unknown				
Astovel	Rats introduced before 1805	Bayne et al. 1970: species unknown					
Carpados Caralos Is	2		Present: time of arroyal unknow	m Neminode 1075			
Change Archineisan	Pre-1840	Stoddart 1971	Not recorded	*** 1 <b>46 #18003 17</b> 72			
Chagos Archipetago	FIC-1040 1909.1000	Juggan 17/1	100 1008_29				
	1070-1700	Interreu from Andrews (899, 19	V7 7 700~30	Gibson-Hill 1947a			
Cocos Keeling Is	18/8	Gibson-Hill 1948. 1 ate 1950	Waterhouse 1839 and Wood	by Tate 1950			
Company	Data manuari Dunua 1060. a		JOUES 1912				
Comorois	Kats present. Benson 1900: si	Decres unknown					
Cosmoledol	Kats introduced before 1895.	Baty 1895: species unknown	<b>.</b>				
	c. 1822-1900 (Possession L on	and Dorst & Milon 1964	Not recorded	Dorst & Milon 1964			
Engganol	Pre-1927	Chasen & Kloss 1927	Not recorded	Chasen & Kioss 1927			
Europal	Pre-19(4	Voeltzkow 1902-5: Maizv 1966	Not recorded	Maizy 1966			
Farquhar Is	Not observed	Stoddart & Poore 1970b; C.J. Feare. in litt. 1977	Not observed	Stoddart & Poore 1970; C. J Feare, in htt, 1977			
Gionosa I	Rats introduced before 1883.	Coppinger 1883: species unknown					
Heard and McDonald Is*	Not present	Johnstone 1982	Notpresent	Johnstone 1982			
		·····					
			the second of	<b>_</b> :			
outman Abrolhos Is.	?pre-1840 (on Rat I. only but not	Fuller & Burbidge 1981	NOTRECOIDER	to formed from Holdeste & Wate			
outman Abrolhos Is. Western Australia* rguelen Is*	?pre-1840 (on Rat I. only but not confirmed) 1949–56	Fuller & Burbidge 1981 Lesel & Derenne 1975	Possibly introduced but apparently have not persisted	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977			
utman Abrolhos Is. Western Australia* reuelen Is*	?pre-1840 (on Rat I. only but not confirmed) 1949–56	Fuller & Burbidge 1981	Possibly introduced but apparently have not persisted 1730–50	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke. in press			
utman Abrolhos Is. Western Australia* rguelen Is*	?pre-1840 (on Rat I. only but not confirmed) 1949-56	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and	Possibly introduced but apparently have not persisted 1730–50	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke. in press			
utman Abrolhos Is. kestern Australia* rguelen Is*	Ppre-1840 (on Rat I. only but not confirmed) 1949-56 1568-1606	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and Cheke, in press	Possibly introduced but apparently have not persisted 1730–50	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke. in press Chasen & Kloss 1927			
utman Abrolhos Is. vestern Australia* guelen Is* untius I	Ppre-1840 (on Rat J. only but not confirmed) 1949-56 1568-1606 Not recorded	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and Cheke. in press Chasen & Kloss 1927	Not recorded Not recorded Not recorded Not recorded	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke in press Chasen & Kloss 1927 Williamset al. 1979			
utman Abrolhos Is. Vestern Australia" rguelen Is" uuntuus I " intawai Is toff Sumatra	?pre-1840 (on Rat L only but not confirmed) 1949-56 1568-1606 Not recorded Not recorded	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and Cheke. in press Chasen & Kloss 1927 Williams et al. 1979	Possibly introduced but apparently have not persisted 1730–50 Not recorded Not present	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke. in press Chasen & Kloss 1927 Williams et al. 1979			
utman Abrolhos Is. Vestern Australia* rguelen Is* untius I * intawai Is (off Sumatra ) nee Edward Is* (Prince	Ppre-1840 (on Rat I. only but not confirmed) 1949-56 1568-1606 Not recorded Not present	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and Cheke. in press Chasen & Kloss 1927 Williams et al. 1979	Possibly introduced but apparently have not persisted 1730–50 Not recorded Not present	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke. in press Chasen & Kloss 1927 Williams et al. 1979 C. J. Feare in litt. 1977			
utman Abrolhos Is. Vestern Australia* rguelen Is* untius I * ntawai Is toff Sumatra i nee Edward Is* (Prince Edward: Marion)	Ppre-1840 (on Rat J. only but not confirmed) 1949-56 1568-1606 Not recorded Not present	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and Cheke. in press Chasen & Kloss 1927 Williams et al. 1979 Grant 1801	Not recorded Possibly introduced but apparently have not persisted 1730–50 Not recorded Not present Not observed	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke in press Chasen & Kloss 1927 Williams et al. 1979 C. J. Feare, in litt. 1977			
utman Abrolhos Is. Vestern Australia" "guelen Is" untius I " ntawai Is (off Sumatra ) nee Edward Is" (Prince Edward: Marion)	?pre-1840 (on Rat J. only but not confirmed) 1949-56 1568-1606 Not recorded Not present Pre-1801, probably pre-176/1	Fuller & Burbidge 1981 Lesel & Derenne 1975 Inferred from Barnwell 1948 and Cheke. in press Chasen & Kioss 1927 Williams et al. 1979 Grant 1801	Not recorded Possibly introduced but apparently have not persisted 1730–50 Not recorded Not present Not observed	Inferred from Holdgate & Wace 1961 and R. A. Falla, pers comm. 1977 Cheke in press Chasen & Kloss 1927 Williams et al. 1979 C. J. Feare in litt. 1977			
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 Table 3:
 Dates of introduction of R. rattus and R. norvegicus to islands in the Atlantic Ocean

 The dates given indicate the most likely period during which the species was first introduced.

 Instates that one or more rat-free islands of high biological value were known to be present in the group as recently as 1960

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	R.	ratius	R. norvegicus			
inia: mater print	Time of introduction	Source of information	Time of introduction	Source of information		
NOR PATANTI OCEA	N			-		
4	Present, introduction time unknown	Millais 1905: specimens in Brit Mus. (Nat. Hist.)	n	-		
h mut	1613	Lefroy 1877-9; specimens in Amer. Mus. Nat. Hist.	end of the eighteenth century	Jones 1884; specimens in Am. Mus Nat. Hist.		
e gran	n	-	1700-1835. Coll. 1910 (Brit. Mus.)	Inferred from Barker-Webb & Berthelot 1835		
1.414 1	Rats present; species unknown					
Far the	Pre-1750: disappeared after 1768	Barrett-Hamilton & Hinton 1912: Landt 1800	1768	Landt 1800		
heidh	1905–19 but earlier introductions possible : does not persist	Millais 1905: Saemundsson 1939	Sometime around or before 1850: Flatey 1.: 1800-20 and 1896-1900, now exterminated	A. Petersen, in litt. 1978, 1979. Petersen 1979		
Jan Marson	Not present	B. Jensen, in litt, 1980	Not present	B. Jensen, in litt 1980		
Mark 14	Present, introduction time unknown	Specimens in Brit. Mus. (Nat Hist.)	?	-		
Princip	Rats present: species unknown					
Natio	Notpresent	F. Scott. in litt. 1982	Pre-1802no longer present	MacDonald 1883, Wright, in litt 1982, F. Scott, in litt, 1982		
Nac Long	Rats present: species unknown					
Nheliah." (	Pre-1650	Berry & Johnston 1980	Present. introduction time unknown	Barrett-Hamilton & Hinton 1912		
Nuthard Spitzbergen -	Neverobserved	O. Lono. in litt. 1980	Occ. introductions, some probably after 1905; further introductions since 1945; does not persist outside buildings	O. Lono. in litt 1980		
Westmonsten, Editationalis)	1492-1654	Inferred from Allen 1911 and historical accounts	1700-1866	Inferred from Allen 1911		
	· · · · · · ·	- <u></u> - *	. <b> </b>			
				· )		
A STATE ANTIC OCE 4		•				
Sol In all a cite or a	Rats present: species unknown (F	rv 1961)	Not present: recorded in error by	Davis, unpub 1966; E. Duffey, in		
Ascension 1	1650-1754, possibly 1701	1936. La Caille 1763 and	Duffey 1964	htt. 1978		
		Usbeck 17/1	1725-1833	inferred from Darwin 1839 and		
Faikland Is	Not recorded	woods 1975		Woods 1975		
		Ridley 1890; S. Olson, in litt. 1982	Not recorded	Ridley 1650. 5 Olson: In the 1970		
Fernando de Noronha !	Pre-1890	Wace & Holdgate 1976	Not present	Bacures contemption		
Gought	Notpresent	Requires confirmation	Probably not present	Mumhy 1917		
Martin Vaz 1	Probably not present	Pve & Bonner 1980	C 1800	Duffey 1964: inferred from		
South Georgia	NOLDESCH:	Interred from Gosse 1935	Present: probabiy 17,40-1800	historical accounts		
St Helena l	1515-1001			Olson 1981		
	hiot present	Olson 1981	NOL DIESENI	Wace & Holdgate 1976		
Trindade	18x2	Brander 1940	Not present: recorded in error	e		
Tristan da Cunha is	100-		ov Ellon (*3*			

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Judged by the available radiocarbon evidence, there was a long interval after 1100Bc before any significant movement of people, and hence rats, occurred further eastwards. The earliest settlement date of any island group east of Samoa and Tonga is AD300 for the Marquesas Islands (Sinoto 1979). This leaves a gap of 1400 years that may be narrowed as more carbon dates become available.

Following colonization of the Marquesas, there appears to have been a relatively rapid spread of Polynesians and thus R. exulans to most of the major island groups in the Pacific. By AD800, R. exulans had probably reached as far as the Hawaiian Islands in the north and Easter Island in the east. By AD1000 New Zealand may also have been reached (Figure 2). The time when Polynesians first colonized the latter country is not certainly known, but Davidson (1979) remarks: 'The colonization of New Zealand by the rat .... appears to have been at least as rapid as its colonization by man."

There are some island groups in the Pacific without R. exulans (Table 1). However there appear to be no island groups reached by the early Polynesians that were not also colonized by R. exulans. These people apparently carried this rat with them, by choice or by chance, whenever they undertook long sea voyages. Any interpretation of the impact of R. exulans on the floras and faunas of Pacific Islands must consider changes that began 1000 to 3000 years ago.

#### From c. AD1000 to c. AD1500

Movement of R. exulans in the Pacific Ocean during this period was probably restricted to further spread within island groups already colonized. Outside the Pacific most oceanic islands remained undiscovered and thus unaffected by commensal rats. However, throughout this period and earlier, exploration and trading by Asian, Arabian and European peoples would have dispersed rats, particularly R. rattus, from Europe, the Middle East and Asia to islands of the continental shelves.



Figure 3: Known distribution of commensal rats on oceanic islands in AD1700. Data from Tables 1-3.

#### From c. AD1500 to c. AD1700

The voyage of Columbus to America in 1492 began a new era of rat spread. During the following 200 years, R. rattus was carried by trading vessels to islands in the Indian and Atlantic Oceans (Tables 2 and 3, Figure 3). It is likely that R. rattus was more widespread by AD1700 than shown in Figure 3, but reliable evidence is so far lacking. However, its almost complete absence from islands in the Pacific Ocean reflects the fact that many Pacific islands had not then been discovered by Europeans. An exception is Santiago Island, Galapagos group, where English buccancers established a base towards the end of the 17th century (Patton et al. 1975).

In theory, R. ratus could have reached a number of Pacific islands discovered by the Spanish, Portuguese or Dutch during the 16th and 17th centuries. Magellan's ships, for example, are known to have carried rats (Pigatetta 1906). However, most explorers had no proper means nor desire to tie their ships to the shore of a newly discovered island with unknown inhabitants. Contact with the shore was usually by means of small open boats in which the risk of rat carriage was low. Only where settlements were established by the European explorers, as in the Philippines, Guam and New Hebrides, is it likely that R. rattus was able to establish during 1500-1700. In the Philippines R. rattus has difficulty in establishing where other closely related species or subspecies of R. ratius are already present (Johnson 1962) On other islands where subspecies of R. rattus already occurred there must remain doubt as to whether the rats carried by early Spanish expeditions were able to establish.

#### From c. AD1700 to c. AD1830

At some time after 1700-but probably not later than 1716-an ecological event occurred in Europe that changed the whole trend of rat spread to occanic islands. This was the movement of R. norvegicus from the region north of the Caspian Sca into western Europe, where it largely displaced R. rattus (Barrett-Hamilton & Hinton 1912).



Figure 4: Known distribution of commensal rats on oceanic islands in AD1850. Data from Tables  $I_{-3}$ .

So complete was this displacement, both in Britain and other parts of Europe, that some naturalists of the eighteenth and early ninetcenth centuries encountered *R. rattus* only once or twice in a lifetime (e.g. Waterton 1836). Despite suggestions that *R. norvegicus* was already present in western Europe during Mediaeval times (Heinrich 1976), the evidence so far has been equivocal. If *R. norvegicus* was present then or earlier, some mechanism must have maintained the dominance of *R. rattus* because all indications are that it was the only common rat in Europe prior to the 1700s.

The displacement of European R. rattus by R. norvegicus during the 1700s resulted in dominance by R. norvegicus at ports. Its presence at wharves and warehouses soon extended to countries beyond Europe, including ports along the north Atlantic seaboard of the United States (Donaldson 1924). As a result, R. norvegicus replaced R. rattus as the common rat aboard European and American sailing ships, so that for a century or more after 1700 rat invasions of oceanic islands involved mainly R. norvegicus (Tables 1-3, Figure 4). The spread of R. rattus was curtailed from approximately 1700 to 1830, and probably to 1850 in some parts of the world (Figure 5). Rats aboard ships are seldom identified, and thus the number of records is extremely small in relation to the total number of voyages. Is it possible that the time-gap in the spread of R. rattus is an artifact of sampling?

The question can be answered by taking an island country, such as New Zealand, which experienced frequent contact with Europe during part of the time in question. Whalers and sealers frequently visited New Zealand, sometimes establishing shore bases, from 1792 onwards. Major settlements were established by Europeans after 1840. Many ratimeted ships must have visited the country between 1790 and 1850, yet although there are records of the presence of *R. norvegicus*, there is no reliable evidence of *R. ratius* having reached New Zealand during that time (Atkinson 1973). Other



Figure 5 Changes in the proportions of R-rattus and R-norvegicus aboard ocean going vessels between 1500 and 1975 (n = 109 records). This histogram combines available dated records of identified rat species reaching islands (*Tables 1-3*) with a smaller number of dated records of identified rats aboard ships (Atkinson, unpub. compilation).

islands in the Pacific including Hawan (Atkinson 1977), the Tuamotu, Marquesas, Samoan and Fiji Islands (*Table 1*) have somewhat similar rat histories. Available data strongly suggest that *R. rattus* did not arrive on islands in the Pacific until the second half of last century or later. In the Indian and Atlantic Oceans, islands settled by Europeans were usually already colonized by *R. rattus* if settlement had taken place prior to 1700. But if settlement occurred fater than this, as for example on Cocos Keeling, Indian Ocean, and Tristan da Cunha, Atlantic Ocean, the arrival of *R. rattus* was delayed until after 1850.

Thus the gap in records of R. rattus on ships (Figure 5) appears to be a real hiatus in its spread. Whether it was a complete cessation of the movement of R. rattus throughout the world is not established. For example, R. rattus reached Mauritius before 1607 (Table 2), and this island could then have become a secondary dispersal centre from which rats spread along trade routes to other islands in the Indian Ocean (e.g. the Seychelles) until well into the eighteenth century. Nevertheless, on islands in the Pacific Ocean the arrival of R. norvegicus commonly preceded that of R. rattus—the reverse of what has generally been accepted for this ocean (e.g. Greenway 1967: 52).

#### From c. ad1830 to ad1980

The most puzzling feature of Figure 5 is the comparatively sudden reappearance of R. rattus on ships during the 1850s when it became, as now, the most common shipboard rat. This change remains to be explained. There was at the same time a marked increase in records of identified rats aboard ships (Figure 5), reflecting both an increase in shipping and the greater accessibility of recent records. The presence on ships of both R. rattus and R. norvegicus during the last 150 years has resulted in many island groups of the Atlantie and Indian Oceans being invaded by both species, while in the Pacific Ocean there are now many island groups with three species of commensal rat (Figure 6). Of the



Spread of Rats to Islands

51

Table 4 Distribution of commensal rats among major islands and island groups Number of islands or island groups Lotal Atlantic Ocean Pacific Ocean Indian Ocean Rat species present ) R exulans atone 26 17 R ratius alone 10 7 R norvegicus alone 11 R exulans + R rattus 6 13 R exuluins ( R norveguus R rattus + R norvegicus 15 R exulans + R ratius + R norveguus 15 One or more unidentified species of 22 u 22 commensal rat present 12 Free or probably free of commensal rats 123 24 34 65 TOTAL

123 major island groups included in this study, only 22 (18 percent) are probably without rats, although confirmation is required in some cases (*Table 4*). But in at least 20 of the 101 island groups affected there remain biologically valuable islands that are at present rat-free (*Tables 1-3*).

ratified (*ratios Correstion*). Records of rats reaching islands during the past 140 years are sufficient to estimate a minimum rate of 6.5 island invasions every 20 years (*Figure 7*). The real rate must exceed this. The rate of spread peaked during 1941-60 as a result of the establishment of military bases on Pacific islands during World War II. The decreased rate since 1960 is not statistically significant. The spread of rats to islands is continuing.

#### DIFFERENCES AMONG RAT SPECIES IN THEIR EFFECTS ON BIRDS

Rats affect island biotas primarily by preying on birds (Fleet 1972), small mammals (Brosset 1963), tortoises (MacFarland *et al.* 1974), lizards (Whitaker 1973), large insects (Ramsay 1978), land molluses (Meads *et al.*, 1984) and plant seeds and seedlings (Clark 1981). The magnitude of these effects depends on both the behaviour of the rat species and of the prey. Differences in behaviour among the three commensal rats are particularly important in relation to their effects on birds.

particularly important in relation to their effects on with adult weights of 350–450g. It R, norvegicus is the largest of the three rats, with adult weights of 350–450g. It excavates and nests in burrows much more frequently than the other two species, but appears to climb trees less frequently. Thus birds nesting on or near the ground or in burrows are more likely to be preved upon by R, norvegicus than birds nesting in the higher parts of trees. Scaburds frequently nest in sites vulnerable to these rats, and 27 of the 53 birds listed as prev of R, norvegicus are scabirds (Table 5).

the 53 birds listed as prey of *R* norvegicity are scalings (rates ). *R*: rattus usually weighs 100-180g, commonly nests in trees and is the most agile *R*: rattus usually weighs 100-180g, commonly nests in trees and is the most agile climber of the three rats. Almost any bird's nest can potentially be reached, but those of larger birds usually escape predation. Fewer species of seabird are known to be preyed larger birds usually escape predation. Fewer species of seabird are known to be preyed on by *R*: rattus than by *R*: norvegicus, and 25 of the 39 prey species and subspecies listed on by *R*: rattus than by *R*. norvegicus, and 25 of the 39 prey species and subspecies listed

in Table 6 are perching birds. R. exidans seldom exceeds 130g in weight, and commonly nests in vegetation near or R. exidans seldom exceeds 130g in weight, and commonly nests in vegetation near or on the ground or in short burrows. It also is an agile climber, but fewer species are preyed on compared with the other two rats (Table 7). Although R. exidans is the smallest of on compared with the other two rats (Table 7). Although R. exidans is the smallest of the three species, the records include predation on adult 1 aysan Albatross (Diomedea immutabilis) and Great Frigatebird (Fregata minor), larger birds than any recorded as prey of the other rats.



Table 5 Predation by R. norvegicus on birds. Only one example of predation is included for each species.

Bird species	Family	Locality	Usual nest station	Stage of life-cycle preyed upon	Effect on population	Source of information
Eudyptes crestatus (Rockhopper Penguin)	Spheniscidae	Campbell I	ground surface	eggs (67 × 51mm)	unknown	Westerskov 1960
Pierodroma cahon (Cahon)	Proceliariidae	Bermuda	burrows	circumstantial evidence that all stages can be eaten	iocal elimination from one island	D. B. Wingate, pers comm 1982
Pierodroma macropiera (Grey-faced Petrel)	Procellanidae	Whale I., New Zealand	burrows	eggs (66 × 49) chicks	iess than 10-35% of chicks per year	imber 1976
Fieroaroma neglecia (Kermadec Petrel)	Procellarudae	Raoul L., Kermadec Is	ground surface	eges	heavy predation	Davison in Merton 1970
Haionaena caerulea (Blue Petrel)	Procellariidae	South Georgia	burrows	adult	continuing coexistence with rats	Pye & Bonner 1980
Pachypula desolata (Antarctic Prion)	Proceliariidae	South Georgia	burrows	adults	probable major effect	Murphy 1936, Lonnberg 1906
Proceliaria aequinocualis (White-chinned Petrel)	Procellariidae	South Georgia	burrows	chicks	continuing coexistence with rats	Pye & Bonner 1980
Pufnnus griseus (Sooty Shearwater)	Proceliariidae	Whale L. New Zealand	burrows	chicks	probably significant	imber 1975: M. J. Imber. pers. comm 1978
Puffinus l'herminier: (Audubon's Shearwater)	Procellariidae	Bermuda	burrows	aduits	minor	D. B. Wingate, pers comm. 1982
Puffinus puffinus (Manx Shearwater)	Procellariidae	Small islands off British coast	burrows	unknown	continuing decline	Parslow 1973
Puffinus tenuirostris (Short-tailed Shearwater)	Procellariidae	Griffiths L. Victoria. Australia	burrows	chicks, adults	apparently no long- term effect	Bowker 1965
Pelagodroma marina (White-faced Storm Petrel)	Hydrobaudae	Noises Is., New Zealand	burrows	adults	heavy mortains	D. V. Merton, pers. comm 1978
Pelecanoides georgicus (South Georgian Diving Petrel)	Pelecanoididae	South Georgia	burrows	adults	not assessed	Lonnberg 1906, Murphy 1936
Pnaethon lepturus (Wnitetailed Tropic-bird)	Pnaethontidae	Castle Harbour Is Bermuda	holes and crevices in clifts	eggs, adults	effect	F T. Hall, unpub 1945 (D B Wingate, pers comm 1982)
Anas georgicus (South Georgia Pintail)	Anatidae	South Georgia	ground surface, beneath tussocks	unknown	restriction to rat-free habitat	Pye & Bonner 1980
Anas platvrhynchos (Mallard)	Anatidae	Manawatu, New Zealand	ground surface	eggs (60 × 42)	probable significant effect	Balham 1952

(conunued)

<b>F</b>	1	t level =	Stage of life-cycle	<b>F</b> <i>t</i> /	_
Family	Locality	Usual nest station	prevedupon	Effect on population	Source of information
Falconidae	Amchitka I., Alask	a ground surface	?chicks	major effect in one year	White in Jones & Byrd 1974
Phasianidae Phasianidae	Britain Britain	ground surface ground surface	eggs (57 × 43) eggs (36 × 27)	not studied in the wil 4% of nests destroye during study (n = 1737)	d Barnett 1976 d Middleton 1935
Rallidae	California. USA	ground surface	eges	not assessed	de Groot 1927
Rallidae	Hawkes Bay, New Zealand	ground surface	eggs (38 × 29)	75% of nests destroyed in study area	Guthrie-Smith 1925
Rallidae Rallidae	Britain Britain	ncar water surface ncar water surface. < 3m	eggs (47 × 34) eggs (41 × 31)	not assessed	Coward 1914 Cott 1952
Haematopodidae	Norderoog L. Germany	ground surface			Steiniger 1948 (quoted by Norman 1975)
Charadriidae	Germany	ground			Steiniger 1948 (quoted by Norman 1975)
Charadriidae Scolopacidae	Denmark England	ground surface ground surface	adults eggs (54 × 38)	minor not assessed	Moller 1983 Ticehurst 1932
Scolopacidae Scolopacidae	Norderoog I Germany Norderoog I	ground surface ground surface			Steiniger 1948 (quoted by Norman 1975) Steiniger 1948 (quoted by
Scolopacidae	Germany Denmark	ground surface	aduits	minor	Norman 1975) Moller 1983
Recurvirostndae	England	ground surface	eggs (50 × 35)	extinction in the absence of man's intervention	Brown 1949, Watson 1953
Landae	Denmark	ground surface	eggs (58 × 41), chicks, adults	minor	Moller 1983
Landae	Denmark	ground surface	eggs (52 × 37). chicks. adults	excessive mortality in some years	Moller 1983
Laridae Laridae	Denmark Denmark	ground surface ground surface	eggs (57 × 41), chicks eggs (53 × 38)	minor minor	Moller 1983 Moller 1983
_andac	Cape Cod. USA	ground surface	eggs (31 × 24) chicks. adults eggs (42 × 30)	major effects some years, minor others major effects some	Austin 1948 Austin 1948
andac	Cape Cod. USA	ground surface	chicks, adults eggs (54 × 37), chicks	vears, minor others almost 50% of eggs	Newlands 1975
_andae	Puits-a-Eaux. Cargados Carajos Is	gittana sariace	enes chucks adults	and chicks taken in 1975 major effects some	Austin 1948
andae	Cape Cod. USA	ground surface	eges chicks, adults	years, minor others major effects some	Austin 1948
Laridae	Cape Cod. USA	ground surface	ees chicks adult	vears, minor others no young fledged one	Axell 1973: Moller 1983
Laridae	and Denmark Dry Toriugas Is	ground surface	eggs (53 x 36), chicks	vear up to 90% of eggs and young destroyed	Russel in Sprunt 1945
Landa:	Fionda, USA				Petersen 1981
Alcidae	Flates 1. Iceland	ground surface	eggs (op = joy), circuit	unknown	Campbell 1892
Alcidae Nestoridae	Britain Kapiti L. New	ground surface.	chick	unknown	Lovegrove 1982
Hirundinidae	Zeatand USA	burrows			Stoner 192
			unknown	restriction to rat-free	Pve & Bonner 198
Motacillidae	South Georgia 1	ground surface		naoitai	
Motacillidae Troglodytidae	South Georgia 1 Amchitka 1	tussocks < 3m branches, often < 3m	unknown	major decline	Kenyon 1961
Motacillidae Troglodyndae Muscicanidas	South Georgia 1 Amchitka 1 Alcuttan 1 England	tussocks <3m branches, often <3m cavities, branches	unknown eggs	national major decline continuing coexistence with rats	Kenyon 1961 Wavne 1849 quoted by Cott 1952
Motacillidae Troglodytidae Muscicapidae Muscicapidae	South Georgia 1 Amchitka 1 Alcutian Is England Kapiti 1 - New	tussocks < 3m branches, often < 3m cavities, branches often < 3m cavities, branches	unknown eggs eggs, chicks	nabital major decline continuing coexistence with rats continuing coexistence with rats	Kenyon 1961 Wayne 1849 quoted by Cott 1952 Wilkinson & Wilkinson 1952
Motacillidae Troglodyndae Muscicapidae Muscicapidae Emberi7idae	South Georgia 1 Amchitka 1 Alcutian 15 England Kapiti 1 : New Zeatand Amchitka 1	tussocks < 3m branches, often < 3m cavities, branches often < 3m cavities, branches often < 3m branches, often < 3m	unknown eggs eggs, chicks unknown	major decline continuing coexistence with rats continuing coexistence with rats major decline	Kenyon 1961 Wayne 1849 quoted by Cort 1952 Wilkinson & Wilkinson 1952 Kenyon 1961
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Table 5 Continued

Egg-sizes from Oliver 1955, Murphy 1936, Cramp 1980–1983, P. J. Moors, pers. comm. Lovegrove makes no assumptions about the species of rat involved in this predation. However, at the time of the study *R. norvegicus* was common, whereas *R. exulans*, the other rat present on the island, was not seen or trapped in the study area. Nomenciature of rails follows Ripley 1977.

	Table 6:	Predation by R. rattus on birds.
Only one	example	of predation is included for each species

Bird species	Family	Locality	Usual nest station	Stage of life-cycle preved upon	Effect on population	Source of information
Diomedea immutabilis (Laysan Albatross)	Diomedeidac	Midway I., Hawaii	ground surface	chicks	continuing coexistence with rats	Fisher 1975 (reported rat incorrectly as R. norvericus)
Pierodroma brevirostris (Kerguelen Petrel)	Procellariidae	Possession I Crozet Is.	burrows	chicks	loss of all chicks in some years	Mougin 1969, 1975
Pterodroma hypoleuca (Bonin Petrel)	Procellariidae	Midway L., Hawaii	burrows	eggs.chicks	major decline	Grant et al. 1981
Pierodroma phaeopygia phaeopygia (Galapagos Dark-rumped Petrel)	Procellariidae	Santa Cruz I., Gaiapagos Is.	burrows.	eggs.chicks	contributing to decline	Harris 1970, Tomkins. this vol., Coulter et al., this vol.
Pierodroma phaeopygia sandwichensis (Hawaiian Dark-rumped Petrel)	Procellariidae	Maui. Hawaii	burrows	chicks	nearly 40% of eggs and chicks destroyed during 2-year study	Larson in Berger 1981
Pachyptila vittata (Broad-billed Prion)	Procellariidae	Amsterdam I Indian Ocean	burrows	adults	decline	Jouanin & Paulian 1960
Procellaria aequinoctualis (White-chinned Petrel)	Procellariidae	Possession I Crozet Is	burrows	chicks	substantial numbers of chicks in some years	Mougin 1969, 1975
Caionectris diomedea (Cory's Shearwater)	Procellariidae	lies Marseiliaises, off France, Mediterranean	holiows or burrows	chicks	high mortality rate	Fernandez 1974
Phaethon lepturus (White-tailed Tropicbird)	Phaethontidae	Bermuda	holes and crevices in cliffs	eges	continuing coexistence with rats	Gross 1912
Porzana palmen <sup>2</sup> (Lavsan Rail)	Rallidae	Midway I Hawaii	ground surface	<b>unknow</b> n	extinction	Johnson 1945
Coenocorypha aucklandica (Stewart Island Snipe)	Scolopacidae	Big South Cape I New Zealand	ground surface	unknown	extinction	Atkinson & Bell, 1973
Sterna juscata (Sooty Tern)	Laridae	Bird 1., Seychelies	ground surface	eggs (54 × 37) chicks	small losses of eggs and chicks	Feare 1976, 1979
Gygis alba (White Tern)	Landae	Midway L. Hawaii	branches.often<3m	eggs suspected; chicks	not measured	Grant et al. 1981; Alsatt in Munro 1945
Synthliboramphus antiquus (Ancient Murrelet)	Alcidae	Langara I., British Columbia	burrows	eggs, possibly chicks and adults	small effect in some years: may cause reduction in others	Campbell 1968. Sealy 1976. Vermeer et al . in press
Geopelia striata (Barred Dove) Cyanoramphus auriceps (Yellow-crowned Parakeet)	Columbidae Psittacidae	Hawaii Big South Cape 1. New Zealand	branches often <3m cavities, often >3m	chicks unknown	unknown major decline	Schwartz & Schwartz 1950 Atkinson & Bell 1973

			otien ≤ 3m	unknown	maior decline	Atkinson & Bell 1973
(vanoramphus novaezelandiae	Psittacidae	Big South Cape 1 New Zealand	cavities. onen Cam	chick	single observation	R A Falla, pers comm 1978
(Red-crowned Parakeet) Chalcues lucidus	Cucuiidae	Wellington, New Zealand, c. 1950	cavilles < 3m	CRES	continuing coexistence	Moors 1983, P. J. Moors, pers. comm
(Shining Cuckot) Acanthisilia chloris (Rifteman)	Acanthisittidae	Zealand	on or near ground	UNKROWIN	extinction	Atkinson & Bell 19
Senicus longipes	Acanthisittidae	New Zealand	branches > 31	chicks	UNKNOWN DUI SPECIES	C Jones, pers comm 198-
(Stead's Bush wren) Coracina typica (Mauritius	Campephagidae	Mauritius	low bushes recover	UNKNOWN	extinction	Atkinson & Bell 1973
Cuckoo-shrike) Bowdieria punciaia	Svivudae	Big South Cape I New Zealand	grasses	egg=(14 × 14)	continuing coexistence	Moors 1983, P. J. Moors pers. comm
(Stewart L Fernbird) Finschia novaeseelandia:	Svivudae	Kaikoura. New Zealand	Ionage	eges (17 > 12), chicks	maior cause of	Gill 1983
(Brown Creeper) Gerveone igala (Grev	Svivudae	Kaikoura, New Zealand	branches	e	mortality with Musicia erminea	Hindwood 1940
Warbier)	Eulemáne	LordHowel	branches	UNKNOWD	extinction	Hundwood 1940
Gerveone insularis (Lorc Howe Warbiers	Museenenendar	Lord Howe I	branches, otten <3m	unknown	extinction	Moors 1983; P. J. Moors
Rinplaura cervina (Lote Howe Fantail)	Muscicajiidat	Kaikoura. New	branches < 3m	eggs (16 × 12)	with rats	pers. comm. 1982 Flack & Lioyd 1978, Moors
Rhipidura (-fuliginoso (South Island Fantail)	Muscicapidat	Zealand Kaikoura, New	branches >3m	eggs:25 + 16), chicks adult temates	predated by rats in	1463
Petroica a. australis (South Island Robin)	Muscicapidat	Zealand		POPS (25 x 14), Chicks	extinction	Atkinson & Bell 1973
Petroica a rakiuru	Muscicanidat	Big South Cape 1 New Zealand	branches	adults eggs (24 + 21) chicks	continuing coexistenc	e Moors 1983, P. J. Moors
(Stewart   Robin) Turdus merula (Blackbird)	Turdidae	Kaikoura New Zealand	branches < 3		with rate extinction	Hindwood 1440
Turaus xanthopus vinitinciu	Turdidae	Lord Howe I	ground surface	UDKDOWD	extinction	Hindwood Jusi
(Vinous-tinted Thrush) Zosterops strenua	Zosteropida	Lord Howe I	hranches	UDKDOWD	maior decline	Atkinson & Bell 1973
(Robust Silvereye) Aninornis meianura (Belloi	rd) Meliphagidae	Big South Cane 1 New Zealand	cavines, onen 2 m	UDKDOWE	extinction	Johnson 1945
Telespyza cantans (Lavsan Finchbill)	Drepanididae	Midway I., Hawaii	on or near ground			(continued)

Table 6: Continued

Bird species	Family	Locality	Usual nest station	Stage of life-cycle preved upon	Effect on population	Source of information	
Himutione sanguinea	Drepanididae	Kilauca, Hawaii	branches>3m	chicks, adults	unknown	Berger 1981	
Fringilia coelebsi Chaffinich i	Fringillidae	Kaikoura, New Zealand	branches>3m	eggs $(20 \times 14)$	continuing coexistence with rats	Moors 1983; P. J. Moors. pers. comm	
Serinus canaria (Canary)	Fringillidae	Midway I., Hawaii	branches >3m	unknown	major decline	Alsatt in Munro 1945 Berger 1981	
Apionis fuscus huliianus (Lord Howe Starling)	Sturnidae	Lord Howe I.	cavities and hollows <3m	unknown	extinction	Hindwood 1940	
Philesiurnus carunculaius (South Island Saddleback)	Callacatidae	Big South Cape 1 New Zealand	cavities, often <3m	probably all stages	extinction	Atkinson & Bell 1973	

<sup>1</sup> Eggisizes from Oliver 1955, P. J. Moors, pers. comm. <sup>1</sup> Nomenclature of rails follows Ripley 1977.

Table 7: Predation by R. exulans on birds. Only one example of predation is included for each species.

		Locality	Usual nest station	Stage of life-cycle preved upon	Effect on population	Source of information
Bird species	Diomedeidae	Kure Atoli, Hawan	ground surface	chicks. adults	coexistence with rat. significant predation	Kepler 1967, Woodward 1972
(Laysan Albatross)		Kura Atoli Hawau	ground surface	chicks	only in some seasons minor	Woodward 1972
Diomedea nigripes (Black-footed Albatross)	Diomedeidae	Little Barrier 1	burrows	eggs (52 × 40), chicks	continuing coexistence with rats	Imber 1975
Pierodromá cooki (Cook's Petrel)	Procellariidae	New Zealand Kure Atoll, Hawan	burrows	eges, chicks	no voung raised in some years	Kepler 1967, Woodward 1972
(Bonin Petrel) Prerodroma neglecia	Procellariidae	Raoul 1., Kermadec Is	ground surface	chicks	contributing factor to major decline	Bell in Merton 1970
(Kermadec Petrel) Puffinus pacificus	Procellariidae	Kure Atoli, Hawan	burrows	eggs (66 × 44), ?chicks	minor	Thoresen 1967
(Wedge-tailed Shearwater) Pelecanoides urinairia	Pelecanoididae	Mercury Is, New Zealand	burrows	eggs $(36 \times 29)$	up to 65% and 100°	Ficet 1972
(Northern Diving Petrel) Phaethon rubricauda (Red-tailed Tropicbird)	Phaethontidae	Kure Atoll. Hawan	e Atoll. Hawan ground surface		iosses of eggs and chicks respectively in	1
E	Freestidae	Kure Atoll, Hawan	branches < 3m	adults	minor	Woodward 1972
Frigate hindr (Great Frigate hird) Sterna fuscala (Sooty Tern)	Landac	Kure Åtoll. Hawan	ground surface	eggs (54 × 37), chicks	continuing coexistence with rats	Kepler 1967. Wirtz 1972
Sierna iunaia (Grev-backed	Landae	Kure Atoll, Hawan	ground surface	eggs. chicks	all young destroyed in one year	Woodward 1972
Tern) Anous stolidus (Common	Landae	Kure Atoll, Hawan	ground surface	$eggs(53 \times 36)$ , chicks	continuing coexistence with rats	Final: # Lloyd 1978 1 A
Noddy) Petroica a. australis	Muscicapidae	Motuara 1 . New Zealand	branches >.3m	eggs (25 × 18), chicks	26% of nests preved of in year of observation	D Flack, pers. comm
Petroica a. longipes	Muscicapidae	Little Barrier 1	branches >3m	eggs (23 × 18)	continuing coexistence with rats	Guthrie-Smith 1925
(North Island Robin) Prosthemadera	Meliphagidae	New Zealand Chetwode ls. New Zealand	branches >3m	eggs.chicks	unknown	Stead 1936 (reported incorrectly as R rattus)

' Egg-sizes from Oliver 1955, P. J. Moors, pers. comm

#### L.A.E. Atkinson

Tables 5-7 bring together the most reliable examples of predation by identified species of rats on particular birds that I have been able to find. The examples come mainly from islands, but probably represent only a small fraction of the species preyed upon by rats. The nest stations quoted are those usually used and not necessarily the particular stations of the birds recorded as predated. This information is shown in Figure 8 to illustrate the effects of each rat species on birds nesting at different heights. The height criterion of 3m used to separate higher from lower nest positions is an arbitrary level chosen to emphasize the differences in climbing frequency of R. norvegicus and R. rattus. R. norvegicus does sometimes climb to 3m or greater (e.g. Hill et al. 1983), but R. rattus, perhaps because of its tree-nesting habits, frequently forages in trees well above 3m. No information is available on the frequency with which nests in particular positions are preyed upon, and thus only a qualitative picture emerges. This indicates the high percentage of ground-nesting species among the prey of R. norvegicus and the vulnerability of all nest positions to R. rattus. The lack of records of R. exulans previne on nests in vegetation higher than 3m is presumed to be an artifact related to the small sample size. It is apparent that the three species cannot be treated as equals in their effects on birds. Therefore an island of conservation importance that already has one species of rat still requires precautions against the entry of further species (cf. Atkinson 1978).

Apart from size and behavioural differences among the three species, other variables influence rat predation. One of these is the number of rats present which will depend on habitat and food supply. When rats reach a hitherto rodent-free island their numbers often irrupt to high levels, presumably a result of food abundance. This happened on Big South Cape Island, New Zealand, in the 1960s (Atkinson & Bell 1973). The high rat numbers are likely to increase the incidence of bird predation above that which can be observed after rat numbers have subsequently fallen to sustainable levels.

Seasonal changes in food availability also influence rat numbers and thus the incidence of predation on birds, even though they are often only a minor part of the rats' dict. An inverse functional effect can also occur where, because of a seasonal failure of preferred foods, the rats switch to birds as a major alternative prey. An example is Fleet's (1972) study of the nesting success of Red-tailed Tropicbirds (Phaethon rubricauda) on Kure Atoll.

Although as yet little studied, there is the possibility that spatial or temporal differences in severity of predation can result from certain rats in a population learning to prev on eggs, chicks or adult birds. Possible examples are given in the studies of Woodward (1972) on Kure Atoll and Grant et al. (1981) on Midway Atoll.

#### DIFFERENCES AMONG BIRD SPECIES THAT AFFECT THEIR **VULNERABILITY TO RATS**

Nest position is only one of a number of prey features that determine the frequency and severity of predation by rats. Other features of importance are the bird's size---larger birds being less vulnerable---and behaviour in the presence of predators. For example, although adult Laysan Albatrosses are sometimes killed by R. exulans on Kure Atoll (Kepler 1967), there are no records of this occurring with the more aggressive Blackfooted Albatross (Diomedea nigripes) which breeds on the same island. Birds with either long incubation or long fledging periods, such as members of the Hawaiian Honeycreeper family (Berger 1981), run greater risk of predation than those with short periods. If breeding coincides with seasonal peaks in rat numbers then predation is again more likely. The near-extinct New Zealand Kakapo Parrot (Strigops habroptilus),



Figure 8: Nest position in relation to predation by commensal rats. The common nesting stations of the bird species recorded as preyed upon by rats in Tables 5. Thave been placed in position-classes relative to ground level. For each rat species the histogram shows the proportions of each of these position-classes as a percentage of all species predations recorded. This allows a qualitative comparison of the ways in which the three rat species affect nesting success

which nests on the ground and is thus already potentially vulnerable to rats, has a fledging period of about ten weeks (Merton et al. 1984). The timing of this period in late summer coincides with seasonal peaks in rat numbers, thus increasing the risk of predation. Birds which do not re-nest after losing a brood, or which normally raise only one brood in a season, are also more vulnerable to predation than those which behave otherwise. Recently Lovegrove (1983) has demonstrated that overnight roosting sites that are on or close to the ground can also make a bird vulnerable to predation. How often and for how long the parents leave their chicks unattended may also be important with seabirds. Some of these factors are discussed in detail by Moors & Atkinson (1984). Egg size and shell thickness must also affect a bird's vulnerability to predation, with

the larger and stronger species of rat being able to prey on larger and more robust eggs. Egg sizes are included in Tables 5-7 where available. The data are still too limited to suggest what the upper limits of egg size and shell thickness are for each species of rat. Indigenous avian predators are present on some islands, but anti-predator behaviours

developed in response to these are not always effective in protecting a bird against rats. The examples of predation listed in Tables 5-7 range in severity from those where

there was no significant effect on the bird population to extinction of species. When rats reach an island the level of predation experienced by each species of bird will be governed by the various predator and prey factors discussed above. These factors, acting with the birds' food supply, disease, and other predators, will influence breeding success and adult survival, and thus determine whether a particular rat-bird relationship is one of coexistence (the most common situation), decline or extinction of the bird.

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## **RAT-INDUCED** DECLINES AND EXTINCTIONS OF ISLAND BIRDS

#### Reliability of the evidence

Reliable observations of rats preying on birds are known in addition to those listed in Tables 5-7, but they have not been included because identification of the rat was not possible. The predominantly nocturnal habits of rats make both their identification and observation of their predatory behaviour difficult. In all probability the incidence of rat predation is higher than yet realized. The great variation in effects of rats on different bird populations has, however, misled some people into believing that rat predation on 22 birds has been overemphasized in relation to other factors (e.g. Norman 1975). As pointed out by Bourne (1981) and Moors & Atkinson (1984), even a low frequency of rat predation can have a severe effect if for other reasons there are tew birds. There were no contemporary observers of many declines and extinctions of island birds. Of the 23 examples of rat-induced declines in Island birds contained in Table 8 and Figure 9, bird mortality was measured in only three (Galapagos, Kermadec and Crozet Islands). In a fourth example (New Caledonia) there are direct observations but no mortality estimates. With Lord Howe, Midway and Big South Cape Islands the circumstantial evidence from contemporary observers leaves little doubt that rats were responsible; hence the inclusion of the species affected in the predation tables (Tables 5-7). The largest group of 11 examples in Table 8 are mainly retrospective studies of circumstantial evidence made some time after the event; these vary in quality according to the amount of evidence available. In the remaining six examples, there is weak circumstantial evidence worthy of inclusion only because more likely explanations are lacking at present.

#### **Rats and cats**

Rats may sometimes exert indirect effects on island bird populations by becoming prey to larger predators-usually cats. Cats may thence maintain higher numbers than would otherwise be possible, and cat predation on birds increases. Cats were present, if not actually involved, during at least 15 of the declines or extinctions cited in Table 8. For example, R. rattus and cats had both become established on St Helena Island by 1065. Rats repeatedly reached very high numbers in the period 1006 to 1742 (as well as subsequently), and cats were described in 1715 as being present in 'vast numbers' (Cosse 1938). This indirect adverse effect of rats where cats are present has been particularly devastating for seabirds. Outside the breeding season such birds may be absent for several months, but cats sustain their own numbers on rats as an alternative food source until the seabirds return to breed (Moors & Atkinson, 1984). A similar effect can be expected where rats are present on an island with mongooses or mustelids.

The circumstances under which rats reached the islands listed in Table 8 are sometimes known even though details are usually lacking. In at least 11 examples the arrival of rats coincided with settlement by people. Construction of substantial wharves to which ocean-going vessels moored probably allowed rats to reach the shore, although oceasionally rats may have become established prior to wharf construction. Ship-borne rats are commonly associated with carriage of bulk foodstuffs, particularly grains (Atkinson, unpub.). Whenever an island settlement had to import food from continental countries the chances of commensal rats also arriving were thus increased.

A second major cause of rats reaching islands is man's exploitation of local resources such as fish, seals, whales or birds, even though there may be no permanent settlement. At least five cases in Table 8 may have resulted from this cause. For example, R. norvegicus reached South Georgia when seal-hunting along the island's shores was at its height.

Table 8:	Islands where rats have	been implicated in	n major declines o	r extinctions of birds

		Other introduced terrestrial	Etterne and an and a start and a start and a start a st
· · · · ·	Rat spp. present	predators	
· · · · · · · ·			
Farrana I	R. ranus	cats.dogs.pigs	Harris (1970) found evidence of R. ratius as a cause of the very low breeding success of Dark-rumped Petrels in the
No. Indiates 1	R. ramus	cats. dogs. pigs	Galapagos Islands. Subsequent studies by Tomkins (this vol.) and Coulter et al. (this vol.) have confirmed
Nen all rus 1	R. rattus	cats. dogs?, pigs	that $R_{\rm c}$ ratius is a major predator of this endangered petrel, although cats, dogs and pigs are also contributing to
1.00 C	R. ratius, R. norvegicus	cats.pigs	iosses of both adults and young
<b>***</b>	R. exulans. R. norvegicus. R. ratius	cats, dogs, pigs	Thibault (1973) presumed that rats were implicated in the extinctions during the late 18th and early 19th centuries of the Tahitian Rail Rallus pacificus, the Tahitian Sandpiper Prosobonia leucopiera and two species of parakeets. Cvanoramphus zealandicus and C. ulietanus
Hamailan Is			
Kowa Hahu	R. exulans.	cats.dogs.	Although various causes of bird declines operated throughout the historic period in Hawaii, Atkinson (1977)
Marian Maria andr	R. norvegicus.	mongooses.	concluded from circumstantial evidence that R. ranus was responsible for the accelerated declines or
Neu and Hawaii	R. ranus	PIES	extinctions of many species of forest birds that occurred on all the main islands between 1870 and 1930. For the prehistoric period. Olson & James (1982) concluded that <i>R. exulans</i> was a contributing factor to the massive extinctions of Hawaiian bird species that they demonstrated took place during the Polynesian occupation.
Maduaria	R. ratius		Populations of the Laysan Rail and Laysan Finch became extinct within 18 months of the arrival on Midway in 1943 of R. railus (Johnson 1945, Fisher & Baldwin 1946)
Nomera			
Pec I	Rats present	cats. dogs	Greenway (1967) presumed that cats and rats may have caused the extinction of the Bonin 1. Thrush Zoothera terrestris between 1828 and 1899.
Visikani I	Rats present	cats	Momiyama (1930) presumed the extinction of the Iwo Jima Rail Porzana cinerea brevipes to be due to introduced rats and cats.
Autor 1	R. exulans.	2	Rats are suggested by Greenway (1967) as a possible cause for the extinction of the Kusaie 1. Starling Aplants
Caroline Is	R. rattus		corving and Kusaie I. Rail Porzang monasa between 1828 and 1880
New C <b>ared</b> ingla	R. exulans . R. norvegicus . R. ratius	cats.dogs.pigs	Warner (1948) concluded from his field observations that the decline of the Kagu Rhynocheios jubatus was in part related to predation and food competition by rats, particularly R. ratius
i stationer i	R. ratius (R. exulans)	cats	Five species of indigenous landbirds became extinct following the arrival of R. ratius in 1918 (Hindwood 1940) Recher & Clark 1974)
Kano E. Kermadee	R. exulans	cats	Merton (1970) concluded from his bird survey that the virtual extinction of the Kermadec Petrel on Rapul 1, which
1.	R. norvegicus		had occurred since 1914 could be attributed to the combined predation of cats and rats. Taylor (1979) concluded from counts of predated chicks that predation by rats and cats could be destroying the colony of Sooty Terns on the island
Campbell	R. norvegicus	cats	Study of published accounts suggests that predation by rats and cats has eliminated the Campbell 1 Teal Anas aucklandica nesions and small petrels from the main island, as well as greatly reducing the large population of Sooty Shearwaters formerly present (cf. Bailey & Sorensen 1962)
		· · · · · · · · · · · · · · · · · · ·	

New Zealand Big South Cape I	R. ratius	wekas	Eight species of indigenous landbirds were either greatly reduced or became extinct immediately following the arrival of <i>R. rainus</i> about 1962 (Atkinson & Bell 1973) arrival of <i>R. rainus</i> about 1962 (Atkinson & Bell 1973)
North: South and Stewart 15	R. exulans. R. norvegicus. R. raiius	cats, stoats, weasels, ferrets, hedgehogs, pigs	Several authors (e.g. Buller, IAM, Once 1997) and the attributed primarily to rats. The importance of rats relative certain indigenous birds in the 19th century can be attributed primarily to rats. The importance of rats relative to other causes of declines has vet to be evaluated for any particular species to other causes of declines has been greatly reduced by rats (Bourne in Morris 1964).
Trometin 1 Possession 1	R norvegicus R. ratius	_	The breeding of situater set is between Petrel on Possession 1, showed that <i>R. ratius</i> causes heavy toses of Mougin's (1969) study of the kerguelen Petrel on Possession 1, showed that <i>R. ratius</i> causes heavy toses of of chicks in some years, but not in others. He concluded that rats threaten the survival of the species in the
C rozet ls Amsterdam l	R ratius	cats tpigs	Crozet Islands From their study of hones and other remains on the island. Jouanin & Paulian (1960) concluded that majo: declines of small petrels, particularly Broad-billed Prions, could be related primarily to predation by
St Paul 1	R ratius	(cats) (pigs)	R. ratius Using circumstantial evidence. Segonzac (1972) concluded that major declines in Broad-billed Prions and Using circumstantial evidence. Segonzac (1972) concluded that major declines in Broad-billed Prions and possibly also White-bellied Storm Petrels. Frequing and Audubon's Shearwater has become restricted to
Bermudals	R. rallus. K. norvegicus	cais. pigs	Breeding of Cahow, Blacked-capped Petrel P maximum and code to the set and rats (D B Wingate, pers comm small islands off the main island partix as a result of predation by cats and rats (D B Wingate, pers comm
Ascension I	R rattus	cats	1982) The Ascension I. Rail Atlantisia elpenor was probably eliminated by <i>K</i> - ratius before the arrival or cars (Kinnear 1935, Olson 1973)
St Helena I	R. ranus R. norvegicus	cats. dogs. pigs	Bones of 21 species of non-passerine birds no longer preschool the work as well as that of unrecorded forest it seems probable that the extinctions of at least a tew of these species, as well as that of unrecorded forest passerines, can be attributed to predation by cats and rats during the trist [Succars of European contact passerines, can be attributed to predation by cats and rats during the trist [Succars of European contact
Tristan da Cunha I	R. ratius	(cats).dogs	Massive reductions of Storm Petrels Peageoaroma marina and Phons Party initiating of the the extension of attributed to predation by cats and R. ratius. These predators may also have been involved in the extinction of attributed to predation by cats and Queon 1973. Wate & Holdgate 1976)
Faikland Is	R. norvegicus	cats. pigs. Patagonian Fox	the Tristan Pinch Actionated and an anticicus and the Southern House With Traditionale addon has Breeding of the Tussock Bird Cinclodes anticicus and the Southern House With Tradition the Anticic Prion become restricted to cal and rat-free islands. Reduction of small periods. Including the Anticic Prion Pachypilla desolata, has occurred on rat-inhabited islands (Tickell 1962, Woods 1975).
South Georgia	R norvegicus	1.00	Breeding of Antarctic Pipits and South Georgia Piniais nativecting it states and a south Georgia

Data from Tables 1-3 of present paper Predators bracketed are believed to have been eliminated

Spread of Rats to Islands

With the issuing of permits in 1982 by the New Zealand Department of Lands and Survey allowing fishing boats to moor directly to the main Snares Island, one of the world's least modified forested islands is now at risk from rats.

Shipwrecks have taken rats to four of the islands where major bird declines have occurred. Proximity of an island to continents or major trade routes increases the chances of shipwreck, as does exploitation of natural resources (oil, minerals, lish) in the vicinity of an island. Establishment of naval, military or air force bases also increases the risk of rat invasions, as occurred for example with the military base on Midway Island during World War II.

At first sight many of these rat invasions of oceanic islands would have been difficult to avoid. However, it is well established that not all ships have rats aboard, even those of earlier centuries. The Auckland Islands, for example, have so far escaped rats in some of several major shipwrecks in the group and a temporary settlement last century. The incidence of rats reaching oceanic islands could be significantly reduced if there were more effective regulations to exclude rodents from all ocean-going vessels and better inspection of cargoes during loading.

#### **Rat-induced catastrophes**

On a few islands rat-induced extinctions of birds have affected such a high proportion of the island's avifauna that the term catastrophe is appropriate. The earliest well documented case is that of Lord Howe Island, where in 1918 R. rattus came ashore from the grounded steamship S.S. Makambo. Within a few years five species of endemic forest bird had become extinct-more than 40 percent of the indigenous species of landbird (Hindwood 1940; Recher & Clark 1974). Cats and mice had already been present for some time, and the accounts quoted by Hindwood indicate that R. exulans was also present prior to 1918, although no specimens or subsequent sight records are known

In 1943 R. rattus came ashore with cargo at the military base on Midway Island, and within 18 months two species of landbird had been eliminated (Johnson 1945; Fisher & Baldwin 1946). These were Laysan Rails (Porzana palmeri) (introduced earlier from Laysan Island where they subsequently became extinct) and introduced Laysan Finches (Psittirostra c, cantans) (a species that still survives on Laysan Island). No other indigenous landbirds are known to breed on Midway Island. Mice are also present, but no predator other than R. rattus is known to have played any significant part in these extinctions.

About 1962 R. rattus established on Big South Cape Island, off the southwest coast of Stewart Island, New Zealand. Within three years of their arrival, major declines or extinctions occurred in eight species of landbird, comprising more than 40 percent of the island's landbird fauna (Blackburn 1965; Atkinson & Bell 1973). No rodents or other . introduced predators apart from the rail Gullirallus australis were present prior to the invasion.

These three islands are the best-documented examples of rat-induced catastrophes to island avifaunas. In each case there are sufficient observations to conclude that the arrival of R. rattus was the only major ecological change that occurred at the time when the bird declines began.

A fourth case may have occurred in the Hawaiian Islands. Here there is circumstantial evidence that more than 50 percent of the declines or extinctions of endemic forest birds which occurred late fast or early this century could be attributed to R. ratus (Atkinson 1977). It had earlier been argued that disease, particularly avian-malaria and birdpox, could explain these changes (Warner 1968). A recent study by van Riper et al. (1982) has shown that the malarial parasite Plasmodium relicium ssp. capistranoae is unlikely to have become permanently established in the islands until after 1900, thus removing it as a likely cause of the late nineteenth century Hawaiian bird declines. Atkinson (1977) suggested a stepwise spread of R. rattus from island to island as wharves were constructed to service settlements. For this reason the declines and extinctions were not synchronized between islands, but extended over a period of nearly 60 years. R. norvegicus, R. exulans, Mus musculus and cats were already well established prior to the arrival of R. rattus, but no catastrophic decline in the avifauna was observed between European discovery and the late ninetcenth century. Indeed, a number of Hawaiian / birds were unknown until the 1890s. Had the major declines occurred earlier, some of these species would never have been seen by Europeans, as is the case with the many bird species described by Olson & James (1982) which became extinct as a result of Polynesian settlement. There can be little doubt that further studies will recognize the past occurrence of rat-induced catastrophes on other islands.

The possible influence of endemic rats While some islands have suffered rat induced catastrophic changes to their avifaunas others have not. A notable example is the Galagapos Islands. Although R, ratus reached Santiago Island in the late seventeenth or early eighteenth centuries, other large islands in the group were not invaded until the nineteenth or twentieth centuries (Patton et al. 1975). Apart from the adverse effect of rats on Dark-rumped Petrels (Pterodroma phaeopygia) (Table 0), no other declines or extinctions attributable to rats have been

described from these islands (Harris 1970, 1973). Christmas Island, Indian Ocean, was reached by both R. rattus and R. norvegicus between 1898 and 1938 (Tuble 2). From the accounts of the birds given by Andrews (1900) and Gibson-Hill (1947b) there is nothing to suggest any effect of introduced rats

Both Christmas Island and the Galagapos Islands formerly had endemic species of on the avifauna. rats. The two species of endemic Rattus on Christmas Island disappeared following the arrival of R. rattus (Andrews 1909). Both species were originally very numerous, particularly R. macleari which climbed tree-trunks and lianes with ease (Gray 1981). Seven endemic species of cricetine rodents are known from the Galapagos Islands (Orr 1966; Steadman & Ray 1982), and the extinction of at least two of them followed the arrival of R. rattus on particular islands (Heller 1904; Brosset 1963) The two surviving species are on islands that have so far escaped invasion by R. rattus. Brosset's study demonstrated a close similarity between the feeding and other behaviour of one of these

endemic rodents, Oryzomys bauri, and that of R. ratius. The avifaunas of both Christmas and the Galapagos Islands had probably been preyed

on by endemic rats for many thousands of years prior to the arrival of commensal rats. If so, one might not expect any catastrophic effect from the new arrivals. A similar selection pressure may have operated in the West Indies, Fernando de Noronha, the Andaman and the Nicobar Islands. In all these islands endemic rats were present prior to the arrival of commensal species (Simpson 1956; Olson 1981; Miller 1902). However, few oceanic islands either have or have had endemic rodents.

There are a number of island groups tacking endemic rodents which apparently sustained no substantial losses to their avifaunas following the arrival of commensal rats. For example, the avifaunas of Fiji, Samoa, Tonga and the Marquesas Islands were all moderately well known prior to the arrival of R. ratius, although not necessarily before the arrival of R. norvegicus. If R. rattus affected the avifaunas, particularly the forest birds, of these islands to any major extent, the effect should be detectable. Rats may be implicated in the disappearance of a tew species, such as the Wood Rail (Gallinula pacifica) of Samoa and the Barred-wing Rail (Rallus poecilopterus) of Fiji, but evidence

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for a more extensive effect of rats on these islands seems lacking. In the Marquesas Islands, which *R. rattus* did not reach until about 1915 (*Table 1*), none of the nine species of endemic landbird have become extinct, a fact that Greenway (1967) commented on These island around of the second secon

These island groups with avifaunas apparently less vulnerable to rat predation occur within an equatorial zone bounded by latitudes 15° N and 20° S, although the real width of the zone may be broader. The reduced effect of rats on island avifaunas in this zone may result from the presence of land crabs, both terrestrial Hermit Crabs (*Birgus latro*, *Coenobita* spp.) and terrestrial Brachyuran Crabs (particularly Gecarcinus The Order and Particularly States (States 1) and States (States 1).

The Coconut or Robber Crab (Birgus latro) is widely distributed in tropical and subtropical islands of the Indian and Pacific Oceans (Yaldwyn & Wodzicki 1979), but is absent from the Atlantic Ocean (Reyne 1939). Hermit Crabs of the genus Coenobita have a worldwide tropical and subtropical distribution (Page & Willason 1982). Species of Gecarcinus are widespread on islands in both the Atlantic and Pacific Oceans (Dodson & Fitzgerald 1980; Olson 1981).

Predation by land crabs on birds, particularly seabirds, has been observed. Robinson, quoted by Sprunt (1948: 14), describes thousands of Hermit Crabs (probably Coenobita diogones) cating newly-hatched chicks of Sooty Terns (Sterna fuscata) in the Dry Tortugas Keys, although Sprunt himself subsequently found C. diogones to be uncommon. Amerson (1969) stated that both Coenobita rugosa and B. latro cat eggs and young birds, but gave no details of the bird species affected. Coenobita perlitus has been reported to prey on ground-nesting birds at Christmas Island, Line group (King 1973). Hermit Crabs in large numbers (species not stated) have been seen preying on both Sooty Terns and Frigatebirds on Enderbury Island in the Phoenix group (King 1973). D. B. Wingate (pers. comm. 1982) has observed Gecarcinus laterallus preying on chicks of Common Terns (Sterna hirundo) in Bermuda and on one occasion an attempted predation of a small passerine. Predation by Gecarcinus planatus on chicks of Masked Boobies (Sula dactylatra) has been photographed on Clipperton Island by Jacques Cousteau (P. J. Moors, pers. comm. 1982). Dodson & Fitzgerald (1981) observed mainly the nests of Brown Boobies (Sula leucogaster) on the same island and thought that chicks left unattended would probably quickly succumb to land crabs. On Tromelin Island in 1856 E. L. Layard noted predation by a Hermit Crab (Pagurus sp.) on chicks of Masked Boobies (Brooke 1981). Rockwell (1932) stated that Gecarcinus lugostomus destroys eggs and young of White Terns (Gygis alba) on Isla da Trindade, Atlantic

The presence of *Gecarcinus* land crabs in the South Atlantic was suggested by Olson (1981) as having prevented many burrowing or ground-nesting petrels from colonizing Fernando de Noronha, Ascension and Trindade Islands. On St Helena, where these land crabs are absent, he has shown that at least seven species of burrowing petrels were formerly present (Olson 1975).

Although land crabs are usually considered to be scavengers and grazers, these observations show that eggs and chicks of seabirds, and probably also those of terrestrial landbirds, are eaten when the opportunity arises. Whether they would also prey on arboreal nests of landbirds would depend on their climbing ability. *Birgus latro* is a good climber, but some other species also climb well, e.g. *Coenobita brevimana* and *Sesarma gardmeri* (Yaldwyn & Wodzicki 1979), *C. perlata* (Cohie 1957). *Pagurus* sp. (Layard in Brooke 1981) and *Geograpsus gray* (Sakagami 1961). The last author reports that on Marcus Island G. *grayt* climbs *Messerschmidua* and *Pisonia* trees 'to fairly high twigs' as they chimb, it is likely that any birds nesting or roosting within chimbing range of the crabs are at risk.

#### Land crabs on high oceanic islands

Land crabs could hus be an under-rated factor in influencing the avifaunas of coral atolls and other islands of low rel of in the equatorial zone. It becomes crucial to know whether land crabs formerly inhabited the infland and higher slopes of high volcanic islands in the same zone. Unfortunately *Birgus latro* and some other species of land crab are much sought after as food by local inhabitants. The present numbers and distribution of these animals may therefore bear little resemblance to that of pre-settlement times.

On Christmas Island, Indian Ocean, Andrews (1899) reported land crabs (Gecarcoidea natalis) 'living in burrows all over the island'. He found Birgus latro also very numerous, and stated it could be found 'anywhere in the forest'. The plateau of Christmas Island averages about 240m above sea level and rises to the highest point at 381m. Gray (1981) reports that B. latro is still plentiful on most parts of the island from the shore terrace to the highest plateau areas, and that the endemie G. natalis is astonishingly abundant with a similar distribution.

On Easter Island T. Heyerdahl collected *Geograpsus crinipes* from a hole 250m above sea level (Garth 1973). Bright & Hogue (1972) record *Gecarcinus ruricola* at altitudes up to 500m above sea level on 'island mountains'. Land crabs are frequently nocturnal and there seems to be little information about their inland distribution on high islands. Stair (1897), describing Samoa in the period 1838 to 1845, comments that 'gigantic land-crabs' were present in many parts of the island. He was presumably referring to *Birgus latro*.

If the former coexistence of partial coexistence of land crabs with forest birds on high islands can be demonstrated, then many of these birds may have attributes or behaviours that reduce crab predation. As the avifauna of such an island developed through immigration and autochthonous evolution, only those birds with the appropriate anti-predator characteristics would survive. The group of birds remaining after this selection could well include many that were capable of coexisting with rats, at least to a greater extent than species never exposed to land crab predation.

#### Rat species involved in major declines or extinctions

**R.** ratus is the most frequent rat identified with bird declines and rat induced catastrophes on islands (*Table 8*). More complete documentation of other examples, Campbell Island for instance, may well show that *R. norvegicus* has also caused catastrophic changes to some island avifaunas.

Whether R. exulans has caused major declines or extinctions is less clear, mainly because its major impact is prehistoric and some birds possibly affected are now extinct. Their habits can be interred from their size and bone morphology and the distribution of subfossil remains, but such inferences are inconclusive evidence of vulnerability to predation. In New Zealaad both large and very small birds became extinct following the arrival of Polynesians with R. exulans. The disappearance of the larger birds including Moas can be attributed to a combination of hunting by man and habitat destruction (Fleming 1962). However, following Kepler's (1967) observations of R. exulans killing adult Laysan Albatrosses on Kure Atoll, Fleming (1969) suggested that R. exulans may have contributed to the decline of the Moas by predation on chicks or adults. But Laysan Albatrosses on Kure continue to coexist with R. evulans, apparently because predation occurs only in years when there is a failure of the limited plant foods usually eaten by the rats as a result of late winter and spring storms (Woodward 1972; Fleet 1972). Such special conditions of tood supply would not have operated on the New Zealand mainland. Even on islands around the New Zealand coast, populations of larger petrels coexist with sometimes very abundant numbers of R. evaluans. For example, Imber (1975) found no evidence of R. exidans preying on young or adult Black Petrels (Procelluria parkinsoni) on Little Barrier Island.

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The disappearance or reduced numbers of some small passerines in New Zealand during the Polynesian period cannot be attributed satisfactorily to either hunting or habitat destruction. However, any small bird that nests on or near the ground may be vulnerable to rats. Circumstantial evidence from the island distribution of New Zealand Wrens (Xenicus; Acanthisittidue) and the subantarctic Snipe (Coenocorypha aucklandica), all of which were ground-living birds, suggests these birds may have been eliminated from the mainland by R. exulans (Atkinson 1978). The Bush Wren (Xenicus longipes) was seen by Europeans in a few mainland localities prior to its extinction (Oliver 1955), but the Snipe is known only as subfossil material from the mainland (e.g. Medway 1971). More recently, the extinct Stephens Island Wren (Xenicus lyallii), which was seen alive only on Stephens Island, has been shown by Millener (1981 and pers. comm.) to have occurred in both the North and South Islands. This bird seldom if ever flew, at least on Stephens Island (Oliver 1955), so that its elimination from the mainland by R. exulans must be considered a distinct possibility.

# Bird groups involved in major declines or extinctions

The studies quoted in Table 8 show that rat-induced declines and extinctions are most frequent among perching birds. This can be linked to the importance of R. rattus in causing extinctions and is presumably related to its efficient climbing ability. Seabird populations are sometimes vulnerable to rats, but they are not dependent on the land for food, and breeding can continue on isolated islets and stacks free of predators. Nevertheless, local reductions or extinctions of Gadfly Petrels (Pterodroma spp.), Prions (Pachyptila spp.), Storm Petrels (Hydrobatidae) and Diving Petrels (Pelecanoididae) appear to be rather widespread. Among ground birds, rails are clearly one of the most vulnerable groups, but some species of island rails coexist with rats, e.g. the White-throated Rail (Canirallus cuvieri) with R. rattus on Aldabra (Penny &

#### CONCLUSION

Human factors above all else determine the chances of commensal rats reaching an island. The presence of other rodents and the presence of rat predators may sometimes affect the chances of rats establishing on an island (Taylor 1978). Once rats have established, the risk to the avifauna is dependent in some unknown way on its geographical position, with the avifaunas of temperate islands appearing to be most vulnerable. Within any particular avifauna, whatever its geographical position, some birds are more vulnerable than others. These include small endemic landbirds not previously exposed to mammalian predators, those that nest on or near the ground or in burrows, and those that nest in tree cavities. If mammalian predators capable of using rats as food are also present, such as cats or mongooses, the impact on the avifauna is likely to be greater. The former presence of endemic rats and the presence of land crabs living inland may explain the reduced vulner ability of island avifaunas in the tropical and subtropical zones. But these are working hypotheses that should not be used as management guidelines unless substantiated. Island avifaunas are more likely to suffer declines and extinctions if R. rattus is introduced than if other commensal rats become established. These various factors, affecting both the risk of rats establishing on islands and the vulnerability of their avifaunas, are summarized in Table 9.

The spread of commensal rats to oceanic islands began more than 3000 years ago and continues today. Nevertheless there are still a number of sizeable oceanic islands that are rat-free, and, where not unduly modified in other ways, these islands are of

านฑลก เกทินะกรร	Permanent settlement Wharves large enough for ocean-poing vessels Foodstuffs, particularly cereals, imported Exploitation of natural resources of the island or its surrounding waters, e. g. seaning, Maling, fistling, hirding, mining, oil	No permanent settlement No large wharves Settlement self-sufficient for food No exploitation of natural resources
	Extension and unitients Establishment of military bases Proximity to continents or major trade routes: shipwrecks	No bases for armed force. Isolated and distant from continents and mator trade routes: no shinwreck.
	High risk to avriauns	Lowerrisk to avilauna
jeographical position of istand	Outside the tropical and subtropical zone bounded approximately. by latitudes $1.5^{\circ}N$ and $20^{\circ}S$	Within the tropical and subtropical zone bounded approximately by latitudes $1.5^\circ N$ and $20^\circ S$
vrifaunal characteristics	Endemic landbirds and seabirds preseni Many species of small birds Many spacies without anti-predator behaviours Many burrow, ground and hole-nesting species	Seabirds only Few species or small birds Many species with anti-predator behaviours Few burrow, ground and hole-nesting species
)ther predators present	Cats or mongooses present as well as rats No endemic tats originally present No land crahs living away from the shoreline	No mammalian predators apart from rats PEndemic rats originally present PLand crahs living away from the shoreline
pecies of rais introduced	R. ratiu., R. norverus	R exulari

Factors affecting rat establishment on islands and the vulnerability of their avifaunas

Table 9:

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inestimable value for conservation and scientific study. They include Gough Island in the Atlantic Ocean (Wace & Holdgate 1976), Prince Edward Island in the Indian Ocean (Williams et al. 1979), and Clipperton, Auckland and Snares Islands in the Pacific Ocean (Sachet 1962; Taylor 1975; Fineran 1964). Within the many island groups that have commensal rats there remain smaller islands of high biological value that are rat free Examples are St Kilda in the British Isles (Fisher 1948), Inaccessible and Nightingale Islands in the Tristan da Cunha group (Wace & Holdgate 1976), Frigate Island in the Seychelles group (Elliott 1972), Cochons and East Islands in the Crozet group (Derenne & Mougin 1976; Despin et al. 1972), Nihoa and Laysan Islands in the Hawaiian group (King 1973), Fernandina and Santa Fe Islands in the Galapagos group (Eckhardt 1972). Pitt Island in the Chatham group (Atkinson 1978) and Poor Knights and Stephens Islands in New Zealand (Atkinson & Bell 1973). Of the numerous islands in the Pacific that have R. exulans but which lack the other two commensal rats, some are of great conservation and scientific value. A few examples are Rennell Island in the Solomon region (Hill 1956), Rose Island in the Samoan group (King 1973), Henderson Island in the Pitcairn group (Bourne & David 1983), and Little Barrier and Codfish Islands in New Zealand (Atkinson & Bell 1973).

Judged by the island histories examined, the avifaunas of these various islands are not coually at risk should they suffer future rat invasions. Although the reasons for this are not fully understood, many of the avifaunas at greatest risk can be identified; that of the Snares Islands is an example. All such islands should now be listed and the particular precautions likely to be most effective in preventing rat entry should be spelt out and implemented in each case. A necessary further step is to integrate this information into a broadly based conservation plan for protecting the indigenous biotas and communities of all of the world's biologically important islands. This plan needs to be presented in a practical and unambiguous manner so that it can be acted upon by the appropriate governments and controlling authorities.

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#### REFERENCES

ABBOIT, W. L. 1893. Notes on the natural history of Aldabra, Assumption & Glorioso Islands. Indian Ocean. Proc. U.S. National Mus. 16, 759-64.

AllKEN, R. T. 1930. I thiology of Tubuai. Bernice P. Bishop Mus. Bull. 70.

- ATHESTS, J. L. & MCCSRID, D. D. 1964. On the incidence and distribution of the rat lungworm Any controlled to contonensis in the Cook Islands, with observations made in New Zealand and Western Namoa, Canad, J. Zood, 42, 698-11
- X a case of W. E. (1986). Remember and the Remembers: Queenstand Geographical Jour. 1, 130–14 A STATE MORE Mannak of the West Indies, Hull, Mus. Comp. Zoology 54, 125, 263.
- Assession A. H. Cherr, Ocnubiology of the Marshalt and Colbert Islands. Moll Rev. Bull. 127, 4:348
- Associated C. W. 1987. A description of Christmas Island (Indian Ocean). J. Roy. Georg. Soc. 13

ANDREWS, C. W. 1900. A monograph of Christmas Island (Indian Ocean). British Museum of

- ANDREWS, C. W. 1909. On the fauna of Christmas Island. Proc. Zool. Soc. 1909, 101-3 Natural History, London. ANDIONY, A. W. 1925 Expedition to Guadelupe Island, Mexico, in 1922. The birds and mammals
- ATKINSON, L.A. F. 1973. Spread of the ship rat (Ratius r. ratius 1...) in New Zealand. F. of the Roy. Proc. Calif. Acad. Sci. XIV, 277-320
- ATKINSON, L. A. F. 1977. A reassessment of factors, particularly Ratius ratius 1., that influenced the decline of endemic forest birds in the Hawanan Islands. Pac. Sci. 31, 109-33
- ATKINSON, I. A. E. 1978. Evidence for the effects of rodents on the vertebrate wildlife of New Zealand islands. In Dingwall, P. R., Atkinson, I. A. E. & Hay, C. (eds) The ecology and control of rodents in New Zealand Nature Reserves N.Z. Dept. Lands and Survey Information Series 4,

- ATKINSON, L. A. E. & BLIT, B. D. 1973. Offshore and outlying islands. In. Williams, G. R. (ed.) The Natural History of New Zealand, 372-92. A. H. and A. W. Reed, Wellington.
- AUSTIN, O. L. 1948. Predation by the Common Rat (Rattus norvegicus) in the Cape Cod colonies
- AXELL, H. E. 1973. Minsmere (Part II). In: Manual of Wetland Management, International of nesting terns. Bird Banding 19, 60-5. Waterlowl Research Burean, Game Biology Station, Kalo, DK 8410, Runde, Denmark
- BAILEY, A. M. & SORENSEN, J. H. 1962. Subantarctic Campbell Island. Proc. No. 10 of the Denver
- Museum of Natural History Dist. by A. H. and A. W. Reed, Wellington BALHAM, R. W. 1952. Grey and Mallard Ducks in the Manawatu district, New Zealand Fmu 52,
- BARABASH-NIKH-OROV, 1: 1938. Mammals of the Commander Islands and the surrounding sea. J
- BARKER-WEBB, P. & BERTHETOT, S. 1835. Histoire Naturelle des Iles Canaries. Vol. 11. Zoologie
- BARNETLS, A. 1976. The Rat: A study in behaviour. Revised ed. Australian National University
- BARNWELL, P. J. 1948. Visus and Dispatches (Mauritus 1598-1948). The Standard Printing
- BARRÉ, BRAVER DU 1773. Description de l'Isle Seychelles In Fauvel, A. A. 1909. Unpublished documents on the history of the Seychelles Islands anterior to 1810. 215. Seychelles Government.
- BARRETT-HAMILION, G. F. H. & HINTON, M. A. C. 1912. A History of British Mammals, Vol. 2.
- BAIY, G. C. E. 1895. Report on the Aldabra group of islands. Crown Lands Department, Mahe,
- BAYNE, C. J., COGAN, B. H., DIAMOND, A. W., FRAZIER, J., GRUBB, P., HUISON, A., POORE, M. F. D., STODDARI, D. R. & TANLOR, J. D. 1970. Geography and ecology of Astove Atoll Res Bull
- BELLWOOD, P. S. 1979. The oceanic context. In Jennings, J. D. (ed.) The Prehistory of Polynesia
- 6-26. Harvard University Press, Cambridge, Mass BELLWOOD, P. S. 1980. The Peopling of the Pacific. Sci. Amer. 243, 138-47 BENSON, C. W. 1960. The birds of the Comoro Islands: results of the British Ormithologists' Union

- Centenary Expedition 1958. Ibis 103b, 5-106 BERGER, A. J. 1981. Hawaiian Birdlife 2nd ed. University Press of Hawaii, Honolulu BERRY, R. J. & JOHNSTON, J. L. 1980. The Natural History of Shetland Collins, London

BLACKHURN, A. 1905. Muttonburd Islands diary. Notomis 12, 191-207

BOURNE, W. R. P. 1981. Rats as avian predators: discussion. Atoll Res. Bull. 255, 69-72. BOURSE, W. R. P. & DAVID, A. C. F. 1983. Henderson Island, central South Pacific, and its birds

- BOWKER, G. 1965. Predators of the Mutton birds. Linic 65, 290.
- BRANDER, J. 1940. Fristan da Cunha, 1506-1902. Allen and Unwin, London BRICHBRIT, R. A. 1977. Status of the Norway rat. In: Merritt, M. L. & Fuller, R. G. (eds) The environment of Anichitka Island, Alaska U.S. Fnergy Research and Development Administra-

tion, Washington

72

BRIGHT, D. B. & HOGUE, C. E. 1972. A synopsis of the burrowing land crabs of the world and list of their arthropod symbionts and burrow associates. Contributions in Science of the Los Angeler County Natural History Museum 220, 1-58.

BROOKE, R. K. 1981. Layard's bird hunting visit to Tromelin or Sandy Island in December 1856. Atoll Res. Bull. 255, 73-82.

- BROSSET, A. 1963. Statut actuel des mammifères des îles Galapagos. Mammalia 27, 323-38.
- BROWN, P. E. 1949. The breeding of avocets in England, 1948. British Birds 42, 2-13.
- BRYAN, E. H. 1942. American Polynesia and the Hawaiian Chain. Tongg Publishing Co., Honoluju
- BULLER, W. L. 1888. A History of the Birds of New Zealand (2nd ed.) 2 vols. The author, London.
- BUXTON, P. A. & HOPKINS, G. E. H. 1927. Researches in Polynesia and Melanesia. London School Hyg. trop. Med. Mem. 1.
- CAMPBELL, J. M. 1892. On the appearance of the brown rat (Mus decumanus Pallas) on the Ailsa Craig. Ann. Scot. Nat. Hist. 1, 132-4.
- CAMPBELL, R. W. 1968. Alexandrian Rat predation on Ancient Murrelet eggs. Murrelet 49, 38.
- CHASEN, F. N. & KLOSS, C. B. 1927. Spolia Mentawiensia-Mammals. Zool. Soc. of London Proc 53.797-840
- CHEKE, A. (in press). An ecological history of the Mascarene Islands, with particular reference to the extinction and introduction of land vertebrates. In: Diamond, A. W. (ed.) Studies of Mascarene Island Birds, Chap. I. Cambridge University Press, Cambridge.
- CHERE, A. S. & LAWLEY, J. C. (in press). The biological history of Agalega (Indian Ocean), with special reference to birds and other land vertebrates. Atoll Res. Bull.
- CLARK, D. A. 1981. Foraging patterns of black rats across a desert-montane forest gradient in the Galapagos Islands. Biotropica 13, 182-94.
- Conic, F. 1959. Report on a visit to the Chesterfield Islands, September 1957. Atoll Res. Bull. 63, 1.11.
- COULTER, M. C., CRUZ, F. & BEACH, T. (this vol.). A programme to save the Dark-rumped Petrel, Pierodroma phaeopygia on Floreana Island, Galapagos, Ecuador,
- COPPINGER, R. W. 1883. Cruise of the 'Alert'. Four years in Patagonia, Polynesia and Mascarene waters (1878-82) W. Swan Sonnenschein, London.
- COVE, H. B. 1952. The palatability of birds eggs; illustrated by three seasons experiments (1947, 1948 and 1950) on the food preferences of the rat (Rattus norvegicus). Proc. Zool. Soc. Lond. 122. 1-54.
- COWARD, T. A. 1914. Faunal survey of Rostherne Mere. II. Vertebrata. Mem. Proc. Mench. lit. phil. Soc. 58, 1--37.
- CRAMP, S. (ed.) 1980. Handbook of the Birds of Europe, the Middle East and North Africa. Vol. II. Oxford University Press, London.
- CRAMP, S. (ed.) 1983. Handbook of the Birds of Europe, the Middle East and North Africa, Vol. III. Oxford University Press, London.
- CUMPSTON, J. S. 1968. Macquarie Island. Antarctic Division, Dept. Ext. Affairs, Australia.
- DARWIN, C. 1839. The Zoology of the Voyage of H.M.S. Beagle during the years 1832-1836. Smith, Elder, London.
- DAVIDSON, J. 1979. New Zealand. In: Jennings, J. D. (ed.) The Prehistory of Polynesia: 222-48. Harvard University Press, Cambridge, Mass.
- DE GROOT, D. S. 1927. The Californian Clapper Rail, its nesting habits, enemies and habitat. Condor 29, 259-70.
- DERENNE, P. & MOUGIN, J. L. 1976. Données écologiques sur les mammifères introduits de l'isle aux Cochons, Archipel Crozet (46° 06' \$ 50° 14' E). Mammalia 40, 21-53.
- DERRICK, R. A. 1951, The Fiji Islands, Govnt. Printing Dept. Suva, Fiji.
- DESPIN, B., MOUGIN, J. L. & SEGONZAC, M. 1972. Oiseaux et mammifères de l'Iste de l'Est, archipel Crozet (46° 25' S 52° 12' E). Comité National Français des Recherches Antarctiques 31, 1–106.
- DODSON 1-1 & ELIZARALD G-1 1980 Observations on the breeding biology of the boobles (Subdac) at Copporton Island, castern Pacific, Le Naturaliste Canadien 107, 259-67.
- Dos crisios, H. H. 1924. The Rat. Data and reference tables for the Albino Rat (Mus. norvegicity observes and Ar Normas Rac(Mus norvegeus). Indied revised. Published by the author-Freis ander ber der er
- The start of A Advance Proclamatic Acclimations of conservation de la nature dans les iles Subinstructions. From uses, the Cartick, R. (real, (eds), F. Symposium de Biologie antarchique 1.55

DOUGLAS, G. 1969. Draft check list of Pacific Oceanic Islands. Micronesica 5, 332-463. DUFFEY, E. 1964. The terrestrial ecology of Ascension Island. J. Applied Ecol. 1, 219-51 DUMBLETON, L. J. 1955. Rat poisoning in French Oceania. Quart. Bull. South Pacific Commission 5, 15-16.

- ECKILARDT, R. C. 1972. Introduced plants and animals in the Galapagos Islands. Bio. Science 22, 585-90.
- ELIJOIT, H. F. I. 1972. Island ecosystems and conservation with particular reference to the biological significance of islands of the Indian ocean and consequential research and conservation needs. J. Mar. Biol. Assoc. India 14, 578-608. 11
- ELLIS, A. F. 1936. Adventuring in Coral Seas. Angus & Robertson, Sydney
- ELION, C. S. 1958. The Ecology of Invasions by Animals and Plants. Methuen, London
- FALLA, R. A. 1965. Birds and mammals of the subantarctic islands. Proc. N. Z. Ecol. Soc. 12, 63-8.
- FEARE, C. J. 1976. The exploitation of Sooty Tern eggs in the Scychelles Biol. Conserv. 10, 169-81.
- FEARL, C. J. 1979. Ecology of Bird Island, Seychelles. Atoll Rev. Bull. 226, 1-29.
- FERNANDEZ, O. 1979. Observations sur le puttin cendre Calonectris diomedea incheur sur les iles Marseillaises Alauda 47, 65-72.
- FINERAN, B. A. 1964. An outline of the vegetation of the Snares Islands. Trans. Roy. Soc. N.Z. (Botany) 2, 229-36.
- FISHER, J. 1948. St Kilda A natural experiment. New Nat. 1, 91–108.
- FISHER, H. L. 1975. Mortality and survival in the Laysan Albatross Diomedea inimitabilis. Pacific Sci. 29, 279-300
- FISHER, H. 1. & BALDWIN, P. H. 1946. War and the birds on Midway Atoll. Condor 48, 3–15
- FLACK, J. A. D. & LLOYD, B. D. 1978. The effects of rodents on the breeding success of the South Island Robin In: Dingwall, P. R., Atkinson, I. A. E. & Hay, C. (eds) The ecology and control of rodents in New Zealand Nature Reserves. N.Z. Dept. Lands and Survey Information Series 4, 59-66.
- FLEET, R. R. 1972. Nesting success of the red-tailed tropic bird on Kure Atoll. Auk 89, 651-9
- FLEMING, C. A. 1962. The extinction of moas and other animals during the Holocene period Notornis 10, 113-17.
- FLEMING, C. A. 1969. Rats and moa extinction. Notornis 16, 210-13
- FOSBERG, F. R. 1959. Notes on rats and pest control on Wake Island, 1952. In. Bryan, I: H. Notes on the geography and natural history of Wake Island. Atoll Res. Bull. 66, 7-8
- FREYCINET, L. DE 1824. Voyage autour du monde, exécuté sur les corvettes de S. M. l'Uranie et la
- Physicienne, pendant les années 1817, 1818, 1819 et 1820. Historique Vol. II, pt. 1. FRY, C. H. 1961. Notes on the birds of Annobon and the other islands in the Gulf of Gumea. Ibis
- FRYER, J. C. F. 1911. The structure and formation of Aldabra and neighbouring islands with notes
- on their flora and fauna. Frans. Linn. Soc. London. Second Series- Zoology 14, 397-442. FULLER, P. J. & BURBINGE, A. A. 1981. The birds of Pelsart Island, Western Australia. Dept. Fisheries & Wildlife Report No. 44. Western Australian Wildlife Research Centre, Wanneroo,
- W.A.
- GARTH, J. S. 1973. The brachyuran crabs of Easter Island. Proceedings of the California Academy
- GIBSON-HILL, C. A. 1947a. A note on the mammals of Christmas Island. Bull. Raffles Mus. 18,
- GIBSON-HULL, C. A. 1947b. Notes on the birds of Christmas Island. Bull. Raffles Mus. 18, 87-165. GIBSON-HILL, C. A. 1948. Notes on the Cocos-Keeling Islands. J. Malayan Branch Royal Asiatic
- Soc. 20, 140-202.
- GILL, W. W. 1885. Journess from the Pacific. Religious Tract Society. London
- Gu 1, B. J. 1983. Breeding habits of the grey warbler. Notornis 30, 137-65
- GOODBIDGE, C. M. 1843. Narrative of a voyage to the South seas and the shipwreck of the 'Princess of Wales' cutter with an account of two years residence on an uninhabited island. 5th ed. C. M.
- Goodridge, Excter.
- Gussi, P. 1938. St Helena, 1502, 1938. Cassell & Co., London.
- GRANL C 1801 The history of Mauritius or the isle of France and the neighbouring islands, from their first discovery to the present time; composed principally from the papers and memoirs of Baron Grant, who resided twenty years in the island, G. and M. Nichol, London.

GRANT, S. G., PETTIT, T. N. & WHILTOW, G. C. 1981. Rat predation on Bonin Petrel eggs on Midway Atoll. J. Field Ornuth. 52, 336-8.

GRAY, H. 1981. Christmas Island-Naturally The natural history of an isolated oceanic island Howard Gray, Geraldton, Western Australia.

- GREEN, R. C. 1976. Lapita sites in the Santa Cruz group. In: Green, R. C. & Cresswell, M. M. Southeast Solomon Islands Culture History. Roy. Soc. N.Z. Bull. 11, 245-65.
- GREEN, R. C. 1979. Lapita. In: Jennings, J. D. (cd.) The Prehistory of Polynesia. 27-60 Harvard University Press, Cambridge, Mass.
- GREENWAY, J. C. 1967. Extinct and Vanishing Birds of the World. Amer. Comm. Int. Wildl. Pro Spec. Pub. 13.
- Gross, A. O. 1912. Observations on the Yellow-billed Tropicbird (Phaethon americanus Grant) at the Bermuda Islands. Auk 29, 49-71.
- GUIHRIE-SMITH, H. 1925. Bird Life on Island and Shore. William Blackwood & Sons, Eduburgh and London.
- HANNA, G. D. 1920. Mammals of the St Matthew Islands, Bering Sea. J. Mammalogy 1, 118-22
- HARRIS, M. P. 1970. The biology of an endangered species, the dark-rumped petrel (Pterodroma phaeopygia), in the Galapagos Islands. Condor 72, 76-84. HARRIS, M. P. 1973. The Galapagos avifauna. Condor 75, 265-78.
- HECTOR, J. 1869. Notes on the geology of the outlying islands of New Zealand; with extracts from official reports. Trans. N.Z. Inst. 2, 176.
- HEDLEY, C. 1897. The ethnology of Funafuti. Mem. Aust. Mus. 3, 229-304.
- HEINRICH, D. 1976. Beinerkungen zum mittelalterlichen Vorkommen der Wanderratte (Rannis norvegicus Berkenhout, 1769) in Schleswig-Holstein. Zool. Anz. Jenu 196, 273-8.
- HELLER, E. 1904: Mammals of the Galapagos archipelago, exclusive of the Cetacea. Proc. Calif. Acad. Sci. Ser. 3. Zoology 3, 233-51.
- HERMS, W. B. 1926. Diocalandra tattensis (Guerin) and other coconut pests of Fanning and Washington Islands. Philip. J. Sci. 30, 243-74.
- HEYERDAHL, T. 1940. Marquesas Islands. Proc. Sixth Pac. Sci. Cong. of the Pac. Sci. Assoc. IV, 543-6.
- Hut, J. 15 (1956). The mammals of Rennell Island. In: The Natural History of Rennell Island, British Solomon Islands 1, 73-84. Danish Science Press, Copenhagen.
- HILL, D. A., ROBERTSON, H. A. & SUTHERLAND, W. J. 1983. Brown Rats (Rattus norvegicus) climbing to obtain sloes and blackberries. J. Zool. Lond. 200, 302.
- HINDWOOD, K. A. 1940. The birds of Lord Howe Island. Emu 40, 1-86.
- HINDWOOD, K. A. 1964. Birds of the Coral Sea isles. Australian Natural History 14, 305-11
- HOLDGATE, M. W. & WACE, N. M. 1961. The influence of man on the floras and faunas of southern Islands. Polar Record. 10, 475-93.
- HOUGH, R. 1975. Islands beyond Cape Horn. Geog. Mag. 47, 561-6.
- HOWLAND, L.: 1955. Howland Island, its birds and rats, as observed by a certain Mr Stetson in 1854 Pacific Sci. 9, 95-106.
- IMBER, M. J. 1975. Petiels and predators. XII Bulletin of the International Council for Bird Preservation: 260-3.
- IMBER, M. J. 1976. Breeding biology of the Grey-faced Petrel Pterodroma macroptera gouldi. Ibis 118, 51-64
- INDER, S. 1977. Pacific Islands Yearbook 12th ed. Pacific Publications, Sydney.
- JENNINGS, J. D. (ed.) 1979. The Prehistory of Polynesia. Harvard University Press, Cambridge, Mass
- JOHNSON, M. S. 1945. Rodent control on Midway Islands. U.S. Nav. Med. Bull. 45, 384-98.
- JOHNSON, D. H. 1946. The rat population of a newly established military base in the Solomon Islands. U.S. Naval Med. Bull. 46, 1628-32.
- JOHNSON, D. H. 1962. Rodents and other Micronesian mammals collected. In: Storer, T. I. (ed.) Pacific Island Rat Ecology. Bernice P. Bishop Mus. Bull. 225, 21-38.
- JOHNSTONF, G. W. 1982. Zoology. In: Veenstra, C. & Manning, J., Expedition to the Australian territory of Heard and McDonald Islands 1980. Dept. National Development & Energy Tech. Report 31, 33-9.
- JONES, J. M. 1884. The mammals of Bermuda. Bull. U.S. nut. Mus. 25, 145-61
- JONES, E. 1977. Ecology of the feral cat, Felix catus (L.) (Carmivora: Felidae) on Macquarie Island Austrahan Wildlife Research 4, 249-62.

- Spread of Rats to Islands
- IDNES, R. D. & BYRD, G. V. 1979 Interrelationships between seabirds and introduced mammals In: Bartonek, C. J. & Nettleship, D. N. (eds) Conservation of marine birds of northern North America. U.S. Fish and Wildl. Serv. Res. Rep. 11, 221-6.
- IOUANIN, C. & PAULTAN, P. 1960. Recherches sur des ossements d'oiseaux provenant de l'ile Nouvelle-Amsterdam (occan Indien). 12th Int. Ornithological Congress, Helsinki, 1958-1. 368-72.
- KENYON, K. W. 1961. Birds of Amchitka Island, Alaska Auk 78, 305-26.
- KEPTER, C. B. 1967. Polynesian Rat predation on nesting Laysan Albatrosses and other Pacific seabirds. Auk 84, 426-30.
- KING, W. B. 1973. Conservation status of birds of central Pacific islands. Wilson Bulletin 85, 89-103.
- KING, W. B. 1981. Endangered Birds of the World. The ICBP Bird Red Data Book. Smithsoman Institution Press, Washington.
- KINNEAR, N. B. 1935. Zoological notes from the voyage of Peter Mundy, 1655-56 (a) Birds. Proc. Linn. Soc. 1934 (1935: 32-3
- KIRKPATRICK, R. D. 1966 Manimals of Johnston Atoll. J. Mammal. 47, 728-9.
- KOROTA, N. 1934 (Rodents of the South Sea Islands in the collection of Marquis Yamashina) Botany and Zoology, theoretical and applied (Tokyo) 2, 1012–20.
- KURODA, N. 1954. Report on a trip to Marcus Island with notes on the birds. Pac. Sci. 8, 84-93
- LA CATLER, N. L. 1763. Journal Historique des Voyages Fait au Cap de Bonne-Esperance. Guillyn, Paris.
- LANDT, G. 1800. Forsog til en Beskrivelse over Faeroerne. Copenhagen. (Reprinted as A. Description of the Feroe Islands, London, 1810.)
- LEFROY, J. 14. 1877-1879. Memorials of the discovery and early settlement of the Bermudas or Somers Islands 1515-1652. Compiled from the Colonial Records and other original sources. Vol 1 and 2. Longmans, Green & Co., 1 ondon.
- LEGUAL, F. 1708. Voyage et Adventures. D. Mortier, London.
- LESEL, R. & DERENNE, P. 1975. Introducing animals to lles Kerguelen. Polar Record 17 (110). 485-94.
- LOYD, R. E. 1909. The races of Indian rats. Rev. Indian Mus. 3, 1–100.
- LONNBERG, E. 1906. Contributions to the tauna of South Georgia. L. K. svenska Vetensk Akad. Handl. 40, no. 5.
- LOVEGROVE, T. G. 1982. Report to the District Office of the Lands and Survey Department, Wellington, on the effects of the re-introduction of North Island Saddlebacks (Philesturinus carunculatus rutusater) to Kapiti Island Nature Reserve. Unpub. report, March 1982.
- LOVEGROVE, T. G. 1983. Report to the District Office of the Lands and Survey Department, Wellington, on the re-introduction of North Island Saddlebacks (Philesturnus carunculatus rufusater) to Kapiti Island Nature Reserve. Second Annual Report. Unpub-report, July 1983
- MACDONALD, S. D. 1883 [1886]. Notes on Sable Island. Proc. and Trans. Nova Scotta Inst. Nat Science V1, 12-33
- MACFARLAND, C. G., VILLA, J. & TORO, B. 1974. The Galapagos Giant Tortoises (Geochelone elephantopus). Part 1: Status of the Surviving populations. Biol. Conserv. 6, 118-33.
- MALZY, P. 1966. Oiseaux et manmiferes de l'île Europa. Mémoires Séries A Zoologie Museum National d'Histoire Naturelle (Paris) 41, 23-7.
- MARCK, J. C. 1975. On the origin and dispersal of the proto-nuclear Micronesians. Unpub. thesis Univ. of Iowa.
- MARPLES, R. R. 1955. Ratus exulans in Western Samoa. Pac. Sci. 9, 171-6.
- MARSHALL, J. T. 1962. Geographic distribution and colour phases of Micronesian rodents. In: Storer, T. 1. (ed.) Pacific Island Rat Ecology. Bernice P. Bishop Mus. Bull. 225, 39-44.
- MCLELLAN, M. E. 1926. Expedition to the Revillagigedo Islands, Mexico, in 1925, VI. The birds and mammals. Proc. Calif. Acad. Sciences (4th Series) 15, 279-322.
- MEADS, M. J., WALKER, K. J. & ELLIOPE, G. P. (1984). Status, conservation and management of the land snails of the genus Powelliphania (Mollusca: Pulmonata). New Zealand J. Zool. 11, 277 . 306.
- MEDWAY, D. G. 1971. Sub-tossil avian remains from the Awakino Mahoemu area. Notornis 18, 218-19
- MEDWAY, LORD & MARSHALL, A. G. 1975. Terrestrial vertebrates of the New Hebrides: origin and distribution. Phil. Trans. Roy. Soc. Lond. B. 272, 423-65

76

77

- MERION, D. V. 1970. Kermadec Islands Expedition reports: a general account of birdlife. Notomis
- MERION, D. V., MORRIS, R. B. & ATKINSON, I. A. E. (1984) Lek behaviour in a parrot: the Kakapo Strigops habropulus of New Zealand. Ibis. 126, 277-83.
- METRAUX, A. 1940. Ethnology of Easter Island. Bernice P. Bishop Mus. Bull. 160, 1-432.
- METRAUX, A. 1957. Easter Island a stone age civilization of the Pacific. (Transl. by M. Buillock ) A MIDDLETON, A. D. 1935. Factors controlling the population of the Partridge (Perdix perdix) in
- Great Britain. Proc. Zool. Soc. Lond. (1935): 795-815.
- MILLAIS, J. G. 1905. The Mammals of Great Britain and Ireland. Vol. II. Longmans, Green & Co.
- MILLENER, P. R. 1981. The Quaternary avifauna of the North Island, New Zealand. Unpublished Ph.D thesis, University of Auckland.
- MILLER, G. S. 1902. The mammals of the Andaman and Nicobar Islands. Proc. U.S. Nat. Mus. 24,
- MILNE-EDWARDS, A. 1873. Recherches sur la faune ancienne des Iles Mascareignes. Ann. Sci. Nat Zool. (5), 19 art. 3: 1-31.
- MOLLER, A. P. 1983. Damage by rats Rattus norvegicus to breeding birds on Danish islands. Biol Conserv. 25, 5-18
- MOMIYAMA, T. T. 1930. On the birds of Bonin and the Iwo-Islands. Bull. Bio-Geogr. Soc. Japan 1, 89--186.
- MOORS, P. J. 1983. Predation by mustelids and rodents on the eggs and chicks of native and introduced birds in Kowhai Bush, New Zealand. Ibis 125, 137-54.
- MOORS, P. J. & ATKINSON, I. A: E. 1984. Predation on seabirds by introduced animals and factors affecting its severity. ICBP Tech. Pubn. No. 2.
- MORRIS, R. O. 1964. The birds of some islands in the Indian Ocean. Sea Swallow 16, 68-79.
- MORRISON, J. P. E. 1954. Animal ecology of Raroia Atoll, Tuamotus. Atoll Res. Bull. 34, 1-26.

MOSFLEY, H. N. 1879. Notes by a Naturalist. An account of observations made during the Voyage of H.M.S. 'Challenger' round the world in the years 1872-1876. Werner, London.

- MOUGIN, J. L. 1969. Ecological notes on the Kerguelen Petrel Pterodroma brevirostris of Possession Island (Crozet Archipelago). L'Oiseau et la Revue Française d'Ornithologie 39, 58-81.
- MOUGIN, J. L. 1975. Écologie comparée des Procellariidae antarctiques et subantarctiques Comite National Français des Recherches Antarctiques No. 36.
- MOULTON, J. M. 1961. Some observations on the Heron Island fauna. Atoll Res. Bull. 82, 15-16.

MUNRO, G. C. 1945. Tragedy in bird life. Elepaio 5, 48-51.

MURPHY, R. C. 1917. Faunal conditions in South Georgia. Science 46, 112-13.

- MURPHY, R. C. 1936. Oceanic Birds of South America (2 volumes). American Museum of Natural History, New York.
- NEWLANDS, W. A. 1975. St Brandon: Fauna conservation and management. Unpub. report to the Ministry of Agriculture and the Environment, Mauritius.
- NORMAN, F. I. 1975. The murine rodents Rattus rattus, exulans, and norvegicus as avian predators. Atoll Res. Bull. 182, 1-12.
- OLIVER, W. R. B. 1955. New Zealand Birds (2nd ed.). A. H. and A. W. Reed, Wellington.
- OLSON, S. L. 1975. Paleornithology of St Helena Island, South Atlantic Ocean. Smithsonian Contributions to Paleobiology 23, 1-49.
- OLSON, S. L. 1981. Natural history of vertebrates on the Brazilian islands of the mid south Atlantic National Geographic Society Research Reports 13, 481-92.
- OLSON, S. L. & JAMES, H. F. 1982. Prodromus of the fossil avifauna of the Hawaiian Islands. Smithsonian Contributions to Zoology 365, 1-59.
- ORR, R. T. 1966. Evolutionary aspects of the mammalian fauna of the Galapagos. In: Bowman, R. 1. (ed.) The Galapanos: Proceedings of the Symposia of the Galapagos International Scientific Project. 276-81. University of California Press, Berkeley.
- OSBECK, P. 1771. A Voyage to China and the East Indies. Vol. 2. Transl. from the German by J. R. Forster Benjamin White, London,
- PAGE, H. M. & WILLASON, S. W. 1982. Distribution patterns of terrestrial hermit crabs at Enewetak Atoli, Marshali Islands. Pac. Sci. 36, 107-17.

- PALMER, T. S. 1898. The danger of introducing noxious animals and birds. U.S. Dept. of Agriculture Yearbook 1898, 87-110.
- PARSLOW, J. 1973. Breeding birds of Britain and Ireland. T. & A. D. Poyser, Berkhamsted.
- PATTON, J. L., Yang, S. Y. & Myers, P. 1975. Genetic and morphologic divergence among introduced rat populations (Rattus rattus) of the Galapagos Archipelago, Equador. Syst. Zool. 24 296-310.
- PEALE, T. E. 1848. United States Exploring Expedition. Vol. 8. Mammalia and Ormthology Lea and Blanchard, Philadelphia.
- PENNY, M. J. & DIAMOND, A. W. 1971 The White-throated Rail Dryolimnus curren on Aldabra. Phil. trans. Roy. Soc. Lond. B. 260, 529-48.
- PERNETTA, J. C. & WATTING, D. 1978. The introduced and native terrestrial vertebrates of Fiji. Pac. Sci. 32, 223-44.
- PERON, E. 1824 Memoires du Capitaine Peron sur ses voyages. 2 vols. Bressot Thivars, Paris
- PETERSEN, A. 1979. The breeding birds of Flatey and some adjoining islets, in Breidahordur, N.W. Iceland (English summary). Naturufraedingurinn 49, 229-56.
- PLIERSEN, A. 1981. Breeding biology and feeding ecology of black guillemoty. Unpub. D Phil thesis, University of Oxford
- PIGAFETTA, A. 1906. Magellan's Voyage Around the World. Transf. and edit. by J. A. Robertson. 3 vols. Cleveland.
- Pye, T. & BONNER, W. N. 1980. Feral brown rats, Rattus norvegicus, in South Georgia (South Atlantic Ocean), J. Zool., Lond. 192, 237-55.
- QUOY, J. R. C. & GAIMARD, J. P. 1824. Voyage autour du monde, execute sur les corvettes de S M. l'Uranie et la Physicienne, pendant les années 1817, 1818, 1819 et 1820. Vol. 4. Zoologie Paris: Chez Pillet.
- RAMSAY, G. W. 1978 A review of the effect of rodents on the New Zealand invertebrate fauna. In: Dingwell, P. R., Atkinson, I. A. E. & HAY, C. (eds) The ecology and control of rodents in New Zealand Nature Reserves. N.Z. Dept. Lands & Survey Information Series 4, 89-95
- RECHER, H. F. & CLARK, S. S. 1974. A biological survey of Lord Howe Island with recommendations for the conservation of the island's wildlife. Biol. Conserv. 6, 263-73
- REVILLIOD, P. 1913. Les manmifères de la Nouvelle Caledonie et des isles Loyalty. In Sarasin, F & Roux, J. Nova Caledonia: A Zoologie, Vol. 1, 341-65. Forschunger in Neu-Caledomer und
- auf der Loyalty Inseln. Berlin, C. W. Kriedets Verlag. REYNE, A. 1939. On the food habits of the coconut crab (Birgus latro 1.) with notes on its
- distribution. Archives Neerlandaises de Zoologie III, 283-320. RIDLEY, H. N. 1890. Notes on the zoology of Fernando Noronha. Lin. Soc. London (Zoology) 20, 473-570.
- RIPLEY, S. D. 1977. Rails of the World Godine, Boston.
- ROCKWELL, R. H. 1932. Southward through the doldrums. Natural History 32, 424-36
- Rosser, C. W. 1886. [Remarks on the Maldive Islands] Proc. Zool. Soc. London 1886. 295-6.

SACHET, M-H. 1962. Geography and land ecology of Clipperton Island. Atoll Res. Bull. 86, 1-115

- SAEMUNDSSON, B. 1939. Maminalia Zoology of Iceland 4(76), 1-52. SAKAGAMI, S. F. 1961. An ecological perspective of Marcus Island, with special reference to land
- animals. Puc. Sci. 15, 82-104 SCHWARTZ, C. W. & SCHWARTZ, E. R. 1950 Breeding habits of the Barred Dove in Hawaii with
- SEALY, S. G. 1976. Biology of nesting Ancient Murrelets. Condor 78, 294-306
- SEGONZAC, M. 1972. Donnees recentes sur la faune des iles Saint-Paul et Nouvelle Amsterdam L'Oiseau et R.F.O. 42, special no.: 3-68.
- SEVCHELLES DEPARTMENT OF AGRICULTURE 1952 Annual Report.
- SIMPSON, G. G. 1956. Zoogeography of West Indian mammals. American Museum Novitates No.
- SINOTO, Y. H. 1979. The Marquesas In: Jennings, J. D. (ed.) The Prehistory of Polynesia: 110-34. Harvard University Press, Cambridge, Mass.
- SMITH, S. P. 1902. Niue Island and its people. (Pt 1) J. Polyn. Soc. 11, 80-106
- Smith, F. J. 1968. Rat damage to coconuts in the Gilbert and Ellice Islands. In Rodents as Jactors in disease and economic loss Proceedings of a conference. Asia-Pacific Interchange, Honolulu, Hawaii: 55-7.

79

11

notes on weights and sex ratios. Condor 52, 241-6.

80

SMITH, F. J. 1970. La recherche sur les rats dans les atolls. Oleugineux 25, 147-52

SNODGRASS, R. E. & HELLER, E. 1902. The birds of Clipperton and Cocos Islands. Proc. With Acad. Sci. 4, 501-20.

SPECHY, J. 1978. The early mystery of Norfolk Island. Australian Natural History 19, 218–23.

- SPRUNT, A. 1948. The tern colonies of the Dry Tortugas Keys. Auk 65, 1–19.
- STAIR, J. B. 1897. Old Samou or Flotsam and Jetsam from the Pacific Ocean. Religious Tract Society London.
- STAUB, F. 1970. Geography and ecology of Tromelin Island. Atoll Res. Bull. 136, 197-209
- STEAD, E. F. 1936. Unpublished letter to the Commissioner of Crown Lands, Blenheim. Copy held by the New Zealand Wildlife Service, Dept. of Internal Affairs, Wellington.
- STEADMAN, D. W. & RAY, C. E. 1982. The relationships of Megaoryzomys curioi, an extinct cricetine rodent (Muroidea: Muridae) from the Galapagos Islands, Ecuador. Smithsonian Contributions to Paleobiology 51, 1-23.
- STEINIGER, F. 1948. Biologische Beobachtungen an freilebenden Wanderratten auf Hallig Norderoog. Zool. Anz., Suppl. 13, 152-6.
- STEINEGER, L. 1883. Contributions to the history of the Commander Islands. No. 1. Notes on the natural history, including descriptions of new cetaceans. Proc. U.S. Nat. Mus. 6, 58-89.
- STODDART, D. R. 1971. Terrestrial fauna of Diego Garcia and other Chagos atolls. Auoll Res. Bull. 149, 163-70.
- STODDART, D. R., BENSON, C. W. & PEAKE, J. F. 1970. Ecological change and effects of phosphate mining on Assumption Island. Atoll Res. Bull. 136, 121-145.
- STODDART, D. R. & POORE, M. E. D. 1970a. Geography and ecology of Desroches. Atoll Rev. Bull. 136.155-65.
- STODDART, D. R. & POORE, M. E. D. 1970b. Geography and ecology of Farquhar Atoll. Atoll Res. Bull. 136, 7-26.
- SIONER, D. 1937. The house rat as an enemy of the bank swallow. J. Mainmal. 18, 87-9.
- TATE, G. H. H. 1935. Rodents of the genera Rattus and Mus from the Pacific Islands, collected by the Whitney South Sea Expedition, with a discussion of the origin and races of the Pacific Island Rat. Bull. Amer. Mus. Nat. Hist. 68, 145-78.
- TATE, G. H. H. 1950. The Muridae of the Cocos-Keeling Islands. Bull. Raffles Mus. 22, 271-277.
- TAYLOR, R. H. 1975. The distribution and status of introduced mammals on the Auckland Islands, 1972-73. In: Yaldwyn, J. C. (ed.) Preliminary results of the Auckland Islands expedition 1972-1973. N.Z. Dept. of Lands and Survey Reserves Series 1975/3.
- TAYLOR, R. H. 1978. Distribution and interactions of rodent species in New Zealand. In: Dingwall, P. R., Atkinson, I. A. E. & Hay, C. (eds) The ecology and control of rodents in New Zealand Nature Reserves. N.Z. Dept. of Lands and Survey Information Series 4, 135-141.
- TAYLOR, R. H. 1979. Predation on Sooty Terns at Raoul Island by rats and cats. Notornis 26, 199-202
- TEMPLE, R. C. & ANSTEY, L. M. (eds) 1936. The Travels of Peter Mundy in Europe and Asia 1608-1667. Vol. 5. Second series: 78. Hakluyt Society, London.
- THIBAULT, J. C. 1973. Remarques sur l'appauvrissement de l'avifaune Polynesienne. Societé des Etudes Océaniennes Bulletin 15, 262-70.
- THORESEN, A. C. 1967. Ecological observations on Stanley and Green Islands, Mercury group-Notornis 14, 182-200.
- TICEHURST, C. B. 1932. A History of the Birds of Suffolk. Gurney & Jackson, London.
- TICKELL, W. L. N. 1962. The Dove Prion, Pachyptila desolata Gmelin. Falkland Islands Dependency Survey Sci. Rep. 33.
- Томісн, P. Q. 1969. Mammals in Hawaii; a synopsis and notational bibliography. Spec. Pub. Bernice P. Bishop Mus. 57.
- Томкимs, R. J. (this vol.). Breeding success and mortality of dark-rumped petrels in the Galapagos, and control of their predators.
- TORRES, D. & AGUANO, A. 1971. Algunas observaciones sobre la tauna del archipelago de Juan Lemandez, Mammals, Bolenn de la Universidad de Chile 112, 34-5.
- Theorems, H. H. 1870. On the Chatham Islands, Jeans, N.Z. Just 1, 119-27.
- Twantis, J. 1973. The ecology of rodents in the Longa Islands. Par. Sci. 27, 92-8.
- A visible of the second s An Search Franzie, Verschume, Naturenal Park, Computative, National Park, Reconstruct Muchicy Unit Increased of Haward Manine Les Anisas Report 47.

Spread of Rats to Islands

VELAIN, CH. 1877. Passage de Venus sur le soleil (9 decembre 1874). Expedition française aux iles Saint-Paul et Amsterdam. Zoologie. Observations generales sur la faune des deux iles suivies d'une description des Mollusques. Arch. Zool. Exp. et Gen. 16, 1-144.

- VERMEER, K., SEALY, S. G., LEMON, M. & RODWAY, M. (1985). Effects of predation and potential environmental perturbances on nesting Ancient Murrelets in British Columbia ICBP Tech.
- Pubn. No. 2. Vortiskow, A. and others, 1902–1905. Wissenschaftliche Ergebisse der Reisen in Madagaskar and Ostafrika Abh. Senckenb. naturforsch. Ges. 27, 1-392
- WACE, N. M. & HOLDGATE, M. W. 1976. Man and nature in the Tristan da Cunha Islands. IUCN Monograph No. 6. International Union for Conservation of Nature and Natural Resources,
- Morges, Switzerland. WATE, E. R. 1897. The mammals, reptiles and fishes of Funafult. Aust. Mus. Memon 3, 165-204.
- WARITAM, J. & JOHNS, P. M. 1975 The University of Canterbury Antipodes Island expedition 1969.
- J. Roy. Soc. N.Z. 5, 103-31 WARNER, W. 1948. The present status of the Kagu, Rhynochetos jubatus, on New Calendonia. Auk
- WARNER, R. 1: 1968. The role of introduced diseases in the extinction of the endemic Hawaiian avifauña. Condor 70, 101-120.
- WATERHOUSE, G. R. 1839. Mammalia. In. Darwin, C. Zoology of the Voyage of H. M.S. Beagle
- WATERION, C. 1836 Notes on the history and habits of the Brown, or Grey, Rat (Mus decumanus) Magazine of Natural History 9, 1-6.
- WATSON, J. S. 1953. Aliens in the forest 3. The rat. Forest and Bird, August 1953, 10-12
- **WAISON J. S. 1956.** The present distribution of *Ratius explains* (Peale) in New Zealand.  $N \neq J$ . Sci
- Tech. 37, 560-70 WAISON, J. S. 1961 Rats in New Zealand: a problem of interspecific competition. Proc. Ninth Pac Sci. Cong. 1957 19, Zoology Bangkok 1961.
- WAYNE, R. 1849. Blackbird's eggs sucked by a rat. Zoologist 7, 2495.
- WESTERSKOV, K. 1960 Birds of Campbell Island. N.Z. Dept. of Internal Allairs, Wellington WINTAKER, A. H. 1973. Lizard populations on islands with and without Polynesian rats, Ramos
- exulans (Peale). Proc. N.Z. Ecol. Soc. 20, 121-30. WILKINSON, A. S & WILKINSON, A. 1952. Kapiti Bird Sanctuary. Masterton Printing Co.
- WIRTZ, W. O. 1972. Population ecology of the Polynesian rat, Rattus exulans, on Kure Atoll,
- WILKES, C. 1845. Narrative of the United States Exploring Expedition during the years 1838, 1839. Hawaii. Pac. Sci. 26, 433-64 1840; 1841, 1842, under the command of Churles Wilkes. 5 vol. and atlas. I ca & Blanchard,
- WILLIAMS, J. 1839. A Narrative of Missionary Enterprises in the South Seas. J. Snow, London
- WILLIAMS, G. R. 1960. The birds of the Pitcairn Islands. Ibis 102, 58-70.
- WILLIAMS, J. M. 1974. The ecology and behaviour of Rattus species in relation to the yield of
- coconuts and cocoa in Fiji Unpub. Ph.D. thesis, University of Bath. WILLIAMS, J. M. 1979. Report on the rat situation in Nauru. Unpub. N.Z. Ministry of Agriculture
- WILLIAMS, A. J., SIEGERILD, W. R., BURGER, A. E. & BERRUIL, A. 1979. The Prince Edward
- Islands: a sanctuary for seabirds in the southern ocean. Biol. Conserv. 15, 59-71. WODZICKI, K. A. 1971. The birds of Niue Island, South Pacific: an annotated checklist. Notornis
- WODZICKI, K. A. 1972. Effect of rat damage on coconut production on Nukunonu Atoll, Tokelau
- Islands, Oleagineux 27, 309-14. Woop-JONES, F. 1912 Corals and Atolly Levell Reeve, London
- Woons, R. W. 1975. The Birds of the Falkland Islands. Anthony Nelson, Oswestry, Shropshire
- WORTWARD, P. W. 1972. The natural history of Kure Atoll, northwestern Hawaiian Islands. Atoll
- YUDWYN, J. C. & WODZICKI, K. 1979. Systematics and ecology of the land crabs (Decapoda: Coenobitidae, Grapsidae and Gecaremidae) of the Tokelau Islands, Central Pacific. Atoll Res.
- YUSIDA, T. H. 1980. Cytogenetics of the Black Rat. Karyotype evolution and species differentia-

tion. University of Tokyo Press, Tokyo



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#### On Concept to Goobido

The interest and concern of THE PACIFIC SEABIRD GROUP encompasses millions of birds of over 275 species--all related by their dependence on the ocean environment, but widely divergent in their natural histories and the problems they face. Pacific seabirds include

representatives of 8 avian orders and 23 families, including loons, grebes.

albatrosses, shearwaters, storm-petrels, boobies, pelicans, cormorants, frigatebirds, geese, ducks, puffins, murres, auklets, quillemots, murrelets, phalaropes, sandpipers, plovers, terns, gulls, jaegers, tropicbirds, and penguins.

Some Pacific seabirds are astonishingly numerous and wander widely over the seas. For example, millions of short-tailed shearwaters that nest on islands off Australia and New Zealand annually migrate to feeding areas in the Bering Sea. These millions of shearwaters complement the arctic populations of nesting seabirds that in Alaska alone, number over 40 million seabirds.

However, many seabird species are uncommon or occur only in restricted areas. Several Pacific seabird species are already endangered, including the short-tailed albatross and dark-rumped petrel. With increasing human development and pollution of the marine environment, the list of threatened and endangered seabirds is likely to grow.

Although much research has been done, and our knowledge is growing, our understanding of the ecology of Pacific seabirds is inadequate. We have yet to learn the most basic breeding biology of several species, and feeding ecologies of most species are poorly known. Decades of research are still needed to understand the population dynamics of seabirds, as most are longlived and reproduce slowly. Yet changes are swiftly coming to the seabirds' world.

Protection and conservation of the great variety of fascinating seabirds of the Pacific Ocean is a challenge that will require the contributions, research, concern, and dedication of many people from many countries

#### Conditide Ler Hest interes

In 1984, THE PACIFIC SEABIRD GROUP established an endowment fund with a generous gift of \$1000 from the Bullitt Foundation. This endowment fund was set up in recognition that the future of seabirds depends on continued research and conservation efforts.

Accrued interest from this fund will be used to organize high quality seabird symposia, help bring researchers from around the world to these symposia, and for printing and dissemination of the proceedings. When the fund has grown to adequate proportions, PSG may also use accrued interest to fund seabird research and specific conservation efforts.

financial managements of the Endowment Fund is handled by the PSG Treasurer and two investing trustees appointed by PSG Executive Council.



# **A**acific Seabird **Group**



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#### What is the Pacific Seabird Group?

THE FACIFIC SEABIRD GROUP, INC. is a scientific, non-profit organization dedicated to the study and conservation of seabirds and their environment. PSQ was formed in 1972 out of a need for better communication among seabird researchers, through research supported by a variety of agencies and organizations, many PSQ members are working to learn more of the secrets of seabird biology, to gather information needed to protect seabird nesting, feeding, and wintering areas, to restore seabirds to islands where introduced predators have wreaked havoc, and to minimize the effects of human activities on the seabirds' world.

THE PACIFIC SEABIRIE GROUP takes a broad international perspective in recognition that distant areas are tied by the wanderings of seabirds and the continuity of ocean waters. Our membership includes professional biologists, wildlife managers, students, conservationists, and others from the United States and 15 other countries. PSQ promotes international communice etween seabird biologists through joint meetings with oth roups, such as the 1983 meeting with the Australasian Seabird Group and the 1985 meeting with the Colonial Waterbird Group.

The Executive Board and reflects PSQ's international perspectives and concerns. Representatives from 11 regions representing portions of the United States, Canada, Mexico, Central and South America, the South Pacific, and Europe, work with the Chairman, Chairman-elect, Secretary, Treasurer, and PSQ Bulletin Editor to plan and direct the organization's activities.





#### **Current Activities**

ANNUAL MEETINGS: At yearly conferences, researchers share their discoveries and conservation concerns with each other and the public. Reflecting the international distribution of Pacific seabirds, PSQ Annual Meetings are often attended by people from throughout the world, including Mexico, Canada, Central & South America, Africa, the United Kingdom, Australia, and Japan. Attendees benefit from the support, constructive criticisms, and insights of fellow participants, as well as from the exchange of scientific reports. Student presentations and reviews of ongoing research are encouraged.

SYMPOSIA: Specialized symposia on specific problems are organized to facilitate exchange and dissemination of information. Symposia proceedings are often published. Past symposia include: "Shorebirds in the Marine Environment", "Tropical Seabird Biology", "The Effects of Human Disturbances on Seabird Colonies", "Marine Birds: Their Feeding Ecology and Commercial Fisheries Relationships", and "Impact of the 1982-83 El Nino on Seabird Biology". A variety of other symposia are being organized, including workshops on terns, alcids, nongame waterbirds, and seabird use of man-made versus natural wetlands.

## Committees

STANDING COMMITTEES: Three standing committees work to further PSQ's goals. Members are encouraged to participate and contribute to the activities of the committees.

CONSERVATION COMMITTEE: This committee takes an active role in promoting conservation of seabirds. Current activities include keeping all PSQ members appraised of issues and legislation relating to seabird conservation, developing a booklet for seabird researchers on minimizing disturbance of nesting colonies, and organizing a workshop on nongame waterbird conservation. The Conservation Committee often provides support for seabird conservation measures, and criticism of activities that will likely harm seabirds or the marine environment.

FISHERIES--SEABIRD INTERACTIONS COMMITTEE: In recognition of the serious conflicts that can and do occur between some commercial fisheries and seabird conservation, a special committee is established to work specifically on this complex conservation problem. Incidental take of seabirds in fishing nets and traps, and potential conflicts over food resources are two of the problems with which this committee is concerned.

SCIENTIFIC TRANSLATIODS COFFICIENT. This committee is concerned with translations into English of research papers of interest to seabird biologists. Through the efforts of this committee, members are kept informed of translations available to them.

## Publications

#### THE PACIFIC SEABIRD GROUP BUILLEHN

Issued twice annually, the Bulletin summarizes organization activities, informs members of current seabird conservation issues, reports from regional representative about ongoing seabird research and conservation problem in their areas, along with reviews of recent books on seabirds, and other information of interest to members. A members receive the Bulletin.

#### INTERNATIONAL SEARING DEDISERSHIP DIALCHONY

Published in 1984. Contains the names and addresses ( members of PSQ, the Colonial Waterbird Group, Austra lasian Seabird Group, African Seabird Group, and The Sea bird Group (United Kingdom).

#### SHOREBIRD AT LEARNER MYROBOL ME.

A collection of 25 papers by 39 authors resulting from 1979 symposium sponsored by the Pacific Seabird Group Edited by F. A. Pitelka and published by the Cooper O nithological Society as Number 2 in the Studies in Avia Biology series. 261pp. Availably to PSQ members at re duced cost.

#### MARINE BIRD: Inference brief side off allo contents t FISHERIES RELATIONSHIES.

A collection of 23 papers by 39 authors presented at a 198 PSO symposium in Seattle, WA. Edited by D.N. Nettleshij G.A. Sanger, and P.F. Springer and published by the Car adian Wildlife Service. Available free to attendees and PS members.

#### TROPICAL MALANCE CONTRACTOR

Proceedings of an international symposium held by PSI in 1983 in Honolulu, HI. Contains 6 review papers on th feeding, physiology, breeding strategies, and ecology c tropical seabirds. Edited by R. A. Schreiber and publishe by the Cooper Ornithological Society as Number 8 in th Studies in Avian Biology series. 114 pp. Available to PSI





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EXMON VALDEZ OL SPILL

Exxon Valdez Trustee Council 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

645 "G" Street TRUSTEE COUNCIL Anchorage, Alaska 99501 EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL Re: Comments for Alaska SportfishingTASSOEIREDED and Trout

Unlimited on Draft 1994 Work Plan

Dear Trustees:

These general comments are submitted on behalf of and at the direction of the Board of Directors of the Alaska Sportfishing Association and the Board of Directors of the Alaska State Council of Trout Unlimited. They supplement specific comments submitted herewith on specific proposed projects.

Although our general and specific comments are very critical of most land acquisition proposals because they seem to lack adequate justification in terms of relation to injuries to resources and services, both organizations favor spending more than 90 percent of the settlement monies on land and habitat conservation. Also, both organizations oppose limiting such acquisitions to the spill area and find no legal justification for doing so.

The Alaska Sportfishing Association is the largest recreational fisheries conservation organization in Alaska. Trout Unlimited is the largest cold water fisheries conservation organization in North America.

#### **GENERAL COMMENTS:**

#### 1. Need for Consistency Between Most Major Commitments of Settlement Resources and Lost Passive Use:

For the most part, the draft 1994 work plan reflects projects that will not pass legal muster on either or both of two grounds. First, there are many proposals of projects, such as salmon stock separation studies in Prince William Sound, that may be good management but bear little relation to restoration of injuries to resources and services. That abuses the settlement. The trustee agencies should stop this sort of abuse immediately. Second, there are many proposals for acquisitions that relate to services but lack any documentation of how or in what amount the acquisition relates to restoration of services. That amounts to little more than political decision-making in response to Alaskan interests who speak most loudly, when it is clear that the greatest lost services is loss of passive use of wildlife by the American public in general. No one seems to be speaking for them, and the Trustees are legally obligated to assure that the American public in general

receives greater consideration than commercial, recreational or subsistence user interests. The 1994 work plan is devoid of any mention of lost passive use, and that failure alone probably stops the Trustees from proceeding legally with significant acquisitions until data is acquired to assist such decision-making.

The Trustees and the public desperately need data with which to improve rational decision making on how the spend the settlement monies. It appears that the settlement was driven by <u>lost passive</u> <u>use value</u> of <u>wildlife</u>. Yet, there is little that can be done to directly restore injured wildlife or efficiently acquire habitats for injured wildlife. However, what can be done efficiently is <u>to</u> acquire habitats for wildlife that has high passive use value.

Subject to extremely limited, well justified expenditures for either monitoring of natural recovery or further injury assessment that defensibly may lead to future projects, our position is that most monies can only reasonably be spent to acquire or conserve lands to restore lost passive use value of wildlife, even though acquisitions to achieve that end may inevitably focus on species that were not significantly injured.

Enclosed is a position statement of the State Council of Trout Unlimited regarding the general thrust of how settlement monies should be spent. By general consensus, it also represents the position of the Board of the Alaska Sportfishing Association. Two major points underlie the position statement.

First, as the Trustees recognize in Alternative No. 5 of the draft restoration plan, nothing in the statutory law or law of the case requires governments to spend settlement monies only where or proximate to where oil went (i.e. in the "oil spill area"). In fact, the whole notion of acquisition of equivalent resources contemplates stepping away from affected areas to acquire uninjured resources that replace lost services.

Second, the settlement apparently arises from lost passive use value of wildlife, and that should be the focus of expenditures. By about 14 to 1, survey respondents to the passive use survey attributed their loss to injuries to wildlife, rather than injuries to land. The Trustees therefore should be spending the overwhelming portion of the settlement to acquire or conserve lands that face a <u>near or long term risk</u> that have <u>high habitat value</u> for wildlife that has high passive use value.

Our concern is that the Trustees seem to be headed in directions that will waste the settlement monies on projects that bear little more than a nakedly assumed relation to either injuries to resources or injuries to services.

First, and for example, many projects in the commercial fish and fisheries area bear little relation to injured fisheries, even

though the projects, such as stock separation studies, would be wise as a normal course of management. Such projects abuse the settlement and are not legally defensible without some rational link to injuries to resources or services that are presently <u>unrestored</u>. It is not sufficient to say that commercial fisheries were injured. What is needed is a factual showing that some injury to commercial fisheries caused by the spill continues and needs to be restored by projects, such as in the case of some proposals, a stock separation study and change of management resulting therefrom. The record seems to be absent such showings for Prince William Sound salmon, but may perhaps be present for some Kenai and Kodiak area sockeye, though we question even that.

Second, many projects will result in massive expenditures to conserve lands that are threatened by timber harvest. However, much of these lands are not of (1) extremely high value for wildlife or (2) significant relation to injured wildlife resources. Regardless of where potential acquisitions are located, it is extremely hard to justify many acquisitions as related significantly to injured wildlife. That is simply because so much of the injuries occurred below the high tide line. <u>However, it is</u> <u>much easier to identify potential acquisitions that have high habitat value for wildlife, even though the wildlife may not be a species significantly impacted by the spill.</u>

As the TU position statement implies, it would be very useful for the Trustees and the public if the Trustees were to spend several hundred thousand dollars identifying, probably through a survey instrument, to determine how much lost passive use value for sea birds, marine mammals and other species injured is "restored" by acquisition of lands having high habitat value for various amounts of species of uninjured, or less than significantly injured, wildlife. In practical terms, it may be useful for a survey to ask respondents to rate the degree to which passive use value of wildlife compares across wildlife species. Although it seems metaphysical to ask how many eagles or brown bears, for example, equal injured marine resources, that is the question facing the Trustees. If such an approach were taken then it would likely result in acquisitions that in terms of total dollars would focus, more than the 1994 draft work plan does, on "charismatic" wildlife that has high passive use value, such as brown bears and eagles. When viewed in the perspective of "restoring lost passive use value", it does not trouble us and it should not trouble the Trustees or an adequately informed public, that bears were not injured and eagles were not the most significantly injured Most of the service related injury was passive use. resource. There are simply few potential acquisitions that focus well on injured wildlife, and that is why we find it much more useful to focus acquisitions on injured passive use of wildlife. Because bears and eagles concentrate along steams, the habitats that would most likely be conserved by such an approach would most likely be riverine, riparian and watershed-based. There would be substantial

benefits to salmon, trout, bear, eagles, and other wildlife that utilize such habitats, as well as to passive uses and active uses (such as commercial, tourism, recreation and subsistence) that utilize wildlife that use such habitats. In that way commercial fishing, tourism, recreation and subsistence uses would benefit as a general matter, even though the actual active users may not necessarily or always be the same, and in many cases would be different. That presents no problem, because the driving concern should be restoration of passive use by the American public at large, rather than restoration of active use.

#### 2. Need for NEPA Compliance:

Certain projects in the 1994 Work Plan would involve irreversible commitments of substantial resources on specific projects. Such projects cannot be undertaken without NEPA compliance to weight alternatives.

3. Better to Defer Major Commitments of Resources Until Restoration Plan is Adopted:

The Restoration Plan contemplates NEPA compliance. It would be best to defer major commitments of restoration monies until that plan is in place.

Sincerely yours, Broffy y. Parker

cc: ASA & TU

Parker - For Alaska Sport Fisting Asson & Tront Unlimited 272-9377 Name: Phone:

#### Page 1

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RESOUR	CE RESTORATION OPTION	POTENTIAL PROJECTS	REGION PKK WEO SND	EST COSTAT: Fik	EST DURATION ? YEARS)	1 9 9 5	1 9 9 6	i 1 9 9 9 9 7 8	1 2 9 0 9 0 9 0	Dc Not Find	
1 Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	XXX	\$41	M			TT		Y	* Winder
2	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X	\$300	1					X	contin
3	Habitat Protection and Acquisition	Archaeological Site Acquisition	X X X	\$200	M	T				Γ <u>γ</u>	burg after
4	Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X X X	\$525	M	-				Γ X	and a
5	Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X X X	\$400	M					X	Vand
6	Option Not Identified	Restoration of Chenega Village Site	X	\$75	1					X	Column
7	Option Not Identified	Site-specific Archaeological Restoration - Interagency	x x x	\$300	93 - M					X	is do
8	Public Information	Passports in Time-Cultural Resource Patterns in PWS	X	\$230	M						
9	Public Information	Heritage Information Replacement	XXX	\$200	M						
10	Public Information	PWS Landmarks-Evaluation and Interpretation	X	\$400	М						
11	Public Information	Public Education and Interpretation of Archaeological Resource	x x x	\$400	М				i.   ''		
12	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	x x x	\$225	M						
13	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X X X	\$150	M					X	
14	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	XXX	\$210	M					X	
15	Site Stewardship Program	Archaeological Site Stewardship Program	XXX	\$114	M				(		
16	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X	\$1,200	1						j
16(0)	Damage Calculation	Grater Calculate Lost Passive & Artive Use Study of Cost Archeological Use Values in order	$x \times x$	100	( X	•					
(6(6)	Preservation of Artifaits	at Preserve Artifacts et is k of fur then degradation	XXX	41	1				• [    .  .		see 5
17 Baid Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	XXX	\$262	M					L X	- Int Fen
18	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	XXX	\$10	M					X	Sho with
19	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	XXX	\$200	<u>M</u>	ļ.			ļ		1) of control be
19 (a.)	Habitat Protection Identifimtion	Identification Forteston of Important Bold Eagle Habitation of Kirk term some source in the time so that &	XXX	100	×	-					to prespill
19(6)	Hobitat Protection -	having high passive the value.	XEM	7		+			i	+	Fe compile
20 Black Ovetore	atcher Descuert Month de	Acquire "march rafely - Then Tanad" hab stat 9 high importance (A	66F	<i>'</i> ,				]	fer a herri		6 (97 3 -
	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	XXX	\$108	93 - M	<b>.</b>		- +	} <u></u> }-'	$+ \lambda$	
21	Hecovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS /	X	\$125	M				i l	LЙ	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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Name:	Johl Parker - for	ASA # TU
Phone:	2729317	

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	RESOURCE or SERVICE	RESTORATION OPTION S	POTENTIAL PROJECTS	1         1         1         1         1         1         2         2         N           ATION         9         9         9         9         9         9         9         0         0         Re           ATION         9         9         9         9         9         9         9         0         0         Re           ATION         9         9         9         9         9         9         0         0         Re           ATION         9         9         9         9         9         9         0         0         Re           ATION         9         9         9         9         9         0         0         Re           ATION         9         9         9         9         9         0         1         1         1         1         1 <th1< th="">         1         2         2         N         N         0         1         1         1         1         1         1         2         2         N         N         1         1         1         1         1         1         1         1         <th1< th=""> <th1< th="">         1&lt;</th1<></th1<></th1<>	
22	Black Oystercatcher	Restoration Monitoring - 7			1
	22(a)	Restoration Monitoring	Feeding serlogy, interaction of intertichal community and the X X 150 N	1 🗙	
:		· · · · · · · · · · · · · · · · · · ·	This continar # 20 + 21 and by being in # Oont of area, it provider toundation for tuture projects		
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition		
24	Nove: Nos,	Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources X X X \$385 N	M	
25	73-35	Intensify Management	Fishery Industrial Technology Center   X   X   X   \$3,500	<u>1</u>         X	
26	ansle de	Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage	<u>Mana                                     </u>	
27	projecto To	Intensify Management	Susitna River Sockeye Salmon Production Evaluation		
28	reptore restruct	Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment X X X X \$200		12-+
29	and others &	Option Not Identified	Payoff Debt of Valdez Fisheries Development Association X \$5,000	1 X	- Not
30	restore	Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery X \$868	M	Restorat
31	Services. You	Recovery Monitoring	Wild Fish Stock Information Assessment X X X \$50	M	1
32	need to lable	Replace Harvest Opportunities	Mitigation Fishery at Kitol Bay Hatchery on Afognak Island	м	
33	this column	Replace Harvest Opportunities	Montague Island Chum Salmon Restoration X \$80 M	<u>M</u>	
34	to segreance	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program X \$50	M	
35	resources &	Replace Harvest Opportunities	Red Lake Miligation ( unclean white may with dises) X \$191 N	M	· · · · ·
	35 (0)	Stabitat Protection 7	Acquire Robibut of high providence value for wildlite of Int XX 11528 M		
-	· · · · ·	Azznio 4 g con	angle helitat along strang of the habitat town		Ĉ
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity X X X \$280	м Х	l
37	· · · · · · · · · · · · · · · · · · ·	Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement X X X \$51 93	-м 🕅 🗌	
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study X X X \$73	M X IIIIIII	
39	-	Recovery Monitoring	Common Murre Population Monitoring OUT X X X \$191	м [Х	
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill X X X \$40 M	MX	]
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT \$460	MX	

Page 3

5 <b>8</b> ,0	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST	1 1	, ,	1	1 2	2 8	
	or	or .		P W	K K E O	COST/YF	DURATION	999 999	999	9	90 90	O O P	
		SUBOPTION		s	ND	1 SK	(YEARS)					, Li	
42	Common Murre	Restoration Monitoring -	······································				M				.		
	42(0)	Restoration of Passive Use Volue	(See New Project Idea Sheets Attached)										
			Is n't the mar	ine									=
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration = unclear and not in	. X		\$200	M	· · ·					
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden - unclear	X		\$285	м	•					
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	M	X				- <b>1</b> -`!	
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	x		\$950	́ М			·	- +		••
47		Restoration Monitoring					M	1	T I				•
	47(0)	Hobitat Ident itication	Idenity importent Cutthroat Tront & Doly varden Hubitaty	X		50		X					<b></b> .
	47(6)	Habiter Identification	Identify important Rainfor Front & Steelhead Hotitaty In the port 66 acoustion.	40	x X	50		X					
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	xx	\$600	1	X	1		* (	1 - 1 1	
- 49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS - unless y universed	X	·····	\$200		X				X	A in
50		Option Not Identified	Hazardous Material Collection Facility	X	x x	\$100	1						- restoreding
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	хх	\$488	м						- meteritin
52		Public Information	Public Broadcasting System Program on Oil Spill	X	xx	\$70	М						- my Nurota
53		Public Information	Publish and Distribute Brochures on Injured Species -	X	xx	\$90	M						- questo fle
54		Public Information	PWS Brochures	X		\$65	м					X	East Vite
55		Public Information	PWS Implementation of Interpretive Plan ( MS restored m	X		\$150	м						
56		Public Information	PWS Large Format Photographic Book or guestionally	X		\$100	M					1 X	
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan Quice & Autor of un	X		\$70	М						
58		Public Information	PWS Video Programs	X		\$100	м				-		
59		Public Information	Science of the Sound- Education Program	X		\$53	М						
	59 (a.)	Public Information	Brochures on Restoration Plan Adopted Affer Ets Ins Adopted for long term guildance	X	XX 4 Y	. 300		X					
	,												:

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Parker - For ASA & TU 729377

Name:\_ Phone:\_

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- for ASA of TU Name: 272-9377 Phone:

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-	RESOURCE		POTENTIAL PROJECTS	RE P S		EST. COST/Y	EST DURATIO NEARS	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 1 9 9 9 9 8 9	2 2 0 0 0 0 0 1	Do Not Fund	
60 H	arbor Seal	Cooperative Program-Fishermen					ill fill the main desired					╏╴╴┨╌╌		
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X		\$39	M	X		11				
62		Option Not Icentified	Subsistence Harvest Assistance - unclear & regtoration	x		\$23	М	X						
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M	X						
64		Recovery Mcnitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	xx	\$230	M	X	- [					
						· · ···.			~					
65 H	arleguin Duck	Eliminate Oil from Mussel Beds			ł									
66		Monitoring	Harlequin Duck Becovery Monitoring, Population Modelling and Habitat Information Synthesis	x	xx	\$700	93 - M	X	  -					
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	x	xx	\$53	м	X	1.1	•∱ × •∱×				
	· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·						_	
68 Ir	itertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	XX	\$20	M	K.						
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	XX	\$70	M	13-						,
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus - reduce à tasibility study	X	XX	\$300					.			
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	XX	\$50	M	KI	-					
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	片	$\frac{1}{\sqrt{2}}$									* w/0
73		Accelerate Recovery of Intertidal	Hapid Hestoration of weathered Crude Contaminated Beach Subsurface Material			(3800)	M			1			$\mathbf{x}$	know in (
		Accelerate Recovery of Intertidal	Hestore Shorelines injured by Beach Berm Helocation			0030	IVI MA		5		-			+ famefits
15	• ••••• •••••		Coastal Habitat Injury Assessment - Intertidal Algae	읝		\$02U		$\left  \mathbf{x} \right $			-			my of vert.
70			Pate and Transport of Subsurface hydrocarbons in Beach Deposits in PWS	-÷		\$000 \$500		$\left  \right\rangle$			-			
79	· · · · · · · · · · · · · · · · · · ·	Monitoring	Ludroastan nabrial Comprehensive memoral Gulf of Alacka, Cook Inlet and Sheliket Stroit			\$200	M	$ \hat{\boldsymbol{\chi}} $	•					
70	······································	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decanod) Composition		$\frac{2}{\sqrt{2}}$	\$275	M	X	-	+				
80	·····	Monitoring	I ong Term Monitoring Acute and Chronic Toxicity of Residual Hydrocarbone to Littlenock Clame	€	XX	\$50		KI		.			-	
			Long term monitoring recure and onionic toxicity of nestodiar hydrocarbons to Eliterieck Chains	121	<u> 1</u>			131		}				

PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Parker for ASA & TU 272-9377 Name: Phone:

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC	GION K K	EST. COST/YR	EST.	1 9	1 1	1 9	1	2 0	2 0 0
SERVICE	SUBOPTION		W I S N	E O N D	\$K	(YEARS)	4	5 6	7	8	0	1
32 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	x x	\$500	м	X	1			1	
13	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	xx	\$600	M	X		l		1	
4	Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	x x	\$195	M	X		1			
5	Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	x x	\$500	93 - M	X		1			
6	Monitoring	Herring Bay Experimental and Monitoring Studies	x		\$495	93 - M						
7	Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	x x	\$860	м	X		1		•	
3	Option Not Icentified	Clam Enhancement	X	x x	\$120	M	X					
9	Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	<b>x</b>	x x	\$500	M	X		1	1.		
D	Option Not Identified	Restoration of Mussel Beds	$ \mathbf{x} $	xx	\$500	М	X				1	
	Option Not Identified	Characterization of Near-Shore Bottom Habitat		x x	\$237	м	X		1			
		Gund 13ts										
										i		
				ľ								
							ŀ		-			
Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		\$120	93 - M	X					
	Monitoring	Recovery Monitoring these different?	X		\$125	М	X					
·	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$180	М	X					
	Reduce Fishery Interactions	Change Black Cod Fishery Gear - unclear what the "change" is	X		7	м						
		to what type of gen - This is not										
	··· ·	restoration of resource on service. It is										
		Simply a Possible very action they may or may not										
		have independent merit.						-				
Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	<b>  X</b>   :	x x	\$240	93 - M	X					
	Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X X	\$180	93 - M	X					
	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	x x	\$250	M	X					
	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X.	x x	\$509	M	X					
)	Minimize Incidental Take	cont affectively comment - unclear										
1	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		x x	\$200	M					_	LX

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

mot unless there is even some indication these parks have significant populations. I don't think they do.

1994 POTENTIAL PROJECT TITLES

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		RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS		REGI K K S N	ON	EST. COST/YR \$K	EST. DURATIO (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 1 9 9 9 9 7 6	1 2 9 0 9 0 9 0	2 0 Not Fund		
	102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets		xx	X	\$250	м	X						
									ļ							
			···· · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·												
		Authinto Deseuses			-  -	<u> </u>	<del> </del>									
	103	Nultiple Resources	Habitat Protection	Habitat Modelling	-	XX	X	\$150	M							
	104		Habitat Protection	Riparian Habitat Assessment	-	XX	X	\$110	M						· (	
	105		Habitat Protection	Stream Channel Capability Modeling		XX	X	\$110	M							<u> </u>
	106	1	Habitat Protection	Stream Habitat Assessment		XX	X	\$361	93 - M							
	107		Habitat Protection	Valdez Hazardous Waste Collection		X	{ .  .	\$200	1					P		
	108		Habitat Protection	Vegetation and Stream Classification and Mapping		XX	X	\$276	93 - M			·				
l	109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment		X X	X	\$100	M							
	110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	-	XX	X	\$750	M <sup>1</sup>							
	111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge	·	X	X	<b>S</b> 111	1							
	112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X	)	1					12		
	113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		····	X	(2)		3			· ·		(-) · · · · · · · · · · · · · · · · · · ·	
	114		Habitat Protection and Acquisition	Valdez Duck Flats		X		2	1						$\triangleleft$	
	115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlite Refere		X		(\$20	1							
	116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X	(!)	1						< /	
	117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		. <u> </u>	X	\$250	1				]	ΙÀ	(1 /	
	118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		x		\$3,500	1						XI (	
	119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		1	<b>X</b> .	\$200	1						A Emot u	1-0
	120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1						( there i	)a
	121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X		\$90	· 1						( identity	er tim
	122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X		\$60	1				. [ .		108 hours	the a
	123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X		\$400	1						( liserre	tion 7
	124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X		\$80	1				.		Vost p	assive <sup>b</sup>
	125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X		\$740	1						< main	~ 1035
*	126	>	Habitat Protection and Acquisition	Habitat Acquisition of threatened lands having high kabitat I In St Out		XX	X	\$25,000	93 - 1		$\langle   X  $	X X	XX	X	e comm	smale wi
	127		Habitat Protection and Acquisition	Habitat Acquisition, Alognak Value & Farma having hirgh		3	X	\$112,500	11						ditto (	non
_			()	The stoppensive me value					<i></i>						Nos. 111	125
		- This is V	The contemprece of ou	accention & comments).					5 PS	50 Mi	M: <	m				
P٧	NS=F	Prince William Sound,	KEN=Kenai Peninsula and Cook Inlet,	93=Funded in 1993 M=Multi-year Project			fu	1		the af	Ftar			<b>R</b>	i tat	•
к	DD=K	odiak Archipelago and	d Alaska Peninsula, OUT=Outside Oil Spi	I Area		'd	دمع	tific. V	50	ands	fr	ing	. (:	hh	e fri/vi	
			•			معد	ۍ د	y (angt	en Ahr	La V	that	how	e. 109	5		<b>.</b>
					P	ial	me	for se	such h	avery	1	in the				

Porker - for ASA & TY

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1994 POTENHAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	ION	EST.	EST.		1	TT	Π,	<b>T</b> , <b>I</b>	,	8		
	or	or set		PK	ĸ	COST/YR	DURATIO	N ;	9 9	9	9 9	0	0	Not		
20	SERVICE	SUBOPTION		SN	D	\$K	(YEARS)	<b>1</b> •	5 6	7	89	0	1	745 d	14	
120	B Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		i	ĪĪ				$\overline{X}$	7 datts	. 1
129	9	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island	ŢŢ	x	\$4,000	1		Ţ					X	( from III - 1	•
130	ס	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1		i		*			$\times$	) NSIC	
131	1	Increase Natural Food Supply	rundon			7			1					$\mathbf{v}$	$\sim$	
132	2	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	x x	X	\$50	м		Ţ				X	£⊧	= net re )	
133	3	Intensify Management	Genetic Risk Assessment of Injured Salmonids	x x	x	\$408	м	X					····	Ň	resource pr	Ś
134	1	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife - unclear	x		\$200	М						Þ	<	. •	1
135	5	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS - unlen - fooks like for the	x	$\square$	\$40	М		:					$\mathbf{x}$		
136	5	Intensify Management	Seabird Colony Restoration only fund it facsility studies show province	x x	x	\$250	м	3	:		Ì		1	1		
137	,	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	x		\$250	м		i		1.			$\mathbf{X}$	mit previous tim	
138		Monitoring	Shoreline Worm Life Monitoring - more & intertidul on subtidul	x x	x	\$388	м	$\mathbf{X}$	•		İ			1	Compa	-
139	) 	Option Not Identified	Instream Habitat and Stock-Restoration Techniques for Anadromous Fish	xx	X	\$416	M	X						-	. <b>U</b> . <b>U</b>	
140		Option Not Identified Notar Protest	Alaska Land and Wildlife Conservation Fund	XX	X	one billion	М		XX	X	хİх	$\langle X \rangle$	X		<b>X</b> 1	
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	XX	X	\$280	M		- 1		ſ	ľľ		×	- may thrat u	**
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	x x	x	\$7	М		. p					X	in n	
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	x x	x	\$650	1	4 - 12 			ţ			X	<b>4</b>	
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	xx	X	\$48	М	X			ĺ			ŀ		
145	3	Option Not Identified	Shoreline Assessment	x x	x	\$250	93 - M	X							A Lordist	
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М							$\times$	ma restore	
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	x x	x	\$500	93 - M	X							( mind )	FU
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program	X		\$800	м	1-1	· .		- h		•	XK	ADENG	÷
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	хx	X	\$2,300	1							хĽ	(Dixmai R. S.	3 i A
150		Recovery Monitoring	Injured Resource Food Supply - unclear : 15 this general action of species / ?	хx	X	\$850	М						2	劉	Int restors	A
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	x x	X	\$500	М	X					-		Th.	
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay	X		\$600	М							X -	. time	
153	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	м	X								
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	xx	x	\$150	М	X	- I							•
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	xx	x	\$100	М	X								
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	x x	x	\$200	М	X			-					
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М	X					· ·{			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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Phone:

93=Funded in 1993 M=Multi-year Project

\* to acquire them lands facing near or long form risk that have high habitat value for Fauna that has high active & passive whe value.

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG		EST.	EST.	1 1 9 9	1 1 9 5	L 1 9 9	1 2 9 0	2 0 NC	1	•
SERVICE	SUBOPTION		W E S N	o D	sk	(YEARS)	999 45	9 9 6 7	9 9 7 8	90 90	0 1 Fund		
158 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	M	X					1	
159	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	x >	x x	\$275	93 - M	$\boldsymbol{X}$			. 1			
160	Reduce Disturbance by Field Presence	unclear Gudget					X						e w
161	Reduce Disturbance Through Public Info	Public Information and Education	†x†>	<u>x   x</u>	\$316	> м						7 Bel	and in the set
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	†x†>	x x	\$50	м					X	Rei	oure/Service
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	x >	x x	\$500	М	X					G	to get ?
164	Restoration Monitoring	Ecosystem Study - too vague - appears duplication	x	×x	\$6,000	M							Ċ
												]	
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	М	X						
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	М	X			[			
167	Intensify Management	PWS Herring Tagging Feasibility Study	X		\$112	М	$\mathbf{X}$						
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	М	$\boldsymbol{\lambda}$			[			
-169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	М	$\boldsymbol{\varkappa}$						
170	Option Not Identified	Enhancement of Pacific Herring only as fearing this 5 such	X	XX	\$120	М					X		
171	Restoration Monitoring			TY	e		1997 - 19				11		
												1	
													(
172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	x >	xx	\$40	93 - M	X						
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	x)	x x	\$180	М	X						
174	Restoration Monitoring		TT										
175	Temporary Predator Control	Not unan guillemots are shown to be in a "predator pit."	-										

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	RESTORATION OPTION.	POTENTIAL PROJECTS	REC	GION	EST.	EST.	1 1	1 1	1	1 2	2	}	
or	OF THE STREET		P K W E	K K E O	COST/Y	R DURATION	999 99 45	999 99 67	9 9 8	9 0 9 0 9 0	0 60 0 7 1 2		
	Eich Papage and Access	Eastibility of Eich Dassage og Oil Spill Dastarstige			\$K	(YEARS)						$\gamma$	tees
77	Fish Passes and Access	Horse Marine Creek Pink Salmen Destaration	^ ′		\$20 \$20	- IVI							Trus Litic
78	Fish Passos and Access	Ottor Crock Fich Poce		^	φ20 ¢100						Íx		Selen songs
79	Fish Passes and Access	Diter Creek Fish Fass	11		\$13U			-			X		date of
80	Fish Passes and Access	Sockaya Crock Fich Pase			\$60	·					Ϊx		1. The ad
31	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration Fich Improvement	<b> ^</b>  .	-   . ¥	\$00	4		-			Ϊx		for K 5-
32	Improve Survival Bates	Fry Bearing to Improve Suprival and Bestore Wild Pink and Chum Salmon Stocks		v Ç	\$727	M					$    \hat{\mathbf{v}}  $	X	Pr-Am
83	Intensify Management	Adult Tagging to Determine Distribution Migratory Timine and Date of Meyement of Biol/ Setmen	<b>€</b>  '	$^{\circ}$	\$405	NA NA							
14	Intensity Management	Coded Wire Tag Resourcing from Commercial Catabas in DWC Colmon Ficharias			\$495 ¢055	EVI NA							
45	Intensity Management	Coded Wire Tag necovenes from Commercial Calcres in PWS Salmon Fisheries	<b>.</b>	-	\$600	IVI M		1					
	Intensity Management	Inventory and Effect of Straving Hatebory Bink Salmon on Wild Bink Salmon Deputation			\$300	. 171							
17	Intensity Management	Otolith Marking Inseason Stack Separation Teal to Peduce Wild Stack Selmen Fundation	$ \hat{\mathbf{Q}} ,$		\$200 \$150								
18	Intensity Management	Pink Salmon Economent Enumeration			\$152								
19	Intensity Management	Plink Salmon Escapement Linumeration	I\$ľ	^ ^	\$100	NA NA							
0	Intensity Management	Quality Assurance for PWS Coded Wire Tagging and Eich Braduction Records		-	\$150								
1 <sup>°</sup>	Monitoring	Investigating and Mentering Oil Palated Eagland Alavia Materities			\$00					· ·			
2	Monitoring	Restoration Monitoring and Prosperation of Wild Populations of Pick Solmon			\$900								
3	Monitoring	Injuny to Salmon Eags and Pre-emergent Envine POPulations of Finix Salmon		^	\$141	IVI NA					×		
4	Monitoring	Pink Salmon Equ to Pre-Emergent En/ Suprival in DWS			\$295	02. M	$ \mathbf{x}  $			-	3	1	
15	Monitoring	Monitoring Early Marine Growth of Juyonile Salman in Prince William Sound	0-		\$505								$\sim$
6	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound Lower Cook Inlot and Kodiok	Q,		\$300					-			$\sim$
		Fink Samon Stream Ennancement in Finke William Sound, Lower Cook miet and Roulak			\$300							$\boldsymbol{r}$	
	· · · · · · · · · · · · · · · · · · ·							.					. •
7 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet. Kodiak		x x	\$1,250	M					×	,	
98 ,	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	x	хx	\$6,000	1						4 · ·	
9	Establish Marine Environmental Institute	Seward Sea Life Center	x	xx	\$40.000	1						'	
x0	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	x :	xx	\$500	M 2		1		i		·  _ ·	not restr
01	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands - anclear 6	x	xx	\$500	M N	$\overline{\mathbf{V}}$				- /.`	" «	nd ongo in
S=Prince William Sound, )=Kodiak Archipelago ar	, KEN=Kenai Peninsula and Cook Inlet, nd Alaska Peninsula, OUT=Outside Oil Spi	93=Funded in 1993 M=Multi-year Project that have high	0 v ( + v ~ {	n V he's have	theory for m	th acque	is itim	2 ur	hab	to to	· · · ·		ANESA
- rouar richipeago al		5ee # 126 \$ # 14	G		U .	- m		•	ny	n pro	23 yre		e valu

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Name:	454 Varker	
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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	GION	EST.	EST.	L P	1	1 1	1	1 2	2 K	?	
	SERVICE	SUBOPTION		W S	K K E O N D	COSIA	H DUHAIR	нсі, 4	9 5	99 67	9 8	9 0 9 0	0 7 m	,	
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System	¥∎ ↓	X	\$500	1			-				7 5	ee # 10(, #140 ## 121
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System	1	X	\$70	1	• .					X	Ċ.	Hi U
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	M				1 1			<	4 n
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	x	xx	\$100	м	X	İ l					<u>s</u>   -	the second second second second second second second second second second second second second second second s
206	2	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X	XX	\$58	м	X							
207		Monitoring	Recreation Field Management and Monitoring	x/s	xx	\$700	M		· -  *		1			1	gular budget
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	1x		\$150	1		ţ ţ.					$\langle 1 \rangle$	itam o
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1			1	1 1	- T		$\langle   \rangle$	
210		New Backcountry Recreation Facilities	Improve Marine Parks	X	хx	\$100	м								
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1				1 1			à	
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1					••••		2	
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	хx	\$150	M	··	i i		1 1			۲) -	
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1							Ċ i	
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X		\$250	1							KI	
216		Option Not Identified	Development of Guif of Alaska Recreation Plan		xx	\$140	1						X		1
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M		j- ·   ·				k	àH	a w
218		Option Not Identified	Sustainable Tourism in PWS	X		\$240	м							21	er al
219		Option Not Icentified	Watchable Wildlife	X	хx	\$65	M							2	The A D
220		Option Not Identified	Increased Access PWS	X		\$100	M						Tλ	$\vec{v}$	> about to were
221		Plan Commercial Recreation Facilities	Recreation Development	X	хx	\$200	М							Ÿ (	Grand wind
222		Restoration Monitoring	emelean												show to
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	xx	\$77	М				ΓΓ			K	brother
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1							<li>I</li>	a certain fin
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	хx	\$310	м								ist live
226		Visitor Center	Cordova Environmental Education Center	X		\$15	1	. [						S	and acets
227		Visitor Center	Cordova Mini-Imaginarium	X		\$63	1								where the
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	XX	\$155	М							d	simply
229		Visitor Center	Environmental Education Center in PWS	X		\$90	1							0	cre form
230	· · · · · · · · · · · · · · · · · · ·	Visitor Center	Environmental Learning Resource Center	X	xx	\$90	1						X		grand charg
231	L	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	Х		\$450	1						X	]/	ANA .
						-							~	<u>ل</u> تر م	r=store.

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Intet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P	EGIO K E		est. Dst/yr	EST. DURATION	1 1 9 9 9 9	1 9 9	1 9 9	1 1 9 9 9 9	2 0 9	2 0 00 NOT 7		-
	Bearestian	SUBOPTION		5	И	D	<u>\$K</u>	(YEARS)				8 9				1
232	Hecreation	Visitor Center	Information Center	X	X	X S	\$600	1							·) ~	معنى سمير
233		Visitor Center	Interpretation of PWS	<b>X</b>			\$10	M						X	( Same .2	Jus .
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1							A with	/
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1							shart .	$\sim$
236		Visitor Center	Valdez Visitor Center	X			\$850	1						L IX		
															1/	1.1
															-1.0	-ll + ver
															quertin	moulation
															1 imin	difficult
237	River Otter	Monitoring	River Otter Recovery Monitoring	x			\$180	м	$\checkmark$		·				1 x en	un.
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	x		ľ	\$40	М	X	K			+ 9		2	· 4
239		Restoration Monitoring	rinclean													
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	x	\$99	1	X			1				
							1									
									10 a. 11							
										1						
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	x		\$175	м						X	- regula	, since
242	• • •	Monitoring	Monitoring Injury to Rockfish in PWS	x	<u> -</u>		\$117	М	X	1					sten +	chrim
243		Monitoring											·*• · · ·		- myring	$\cap$
							•	• •								$\cup$
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		· ···· · · · · · · · · · · · · · · · ·		+				• • • • •								
244	Sea Otter	Cooporative Prom-Subsistence Users	Trailer	-	-		···• ·									
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	x	x	x	\$83	M	$\mathbf{x}$							
246		Monitoring	Monitoring of Sea Otter Population Abundance Distribution Reproduction and Mortality	X	<b>x</b>	X	\$337	M				-	i.			
247		Monitorina	Badio-Telemetry Project to Monitor Recovery of Sea Otters	$\left\  \mathbf{x} \right\ $	X	X .	\$450	M	$\Diamond$							
248	· · · · · · · · · · · · · · · · · · ·	Monitorina	Sea Otter Population Dynamics	- Â	Ŷ	<del>y</del> - c	\$201	03 - M	$\Diamond$	· · · ·		•				
249	······································	Bestoration Monitoring	loca oner i oppianion oppianios	-		$\gamma$	₽ <b>८</b> ७।	90 - WI	$\sim$		+			4		
L-73		nestoration wonitoning	un an					1		1					1	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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								X								ŀ	.		s feasibility stray only	Study: Eliminate Oil from Mussel Beds	Otter	250 50
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1	$\mathbf{x}$											120	¢		.	l v			Solf Laka Eich Bass	Fish Deepen and Assess	keve Salmon	251 50
abrandy in the	<u> </u>						-		-	 . M		333	\$		'	<b>^</b>		Konai Rivor	Develop and Deploy In-Diver Hydroacoustic Counters for Sockeye Salmon in the	Intensity Management		252
Son I	$\Im$	·		-			- +-			M	-	275	\$	   <b>x</b>	1.0			IVENUI IIMEI	Genetic Monitoring of Kediak Island Sackaya Salmon	Intensity Management		253
think	$\langle \rangle$			+-		•••	- +		<u>,</u>	93 - M	Q	500	\$		x	Į	ļ		Genetic Stock Identification of Kenaj River Sockeye	Intensity Management		254
possible if					-	-			, -   /	93 - M	9	.000	\$1	-	X	1			Kenai River Sockeye Salmon Restoration	Intensity Management		255
(notinel recovery	÷Г			- +		• • ••			·+	M		143	\$	· .	X	ŀ	ŀ		Lower Cook Inlet Sockeye Salmon Restoration and Enhancement	Intensify Management		256
-fter 1995 /				-	[ •	••••	· · • † ·	X		M	ente e c	\$6	5	x		1.			Avakulik River Sockeye Salmon Escapement Evaluation	Monitoring		257
					f	-	· • •	$\mathbf{X}$	A	93 - M	9	641	\$6	x	x				Sockeve Salmon Overescapement	Monitoring	• • • .	258
no evidence	хK			-	Ť			· • ] ·	I	93 - M	9	165	\$	-		x	1		Restoration of the Coghill Lake Sockeye Salmon Stock	Option Not Identified		259
at this south	$\mathbf{x}$								.	М		572	\$	x	•	···			Red Lake Salmon Restoration	Option Not Identified		260
The Acred Disease												··· <u>··</u> · ···				]	]					
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				T	· -			X											contine w/ # 206	Recovery Monitoring	rt Fishing	261 <b>S</b>
	X									1		,200	\$4		X			2	Fort Richardson Halchery Improvement ~ what does this testore	Replace Harvest Opportunities		262
E								X											confine w/ #206	Restoration Monitoring		263
									ſ													
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n Kan											.	•····•·	-	L					Unclear	Access to Traditional Foods	sistence	264 SL
Suplementer 74											_			ļ	<b>)</b>	-	1	. I lister	unlen	Bivalve Shellfish Hatchery		265
Nos. 11	X		-   · ·							М		200	\$2			X		1	Chenega Bay Subsistence Restoration Project (Remove Oil) -unclean	Option Not Identified		266
	Д						_			1		300	\$	X	( X	X		- 	Mariculture Hatchery and Research Center Feasibility Study and Design $\gamma$	Option Not Identified	1	267
~	XX									<u>M</u> 1		200 300	\$2 \$:	x		X		/ dugo	Turlean Turlean Chenega Bay Subsistence Restoration Project (Remove Oil) -unclean Mariculture Hatchery and Research Center Feasibility Study and Design	Access to Traditional Foods Bivalve Shellfish Hatchery Option Not Identified Option Not Identified	sistence	264 <b>Su</b> 265 266 267

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93=Funded in 1993 M=Multi-year Project

- unclean and tendary subsisteme resources and attendary services are being restored

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	ЮN к 0	EST. COST/YR	EST. DURATION	1 9 9	1 1 9 9 9 9	1 9 9	1 1 9 9 9 9	2	2 0 NOT P					
	Subsistance	SUBOPTION		SN	D	SK	(YEARS)											. *
200	Subsistence	Option Not Identified	Mariculture Technical Center			\$2,200								Z				
209			Seward Shellish Hatchery - Second is not rural for faderal trugter		X	\$1,300	1							`				
270		Hecovery Monitoring	Survey of Impacted Native Communities-Subsistence		. <b></b> .	\$700	- M	X						7				
271		Heplace Harvest Opportunities	Chenega Bay Heplacement Subsistence Resource Project	X		\$50	M		1					Ж			3	
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	<b>  X</b>		\$55	M						K	5		Υ.	J	
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery			\$2,500	1.						. 2	XI.				
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,000	1	le z						×,	(.	: + 9	lear	, <b>'</b>
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	XX	( <b>X</b>	\$55	M	X							relat	5 to	سر . اص	Y
276		Restoration Monitoring													( est	sin co	tin	
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	XX	X	\$589	M							$\langle   \rangle$	معدد	red	reso	ŗ٨
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	x x	X	\$300	M	X							. 1			
279		Test Subsistence Foods	Subsistence Food Safety Testing	x   x	X	\$308	93 - M	X		1								
	1								-									
li									. 1.					1.				
										Î								
					-				-					ĥ				
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	x x		\$110	М	$\left  \right\rangle$										
281	- -	Intensify Management	PWS Spot Shrimp Recovery Management Plan	X		\$715	М											
282		Monitoring	PWS Spot Shrimp Survey	X		\$90	М	8									_0 -	4
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	x   x	X	\$275	M	KA		1					٤.	1	Ĩ,	_
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X		\$265	93 - M	A		1.					fun	_می	Sil	2.
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X X	X	\$390	м	1						1	- "you	~~~	مرید مرکس	
286		Monitoring	Subtidal Recovery Monitoring	x x	X	\$400	М	X						~  `	1 per	المريد	s here	*
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X X	x	\$90	M				1.1		↓ • <b>-</b> • ↓ • •		اصجمو (	שע ג' גע	m	ł
						<u></u>		$\{ \cdot \}$						·	15	M		1
														1	U			
288	<b>Technical Services</b>	Administration	Electronic Archiving of Exxon Valdez Records	xx	x	\$450		X										
289	, ·	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X		\$75	M							$\langle  $				
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE	*** RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N EST.	EST.	1	1	1	1	1 2	2 8
or SERVICE	or SUBOPTION		P W S	K F E C N C	COST/YF	URATION	9 9. 4	9 9 5 0	9 9 5 7	9	9 0	o Fund
290 Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	x	x	<b>\$105</b>	93 - M	X		- <b>P</b>			
291	Administration	Toxicological Profile of PWS	x		\$150	M	X		_	· - •		
292	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	x	(\$8	M	X					
293	Public Information	Database Integration	X	x	\$148	M	X					
294	Public Information	Develop User Friendly Synopsis of Oil Spill Information	x	x	<	м	$\boldsymbol{X}$		1			
295	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x)	<b>(</b> \$120	М	X					
296	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	x)	<b>\$100</b>	M	X					
297	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	x	x	\$72	M	Х	F .				
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PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

#### Page 15

RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS REGION ES1 n in or COST/YR SERVICE SUBOPTION SK Fund study of how pablin at large values 14 × × × 300 Passive Acquisition of Use Eguivolant Kegomen different spaces of wildlife for positive are Possise Fund study by agening & durtify most 0 W Use important hetitety that are proverly somed that face risk of loss or degradation of hobibat or services, that are hubitat for fire & wildlife of high prive we volue, And also, identify active wer that would benefit, but that is more as an incidental benefit.

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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### 1994 POTENTIAL PROJECT TITLES

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RESOURCE or SERVICE	RESTORATION OPTION       POTENTIAL PROJECTS       REGION       EST.       EST.       I <t< th=""></t<>
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

### SUMMARY OF TROUT UNLIMITED POSITION:

The Exxon Valdez Oil Spill settlement monies should be spent to acquire or conserve habitats in southern coastal drainages of Alaska that have high habitat value for what is called "passive use" of fish and wildlife, which is explained below. If this approach to spending settlement monies is taken, it will best fulfill the purposes of the settlement and best protect fish and wildlife, and uses of them, that are of interest to Trout Unlimited, other conservation groups and the public in general.

### EXPLANATION:

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The Exxon Valdez Oil Spill Civil Settlement is \$900 million. The settlement requires that the money be spent to reimburse state and federal agencies for costs in assessing damages and in restoring injuries to natural resources and uses of them. About \$300 million goes to reimbure costs of assessment. Therefore, about \$600 million is available for restoration. That money will be paid by Exxon to the United States and the State of Alaska over 10 years, from 1991 to 2000.

The key question is how to spend that \$600 million. Public comments on several policy alternatives that will guide the spending of that \$600 million are due April 28, 1993.

To answer that question and provide informed comment, it is necessary to understand, first, what types of injuries to fish and wildlife and uses of them led to the settlement, and second, what types of alternatives for restoration exist.

The \$900 million civil settlement was driven by loss of "passive use" of fish and wildlife. "Passive use" is a term used in natural resources economics and oil spill liability law to describe the value that the American public puts on the existence of resources in an unoiled and uninjured capacity. "Passive use" is distinguished from "active" use, such as sport fishing, commercial fishing, subsistence, wildlife viewing, camping, boating, photography, beachcombing, etc., where the user actively uses the resources, either consumptively or nonconsumtively. Loss of passive use value in the Exxon Valdez spill was calculated at \$2.8 billion. It therefore led to the settlement. The alternatives for restoration are generally: (1) direct restoration activities of injured resources, (2) replacement of injured resources, and (3) acquistion of equivalent resources.

Little can be done directly to restore injured biological resources, such as injured marine bird populations, injured marine mammal populations, injured intertidal ecosystems, or other injured marine resources. Little can be done to replace injured resources, because such species and ecosystems are not particularly susceptible to hatchery-type remedies.

That leaves acquisition of equivalent resources as the only sensible alternative. That alternative basically means purchase of private lands or purchase of conservation easements on private lands that face some threat to fish and wildlife values. That alternative presents the best opportunities for conservation of private lands in Alaska that currently exists. That alternative has received very broad support by Trout Unlimited, other conservation groups and the public.

However, it begs the question as to what constitutes an equivalent resource. It is to that question that Trout Unlimited now turns.

"Equivalent resources" are viewed in two ways.

First, acquistion of an equivalent resource can mean that the same resource (e.g. same species) is involved. That type of "equivalency" is impractical in marine oil spills because the public already owns all lands and resources below the high tide line, where injury from marine oil spills occurs. The public can't buy what it already owns.

Second, acquisition of equivalent resources can mean that the acquired resource provides the same type of use. That type of "equivalency" is more practical in this oil spill. It allows purchase of private uplands or conservation easements on private uplands that have high habitat value for passive use of wildlife, which drove the settlement.

If that approach is taken, it will be consistent with the reasons that drove the settlement (i.e. \$2.8 billion of injury to passive use) and most likely will conserve private lands of high value for high profile fish and wildlife. Such high profile wildlife has high passive use value. For example, brown bear concentration streams would be excellent candidates for acquistion because brown bears are a such high profile species. The same could be said for eagles as an example. Bears and eagles concentrate on salmon streams and therefore salmon streams, and salmon and trout within them, would benefit from such an approach.

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Another approach that is advocated by some environmental groups is acquisition of private timber, particularly along fish streams. Superficially, that sounds attractive and therefore attracts environmental support. The rationale used for that approach is that conservation of timber preserves scenic values and protects habitats for injured marine birds that nest on uplands, such as marbled murrlets and harliquin ducks.

That approach has several serious problems. First, it creates little conservation in relationship to cost. For example, marbled murrlet nests are extremely hard to locate. Only six nests have been found in the world, because the birds nest as far as 40 miles inland, nest in old growth on mossy limbs high off the ground, and fly to or from their nests only at the darkest hours of dawn and dusk. Therefore, buying timber to protect murrlet nests is highly hit-and-miss, requires vasts amount of tress to score a hit for conservation, and is therefore very costly per bird. It invites cirticism that the money would be wastefully used. For example, in responding to the spill, Exxon, the governments, and private sources spent \$110,000 per otter rescued in 1989. Buying trees under a rationale that doing so rescues murrlets is "rescuing otters" in spades. That is not to say that timber should not be bought. It is to say that doing so needs a rationale that is consistent with how the governments got the money, i.e. the injury to passive use, and with achieving the best conservation bang for the buck.

Much better bang for the buck, in terms of conserving fish and wildlife, comes from buying or conserving lands that have high passive use value for fish and wildlife. This is in contrast to simply buying timber lands in the oil spill area that have lower values for wildlife and have costly and poor linkages to the spill's effects resources and uses of them. Many lands that would be conserved under the approach tied to passive use as suggested could still be forested, but they would focus more on high habitat value. They might be in the oil spill area, or they might be elsewhere in Alaska. If they were elsewhere, they would most likely be in southern coastal drainages, because that is where fish and wildlife values are hightest and where passive use values related to fish and wildlife are highest. In general, wildlife habitat in Alaska is lowland and concentrates well in riparian areas. This approach, that focuses on passive use of fish and wildliffe, focuses well on streams, riparian areas and such. Doing so is consistent with the settlement and the greatest injury, which was to passive use. It is incidental, but nevertheless of great interest to Trout Unlimited, that such an approach also focuses well on streams used by species such as bears, eagles, salmon and trout that have high value for passive as well as active use.

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Finally, Trout Unlimited is very concerned that if the governments spend the settlement monies on land acquisitions that have poor rationales or linkages to injured resources or uses of resources, such as would result from "saving" murrlets, like saving otters, at a very high cost per animal, then the result will ultimately be repeal of passive use as an element of public damages.

That would be a disasterous result. Passive use is the element of oil spill liability law and hazardous substance spill liability law that is most opposed by the oil and chemical industries, because it results, in spills like the Exxon Valdez, in high damage calculations. If passive use is repealed, then there will never be another settlement like that achieved in Exxon Valdez.



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Anchorage, Alaska

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD



Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

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Exxon Vald 645 "O" Sti Anchorage 99501	ies Trustoos root , AK
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Attach Correct Postage

Name: Carol J. Peckhan
Phone: 907 424 - 3212

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### 1994 POTENTIAL PROJECT TITLES

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<b>8</b> /8	SERVICE	SUBOPTION SUBOPTION		s	N	D		MENS	•	5	6 7	8	9	0 1	5 5
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	M	1		T	TT	T		
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	x			\$300	1			ľ				
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	М	1	1	1	11	1		
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	x	\$525	М							
5		Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X	X	X	\$400	м	7						
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1							
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	x	x	\$300	93 - M							
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М							
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М							
.10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М							
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	М							
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	x	x	\$225	М	T.						
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	М							
14	e e e e e e e e e e e e e e e e e e e	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М	L	1	$/_{c}$	له ار			
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	М							
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1							
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17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	x	\$262	М							
18	·	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	М							
19	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М	V	1	1	11			
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20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	x	X	\$108	93 - M		UL	1	11	4	d	i I
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	М							

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	22	Black Oystercatcher	Restoration Monitoring			1		1				1.1					
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	23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	X	X	\$1,100	M	Ą,							
	24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	X	X	\$385	М	$\checkmark$	4	10	10	4	10	10	ľ
	25		Intensify Management	Fishery Industrial Technology Center	X	X	X	\$3,500	1			l İ					l
	26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		·x		\$150	<u>M</u> .								
	27	а 	Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X		\$300	М			1 1		1	.		
1	28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X	X	\$200	M	ノ	~		1	4			
	29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X			\$5,000	1			[ ]					
	30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	ery X	4		\$868	M	1		1	1	٧L	10	10	
	31	•	Recovery Monitoring	Wild Fish Stock Information Assessment	X	X	X	\$50	М	ン		1			1-	1	
	32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island		Ì	X	\$45	M				İ				
-	33	1. <u>1. 1. 1. 1. 1. 1. 1.</u> 1. 1.	Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X			\$80	М	~	V	~	~	1	10		ł
	34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X		\$50	М								ľ
	35	•	Replace Harvest Opportunities	Red Lake Mitigation			X	\$191	М								
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	36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	( X	X	\$280	М			1.]					
l	37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	X	X	\$51	93 - M	1	1		~	0	4	1	1.
	38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	( X	X	\$73	М			1					
	39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	X	X	\$191	М	1	v	1	1	4	1.	łレ	1
	40		Reduce Dist rbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	X	X	· \$40	М	~	$\checkmark$	1	/	X	dy	10	1
	41	• .	Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT	•			\$460	M								

PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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# Name: Carel J. Peckhans Phone: 424-3212

### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOI	EST.	EST.	1	1	1 1	1	1	2	2 2
	SERVICE	or SUBOPTION		P W S	K K E O N D	COST/YA	DURATION	9 6	9 5	999	9	9 9	0	ot Fund
42	Common Murre	Restoration Monitoring					м		1	Ī			<b>_</b> _	1
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43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Hebitat Restoration			\$200								
44		Intensify Management	Enhanced Management of Cutthreat Trout and Dolly Varden		ŀ	\$285	NA NA	5		$\int c$			C	
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Cher Liebitat Inventory Evaluation and Bastavation		] .	\$25	M.							7
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatebook	- 0	•	\$950	M	~						1
47		Restoration Monitoring				4950	M	-	· {				ľ	
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6														
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	xx	\$600	1							
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	x		\$200	М							
50		Option Not Identified	Hazardous Material Collection Facility	X	xx	\$100	1						İ	
-51	:	Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	xx	\$488	м							
52		Public Information	Public Broadcasting System Program on Oil Spill	X	x x	\$70	М		1					
53		Public Information	Publish and Distribute Brochures on Injured Species	X	xx	\$90	М							
54		Public Information	PWS Brochures	X		\$65	М							
55		Public Information	PWS Implementation of Interpretive Plan	X		\$150	м							
56		Public Information	PWS Large Format Photographic Book	X		\$100	м							
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	М							
58		Public Information	PWS Video Programs	X		\$100	м							
59		Public Information	Science of the Sound- Education Program	X	1.	\$53	М							
94. 2			la de la companya de la companya de la companya de la companya de la companya de la companya de la companya de									h.		.
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SERVICE       SUBOLITION         co       Harbor Seal       Cooperative Program. Fishermen         61       Monitoring       Monitoring Trends in Abundance of Harbor Seals in PWS         62       Option Not Identified       Subsistence Harvest Assistance         63       Option Not Identified       Subsistence Harvest Assistance         64       Application Not Identified       Subsistence Harvest Assistance         64       Recovery Monitoring       Habitat Use and Behavior of Harbor Seals in PWS         64       Recovery Monitoring       Habitat Use, Monitoring, Population Modelling, and Information Synthesis         65       Harlequin Duck       Eliminate Oil from Mussel Beds         66       Monitoring       Option Not Identified         67       Option Not Identified       Guantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	Not Fun
SERVICE       SUBJECTION         60       Harbor Seal       Cooperative Program-Fishermen         61       Monitoring       Monitoring Trends in Abundance of Harbor Seals in PWS         62       Option Not Identified       Subsistence Harvest Assistance         63       Option Not Identified       Subsistence Harvest Assistance         64       Harlor Seal       Option Not Identified         65       Harlequin Duck       Eliminate Oil from Mussel Beds         66       Monitoring       Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis       X       X       X       \$700       93 - M         66       Option Not Identified       Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data       X       X       X       \$53       M	ŝ
60       Harbor Seal       Cooperative Program-Fishermen         61       Monitoring       Monitoring Trends in Abundance of Harbor Seals in PWS       X       \$39       M         62       Option Not Identified       Subsistence Harvest Assistance       X       \$23       M         63       Option Not Identified       Habital Use and Behavior of Harbor Seals in PWS       X       \$23       M         64       Recovery Monitoring       Habital Use and Behavior of Harbor Seals in PWS       X       X       \$230       M         64       Recovery Monitoring       Habital Use and Behavior of Harbor Seals in PWS       X       X       X       \$230       M         64       Harlequin Duck       Eliminate Oil from Mussel Beds       Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis       X       X       X       \$700       93 - M         65       Harlequin Duck       Eliminate Oil from Mussel Beds       Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis       X       X       X       \$53       M         66       Monitoring       Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data       X       X       X       \$53       M	Ā
61       Monitoring       Monitoring Trends in Abundance of Harbor Seals in PWS       X       \$39       M         62       Option Not Identified       Subsistence Harvest Assistance       X       \$23       M         63       Option Not Identified       Subsistence Harvest Assistance       X       \$165       93 - M         64       Applied Providentified       Habitat Use and Behavior of Harbor Seals in PWS       X       X       \$230       M         64       Becovery Monitoring       Habitat Use, Monitoring, Population Modelling, and Information Synthesis       X       X       X       \$230       M         65       Harlequin Duck       Eliminate Oil from Mussel Beds       Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis       X       X       X       \$700       93 - M       V       <	
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65       Harlequin Duck       Eliminate Oil from Mussel Beds         66       Monitoring       Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis       X       X       X       \$700       93 - M       V	
65       Harlequin Duck       Eliminate Oil from Mussel Beds         66       Monitoring       Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis       X       X       X       \$700       93 - M       V	11
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66MonitoringHarlequin Duck Recovery Monitoring, Population Modelling and Habitat Information SynthesisXXX\$70093 - MVVV </th <th></th>	
67 Option Not Identified Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data X X X \$53 M	
68 Intertidal Accelerate Recovery of Intertidal Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study X X X \$20 M	
69 Accelerate Recovery of Intertidal Fucus Restoration Feasibility Study	
Accelerate Recovery of Intertidal Restoration of High-Intertidal Fucus	
71 Accelerate Recovery of Intertidal Beach Subsurface Oil Recovery X X X \$50 M	
Accelerate Recovery of Intertidal Hydrodynamic Purging of Oil from Contaminated Beaches, PWS X \$500 M	11
Accelerate Recovery of Intertidal Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material X X X \$800 M	
Accelerate Recovery of Intertidal Restore Shorelines Injured by Beach Berm Relocation X X X X M	
75 Monitoring Coastal Habitat Injury Assessment - Intertidal Algae X X X \$620 M	
76 Monitoring Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS X \$600 M	
77 Monitoring Coastal Habitat Comprehensive Intertidal Monitoring Program X X X \$500 M	
78 Monitoring Hydrocarbons in Mussels from Coastal Gulf of Alaska Cook Inlet and Shelikof Strait X X \$200 M	
79 Monitoring Intertidal/Shallow Subtidal Crustacean (Decaped) Composition X X X \$275 M	
80 Monitoring Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams X X X S50 M	
At Monitoring for Becruitment of Littleneck Clams	1 1

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à.	SERVICE	SUBOPTION		s	N	D	<u>\$K</u>	(YEARS)	4		<u> </u>	7	Ľ	°		ä
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	x	\$500	м				ľ				
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	x	\$600	М	1		~ 0	<u>  </u> -	1			
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	x	\$195	м								
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	X.	\$500	93 - M			へ	1	/			
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M								
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	x	\$860	м			ł					
88		Option Not Identified	Clam Enhancement	X	X	x	\$120	м								
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	x	X	X	\$500	М	·							
90		Option Not Identified	Restoration of Mussel Beds	X	X	x	\$500	м								
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	x	X	x	\$237	м								
		n an an an an an an ar ang tara ta an ang tara ta ang tara ta ang tara ta ang tara ta ang tara ta ang tara ta a Tara tara tara tara tara tara tara tara														
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				1. 1				- ·								
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M								
93		Monitoring	Recovery Monitoring	X			\$125	M	1~			2	ノレ			
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М				ļ				
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				M								
			· · · · · · · · · · · · · · · · · · ·	[]											/	
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X	\$240	93 - M								
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	x	\$180	93 - M							, ].	
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	×	\$250	M								
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	<b>X</b>	X	X	\$509	М								
100	· · · · · · · · · · · · · · · · · · ·	Minimize Incidental Take				_										
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks	1.!	X	X	\$200	М								ľ

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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Name: Jan 424-3212

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1.1.1	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS		RE P	<u>GIOI</u> <u>-</u>   -	COST/YR	EST.	1 9 9	1 9 9	1 1 9 9 9 9	1 1	2 0	2 O O	
	SERVICE	SUBOPTION		(14) (14)	s	E O N D	skas	(YEARS)	ŀ	5	6 7	8 9	Ō	1	l
10	2 Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets		x	x x	\$250	м	レ	1	11	1	1		l
		· · · · · · · · · ·													
									ļ. ļ						l
1															
10:	3 Multiple Resources	Habitat Protection	Habitat Modelling		X	X	(\$150	M .							ł
10-	4	Habitat Protection	Riparian Habitat Assessment		x	XX	(\$110	M							l
10	5	Habitat Protection	Stream Channel Capability Modeling		X	x	<b>(</b> \$110	м							
10	6	Habitat Protection	Stream Habitat Assessment		X	X >	<b>(</b> \$361	93 - M							
10	7	Habitat Protection	Valdez Hazardous Waste Collection		X		\$200	1							
10	8	Habitat Protection	Vegetation and Stream Classification and Mapping		X	x	<b>(</b> \$276	93 - M			ļ				Ľ
10	9	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment		X	X >	<b>(</b> \$100	M							
11	Ö	Habitat Protection	Characterization and Identification of Habitat Important to Upland Species		X	xþ	<b>(</b> \$750	M							ŀ
11	1	Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge			хÞ	( <b>\$111</b>	· 1			Î				
111	2	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			.)	C .	1					1		
11:	3	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			>	<b>(</b>	1							L
1716	4	Habitat Protection and Acquisition	Valdez Duck Flats		X			1							
. 11	5	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		.	X	\$20	1 .							
11	6	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve				(	1							L
-11	7	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition				<b>\$250</b>	1							l
111	. 8	Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		X		\$3,500	1							ľ
111	9	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		.		<b>(\$</b> 200	1				ļļ			L
12	20	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge				\$77,000	1							L
12	21	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay			x	\$90	1							
12	22	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay			X	\$60	1							
12	3	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay			X	\$400	1			ļ				ĺ
12	4	Habitat Protection and Acquisition	Conservation Easement-Port Chatham			x	\$80	1							L
12	25	Habitat Protection and Acquisition	Conservation Easement-Rock Bay			x	\$740	1			}		1		
12	26	Habitat Protection and Acquisition	Habitat Acquisition		X	x >	\$25,000	93 - 1							ŀ
12	27	Habitat Protection and Acquisition	Habitat Acquisition, Alognak			. )	\$112,500	1							Ĺ

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

# Name: Care J. Parlas Phone: 424-3212

### 1994 POTENHAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST	۱.	ι 1		1	1	2	2 8
	or	or see a		P	K K E O	COST/YR	DURATION	9 9	9 9 9 9	9	9	9 9	0 0	o o Noc
	SERVICE	SUBOPTION		s	D N	≥\$K *≜	(YEARS)	4	5 6		8	9	0	1 1
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		i	1	1			
129		Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		X	\$4,000	1							
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1		1		}			
131		Increase Natural Food Supply							1					
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	xx	\$50	М		I					
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x x	\$408	м	ノ	10	1	10	1	-	4
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	м							
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	М							
136		Intensify Management	Seabird Colony Restoration	X	xx	\$250	м	$\sim$	1	/	//	1		
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	м	1	00	1	/	1	1	/ /
138		Monitoring	Shoreline Worm Life Monitoring	X	<u>x x</u>	\$388	M							
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	xx	\$416	М	1	ィレ	10	10	1	رار	1
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	xx	one billion	М							
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	xx	\$280	• M	~	/	$\langle   u \rangle$	ノレ		1	/ /
142	· · · · · · · · · · ·	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	xx	\$7	М		. ! .					
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	xx	\$650	1	$\checkmark$						
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x x	\$48	м							
145		Option Not Identified	Shoreline Assessment	X	x x	\$250	93 - M		i					
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М		i		1			
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x x	\$500	93 - M		!					
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	М							
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x x	\$2,300	ſ	- [						
150		Recovery Monitoring	Injured Resource Food Supply	X	x x	\$850	М							
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x x	\$500	М	V	//	1	10		$\square_{i}$	
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X	\$600	М		ļ					
153	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М							
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	хx	\$150	М							
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x x	\$100	М	$\checkmark$	10	1	ti	łu	d	4
156	****	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	xx	\$200	М	1	10	1	1	1	1	
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М	·						

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al advanced a	Starter .	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W S	GION K K E O N D	EST, COST/YR SK	EST. DURATION (YEARS)	1 9 9 4	1 ,1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 9 9 9	2 0 0 0	2 C O 1
6	158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	x		\$91	° sigM		.					
1	159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	XX	\$275	93 - M		ŀ					
	160		Reduce Disturbance by Field Presence		.					ļ					
1	161		Reduce Disturbance Through Public Info	Public Information and Education	X	xx	\$316	M							
1	162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	XX	\$50	M							
1	163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	xx	\$500	М		مار	10	1.	}		· ·
1	164		Restoration Monitoring	Ecosystem Study	X	XX	\$6,000	M			1.	化			
Ι.	165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	x		\$205	M	0		10	10	10		
	166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	x		\$400	· M		1	-   ï	1	10		
	167		Intensify Management	PWS Herring Tagging Feasibility Study	x		\$112	М	1	L	10	10	10	0	-
	168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	x		\$189	M		يل	1	1.			
	169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	M			10	10			1
T,	170		Option Not Identified	Enhancement of Pacific Herring	x	xx	\$120	M		10	tu	k	V	VI	_
	171		Restoration Monitoring			1						ľ			
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							1								
	İ														
	172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	x	xx	\$40	93 - M							
	173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	xx	\$180	м	V	-1	- K	10	1		
	174		Restoration Monitoring				1	• -			1	1			Ì
	175		Temporary Predator Control				1				T				
		·				-					1	ľ	1		
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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Name: Carol	J Pechan
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3	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GĺČ	N	EST	EŚT.	,		1			2	2
	or	or a star star		P	K	ĸ	COST/VR	DURATION	, 9	è.	;	9	9 9 9 9	0 0	0 70
-3	SERVICE	SUBOPTION CONTRACTOR		s	N	D	\$K	(YEARS)	Ľ	L'	6		8 9	0	۱É
17	6 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	x	\$25	м					1		
17	7	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			×	\$28	1							
17	8	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1							
17	9	Fish Passes and Access	Pink Creek Pink Salmon Restoration			x	\$11	1							
180	0	Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1							
18	1	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			x	\$55	1	}						
18	2	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	x	x	\$727	м		0	1		1-	10	4
18:	3	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	M		1	1	1	14	10	
184	4	Intensify Maragement	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	м		1					
185	5	Intensify Mar.agement	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	x			\$500 -	м	$ \checkmark $	$ \mathbf{V} $	V	2	ハ	11	
186	6	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	M				1	1		
187	7	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	x	x	\$152	м		1	1		14	ー	4
186	B	Intensify Management	Pink Salmon Escapement Enumeration	X	X	x	\$705	м	1			$\frown$	1	14	M
189	9	Intensify Management	PWS Salmon Stock Genetics	X			\$150	M	~	1	1	4	小	10	
190	»	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		-	\$66	• M •	1	14	2	1	11	Y	
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	м		2	~	Vk	1		~
192	2	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	x		\$899	М	ľ	1	~	1	人	1	4
193	3	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М	1	2	~	10	10	10	
194	1	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M	V	2			10	1	
195	5	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М.,	Γ.	10	10			-	<b>[</b> ]
196	3	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	X	x	\$300	м	~	~	0		10	14	4
		*							ŀ						
						.									
	·	• • • • • • • • • • • • • • • • • • • •													
197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		X	X	\$1,250	M	$\sim$	1	1	4	亻	10	M
198	3	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	x	x	\$6,000	1.	1			.			
199		Establish Marine Environmental Institute	Seward Sea Life Center	X	x	x	\$40,000	1	V						
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	X	\$500	М							
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	x	\$500	M.							Î I

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### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W S			EST OST/MR	EST. DURATION	1 9 9 4	1 1 9 9 9 9	1 9 9 7	1 9 9 8	1 ( 9 ( 9 (	2 2 0 0 1 0 1 1	De Not Fun
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		· · · · · · · · · · · · · · · · · · ·	X	\$500	1		-				<u></u>	
203		Habitat Protection and Acquisition	Land Exchange Shuvak for Kodiak Land on Road System			x	\$70	1							
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	x	F	-   -	\$50	м					.	1	
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	x	x	x	\$100	M	Í					İ	
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	x	•   •	•••••••••••••••••••••••••••••••••••••••	\$58	м	1						
207		Monitoring	Recreation Field Management and Monitoring	x	x)	x	\$700	M					•		
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	x			\$150	1	ţ				·		
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	x		-	\$20	1	İ		1.			-	
210		New Backcountry Recreation Facilities	Improve Marine Parks	x	xb	x	\$100	м			•				
211		New Backcountry Recreation Facilitiés	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	x			\$100	1							
212		New Backcountry Recreation Facilities	Prince William Sound Campground	x		- I	\$70	1						1.	11
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	x	x)	x	\$150	Μ			. [.				
214		New Backcountry Recreation Facilities	PWS Kayak Trail	x			\$100	1	Ì						
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	x	- [		\$250	1	İ					-	11
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan	-	x	x	\$140	1	ĺ						
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	x			\$400	м	i						
218		Option Not Identified	Sustainable Tourism in PWS	x	Ĩ		\$240	м	i			1		,	
219		Option Not Identified	Watchable Wildlife	x	x	x	\$65	м	i					-	
220		Option Not Identified	Increased Access PWS	x			\$100	M	1	ľ					
221		Plan Commercial Recreation Facilities	Recreation Development	X	x	x	\$200	М							
222		Restoration Monitoring			·										
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	x	x	X	\$77	м							11
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	x				1							
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	x	x	\$310	м	`	ľ	ľ			-	
226	· · · · · · · · · · · ·	Visitor Center	Cordova Environmental Education Center	X	1		\$15	1					ľ		
227		Visitor Center	Cordova Mini-Imaginarium	x			\$63	1	1	l					
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biola to Assess Impacts	x	x)	x	\$155	м							
229		Visitor Center	Environmental Education Center in PWS	x			\$90	1	$\checkmark$						
230	••••	Visitor Center	Environmental Learning Resource Center	x	xD	x	\$90	1	$\checkmark$	·					
231	· · · · · · · · · · · · · · · · · · ·	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X			\$450	1	V	· }			ľ	1	

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST:	EST.	, ,	,		1 1	2	2	Ŋ
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	SERVICE	SUBOPTION		s	ND	\$K	(YEARS)	• •	6	1	8 9	0	1	ŝ
232	Recreation	Visitor Center	Information Center	X	xx	\$600	1	1						
233		Visitor Center	Interpretation of PWS	X		\$10	м	Í.						
234		Visitor Center	Maritime Wing Valdez Museum	X		\$150	1		ĺ					
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X	·	\$150	1							
236		Visitor Center	Valdez Visitor Center	x		\$850	1	I						
					Ì		·							
			,					Í						
		•												
237	River Otter	Monitoring	River Otter Recovery Monitoring	X		\$180	м	1	1		/			
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	x		\$40	M	[						
239	. ·	Restoration Monitoring												
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	xx	\$99	1							
	an ann an an an an an an an an	ne ne serve a serve a serve a serve a serve a serve a serve a serve a serve a serve a serve a serve a serve a s	and the second second second second second second second second second second second second second second second											
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		•												
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X	\$175	M	4		1	1.	47		
242		Monitoring	Monitoring Injury to Rocklish in PWS	X		\$117	M	レレ	1V	6		10	1	
243		Monitoring												
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		· · · ·												
		n a standar an an an an an an an an an an an an an	n an an an an ann an an ann an an ann an a											
244	Sea Otter	Cooporative Prgm-Subsistence Users		]]				.]						
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	XX	\$83	M				.  .			
246	··· ···· ·	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	xx	\$337	M	4	10	14	10	10	4	
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	<u> ×</u>	XX	\$450	M	4	14	4	4	10	4	
248	· · · · · · · · · · · · · · · · · · ·	Monitoring	Sea Otter Population Dynamics	X	XX	\$291	93 - M	1º	10	$ \mathcal{V} $	4	10	14	
249		Restoration Monitoring					1	1						

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100	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGIÇ	N EST.	EST.	1	1	1 1	1	1 2	2
4	Starting OF	OF A LANGE AND AND		P	ĸ	* COSTAR	DURATION	9 9	9 9	999	9 9-	90 90	0 7
	SERVICE	SUBOPTION		s	И	D SK	(YEARS)	•	5	6 7	ľ	9 0	1 5
250	Sea Otter	Study: Eliminate Oil from Mussel Beds											
1													
1		- · · · · · ·											
			· · · · · ·										
251	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X		\$120	M						
252		Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		X	\$333	M						
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon			X \$275	M				<b>. .</b>		
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye	ļ	X	\$500	93 - M						
255		Intensify Management	Kenai River Sockeye Salmon Restoration		X	\$1,000	93 - M						
256		Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		X	\$143	M		. [.				
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation			X \$6	M		.				
258		Monitoring	Sockeye Salmon Overescapement		X	X \$641	93 - M						
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M	1	2	40	11	40	14
260		Option Not Identified	Red Lake Salmon Restoration			X \$/2	• M	.	1				
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	ale de la companya de la companya de la companya de la companya de la companya de la companya de la companya d	· · · · · · · · · · · · · · · · · · ·	na da ser en en en en en en en en en en en en en				···· ·				.		
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261	Sport Fishing	Hecovery Monitoring				\$4 200	1						
262		Replace Harvest Opportunities	For Richardson Halchery Improvement						·				
263	· · · ·		and the second second second second second second second second second second second second second second second									.   .	
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264	Subsistence	Access to Traditional Foods			+			• • •					1
265		Bivalve Shellfish Hatchery	· · · · · · · · · · · · · · · · · · ·							·			
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	x		\$200	м	· ·	•	ł		ł	
267		Ontion Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design		x	X \$300	1		•				

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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Π	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	<b>SIÓN</b>	EST.	EST.	1	1	1	1 1	1	2	2	g
	or SERVICE	SUBOPTION		P 1 W 1 S 1	E O	COST/YE	URATION	9 9 4	9 9 9 9	9 9 6	999 99 78	9 9 9	0 0 0		57 Pind
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	x x	\$2,200	1			Ī		1		T	1
269		Option Not Identified	Seward Shellfish Hatchery	X	x x	\$1,300	1								
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	x	x x	\$700	M				1	1			
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	x		\$50	м		1			i			
272		Replace Harvest Opportunities	Chenega Chiñook and Coho Release Program	x		\$55	м					i			
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		x	\$2,500	1					i			
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	x		\$1,000	1					i			
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	x x	\$55	м					i			- 1
276		Restoration Monitoring					1		ļ			ĺ			
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	x x	\$589	м					1			
278	· · · ·	Test-Subsistence Foods	Assessment and Quality Assurance of Shelllish Resources	x	x x	\$300						į			
279		Test Subsistence Foods	Subsistence Food Safety Testing	x	x x	\$308	93 - M					1			
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280 S	ubtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	x	\$110	м	1	∠k	1	10		14	4	
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	x		\$715	м	1	VL	/1	10	10	4	4	
282		Monitoring	PWS Spot Shrimp Survey	X		\$90	M	1	$\nu_{ }$	4	10	1-	11	4	
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	x x	\$275	M				ľ			ľ	
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	x		• <b>\$</b> 265	93 - M								
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	x x	\$390	M							· [	
286		Monitoring	Subtidal Recovery Monitoring	X	xx	\$400	M								]
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	xx	\$90	M							-	
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									·						
							1								
288 <b>T</b>	echnical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	x x	\$450	м		A	/k	10	1~	1	$\checkmark$	
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	x		\$75	м					·			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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Name: Phone:

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# 1994 POTENTIAL PROJECT TITLES

### Page 14

**RESTORATION OPTION** POTENTIAL PROJECTS RESOURCE REGION EST OF. COST/YF DURATIC or SUBOPTION SERVICE SK MEARS 290 Technical Services xxx Administration Hydrocarbon Data Analysis and Interpretation \$105 93 - M X Administration Toxicological Profile of PWS \$150 M xxx Public Information CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities \$8 М xxx Public Information \$148 М **Database Integration** xxx Public Information М Develop User Friendly Synopsis of Oil Spill Information xxx Public Information Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment \$120 М Public Information Public Access Repository for Oil Spill Geographic Information System (GIS) X X X \$100 М xxx Public Information User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities \$72 Μ

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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EXXON VALUE2 OIL SPIL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501





EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

Dear Council Members:

Thank you sending me a copy of the various proposals for restoration of the impacted area.

In view of the relatively miniscule funds with which to restore a permanently damaged ecosystem there should be no expenditures involving road or building construction and similar unnecessary projects.

Priority should be given to purchase of old growth timberlands and similar wildlife habitat which can be protected as public property.

The temptation to expend these limited funds on projects not directly related to the oil spill disaster should be avoided.

While monitoring is important the basic policy should be to direct funds toward acquisition of wildlife habitat which provides a more permanent use of available money.

The long term damage which will extend far into the next cenury will prove to be many times greater than the small financial contribution Exxon will make as a "cost of doing business".

Sincerely,

Clarence Petty


Please Stack Your Comment Sheets On Top Of This Page....



(\* \* \* \* \*

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Fold This Page Over Your Comment Sheets....

N

C. A. Petty R.D.4, Box 348 Canton, N.Y. 13617





Exxon Valdez Trustee Council 1994 Work Plan Group 645 G Street Anchorage, Alaska 99501



**Title of Project:** Restoration of Murres by Attraction and Habitat Enhancement.

Justification: Common Murres (Uria aalge inornata) were the most heavily affected bird species as a result of the Exxex Valce Spill SPILL Restoration of selected populations and enhancement of haviste EXUNCT of auditory and visual attraction of pre-breeders MANSTATIVE RECORD important technique for reducing the recovery time of murre population.

way

**Description of Project:** Pre-breeding seabirds are known to wander widely in the years before breeding. During this prospecting phase it has been shown that behavioral attraction (sound playback and presentation of decoys or models) is an effective means of enhancing habitat and in reestablishing alcids, terns, albatrosses, stormpetrels and gadfly petrels. Because this method has not been tried with murres, the goal of this project is to ascertain whether murres respond to behavioral stimuli similar to other seabirds and if any significant restoration potential is realized through this methodology.

Murres accounted for 61% of the dead birds recovered after the spill (22,000 of 36,000). But because many oiled birds were lost at sea or along the shores, the number of recovered murres represents perhaps only 5-10% of the total number of murres killed by the spill. It is therefore likely that in excess of one hundred thousand murres were killed as a result of the spill. This translates into a major mortality event that will affect the reproductive performance and population stability of murres in Alaska for years to come. It is known already that this mortality event has caused complete reproductive failure in some large colonies in each year since the spill, and this loss represents the cumulative lost production of some Reasons for this "echo" of lost production into 300,000 young. subsequent years is complex, but may have to do with the fact that many surviving adults have had to find new mates, a process that can be followed by several years of failed reproduction.

#### Actions:

• Conduct appropriate attraction trials in such places as the Barren Islands in order to ascertain whether murres are attracted to playback of vocalizations or other sounds.

• Conduct appropriate experiments in order to ascertain whether murres are attracted to the presentation of decoys of murres or other relevant visual stimuli such as nests and fake eggs.

Estimated Duration of Project: 4 years Estimated Cost per Year: \$81,000

Submitted By: Richard Podolsky, PhD 235 West 56th Street #20N New York, NY 10019-4330 Tel: (212) 246-4686 or 6054; FAX: (212) 246-6074



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**Title of Project:** Restoration of Murres by way of Transplantation of Chicks: A Feasibility Study.

Justification: Common Murres (Uria aalge inornata) were the most heavily affected bird species as a result of the Exxon Valdez Spill. Restoration of selected populations by way of transplantation and hand-rearing of chicks could be an important technique to reduce the recovery time of the murre population.

**Description of Project:** Translocation and hand-rearing of alcids has been successful in reestablishing Atlantic Puffins to former breeding sites in the Gulf of Maine. Similar methodologies might be adaptable to Common Murres and result in the re-establishment or enhancement of colonies impacted by the spill. Thus, the goal of this project is to conduct the background research necessary to ascertain whether this approach is adaptable and feasible with Common Murres and whether any significant restoration potential might be realized through this methodology.

Murres accounted for 61% of the dead birds recovered after the spill (22,000 of 36,000). But because many oiled birds were lost at sea or along the shores, the number of recovered murres represents perhaps only 5-10% of the total number of murres killed by the spill. It is therefore likely that in excess of one hundred thousand murres were killed as a result of the spill. This translates into a major mortality event that will affect the reproductive performance and population stability of murres in Alaska for years to come. It is known already that this mortality event has caused complete reproductive failure in some large colonies in each year since the spill, and this loss represents the cumulative lost production of some Reasons for this "echo" of lost production into 300,000 young. subsequent years is complex, but may have to do with the fact that many surviving adults have had to find new mates, a process that can be followed by several years of failed reproduction.

#### Action:

• Conduct appropriate experiments in such places as the Barren Islands to ascertain the feasibility for translocations of Common Murre chicks from large colonies outside the spill area.

• Conduct the appropriate trials to establish a methodology for human-rearing of murre chicks.

Estimated Duration of Project: 4 years Estimated Cost per Year: \$93,000

**Title of Project:** Identification of seabird feeding areas from Remotely Sensed Data (AVHRR and/or Landsat MSS) and its impact on restoration efforts (with special focus on murres and murrelets).

Justification: Restoration efforts for seabirds should be focused on areas with the greatest likelihood of maximizing reproductive output and minimizing risk from human activities.

**Description of Project:** The two factors that are most important to the distribution and abundance of seabirds are: 1) the proximity to rich feeding areas, and 2) disturbance-free (especially predator-free) island habitat. Assessing the quality of seabird habitat entails measuring at least these two variables. These data can then be used to identify seabird "hot-spots", and 1) focus the restoration efforts in these areas and 2) identify hot-spots to be avoided by any shipping activities that pose the risk of spilling hazardous materials.

When abundant island habitat exists in close proximity to rich feeding grounds than seabird colonies typically attain impressive concentrations. These concentrations are at significant risk, however, when they co-occur with certain types of human activities, most notably the shipping of hazardous substances.

#### Action:

• Collect and summarize existing information on the distribution and abundance of seabirds within foraging distance (@200 km) of the islands and shores impacted by the *Exxon Valdez* Spill.

• Measure the productivity of the ocean within foraging distance (@200 km) of the islands and shores impacted by the Exxon Valdez Spill by analyzing ocean fronts, algae blooms, chlorophyll concentrations and related phenomenon from AVHRR (Advanced Very High Resolution Radiometer) and/or Landsat MSS (Multispectral Scanner) data.

• Examine the degree to which seabird distribution correlates with ocean productivity.

• Prioritize coasts and islands as a function of the overall quality of their seabird habitat and make logical recommendations to all appropriate agencies.

Estimated Duration of Project: 4 Years Estimated Cost Per Year: \$68,000

**Title of Project:** Marbled Murrelet Vocalizations in Conjunction with Artificial Nests: A Possible Means of Attraction to Restored or Acquired Habitat.

Justification: Marbled Murrelets (Brachyramphus marmoratus) were among the most heavily affected bird species as a result of the Exxon Valdez Spill. Restoration of selected populations by way of auditory and visual attraction of pre-breeders in conjunction with artificial nests could be an important technique to reduce the recovery time of the murrelet population.

**Description of Project:** Playback of vocalizations has been shown to be an effective method of attracting many seabirds including: alcids, terns, albatrosses, storm-petrels and gadfly petrels. Both stormpetrels and gadfly petrels have been successfully lured to artificial nests augmented with playback of vocalizations. Because this method has not been attempted with murrelets, the goal of this project is to ascertain whether murrelets are attracted to playbacks or other relevant sounds and whether there is any significant management potential to be realized through combining these stimuli with the presentation of artificial nests.

#### Actions:

• Conduct appropriate experiments on Knight and Naked Islands in order to ascertain whether murrelets are attracted to playback of vocalizations or other relevant sounds.

• Conduct appropriate experiments on Knight and Naked Islands in order to ascertain whether the number of murrelets observed, during dawn watches or through other population assessment methods, can be increased by broadcasting various sounds.

• Ascertain whether murrelets are attracted to, or will use, artificial nests with or without vocalization playback.

#### **Relevant Past Work:**

Podolsky, R. and S.W. Kress. 1992. Attraction of the endangered Dark-rumped Petrel to recorded vocalizations in the Galápagos Islands. The Condor 94: 448-453.

Podolsky, R.H. and S.W. Kress. 1989. Factors affecting colony formation in Leach's storm- petrel to uncolonized islands in Maine. The Auk 106: 332-336.

**Estimated Duration of Project:** 4 years **Estimated Cost per Year:** \$77,000

**Title of Project:** Establishment of User-friendly Geographic Information System and Remote Sensing Demonstration Center for the Public.

Justification: Restoration of the spill area will require a long-term commitment. This proposal recommends establishing an accessible GIS and remote sensing demonstration center (available to school children and other citizens) in the towns affected by the *Exxon Valdez* oil spill.

#### Description of Project:

Establish in the towns of Homer, Seward, Valdez, Cordova, Chenega Bay and Kodiak a minimum of one Apple Macintosh Computer running a "userfriendly" GIS software package such as GAIA Software. Data to be made available to the public might include the following: 1) Satellite images and aerial photographs of the spill area, 2) thematic vegetation maps of the spill area, 3) still photographs and video pertinent to the spill, 4) digitized U.S. Geological Survey maps showing roads, hydrography, elevation and geopolitical boundaries etc., 5) taped interviews with key people involved in the restoration (which could be updated regularly), and 6) progress and final reports suitable for public viewing.

#### Actions:

• Select relevant data to be incorporated.

• Build prototype system and then duplicate it for the communities involved.

• Involve local schools and teachers as system managers to run and maintain the system as part of science curriculum.

 $\cdot$  Hold periodic open houses for the community to present new data and explain system features.

Estimated Duration of Project: 10 Years

Estimated Cost per Year: \$92,000 (decreasing each year)

**Title of Project:** Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data (with possible implications for anadromous fish species).

Justification: Harlequin ducks (Histrionicus histrionicus), feed in the shallowest water of all the seaducks in Alaska. Consequently, they were heavily impacted by the Exxon Valdez oil spill. Furthermore, because of the persistence of oil in certain estuaries, harlequins appear to be suffering from continued, chronic exposure to oil. Nearly total nesting failure of harlequins apparently has ocurred in the spill area. Identification and protection of nesting habitat through land acquisition, therefore, is critical to the recovery of this species.

**Description of Project:** Harlequins congregate at the mouths of fast streams where they nest. The goal of this study is to analyze aerial photographs and satellite imagery in order to identify and map all potential nesting streams in the spill area. With the aid of a geographic information system the distribution of historical or current harlequin nests will be incorporated. The goal will be to prioritize sites in terms of their potential to support harlequins and make this information available to those charged with land acquisitions. Any land acquisitions made as a result of this study will also benefit the species of anadromous fish that co-occur in these streams.

#### Actions:

• Analyze satellite or aerial photos identifying all major and minor streams. This can be accomplished with GIS software such as GAIA, that allows the coregistration and overlay of hydrography vectors to the raster imagery.

• Catalogue all major and minor streams and rank them according to their value as potential harlequin nesting habitat.

• Build a GIS that includes the following data layers: imagery, historical harlequin nest sites, current harlequin nest sites, stream stretch ranking in terms of water motion, vegetation cover etc., vectorized hydrography, and proximity to shallow estuaries for feeding.

• Recommend specific sites to be acquired to maximize the number of harlequins and their reproductive output.

Estimated Duration of Project: 4 Years Estimated Cost per Year: \$83,000

#### 1994 POTENTIAL PROJECT TITLES

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1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	M	<u> </u>					1		X
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X			\$300	1								X
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	M ·	1	イ	i.					-
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	М						Ť		X
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	X	X	\$400	M								7
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1	*		:					-1-
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	Х	X	\$300	93 - M	Ľ							T
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М								X
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М								X
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М	X	4						
11		Public Information	Public Education and Interpretation of Archaeological Resource	_,X	X	X	\$400	M								X
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	М								X
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	М								1
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М								X
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	М								X
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1					- T			Y
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17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	М	*	x	¥	*				
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	М								X
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М	X							1
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20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	X	\$108	93 - M	X							
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	М	X		T	T				

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Beninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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1994 POTENTIAL PROJECT TITLES

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22	Black Oystercatcher	Restoration Monitoring														_
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23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	х	X	\$1,100	М	ļ		ļ					1
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	х	X	\$385	M	ļ		ļ					
25		Intensify Management	Fishery Industrial Technology Center	X	Х	X	\$3,500	1			ļ		<u> </u>			
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage	1	X		\$150	М	<u> </u>		<u> </u>		·			
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X		\$300	М								
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X	X	\$200	М	-							
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X			\$5,000	.1								
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	X	1.		\$868	М								Ĩ
31	· ·	Recovery Monitoring	Wild Fish Stock Information Assessment	X	X	х	\$50	M								
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island			х	\$45	M								
33	•	Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X			\$80	M	X	1	<u> </u>					
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X		\$50	М								1
35		Replace Harvest Opportunities	Red Lake Mitigation			х	\$191	М			•					
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36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity Oして	X	X	X	\$280	М	X	X	X	X	X	XY	4 X	
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	X	X	\$51	93 - M	Ý	Ý	X	X	X	XY	٨X	1
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	X	X	\$73	М	X	Ý	X	X	Ý.	Ý.Y	L <b>[5</b>	1
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	x	X	\$191	M							<b>_</b>	
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	X	X	\$40	M	X	X	X	X	XI	17	KY	1
41	· · · · · · · · · · · · · · · · · · ·	Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT				\$460	M	X	Y	V	X	Y	XN	iX	2

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### 1994 POTENTIAL PROJECT TITLES

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42	Common Murre	Restoration Monitoring		N	X	X 1	00	М	X	X	X	XX	· N	X	X
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						-									
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X			\$200	М					-		N
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X			6285	М					1	1	K
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X			\$35	М							X
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X			6950	М							X
47		Restoration Monitoring						М							X
48	General	Administration	Oil Spill Restoration Support Service and Facilities	x	X	X	600	1	X	Y	X	XX	/		
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X	· · -	·	\$200	М		<u>.</u>					X
50		Option Not Identified	Hazardous Material Collection Facility	X	х	X S	6100	1							X
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	х	X :	6488	М	X	X					
52	•	Public Information	Public Broadcasting System Program on Oil Spill	x	X	x	\$70	. <b>M</b>							X
53		Public Information	Publish and Distribute Brochures on Injured Species	X	X	x	\$90	М	X	x					
54		Public Information	PWS Brochures	X			\$65	М	X						
55		Public Information	PWS Implementation of Interpretive Plan	X			6150	. M	X	X					
56		Public Information	PWS Large Format Photographic Book	X			6100	M	X	×	<u> </u>	XX	<u> </u>	X	
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X			\$70	M						Ŀ	X
58		Public Information	PWS Video Programs	X			6100	М							X
59		Public Information	Science of the Sound- Education Program	X			\$53	М	X	Y	<u>×</u>				
								•							

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### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	Re P	G O K E	N K	est. Cost/yr	EST, DURATION	1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	1 2 9 0 9 0	2 0 0	Do Nat F
	SERVICE	SUE(OPTIC))		s	N	D	<u>. 96</u>	NPARS	4	5	6	7	8	<u>,                                     </u>	Ľ	und
60	Harbor Seal	Cooperative Program-Fishermen		ŀ												
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X			\$39	м								X
62		Option Not Identified	Subsistence Harvest Assistance	X			\$23	М								×
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X			\$165	93 - M								X
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	X	X	\$230	Μ.								17
									Ι							1
																Ì
														_	_  i	ĺ
65	Harlequin Duck	Eliminate Oil from Mussel Beds														
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	X	x	\$700	93 - M	X	X	Y	X	X	4 X	X	
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	X	X	\$53	M	X	X	Y	X	X	XX	X	
[									ļ		ļ					<b>.</b>
1																
ŀ																
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	Χ.	x	\$20	М		ļ						X
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	X	x	\$70	M								7
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	X	X	\$300	М								7
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	Х	x	\$50	М	_				_	_		X
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X			\$500	M								X
73	· · ·	Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	Х	x	\$800	M								1
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	x	X		М		I						Y
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	x	x	\$620	М								1
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X			\$600	м						·		1
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	X	x	\$500	М								X
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		X	x	\$200	М						_		1
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	X	x	\$275	M						<u> </u>		X
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	X	x	\$50	M								17
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X	X	x	\$186	M								X

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**RICHARD H. PODOLSKY** 

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**RESTORATION OPTION** POTENTIAL PROJECTS RESOURCE RECON 1335 or or P K K COSTAR DURAT SERVICE SUBOPTION (12):8 Intertidal xxx 82 Monitoring Sites - Collector Beaches and Lagoons \$500 Monitoring М XXX \$600 83 Monitoring Natural Recovery of Oiled and Treated Shorelines and Monitoring м XXX XXXXXXXXX М 84 Monitoring Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing \$195 xxx 85 Monitoring Recovery Monitoring of Intertidal Oiled Mussel Beds \$500 93 - M X 93 - M \$495 86 Herring Bay Experimental and Monitoring Studies Monitoring xxx 87 **Bivalve Shellfish Rehabilitation Project** \$860 М **Option Not Identified** xxx 88 Option Not Identified Clam Enhancement \$120 М xxx Replacement of Oiled Mussels with Commercially Produced Mussels \$500 М **Option Not Identified** 89 xxx **Restoration of Mussel Beds** \$500 М 90 Option Not Identified xxx Characterization of Near-Shore Bottom Habitat \$237 М 01 **Option Not Identified** 92 Killer Whale х 93 - M Photo-Identification Studies of PWS Killer Whales \$120 Monitoring X Monitoring \$125 м 93 Recovery Monitoring X Ś Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS \$180 М 94 Monitoring х 95 **Reduce Fishery Interactions** Change Black Cod Fishery Gear м **Marbled Murrelet** XXXXXXXXX xxx 96 Habitat Protection Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet \$240 93 - M xxx X X X X X X X X97 Habitat Protection Survey to Identify Upland Use by Murrelets \$180 93 - M Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season xxx \$250 М 98 Habitat Protection XXX 99 Marbled Murrelet Nesting and Feeding Site Characterization and Assessment \$509 М Habitat Protection 100 Minimize Incidental Take XXXXXXXX 101 Determine Status of Marbled Murrelet Populations In Kenai Fiords and Katmai National Parks XX \$200 М Recovery Monitoring

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE		EST.	EST	1 9	1 9	1 9	1 9	1 1 9 9	2	2 0	Do Not
1	SERVICE	SUEOPTION		W 5		sk.	(VEARS)	9 4	9 5	9 6	9 7	999 89	0	0 1	Fund
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	x x	\$250	М	7	<u> </u>	1	X .	XX	Y	X	
								†				-	-		
														$\left  - \right $	
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	x x	\$150	M	X	Y	<u> </u>	X I	K X	Y	X	
104		Habitat Protection	Riparian Habitat Assessment		x x	\$110	М	X	¥	¥ľ	X )	XX	Y.	Y	
105		Habitat Protection	Stream Channel Capability Modeling	X	x x	\$110	M								K
106		Habitat Protection	Stream Habitat Assessment	X	x x	\$361	93 - M	X	X ľ	Ϋ́	6-7	1 7	×.	X	
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1	ļ		_					K
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	x x	\$276	93 - M	X	X	X	YÌ	XX	( Y	χÞ	١.
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	x x	\$100	М	Y	X.	X	X	XX	X	X	
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	x x	\$750	M	X	X	X	X	XX	X	X	
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		x x	\$111	1						-		
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		X		1								
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		X	·	1						-		
114		Habitat Protection and Acquisition	Valdez Duck Flats	X	_		1						_		
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		x	\$20	1						1.		
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		X		11								
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		X	\$250	1								
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1	X	X	<u>K</u>	X				
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		X	\$200	1								
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		X	\$77,000	1	X	Y	X	X				
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		x	\$90	1								
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$60	1								
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		x	\$400	1								
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	\$80	1								
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		x	\$740	1								
126		Habitat Protection and Acquisition	Habitat Acquisition	X	хx	\$25,000	93 - 1	X	Y	Y	XI	XX	X	X	
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak		X	\$112,500	1	X	Y	Y '	Y	XX	(X)	Y	

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RICHARD H. PODOLSKY

#### 1994 POTENTIAL PROJECT TITLES

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Name:\_ Phone:\_

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	EST.	EST.	1 9	1 9	1 9	1 9	1 1 9 9	2 0	2 0 8
	SERVICE	SUBOPTION		W S	E C N E	sk.	(YEARS)	9 4	9 5	9 6	9 7	999 89	0 0	0 7 1 5 1 4 1 4 1 4
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		)	\$20,000	1	Y	Y	Y	イブ	<b>(   Y</b>	X	X
129		Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		)	\$4,000	1	X	X	Y	XV	6 7	XX	Y
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		)	\$1,000	1	X	X	X	Xh	CX	Τ	
131		Increase Natural Food Supply									<u> </u>			
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	x)	\$50	М	Y	¥	X	XĽ	XV	(Y	Y
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x)	\$408	М							X
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	М	X	4	Y	X	1 4		6 1
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	M	X	4	Ý	Y	YY		
136		Intensify Management	Seabird Colony Restoration	X	X)	\$250	M	Ý	X	X	XI	(Y	X	X
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	M				'	1		X
138		Monitoring	Shoreline Worm Life Monitoring	X	x >	\$388	М							X
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X	\$416	M							X
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X )	one billion	M							X
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X)	\$280	М		i					X
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X >	\$7	М	X	X	X				
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X)	\$650	1		1					X
144	and an an an an an an an an an an an an an	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x >	\$48	м	X	X	X	X	XX	X	X
145		Option Not Identified	Shoreline Assessment	X	x)	\$250	93 - M	X	X	×	X			
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study	T	)	\$28	М							X
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X )	\$500	93 - M	K	41	7			·	
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X	\$800	М	X	X	X				
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x)	\$2,300	1	Ì			-			X
150		Recovery Monitoring	Injured Resource Food Supply	X	X)	\$850	М			, i				Ý
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x )	\$500	М							X
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X	\$600	М							X
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М	X	Y	¥	Y			
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	x)	\$150	M	X	4	4	Y			
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x)	\$100	M	Y	YI	X	X	17	T	
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X)	\$200	М							X
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М	X	Y	Y	41	* >	X	

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOI	EST.	EST.		1	<b>T</b>		<b>T</b> 1		2 8	,
	or	or ended		P W	K K E O	COST/Y	R DURATION	9 9	9	9	9 9	) 9 9 9	0	0 0 Not	
	SERVICE	SUBOPTION		s	D	SK	(VEARS)			<u> </u>	Ĺ	Ľ	Ľ	<u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>	4
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	M	X	<u>Y</u>	X);	*7	l		<u> </u>	
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	x x	\$275	93 - M	X	X	X	X	1	_ !	<u>     </u>	
160	· · · · · · · · · · · · · · · · · · ·	Reduce Disturbance by Field Presence								<b>.</b>					K
161		Reduce Disturbance Through Public Info	Public Information and Education	X	XX	\$316	M	ļ							6
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	x x	\$50	M							Ì	4
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	X X	\$500	M	<u>.</u>							K
164		Restoration Monitoring	Ecosystem Study	X	x >	\$6,000	. M					_	!		1
1															
	Desidie Demine												-		
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	<u>M</u>					•		1-17	6
166		Intensity Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	M					• • •			셁
167		Intensify Management	PWS Herring Tagging Feasibility Study	X		\$112	M						'		Š
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	<u> </u>	·							$\leq$
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X	_	\$60	M			$\rightarrow$				?	<u>&lt;</u>
170		Option Not Identified	Enhancement of Pacific Herring	X	X >	\$120	<u>M</u>						-	_ 7	Ľ
171		Restoration Monitoring								-			!	<u> </u>	
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		·					-+			-+	··		-{!	<u> </u>	-
ļ												•			
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	x	x >	(\$40	93 - M	X	Y	41	KN	17	X	X	
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	x >	\$180	М	X	1	17	XX	(17	X	X	
174		Restoration Monitoring								T					
175		Temporary Predator Control									· ·				
										T					1
	$\int_{-\infty}^{+\infty} \frac{d^2 r}{dr} dr = \frac{1}{2} \frac{1}{r$				-										

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	Gle	DN	EST.	EST.	,	, <b>Г</b>	, [	, Г	Ι,		, <b>.</b>
or SERVICE	or SUBOPTION		P W S	K E N	K O D	COST/YR \$K	DURATION (YEARS)	9 9 4	9 9 5	9 9 6	9 9 9 9 7 1	9 9 9 9 8 9	2 0 0 0	0 0 1 Not Fund
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	x	\$25	M	1	Ī	1	1	Ī	- <b>-</b>	X
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			X	\$28	1						-	
178	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1							Ý
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration			X	\$11	1					-	1	ΓÍÝ
180	Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1			-  -				Ý
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			X	\$55	1			-				Ý
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	X	X	\$727	м							Ý
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	M						-	Ý
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	M				-	-		X
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М							Ý
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М	- 1						X
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	x	X	\$152	М				· [-			X
188	Intensify Management	Pink Salmon Escapement Enumeration	X	X	X	\$705	М			-		1		X
189	Intensify Management	PWS Salmon Stock Genetics	X			\$150	М							X
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М				-			X
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	М							X
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X		\$899	М							X
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М	1				1		X
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M							X
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М				-			X
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	x	x	\$300	м							X
		· · · · · · · · · · · · · · · · · · ·	$\left  - \right $	-	_			_						
· ·														
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak		x	x	\$1,250	м		+				†	X
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	X	\$6,000	1							X
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	X	X	\$40,000	1		_				1 -	Ý
200 ,	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	X	\$500	M			-		1		X
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	X	\$500	м	T	-	1		-	1-1	X

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	B	::{8:1{2		EST.	EST.	1	1	1		1	1 2	2 8
or	Light an Officer, thereis	Contraction of the second second second second second second second second second second second second second s	P	ĸ	к	COSTAR	DURATION	9 9	9 9	9 9	9 9	9 9		O O O
SERVICE	SUBOPTION -	the second second second second second second second second second second second second second second second s	s	Ň	D	SK	(YEARS)	4	5	6	7	8 9	9 0	1
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System	.		x	\$500	1							Y
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			X	\$70	1							<u> </u> }
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X			\$50	М							)
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	X	X	\$100	М							7
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	×	$\square$		\$58	М	T						Ň
207	Monitoring	Recreation Field Management and Monitoring	×	X	X	\$700	М			[				Y
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	×			\$150	1							Ŋ
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X	T		\$20	1							Y
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	X	X	\$100	••• <b>M</b> ••							Ň
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	×			\$100	1							$\sum$
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X			\$70	1							
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	X	X	\$150	М	;						Ż
214	New Backcountry Recreation Facilities	PWS Kayak Trail	×			\$100	1							
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	×			\$250	1							
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	x	\$140	1							
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		·	\$400	M	<u> </u>		<u> </u>				
218	Option Not Identified	Sustainable Tourism in PWS	X			\$240	M	_						
219	Option Not Identified	Watchable Wildlife	X	X	x	\$65	<u>M</u>							
220	Option Not Identified	Increased Access PWS	X			\$100	М							2
221	Plan Commercial Recreation Facilities	Recreation Development	X	X	X	\$200	М			<u> </u>				5
222	Restoration Monitoring													
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	X	X	\$77	М							
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X				1							N
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	X	X	\$310	М							ý
226	Visitor Center	Cordova Environmental Education Center	X			\$15	1							ß
227	Visitor Center	Cordova Mini-Imaginarium	X			\$63	1						-	1/3
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	X	X	\$155	M		1					1 1
229	Visitor Center	Environmental Education Center in PWS	X			\$90	1		ļ					L Y
230	Visitor Center	Environmental Learning Resource Center	X	X	X	\$90	1					-		ĽĎ
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X	I T	ſ	\$450	1			·	1 [			IN

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

### 1994 POTENTIAL PROJECT TITLES

122

Name:\_ Phone:\_

RESO	URCE RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	DN	EST,	EST.	1	1	1	1	1	2	2 2
O SER\	r or VICE SUBOPTION		P W S	K, E N	K O D	COST/YR \$K	DURATION (YEARS)	9 9 4	9 9 5	9	9 9 7 8	9 9 9	0 0 0	lot Fund
232 Recreation	Visitor Center	Information Center	X	X	x	\$600	1	-	Í					X
233	Visitor Center	Interpretation of PWS	X			\$10	М							X
234	Visitor Center	Maritime Wing Valdez Museum	X			\$150	1						F	X
235	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1							X
236	Visitor Center	Valdez Visitor Center	X			\$850	1							Y
		٢												
237 River Otter	Monitoring	River Otter Recovery Monitoring	x			\$180	м							Y
238	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	М							X
239	Restoration Monitoring												1	X
240	Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	X	\$99	1							X
				·		· · · · · · · · · · · · · · · · · · ·								-
	•													-
241 Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	x		\$175	М	+			-			X
242	Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М							K
243	Monitoring													11
					_				-					
244 Sea Otter	Cooporative Prgm-Subsistence Users			┝─┼				-+		-+-			+-	
245	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	x	x	x	\$83	М	-						X
246	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	x	x	x	\$337	М						-+	N
247	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	x	x	\$450	М							X
248	Monitoring	Sea Otter Population Dynamics	X	X	x	\$291	93 - M				·			4
249	Restoration Monitoring													X

93=Funded in 1993 M=Multi-year Project

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Page 11

#### 1994 POTENTIAL PROJECT TITLES

#### Name: Phone:

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	N	EST.	EST,	1	1 1	1	1 1	2	2
	OF	NP		PW	K E	K CC	ost/vr	DURATION	9 9	999	9 9	999	0	0 0 Not F
	SERVICE	SUBORTION		s	м	D	SK	(YEARS)	Ľ	<u>_</u>	Ľļ	<u> </u>		
250	Sea Otter	Study: Eliminate Oil from Mussel Beds		. <b> </b>									-	<u>   X</u>
{														
	L					<b>_</b>					4}			
051	Sockeye Salmon	Fish Danses and Assess		$\downarrow$			\$120				┝─┝			V
251			Soli Lake Fish Pass	+^			\$120 \$222	N						
252			Develop and Deploy In-River Hydroacoustic Counters for Sockeye Saimon in the Kenal River				\$333 \$975	NA			╂╾╍┠		-	
253		Intensity Management	Genetic Monitoring of Kodiak Island Sockeye Salmon	÷{		<u>^  -</u>	\$275 \$500			-+	++			
254		Intensity Management	Genetic Stock Identification of Kenai River Sockeye		$\left  \begin{array}{c} \\ \\ \\ \end{array} \right $			93 - IVI	+		╉╼╌╉			
255		Intensity Management	Kenal Hiver Sockeye Salmon Restoration		$\left  \stackrel{\wedge}{\rightarrow} \right $		£1.40	93 - 171			++			
256		Intensity Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		<b>   </b> -	<u>_</u>	\$143 ¢C	IVI	-+		++			
257		Monitoring	Ayakulik Hiver Sockeye Salmon Escapement Evaluation				90 0041	- M			╉╌┼			-6
258		Monitoring	Sockeye Salmon Overescapement		<u> </u>	<u>^ </u>	\$041 0105	93 - M			<u> </u>			1-15
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X			\$165	93 - M						
260		Option Not Identified	Red Lake Salmon Restoration			x	\$72	M						
		an an an an an an an an an an an an an a												
				-										
261	Sport Fishing	Recovery Monitoring									┼─┝		-	<b>  </b>
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X	\$	4,200	1						X
263		Restoration Monitoring												
													1	
				-										
							l		-					
264	Subsistence	Access to Traditional Foods		+-									- 1 -	
265	· · · · · · · · · · · · · · · · · · ·	Bivalve Shellfish Hatchery		1										
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X			\$200	М					_	X
267	· · · · · · · · · · · · · · · · · · ·	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	X	X	\$300	1						K

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### 1994 POTENTIAL PROJECT TITLES

Name:\_ Phone:\_

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EC	ON	EST.	EST.	1	1			1	2 7	ß
or SERVICE	SUBOPTION		P W S	K E N	к о D	COST/YR \$K	DURATION (YEARS)	9 9 4	9 9 5	9 9 9 9 6 7	9 9 8	9 ( 9 ( 9 (	0 0 0 0 0 1	Not Fund
268 Subsistence	Option Not Identified	Mariculture Technical Center	x	Īx	X	\$2,200	1						Τ	X
269	Option Not Identified	Seward Shellfish Hatchery	X	X	X	\$1,300	1		_					X
270	Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	X	\$700	М						-	X
271	Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X			\$50	М							X
272	Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М							X
273	Replace Harvest Opportunities	Port Graham Salmon Hatchery		X		\$2,500	1							X
274	Replace Harvest Opportunities	Silver Lake Fish Hatchery	x			\$1,000	1						1	X
275	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	X	X	\$55	М							Ý
276	Restoration Monitoring													ŤΧ
277	Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	X	X	\$589	М							X
278	Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	X	\$300	M						*	X
279	Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M							X
						· · · · · · ·								
	se a serie di an					: .	· · · · ·							
280 Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X		\$110	М	T					-	X
281	Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	М							X
282	Monitoring	PWS Spot Shrimp Survey	X			\$90					-			×
283	Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	X	X	\$275	M						_	Y
284	Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M							X
285	Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	Х	\$390	М						1	X
286	Monitoring	Subtidal Recovery Monitoring	X	X	X	\$400	М							X
287	Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	м							X
288 Technical Servic	es Administration	Electronic Archiving of Exxon Valdez Records	x	x	x	\$450	М							X
289	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	x			\$75	м	N	XI	XX	X	XX	X	X

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Name:	RICHARD H. PODOLSKY
Phone:	· · · · · · · · · · · · · · · · · · ·

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	N	EST.	EST	1	1	1	1	1	1 2	2	Do
	or	or		Р	ĸ	ĸ	COST/YR	DURATION	9 9	9 9	9 9	9 9	9 9	, 0 , 0	0 0	Not F
	SERVICE	SUBOPTION		s	N	D,	\$K	(YEARS)	4	5	6	7	. 6	·	1	und
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	x	x	x	\$105	93 - M								1
291		Administration	Toxicological Profile of PWS	X		T	\$150	М								X
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	M								X
293		Public Information	Database Integration	X	X	X	\$148	М								X
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		М								X
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	X	X	\$120	М								X
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	x	X	X	\$100	M	Y	X	Y	Y	XX	X	Y	
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	М	Ý	X	X	X	хX	(X	X	
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area



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Page 15

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		RESOURCE or SEBVICE	RESTORATION OPTION or	POTENTIAL PROJECTS	RE(		EST. COST/YR	EST. DURATION	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 1. 9 9 9 9 8 9	2 0 0 0	Do Not Fun 0 0
			Subarnal	MURRE ATRACTION (see Attracted)	YY	· ×	81	4						
				MURRE TRANSPLANT (See Attacta)	XX	¥	93	4						
			•	SCHBIED HAB, FAS From AVHIN SEE	) ~ `	17	68	4			,			
_				Murrelet Vocalization Shoy (SEFFINE)	XT	<b>e Y</b>	77	4						
				User Friends Gistor Public Setted			92	10						
			····	HARLEQUIN STREAMS REMOVESCISS (11)	1.1	<b>e Y</b>	83	4						
				(11)	-			·						
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Name:

#### 1994 POTENTIAL PROJECT TITLES

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Phone:		•	t.alat.							
RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REGIO	N EST. Cost/yr	EST. DURATION	1 1 9 9 9 9	1 1 9 9 9 9	1 1 9 9 9 9	2 0 0	2 O O Not
SERVICE	SUEOPTION		SN	• SK	(YEARS)	1 5	67	89	0	1 40 d
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	· ·									
									-	
									-	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

20 May 1993

Trustee Council EXXON VALDEZ Oil Spill 645 G Street Anchorage, Alaska 99501

Dear Sirs:

I am writing in support of the proposal by the Juneau Audubon Society to allocate some of the oil spill settlement money to the University of Alaska for endowing chairs in the Marine Sciences. I believe the endowing of 20 to 30 chairs in various disciplines would greatly aid the State of Alaska in avoiding many of the problems encountered in our first large spill. That is the lack of adequate biological data to assess the short and long-term effects of this or other spills on the marine environment. Without knowing the magnitude of the effects of such a disaster our mitigation responses are adversely affected. Also, subjectivity can come into play in the courts resulting in potential settlements not equating with the real long-term effects on the environment which in turn might not put necessary pressure on industry to do all they can, as rapidly as they can to try to avoid future spills.

High quality science undertaken with foresight, realizing that other such disasters are likely to happen again in Alaskan waters, will help resource managers and the petroleum industry understand their responsibilities. The University of Alaska can and should be one of the international centers of knowledge in Marine Sciences. The tremendous resources Alaska is blessed with calls for this direction and you the Trustees can do a good thing for our future by supporting the proposal of the Juneau Audubon Society. I urge you to do so.

Sincerely,

Christian P. Dau P.O. Box 37 Cold Bay, Alaska 99571





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

- 1. Chugach Region Village Mariculture: Continuation of support for Chenega, Tatitlek and Eyak farms as well as support for new cyster farms in Port Graham, Nanwalek and Seward. Eventually, Clams, mussels, scallops and kelp could be farmed.
- 2. Clam Restoration: Reserving of damaged or depleated clam beds at Port Graham/ Nanwalek, Windy Bay, Dogfish Bay and other identified clam, bidarki and or cockle harvest areas.
- 3. Seward Shellfish Hatchery
- 4. Nanwalek Sockeye Enhancement.
- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Frances Norman

D)ECEIVE OCT 0 2 1995

I am a subsistence lever, its my lefe style, what is live on a without my subsistence a large part of me Would be missing. Please support & fund our projects. hank you.



Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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4. Nanwalek Sockeye Enhancement.

5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Stoln megale

nct n **2 1995** 



Dear Members of the Oil Spill Trustee Council:

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Thank you for your consideration, these projects are very important to me.

Sincerely,

- Chalel

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ПП	OCT 0 2 1995	U



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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

phay A. M.





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRISTEE COUNTRI

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Wayne Norman I will Not support Nambur on on this list 2-5 are ak. wayne Norman





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL THUSTEE COUNCIL

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- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely, Ephin mahornal f



EXXC. TRUSTEE COUNCIL ADMINISTRATIVE RECORD



Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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Thank you for your consideration, these projects are very important to me.

Sincerely,

James Heller





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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Thank you for your consideration, these projects are very important to me.

sincerely, Ide MACH



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MAY 17 1993

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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Thank you for your consideration, these projects are very important to me.

Sincerely,





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Riles In eyanank





Dear Members of the Oil Spill Trustee Council:

EXXON VALSEZ OIL SPILL TRIATES COULCE

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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Thank you for your consideration, these projects are very important to me.

anna M Mittely




Dear Members of the Oil Spill Trustee Council:

EXXON VAIDEZ OF SPILL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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🗶 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Dallene Anahmak





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OLL SPILL TRUSTEE COUNCIL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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4. Nanwalek Sockeye Enhancement.

5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Algo m Lomin

I agree to all the above.... but I support more for Part Araham Project.





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

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Sincerely.





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- 3. Seward Shellfish Hatchery
- 4. Nanwalek Sockeye Enhancement.
- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

Sincerely,

Linda Norman





Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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Sincerely,

Carl P. M. Clavemon





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Thank you for your consideration, these projects are very important to me.

Sincerely,

en Meganach Sr

OCT 0 2 1995



Dear Members of the Oil Spill Trustee Council:

EXXON VALUES OIL SPILL

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Thank you for your consideration, these projects are very important to me.

Sincerely,

Jydia F. Cotant





Dear Members of the Oil Spill Trustee Council:

EXXON VALUEZ OH. SPILL TAUSTEE COUSCIL

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Thank you for your consideration, these projects are very important to me.

Sincerely, Violet Gesta





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Thank you for your consideration, these projects are very important to me.

Sincerely,

Sick Morris

SEIN OCT 0 2 1995



Dear Members of the Oil Spill Trustee Council:

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Sincerely





Dear Members of the Gil Spill Trustee Council:

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Thank you for your consideration, these projects are very important to me.

Sincerely,

Robert Huntoma





Dear Members of the Gil Spill Trustee Council:

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Sincerely,

nct n 2 1**995** EXXON VALUEZ OIL SPILL

TRUSTEE COUNCIL ADMINISTRATIVE RECORD



J. Ant. 1

14:21

Dear Members of the Oil Spill Trustee Council:

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

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Thank you for your consideration, these projects are very important to me.

sincerely, Jean Huntsman





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Deboral S. Meganack



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Wattra Magaro de g.



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Matile A. Mellin



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Chesia Danape



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Sincerely, E& Nanson



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Beely E. No



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augusta E. Tvasnikaff



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Sincerely, Dorothy Moonin



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Sincerely, Thomas J. Moure



Dear Members of the Oil Spill Trustee Council:

EXMON VALDEZ OIL SPILL TRUGTES COUNCIL

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Sincerely, Patricia M. Brauer!



Dear Members of the Bil Spill Trustee Council:

EXYON VALUEZ ON CONTLA

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Luba moorin



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EXMON VALUES OF SPILL V.RUSTES COUNCIL

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Richard Moon

Dear Members of the Gil Spill Trustee Council:

EXYON VALDER ON SPILL THEOTEE COCKEL

JUN 02

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Sincerely, Lydin &. Malchoff



Dear Members of the Gil Spill Trustee Council:

EXXON VALDE? OIL SPILE VALDE? COUNCIL

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Wallace Moon



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EXKON VALDEZ OIL SPILL AUGTEE COUNCIL

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Thomas a yeator Sr.



Dear Members of the Oil Spill Trustee Council:

EXXON VALUEZ OLL SPILL L'AUSTEE CONNOL

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Sally Carlnegle



Dear Members of the Oil Spill Trustee Council:

EXXON WALDER OIL SPILL

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Marie De Joury



Dear Members of the Oil Spill Trustee Council:

EXAMPLATES OF SPILE

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Front M. Berestott Aa



Dear Members of the Oil Spill Trustee Council:

CARON ANDES ON CHILF NUCLE COULCE

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Sincerely, andrew Kanaback



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Sincerely,

. . . . . . .

Relph N. Moonin


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EXMON VALOET OIL SPILL LAUSTEE COBLOIL

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med Hellrick



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- 3. Seward Shellfish Hatchery
- 4. Nanwalek Sockeye Enhancement.
- 5. Port Graham Pink Salmon Hatchery.

Thank you for your consideration, these projects are very important to me.

ephin Maherad



Dear Members of the Oil Spill Trustee Council: EXXON VALDEZ ON SPILL TRUSTEE COUNCIL

I am a resident of Port Graham and would appreciate your support of our projects listed below:

- 1. Chugach Region Village Mariculture: Continuation of support for Chenega, Tatitlek and Eyak farms as well as support for new cyster farms in Port Graham, Nanwalek and Seward. Eventually, Clams, mussels, scallops and kelp could be farmed.
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nodia Ukalish



Dear Members of the Oil Spill Trustee Council:

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Thank you for your consideration, these projects are very important to me.

sincerely, Jennie Magill



Dear Members of the Oil Spill Trustee Council:

EXXON VALDER OF SPILL

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Canl D. Munchurck

Dear Members of the Oil Spill Trustee Council:

EXXAN VALATION STALL

IUN 0 2 1993

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Thank you for your consideration, these projects are very important to me.

Sincerely, Jany Head



Dear Members of the Gil Spill Trustee Council:

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Thank you for your consideration, these projects are very important to me.

Shillip D. Anakonsk

Dear Members of the Oil Spill Trustee Council:

CARAN VALLE OU CALL

1111111

JUN-0 2-1993

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Thank you for your consideration, these projects are very important to me.

Shura Vicioso

Johan Viccos



Dear Members of the Oil Spill Trustee Council:

EXYON WALDER OH SPILL rangres counce

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Alef Moonn Po-5566 Just Graham Cek. 99603

Dear Members of the Oil Spill Trustee Council:

CANON VALUEZ OIL SPILL

HIN 0.2 1993

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Simeon heasnike



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EXXON VALUE? OIL SPILL TRUSTEE COUNCIL

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Thank you for your consideration, these projects are very important to me.

Sincerely, Laura menullen



Dear Members of the Oil Spill Trustee Council:

EXMON VALUE? OIL SPILL LAUSTEE COUNCIL

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Thank you for your consideration, these projects are very important to me.

annie a. Lomin

Sincerely,

A. 18 (1)



Dear Members of the Gil Spill Trustee Council:

CHAN VALUEZ OIL GALL THERE COUNCE

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Thank you for your consideration, these projects are very important to me.

Sincerely, Rita Meg grade





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Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

[	o es
	Erron Valdes Trustees 645 "G" Street Ancherage, AK
•	<b>99</b> 001
•	

Attach Correct Postage

### Name: Richard PRENTKI Phone: 907 333-4201

1994 POTENTIAL PROJECT TITLES

#### Page 1

RESTORATION OBTION RESOURCE S St H OT 8. 111 NI 2-1111.1 H-A-MARKSUBORTION SERVICE Archaeology XXX Acquire Archaeological Artifacts Archaeological Specimens Collection, University of Alaska Museum \$41 Μ 2 Acquire Archaeological Artifacts Nuchek Heritage Interpretive Center, Design \$300 1 3 xxx Habitat Protection and Acquisition Archaeological Site Acquisition \$200 Μ 4 xxx Intensified Management Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency \$525 м 5 xxx Intensified Management \$400 Vandalized Cultural Resources-Inventory, Evaluation, Interpretation М 6 **Option Not Identified Restoration of Chenega Village Site** \$75 7 xxx **Option Not Identified** Site-specific Archaeological Restoration - Interagency \$300 93 - M 8 Public Information Passports in Time-Cultural Resource Patterns in PWS \$230 Μ XXX 9 Public Information Heritage Information Replacement \$200 Μ 10 Public Information PWS Landmarks-Evaluation and Interpretation \$400 Μ X X X X X X -1-1-Public Information Public Education and Interpretation of Archaeological Resource \$400 M XXXXXXXX 12 **Restoration Monitoring** Study of Petroleum Hydrocarbon Spectra at Selected Sites \$225 Μ xxx 13 Site Patrol and Monitoring Archaeological Site Protection-Public Education-Interagency \$150 М x x x x x x \$210 14 Site Patrol and Monitoring Archaeological Site Protection-Site Patrol Monitoring-Interagency М 15 Site Stewardship Program Archaeological Site Stewardship Program \$114 Μ 16 Visitor Center \$1,200 Chugach National Forest Heritage Interpretive Center, Design 1 **Bald Eagle** 17 Habitat Protection Identification and Protection of Important Bald Eagle Habitats x x x \$262 м xxx 18 Recovery Monitoring **Bald Eagle Productivity Survey and Catalog** \$10 М xxx 19 **Recovery Monitoring** \$200 М K Long-Term Population Monitoring for Bald Eagles 20 Black Oystercatcher Recovery Monitoring Black Oystercatcher Interaction with Intertidal Communities XX X \$108 93 - M 21 **Recovery Monitoring** Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS \$125 Μ

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

### Name: Richard PRENTKI Phone: 907-333-4201

### 1994 POTENTIAL PROJECT TITLES

### Page 2

	RESOURCE or SERVICE	SUEDETIONU	POTENTIAL PROJECTS AND A POTENTIAL PROJECTS	P W S	GION K K E O N D		DIENKA MELISI	1 9 9 4	L 9 9 5	1 9 9 6	1 9 9	1 9 9 9	2 2 0 (0 0 (1	Do Not Find
22	Black Oystercatcher	Restoration Monitoring												
].														
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	x x	\$1,100	м			ļ				×
24		Intensity Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	x	xx	\$385	м							
25		Intensity Management	Fishery Industrial Technology Center	x	xx	\$3,500	1							Z
26		Intensity Management	Model for Capacity of Salmon Production for the Susitna Drainage		x	\$150	M.	$\star$	$\times$	$\star$				
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		x	\$300	м	×	$\mathbf{x}$	X				
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	xx	\$200	M	$\kappa$		Ż				.
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	x		\$5,000	1			Í				X
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	X		\$868	м			i				$\times$
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	xx	\$50	M	$\boldsymbol{\times}$				[]		
32		Replace Harvest Opportunities	Miligation Fishery at Kitoi Bay Hatchery on Afognak Island		X	\$45	M	メ	4	X				
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	М							
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X	\$50	, M							
35		Replace Harvest Opportunities	Red Lake Mitigation		X	\$191	M							X
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36	Common Murre	Feasibility Study: Improve Nest Sites	I esting or the reasibility of Enhancing Productivity	6	<u>.</u>	\$280	M 02 14							×
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Benavioral Attraction and Habitat Ennancement			901 (¢72	93-M							
38		Peasionity Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	10	$\hat{\mathbf{v}}$	\$101			$\overline{\mathbf{v}}$					7
39	/		Common Murre Population Monitoling OUI Reduce Disturbance Near Murre Colonies Injured by the Oil Spill			\$40		5	$\gamma$	게	ήX		* 7	
40	<b>'</b>	Remove Introduced Species	Inequice Disturbance mean mone colonies injured by the Oil Spill	^	<u>^</u>	\$460		$\sim$						

## Name: Richard PRENTRI

### 1994 POTENTIAL PROJECT TITLES

### Page 3

Phone: 907-333-4201

	RESOURCE	RESTORATION ORTION	POTENTIAL PROJECTS	RE ;	GIO *	N CAN	ALLESTIC DOLL THE	19	1 9 9	1 1 9 9 9 9	1	1 9	2 0 0	2 0 Vot
Ľ	SERVICE	SUBOPTION A		5	N	D	MEARS		5	6 7	' <b>•</b>	2	Ů	1 11
42	Common Murre	Restoration Monitoring					<u>м</u>	X	$ \times $	4/1	~ >	~  Y	$ \mathcal{A} $	$\varkappa$
									[ [		1	1		
							· ·							
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	м							X
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	[X]		\$285	M	1.						
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	M	X		X				
46			Cutthroat Trout and Dolly Varden Hatchery	X		\$950	M			Ì				
47		Hestoration Monitoring		$\left[ \right]$			M		[ [					
1										1				
			ļ	[ [			1							
48	General	Administration	Oil Caill Destaution Support Convise and Ensitive			v •con								X
40	donoral	Monitoring	Versitering of Small Cotagoons (Dall Perpension) in PW/S	1		¢200			×.		-   -	~  ^		
50		Option Not Identified	Monitoring of Shial Celaceans (Dail Forpoises) III FWS	101		¥ \$100	1							12
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis Testing of an Ecosystem Model	I 🕻	$\hat{\mathbf{v}}$	X \$488	M							
52		Public Information	Public Broadcasting System Program on Oil Snill	$ \hat{\mathbf{x}} $	$\mathbf{\hat{x}}$	X \$70	M							
53		Public Information	Publish and Distribute Brochures on Injured Species		x	x \$90	м	X		V	/\_	10		
54		Public Information	PWS Brochures	x		\$65	M			$\gamma$	<u>`</u>  ^	\  <b>`</b>	× 1	~~~
55		Public Information	PWS Implementation of Interpretive Plan	x		\$150	м	Ì						x
56	н	Public Information	PWS Large Format Photographic Book	x	1	\$100	м		[	- 1				X
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	x		\$70	м							$\times$
58		Public Information	PWS Video Programs	x		\$100	м							X
59		Public Information	Science of the Sound- Education Program	x		\$53	м	Í						X
	1 m					1								
											1	-		
					- { <sup>•</sup>					1				
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD - Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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## Name: Richard PRENTRI

### 1994 POTENTIAL PROJECT TITLES

Phone: 907-333-4201

	RESOURCE	RESTORATION ORTON	POTENTIAL PROJECTS	P W S	K E N	<b>к</b> 0 D			1994	1 9 9 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9	2 0 0 0	Do Not Fund
60	0 Harbor Seal	Cooperative Program-Fishermen						Silk Colonadiande Sarri S							
6	1	Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		1	\$39	м		i		1			
62	2	Option Not Identified	Subsistence Harvest Assistance	x			\$23	м							
63	3	Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x			\$165	93 - M							
64	4	Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	x	x	\$230	м							$ \lambda $
65 66 67	5 <b>Harlequin Duck</b> 6 7	Eliminate Oil from Mussel Beds Monitoring Option Not Identified	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	x x	X X	\$700 \$53	93 - M M	77	7	×				
66 69 70 71 71 71	8 Intertidal 9 0 1 2 3	Accelerate Recovery of Intertidal Accelerate Recovery of Intertidal Accelerate Recovery of Intertidal Accelerate Recovery of Intertidal Accelerate Recovery of Intertidal Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study Fucus Restoration Feasibility Study Restoration of High-Intertidal Fucus Beach Subsurface Oil Recovery Hydrodynamic Purging of Oil from Contaminated Beaches, PWS Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	x x x x x x x x x x x x x x x x x x x	X X X X X X	x x x x x x	\$20 \$70 \$300 \$50 \$500 \$800	M M M M M							$\mathbf{x}$ $\mathbf{x}$ $\mathbf{x}$ $\mathbf{x}$ $\mathbf{x}$ $\mathbf{x}$
7	4	Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	X	×		м							
	5	Monitoring	Coastal Habitat Injury Assessment - Interildal Algae	X	Ň	×	\$620 \$600	M	5	$\overline{\mathbf{x}}$	<u></u>	2		x	
	0	Monitoring	Prate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	Ĵ		$\mathbf{v}$	\$600	M	$\left  \right\rangle$		$\int $	^  ^		$\gamma'$	
	/	Monitoring	Uudanations in Mussels from Coastal Gulf of Alaska, Cook Inlat and Sholikof Strait	1		Ĵ.	\$200 \$200		X	×	×				
_		Monitoring	Intertidal/Shallow Subtidal Crustanean (Decanod) Composition	X		Ŷ	\$275	M ·	k	$\mathbf{x}$					
		Monitoring	Innerroration of the and Chronic Toxicity of Desidual Hydrocarbone to Littlenook Clama	Ŷ	ŷ		\$50	M.	$\Gamma$	$\left  \uparrow \right $	$\mathbf{y}$			J	
		Monitoring	Long rem monitoring Acute and Children function of nestural mycrocarbons to Littleneck Clams			Эl	\$196		X	$\sum$	×	<u>^</u>  `	44	×γ	`  <b> </b>
L	<u>''  </u>	Internet	momony or recountent of Enterieux Cians	1.	<u>^</u>	<u> </u>	\$100	141	$\mathbf{P}$		<u> </u>				

93=Funded in 1993 M=Multi-year Project

Page 4

Name: Richard PRENTKI Phone: 907-333-4201

### 1994 POTENTIAL PROJECT TITLES

### Page 5

Γ	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	alc		(3:1)	EST.C	,	1	,		T		8.
	or	of		P	ĸ		DE WG	DURATION	;	9 9	9	9 9 9 9	9	00	No.
-	SERVICE	SUBOPTION		s	N	Ð		(YEARS)	•	Ľ	6	7 8	,	0 1	5
8	2 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	x	X	x	\$500	М	X	X	X	XV	44	14/5	4
. 8	3	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	х	x	x	\$600	м	X	$\times$	X	XX	/ 🖌	121	$\mathcal{A}$
8	4	Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	х	X	X	\$195	М	X	X					
8	5	Monitoring	Recovery Monitoring of Intentidat Oiled Mussel Beds	x	X	X	\$500	93 - M	x	$\mathbf{x}$	$\mathbf{X}$	צ צ	4×	<u>-</u>	¥ I
8	6	Monitoring	Herring Bay Experimental and Monitoring Studies	х			\$495	93 - M	X		X	¥	4	×	
8	7	Option Not Identified	Bivalve Shellfish Rehabilitation Project	х	x	x	\$860	м	ĺ						X
8	8	Option Not Identified	Clam Enhancement	х	X	x	\$120	М							X
8	9	Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	х	x	x	\$500	M							$\times$
90	o	Option Not Identified	Restoration of Mussel Beds	X	X	X	\$500	м					1		$\times$
9	1	Option Not Identified	Characterization of Near-Shore Bottom Habitat	x	X	x	\$237	м	X	X	$\mathbf{X}$	l			
		· · · · · · · · · · · · · · · · · · · ·	i si me l'independente de la contra de												
92	2 Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	x			\$120	93 - M	X		-				
93	3	Monitoring	Recovery Monitoring	Х			\$125	М							X
94	4   <sup>1</sup> %	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	Х		1	\$180	M	K		$\mathbf{X}$	X	_		
95	5	Reduce Fishery Interactions	Change Black Cod Fishery Gear	х				M							K
1		· · · ·					· .								
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1															
.96	6 Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	Х	X	X	\$240	93 - M	X	K)	$\mathbf{X}$	ΥX	Ξ×	XX	
97	7	Habitat Protection	Survey to Identify Upland Use by Murrelets	х	X	X	\$180	93 - M	Y	X	×[7		·   ×	א א	·
98	3	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	х	X	X	\$250	М							
99	9	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	X	\$509	М							
10	0	Minimize Incidental Take					·	· · · · -							
10	1	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	x	\$200	М					1		1×1

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## Name: Richard PRENTKI

### 1994 POTENTIAL PROJECT TITLES

### Page 6

Phone: 907-333-4201

Γ	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	$\hat{\mathbf{G}}_{\mathbf{A}}$	RÊ	ĜiQ	N K ESTA	ESTA		1		1		2	2 8	I
	or	TSUBOLITION SALE			P W S	K E N		DURATIC	9 9 9 9	9 9 5	9 9 6	9 9 8	9 9 9	0	Not Find	
1	02 Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets		X	X	x \$250	м	X			Ī			-	1
1																
						ļ										
			· · ·													
1	03 Multiple Resources	Habitat Protection	Habitat Modelling		X	X	X \$150	M							$ \times$	1
1	04	Habitat Protection	Riparian Habitat Assessment		X	X	X \$110	M .	X							
1	05	Habitat Protection	Stream Channel Capability Modeling		X	X	X \$110	M				1.			$\downarrow$	4
1	06	Habitat Protection	Stream Habitat Assessment		X	X	X \$361	93 - M	X							
1	07	Habitat Protection	Valdez Hazardous Waste Collection		X		\$200	1					1		×	1
1	08	Habitat Protection	Vegetation and Stream Classification and Mapping		X	X	X \$276	93 - M	X				1	$ \cdot $		
1	09	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment		X	X	X \$100	M	· •				1		X	1
1	10	Habitat Protection	Characterization and Identification of Habitat Important to Upland Species		X	X	X \$750	M							X	
1	11	Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge			x	X \$111	1	1							
1	12	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge				x	1							X	·
1	13	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge	···· <del>·</del> ····			X	1				1			X	
1	14	Habitat Protection and Acquisition	Valdez Duck Flats		X			1							X	·
1	15	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge			X	\$20	1	X							ł
1	16	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve				X	1		ŀ					14	1
1	17	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition				X \$250	1							×	1
1	18	Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		X		\$3,500	1	1			1				
	19	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park				X \$200	1								
1	20	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge				X \$77,000	1	1							
	21	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay			X	\$90	1 1							$\succ$	]
	22	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay			X	\$60	1				l			X	
1	23	Habitat Protection and Asguisition	Conservation Easement-Dogfish Bay			X	\$400	1							X	
1	24	Habitat Protection and Acquisition	Conservation Easement-Port Chatham			×	\$80	1	}						X	
	125	Habitat Protection and Acquisition	Conservation Easement-Rock Bay			X	\$740	1.							×	Ţ
	126	Habitat Protection and Acquisition	Habitat Acquisition		X	X	X \$25,000	93 - 1				].	_			
1	127	Habitat Protection and Acquisition	Habitat Acquisition, Afognak				X <b>\$112,50</b> 0	1								1

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# Nome: Richard PRENTEI Phone: 907-333-4201

### 1994 POTENHAL PROJECT TITLES

### Page 7

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	i PI	GĮĆ	M	EST.	ESTA		ΓT			1 2	2 8
	or	in the second second		P	K E	K U	COSTAR	nu nu n	9 9	9 9	99	9	0	0 NO 0 7
	SERVICE ****	SUBOPTION STREET		β, S	N	D A	SK .	(ACARS)	Ľ	ĽĽ	Ľ			1 5
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island	1		x	\$20,000	1		1				×
129		Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			X	\$4,000	1						$\times$
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			x	\$1,000	1		· ·				
131		Increase Natural Food Supply												
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X	x	\$50	м						×
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x	x	\$408	м	$\left  \mathbf{x} \right $	1				
134		Intensity Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	М		l				X
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	М						X
136		Intensity Management	Seabird Colony Restoration	X	X	x	\$250	M						
137		Intensity Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	М						
138		Monitoring	Shoreline Worm Life Monitoring	X	X	x	\$388	М	$\Join$	17	6			
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X	X	\$416	М		ľ.				K
140	- -	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X	x	one billion	м		1				
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X	x	\$280	М						X
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	x	\$7	· M ·	$\checkmark$			I I		
-143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	X	\$650	1	X	X :	X			
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x	x	\$48	м	x	XY	x x	$ \star $		
145		Option Not Identified	Shoreline Assessment	X	X	x	\$250	93 - M	ĸ					
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study	ľ		x	\$28	М						
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	x	\$500	93 - M	K	K 4	ζX	1	k L	x
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x		\$800	м	X	Xa	2 K	XX		×
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	X	x	\$2,300	1						K
150		Recovery Monitoring	Injured Resource Food Supply	X	X	x	\$850	м						X
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	x	\$500	м	X	x	$\langle  $	X		
152		Recovery Monitoring	Long Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	м						X
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	м	K	1 1	K			
154		Recovery Monitoring	Migratory Waterlowl and Shorebird Monitoring	X	x	x	\$150	м	X	1 17	$\langle  $			
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x	x	\$100	м	X	- - -	XX	1		
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	x	\$200	м		[ ] .	1			
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X			\$35	м	L	1 7	K	X	X	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

## Name: Richard PRENTICI

### 1994 POTENTIAL PROJECT TITLES

Phone: 967-333-4201

<b> </b>	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	GIO	EST,	EST.		1 1			1 .2	2 8
	or			P H	K K E O	COSTAR	CUIVATIO	;	9 · 9 9 9	9		9 0 9 0	0 7
	SERVICE	SUBORTION REAL		~ S	ND	STICK P	(YEARS)				ĽĽ		1 5
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	м						X
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	×	X	\$275	93 - M						
160		Reduce Disturbance by Field Presence											$    \times$
161		Reduce Disturbance Through Public Info	Public Information and Education	×	XX	\$316	м						X-
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	XX	\$50	м						X X
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	x>	\$500	М						
164		Restoration Monitoring	Ecosystem Study	X	XX	\$6,000	м						X
- I													
}													
		•											
ļ													e.
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	м						
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	M	X	Z			·	
167		Intensity Management	PWS Herring Tagging Feasibility Study	X	'	\$112	м						
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects			\$189		K	14				
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	×		\$60	M	K	2				
170		Option Not Identified	Enhancement of Pacific Herring	X	XX	\$120	м						4
171		Restoration Monitoring								ŀ			
				. ]									
1													
							Į					ļ	
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	×	X X	\$40	93 - M			$\mathbf{X}$			
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	×	x>	\$180	м						X
174		Restoration Monitoring											
175		Temporary Predator Control											
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		· .											ļļ

93=Funded in 1993 M=Multi-year Project

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RICHARD PRENTRI 907-333-4201

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### 1994 POTENTIAL PROJECT TITLES

### Page 9

Name: Phone:

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GĮQ	N	EST	EST.	1	,	1	,		2	2	.8
14	or	or		e	ĸ	ĸ	cost//n	DURATION	;	9 9	9 9	9 9	9   9 9   9	0 0	8	201
	SERVICE	SUBOPTION	<b>这些人,这些人们是我们的问题</b> 的是我们是我们的问题这些人的问题。	5	N	р <sup>3</sup>	\$K2#	(YEARS)	•		6	1	H 9	0	<u>/</u>	rind
176	6 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x	x	\$25	M				1			F	$\mathbf{X}$
177	7	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1								X
178	8	Fish Passes and Access	Otter Creek Fish Pass	x			\$130	1							.	#
179	9	Fish Passes and Access	Pink Creek Pink Şalmon Restoration			x	\$11	1							.	$\varkappa$
180	0	Fish Passes and Access	Sockeye Creek Fish Pass	x			\$60	1								$\times$
181	1	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			×	\$55	1								$\times$
182	2	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	x	×	\$727	м								K
183	3	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	м							1	$\times$
184	4	Intensity Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	М								$\checkmark$
185	5	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М		:						$\mathbf{X}$
186	6	Intensity Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М								$\nvdash$
187	7	Intensity Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	x	\$152	м								$\times$
188	8	Intensity Management	Pink Salmon Escapement Enumeration	X	x	x	\$705	м	1						1	X
. 189	9	Intensify Management	PWS Salmon Stock Genetics	X			\$150	м							İ	$\left  \boldsymbol{\lambda} \right $
190	o	Intensity Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	M								X
191	1	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	м								$ \star $
192	2	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X		<b>\$</b> 89 <del>9</del>	M								14
193	3	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	м								$\mathbb{X}$
194	4	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M								X
195	5	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	м								$\succ$
196	6	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	x	×	\$300	M								$\left  \right\rangle$
		· · ·														
		* •														
197	7 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		x	×	\$1,250	м	X	$\prec$	$\times$					
198	Β	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	x	\$6,000	1					ļ			
199	9	Establish Marine Environmental Institute	Seward Sea Life Center	X	x	×	\$40,000	1	X	$\times$	$ \times $			ļ		
200	0	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	x	\$500	M	×	$\succ$	$\succ$	X	x	$d \times$	X	
201	1 <sup>1</sup>	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	x	\$500	м	X	X	$\times$	$\mathbf{X}$	x		X	

PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

## Name: RICHACE PRENTKI Phone: 967-333-4461

### 1994 POTENTIAL PROJECT TITLES

### Page 10

	RESOURCE or SERVICE	RESTORATION OPTION	ROILINITAL PROJECTS	R P S	GHO K K E O N D		EST) DURATION	1 9 9 4	1 9 9 5	1 1 9 1 9 7 6	1 1 9 9 9 9 7 0	1 9 9	2 2 0 0 0 0	De Not Fund
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		X	\$500	1		Ī		1			11
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		x	\$70	1		1					1
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	x		\$50	м							X
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	x	xx	\$100	м	КI						
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	x		\$58	M	X	i					
207		Monitoring	Recreation Field Management and Monitoring	x	xx	\$700	м		11					
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		\$150	1		11					X
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1		i					$ \mathbf{x} $
210		New Backcountry Recreation Facilities	Improve Marine Parks	x	xx	\$100	м							K
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1							KI
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1							K
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	XX	\$150	м		11		ſ			X
214	-	New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1							X
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	x		\$250	1		1					
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		xx	\$140	1		ı I					
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	м							
218		Option Not Identified	Sustainable Tourism in PWS	x		\$240	м						·	
219		Option Not Identified	Watchable Wildlife	X	XX	\$65	м	1	1	X				11
220		Option Not Identified	Increased Access PWS	x		\$100	М	X	$ \mathbf{x} $	$\mathbf{X}$	Î			
221		Plan Commercial Recreation Facilities	Recreation Development	x	xx	\$200	м		i I					
222		Restoration Monitoring							1	1		1		
223	-	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	xx	\$77	м	2	11		]			
224	↓	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	x			1	~	1	1-	- -		00	41
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	xx	\$310	м	1	i 1					
226		Visitor Center	Cordova Environmental Education Center	X		\$15	1		, 1					N
227	,	Visitor Center	Cordova Mini-Imaginarium	X		\$63	1							V
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	x	xx	\$155	м							X
229	••••••••••••••••••••••••••••••••••••••	Visitor Center	Environmental Education Center in PWS	x		\$90	1		,					1.ł
230		Visitor Center	Environmental Learning Resource Center	X	xx	\$90	1		,					$ \Lambda $
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x		\$450	1							$\Lambda$

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

# Name: Richard PRENTKI Phone: 907-333-4261\_\_\_\_

### 1994 POTENTIAL PROJECT TITLES

### Page 11

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	<b>G10</b>	N N N	EST COSTAR	EST.	1 9 9	1 9	1 I 9 9 9 5	1	1 9 9	2 2 0 0 0 0	De Not
	SERVICE	SUBOPTION		s	E N	D	SK	(YEARS)	٠	`	6 7	ľ	,	0 1	5
232	Recreation	Visitor Center	Information Center	X	X	x	\$600	1	V	1	1/2	10	14	1	$\square$
233	3	Visitor Center	Interpretation of PWS	x			\$10	м	2	<u> </u>	1	//		~~	1
234	4	Visitor Center	Maritime Wing Valdez Museum	x			\$150	1	1						
235	5	Visitor Center	Multi-agency Library on PWS and Copper River Delta	x			\$150	1			1				1-
236	5	Visitor Center	Valdez Visitor Center	x			\$850	1	-						
											I				
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	м	~	/	1.	//	1	~ ~	1
238	3	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	м	4	<u> </u>	1				
239		Restoration Monitoring	•					••••••••••••••••••••••••••••••••••••••							
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	x	\$99	1							
÷.							•								
1.	t. ₩en														
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	м		1					,
242	2	Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	м	~	~ "	1	10	1-		
243		Monitoring													
Ľ															
244	Sea Otter	Cooporative Prgm-Subsistence Users													
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	x	\$83	м							V
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	Μ	5		1	1	11		
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	X	\$450	М	5	-	4				
248		Monitoring	Sea Otter Population Dynamics	X	X	x	\$291	93 - M							1
249		Bestoration Monitoring		I								1			1 /

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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## Name: Richard PRENTKI

### 1994 POTENTIAL PROJECT TITLES

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Phone: 907-333-4201

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	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P S	GIO K E N	COBTZYH	EST/1 OUTATION (TEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 1 9 9 9 9 7 8	1 94 97	2 2 0 0 0 0 0 1	Do Not Find
250	Sea Otter	Study: Eliminate Oil from Mussel Beds											
251 252 253 254 255 256 257 258 259 260	Sockeye Salmon	Fish Passes and Access Intensify Management Intensify Management Intensify Management Intensify Management Intensify Management Monitoring Monitoring Option Not Identified Option Not Identified	Soll Lake Fish Pass Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River Genetic Monitoring of Kodiak Island Sockeye Salmon Genetic Stock Identification of Kenai River Sockeye Kenai River Sockeye Salmon Restoration Lower Cook Inlet Sockeye Salmon Restoration and Enhancement Ayakulik River Sockeye Salmon Escapement Evaluation Sockeye Salmon Overescapement Restoration of the Coghill Lake Sockeye Salmon Stock Red Lake Salmon Restoration	x	x x x x x	\$120 \$333 X \$275 \$500 \$1,000 \$143 X \$6 X \$641 \$165 X \$72	M M 93 - M 93 - M M 93 - M 93 - M M						2222123222
261 262 263 264 264	Sport Fishing Subsistence	Recovery Monitoring Replace Harvest Opportunities Restoration Monitoring Access to Traditional Foods Bivalve Shellfish Hatchery	Fort Richardson Hatchery Improvement		X	\$4,200	1	5	, <b>,</b> ,	) (/			
266	· · · ·	Option Not Identified Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil) Mariculture Hatchery and Research Center Feasibility Study and Design	x x	x	\$200 X \$300	<u>M</u> 1						

## Richard PRENTRI 907-333-4201 Name:

### 1994 POTENTIAL PROJECT TITLES

### Page 13

Phone:

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N Z	EST.	EST.	1	1		1		, j	8
	or	Star Play Hacking		9	ĸ	Ś	OSTAR	DURATION	9 9	9	9 9 9 9	9 9	, ,	0 0	NOC
	SERVICE	SUBOPTION N		s	N	D	t sk	(YEARS)	4	5	6 7	8	9	0 1	755d
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	x	x	\$2,200	1			Ī	1		1	M
269		Option Not Identified	Seward Shellfish Hatchery	х	x	x	\$1,300	1						1	1
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	x	x	\$700	м							
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	x			\$50	M				Ì			1
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	х			\$55	м						-	1
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		x		\$2,500	1							N
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	x			\$1,000	1					i  .		
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	x	X	x	\$55	м							V
276		Restoration Monitoring													
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	x	x	\$589	м							
278	· · · ·	Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	x	\$300	м	V	-	1				
279		Test Subsistence Foods	Subsistence Food Safety Testing	x	X	X	\$308	93 - M		V	L	1			
1										Í					
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1 1	·	and a second second second second second second second second second second second second second second second	an an an an an an an an an an an an an a												
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X		\$110	м							
281		Intensity Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	M .							
282		Monitoring	PWS Spot Shrimp Survey	X		1	\$90	M		1					1
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	X	X	\$275	M	レ		4	1			
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M	~			1			
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	х	×	X	\$390	м	~	-	~ ~	1-	~	10	1
286		Monitoring	Subtidal Recovery Monitoring	X	x	x	\$400	М		1	1	1	~		
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	x	X	\$90	м							
		<b>**</b> .	•												
		· · · · · · · · · · · · · · · · · · ·													
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	x	x	x	\$450	м		1	10		1-1	1	
289	· · · _	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	x			\$75	м	V	VL	10	V	$  \cdot   $	1	

PWS=Prince William:Sound, KEN=Kenai Peninsula and Cook Inlet, KOD Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Rich PRENTRI Name: Phone: 907 - 333-4201

### 1994 POTENTIAL PROJECT TITLES

ſ	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R 1	EG	IÓN K	COST/VR	DURATION	1 9 9	1 9 9	1 9 9	1	i 1 9 9 9 9	2 0 0	2 ,0 0	20 N.35 P
	SERVICE	SUBOPTION		s, s	N	P	* <b>\$K</b>	(YEARS)	Ľ		Ľ		Ľ	<u>°</u>	Ľ	ā.
2	90 Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	)	( X	( <b>X</b>	\$105	93 - M	1	5	1	7	4.	17	1	
2	91	Administration	Toxicological Profile of PWS		4		\$150	M	И	1	4	4		-1-	-	
2	92	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	)	ζİΧ	x x	\$8	м	L	レ	Ч					
2	93	Public Information	Database Integration		< x	x	\$148	м	~	4	1	-			.[	
2	94	Public Information	Develop User Friendly Synopsis of Oil Spill Information	)	< x	( x		м	L	~	~					
2	95	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment		< x	$ \mathbf{x} $	\$120	м	L	-	~					
2	96	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	)	έx	X	\$100	М	Ŀ	-	~	-	レー	10	12	
2	97	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	)	< X	$ \mathbf{x} $	\$72	M								イ
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## Name: Richard PRENTICI

### 1994 POTENTIAL PROJECT TITLES

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### Page 15

Phone: 907-333-4201

	RESOURCE	RESTORATION OPTION		POTENTIAL PROJECTS			EST.	ESTRE	1 1 9 9	1 1 1 9 9 9	2	2 0 2	]
	SERVICE	SUBOPTION				S N D	SK .	MERCEN	5 6	789	0	۰ ۴	
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PWS≖Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD⊭Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

## Name: Richard PRENTICI

### 1994 POTENTIAL PROJECT TITLES

### Page 16

Phone: 907 - 333-424

RESOURCE or SERVICE	RESTORATION DETION	POTENTIAL PROJECTS		ION PEST CE	ST/7 1 1 1 1 1 ATION 3 5 6 7 6 EARS)	2 2 8 0 0 Ke 0 1 74
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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May 19, 1993

Exxon Valdez Oil Spill Trustee Council 1994 Work Plan Work Group 645 G Street Anchorage, AK 99501

Dear Sirs:

Enclosed please find my response to the suggested list of restoration projects to be included in the 1994 Work Plan.

My response might be as confusing as the list of project titles from which we are asked to choose. In general, I believe impacted resources should be given priority in the Work Plan. I believe in a balance between habitat acquisition, restoration, and long term evaluation of interactions between resources. My preference for habitat restoration is the purchase of sites critical to the health of fish and wildlife.

Thank you.

John McMullen

Enclosures



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

ohn McMullen 5-19-93 424-7511 Name: Phone

### 1994 POTENTIAL PROJECT TITLES

### Page 1

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST.	1	1	1 1	1 1	1 2	2 8
	or	or		P	K K E O	COST/YR	DURATIO	9 9	9 9	9 9 9 9	99	90 90	O O P
	SERVICE	SUBOPTION		S	D	ŝK	(YEARS)	4	5	6 7	8	.9 0	1 년 쇼
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	x x	\$41	М	X	$\chi$	X[-	┿╼╼╁		
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	x		\$300	1						$\sum$
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	x	x x	\$200	М						$\square$
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	x x	\$525	М						
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	x	x x	\$ \$ \$ \$ \$	M Co	X	$\times$	X -	<u> </u>		
6		Option Not Identified	Restoration of Chenega Village Site	x		\$75	1						X
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	x	x x	\$300	93 - M						X
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	x		\$230	М						
9		Public Information	Heritage Information Replacement	x	x x	\$200	М				·		
10	· · · · · · · · · · · · · · · · · · ·	Public Information	PWS Landmarks-Evaluation and Interpretation	X		\$400	M						[]
11		Public Information	Public Education and Interpretation of Archaeological Resource	x	x x	\$400	М						1
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	x x	\$225	М						$\searrow$
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	x x	\$150	М	X					
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	x	x x	\$210	М						
15		Site Stewardship Program	Archaeological Site Stewardship Program	x	x x	\$114	М						$\left  \right\rangle$
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X		\$1,200	1	-					
										+			++
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	x x	\$262	М						
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	x	x x	\$10	М	Х					
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	x	x x	\$200	М						
			· · · · · · · · · · · · · · · · · · ·										
							-						
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	x	x x	\$108	93 - M			+			$\left  \right\rangle$
21	· · · · · ·	Becovery Monitoring	Feeding Ecology and Reproductive Success of Black Ovstercatchers in PWS	X		\$125	М	X					

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ohn momullen Name: 424 Phone:

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### 1994 POTENTIAL PROJECT TITLES

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P		EST.	EST.	1 9	1 9	1 9	1 9	1 1 9 9	2 :	Do Not
	SERVICE	SUBOPTION		W S	E O N D	\$K	(YEARS)	4	5	6	7	8 9	0	1 Ind
22	Black Oystercatcher	Restoration Monitoring			8									
						<u> </u>						+		$\top$
										-				
1														
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	x	x x	\$1,100	М	X						
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	x x	\$385	M	X						
25		Intensify Management	Fishery Industrial Technology Center	X	x x	\$3,500	1		?	\$	<b>`</b>			
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	М							
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		x	\$300	M							$\mathbf{i}$
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X X	\$200	M				_			1
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,000	1	X						-
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	yХ		\$868	M	X						
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	x x	\$50	M	X						
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island		X	\$45	M							
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	М	X						
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		x	\$50	M	$\times$						
35		Replace Harvest Opportunities	Red Lake Mitigation		X	\$191	M	X						
			•		_								<u> </u>	
														12
			·					Ĺ	-			_		
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	x x	\$280	M							$\mathbf{r}$
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	x x	\$51	93 - M							$\sum_{i=1}^{n}$
38	-	Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	x x	\$73	M						$\square$	X
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	x x	\$191	М							$\sum$
40	L	Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	x x	\$40	M	X		-		_		
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT	1		\$460	M					)		+

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

Page 2

Name:	John Mcmullen
Phone:	424-7511

### 1994 POTENTIAL PROJECT TITLES

Page 3

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIØ	EST.	EST.	1	1	1	1 1	1	2	2
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	SERVICE	SUBOPTION		s	ם א	\$K	(YEARS)	4	Ľ.	6	7 8	9	0	und.
42	Common Murre	Restoration Monitoring	· ·				М							
							ĺ							
	· · · · · · · · · · · · · · · · · · ·			_							$\square$			
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	м	X	-					
44	-	Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$285	М							<b>1</b>
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	М							$\mathbf{n}$
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	м							$\mathbf{n}$
47		Restoration Monitoring					М	<u> </u>						
							<u> </u>	<u> </u>						
1														
48	General	Administration	Oil Spill Restoration Support Service and Facilities	x	x)	<b>\$600</b>	1	+				┼╌┼		$\downarrow$
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	M	-						$\mathbf{N}$
50		Option Not Identified	Hazardous Material Collection Facility	X	X)	(\$100	1	X						
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	x)	\$488	М		,					$\mathbf{T}$
52		Public Information	Public Broadcasting System Program on Oil Spill	X	x >	(\$70	м							<b>1</b>
53		Public Information	Publish and Distribute Brochures on Injured Species	X	X )	<b>〈</b> \$90	м							$\overline{1}$
54		Public Information	PWS Brochures	X		\$65	М							$\mathbf{n}$
55		Public Information	PWS Implementation of Interpretive Plan	X		\$150	М							$\mathbf{n}$
56		Public Information	PWS Large Format Photographic Book	X		\$100	м							$\square$
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	М						$\overline{\mathbf{x}}$	$\mathbb{N}$
58		Public Information	PWS Video Programs	X		\$100	М		_					$\mathcal{N}$
59		Public Information	Science of the Sound- Education Program	X		\$53	М							$\mathbf{\nabla}$
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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### 1994 POTENTIAL PROJECT TITLES

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N	EST.	EST.	1	1	1	1	1 1	1 2	2	8
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	SERVICE	SUBOPTION		s	NE		<u>\$K</u>	(YEARS)	<u> </u>		Ľ					na Na
60	Harbor Seal	Cooperative Program-Fishermen								-			_+	<u> </u>		·
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X	_		\$39	<u>M</u>	×	<u> </u>				—	$\vdash$	
62		Option Not Identified	Subsistence Harvest Assistance	X			\$23	<u>M</u>		ļ				—	$\vdash$	$\geq$
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X			\$165	93 - M	<u> </u>		<u> </u>					$\geq$
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	x >	×	\$230	М								<u>`</u>
65	Harlequin Duck	Eliminate Oil from Mussel Beds				1			+	1					T	
66	· · · · · · · · · · · · · · · · · · ·	Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	x )	x	\$700	93 - M						ŀ		
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	XX	X	\$53	М	X	1						
			<u>~</u>											-		
. 68	Intertidal	Accelerate Becovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Becruitment-Feasibility Study	x	x x	x	\$20	M			-					
69		Accelerate Becovery of Intertidal	Fucus Bestoration Feasibility Study	X	x )	x	\$70	M		+				+	+	N
70		Accelerate Becovery of Intertidal	Bestoration of High-Intertidal Fucus	X	x	x	\$300	M		+				-		
71		Accelerate Becovery of Intertidal	Beach Subsurface Oil Becovery	X	x b	x	\$50	M	1		1			+	+	~
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X	H	+	\$500	M	1	+	1				+	<u>۲</u>
73		Accelerate Recovery of Intertidal	Bapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	x )	x	\$800	м		+	1		-+	+	$\uparrow$	
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	x	x		М	1	1				-	+	
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	x :	x	\$620	м	-		1		-†		+	
76	······································	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	x			\$600	М	1-	+	1	┟╼╍╊	-	+	1	
77	· · · · · · · · · · · · · · · · · · ·	Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	x	x	\$500	M	X		+			+	+	
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait	-	x	x	\$200	М			1			-	$\uparrow$	
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	x	x :	x	\$275	М							$\uparrow$	
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	x	x	x	\$50	М	+	1	1		-†-	-	$\uparrow$	
81	······································	Monitoring	Monitoring for Recruitment of Littleneck Clams	x	x :	x	\$186	M	1	1-	1		-	+	$\uparrow$	

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John McMullin 424-7511 Name: Phone:

#### REGION RESOURCE POTENTIAL PROJECTS 337 द्रक्षा **RESTORATION OPTION** COST/YR DURATIO ОГ ог SК SERVICE SUBOPTION **IYEARS** 82 Intertidal xxx \$500 М Monitoring Sites - Collector Beaches and Lagoons Monitoring XXX \$600 М Natural Recovery of Oiled and Treated Shorelines and Monitoring 83 Monitoring x x x 84 \$195 М Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing Monitoring XXX \$500 93 - M 85 Monitoring Recovery Monitoring of Intertidal Oiled Mussel Beds x \$495 93 - M 86 Monitoring Herring Bay Experimental and Monitoring Studies x x x 87 Bivalve Shellfish Rehabilitation Project \$860 М Option Not Identified xxx \$120 М 88 Option Not Identified **Clam Enhancement** XXX \$500 М 89 Replacement of Oiled Mussels with Commercially Produced Mussels Option Not Identified XXX 90 Restoration of Mussel Beds \$500 М Option Not Identified INN xxx \$237 М 91 Characterization of Near-Shore Bottom Habitat Option Not Identified 92 Killer Whale x Monitoring Photo-Identification Studies of PWS Killer Whales \$120 93 - M x \$125 93 Recovery Monitoring М Monitoring х 94 Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS \$180 М Monitoring x М 95 Change Black Cod Fishery Gear Reduce Fishery Interactions Marbled Murrelet xxx 96 Habitat Protection Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet \$240 93 - M XXX 97 \$180 93 - M Habitat Protection Survey to Identify Upland Use by Murrelets XXX 98 \$250 М Habitat Protection Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season XXX 99 \$509 М Habitat Protection Marbled Murrelet Nesting and Feeding Site Characterization and Assessment 100 Minimize Incidental Take Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks \$200 М 101 **Recovery Monitoring**

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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John Mcmuller Name: Phone:

#### RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS REGION EST. EST COST/YR DURATIO • (0) SERVICE SUBOPTION 63.0 **(YEARS** 102 Marbled Murrelet Restoration Monitoring x x x \$250 М Survey to Monitor Recovery of Marbled Murrelets 103 Multiple Resources x x x Habitat Protection Habitat Modelling \$150 М xxx 104 \$110 М Habitat Protection Riparian Habitat Assessment x x x 105 Stream Channel Capability Modeling \$110 М Habitat Protection ххх 106 93 - M Habitat Protection Stream Habitat Assessment \$361 107 x Habitat Protection Valdez Hazardous Waste Collection \$200 1 108 x x x Habitat Protection Vegetation and Stream Classification and Mapping \$276 93 - M X X X 109 Habitat Protection Wetland Habitat Classification, Mapping and Assessment \$100 M 110 x x x \$750 М Habitat Protection Characterization and Identification of Habitat Important to Upland Species X X 111 Habitat Protection and Acquisition Inholdings in Alaska Maritime National Wildlife Refuge \$111 1 112 Х Habitat Protection and Acquisition Inholdings in Alaska Peninsula National Wildlife Refuge 1 113 х Habitat Protection and Acquisition Inholdings in Becharof National Wildlife Refuge 1 114 X Habitat Protection and Acquisition Valdez Duck Flats 1 115 X Habitat Protection and Acquisition Inholdings in Kenai Fjords National Wildlife Refuge \$20 1 116 x Habitat Protection and Acquisition Inholdings in Aniakchak National Monument and Preserve 1 Х 117 \$250 Habitat Protection and Acquisition Kitoi Bay Hatchery Watershed Habitat Acquisition 1 118 x Habitat Protection and Acquisition Acquire Olsen Bay Watershed \$3,500 1 119 Acquisition of Inholdings in Shuyak Island State Park Х \$200 Habitat Protection and Acquisition 1 120 Х \$77,000 1 Habitat Protection and Acquisition Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge 121 Habitat Protection and Acquisition Conservation Easement-Aialik Bay X \$90 1 122 x Habitat Protection and Acquisition Conservation Easement-Chugach Bay . \$60 1 123 Habitat Protection and Acquisition Conservation Easement-Dogfish Bay I X \$400 1 124 X Habitat Protection and Acquisition **Conservation Easement-Port Chatham** \$80 1 125 X \$740 Habitat Protection and Acquisition Conservation Easement-Rock Bay 1 126 Habitat Protection and Acquisition Habitat Acquisition XXX \$25,000 93 - 1 X 127 х \$112,500 Habitat Protection and Acquisition Habitat Acquisition, Afognak 1

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

Page 6

John Mcmullen 424-7511 Name: Phone:

#### RESOURCE RESTORATION OPTION POTENTIAL PROJECTS REGION EST. EST COST/YR DURATIO or OF SERVICE SUBOPTION ŜK (YEARS) 128 Multiple Resources \$20,000 Habitat Protection and Acquisition Habitat Acquisition, Kodiak Island х 1 129 Habitat Acquisition, North Afognak Island Х \$4,000 1 Habitat Protection and Acquisition х 1 130 Habitat Protection and Acquisition Kodiak Bear Refuge Stream Mouth Inholdings Acquisition \$1,000 131 Increase Natural Food Supply xxx 132 Intensify Management Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations \$50 Μ xxx 133 Genetic Risk Assessment of Injured Salmonids \$408 М Intensify Management х 134 \$200 М Intensify Management Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife Х 135 \$40 Intensify Management Restoration of Second Growth Habitat for Wildlife in PWS М xxx 136 \$250 М Intensify Management Seabird Colony Restoration x 137 Intensify Management Stock Identification of Chum, Sockeye and Chinook Salmon in PWS \$250 М ххх 138 Shoreline Worm Life Monitoring \$388 М Monitoring 139 Option Not Identified Instream Habitat and Stock Restoration Techniques for Anadromous Fish xxx \$416 М xxx Option Not Identified 140 Alaska Land and Wildlife Conservation Fund one billion М 141 Option Not Identified xxx \$280 М Field Study of Bioremediation Enhancement Treatment Methods Option Not Identified xxx М 142 Oil Spill Injured Resources Literature Research and Review \$7 xxx 143 Option Not Identified Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed \$650 1 Option Not Identified x x x 144 Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration \$48 М x x x 145 Option Not Identified Shoreline Assessment \$250 93 - M 146 Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study X \$28 М Option Not Identified xxx 147 Comprehensive Monitoring Program, Plan and Administer \$500 93 - M Recovery Monitoring lх 148 \$800 Μ Recovery Monitoring Cook Inlet Comprehensive Monitoring Program xxx 149 Recovery Monitoring Full Funding for Oil Spill Recovery Institute \$2,300 1 XXX 150 Injured Resource Food Supply \$850 М Recovery Monitoring xxx 151 Recovery Monitoring Inventory, Monitor, Protect Permanent Study Sites \$500 М X 152 М Long-Term Monitoring of Marine Environment of Resurrection Bay \$600 Recovery Monitoring Х 153 Recovery Monitoring Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS \$80 М xxx М 154 Recovery Monitoring Migratory Waterfowl and Shorebird Monitoring \$150 XXX 155 Recovery Monitoring Monitor Population Status of Seabird Nesting Colonies in the Spill Zone \$100 М xxx \$200 М 156 **Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids** Recovery Monitoring х 157 Recovery Monitoring Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds \$35 М

R. mcmille Name: Phone:

#### REGION EST. RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS EST. PK COST/YR DURATIO or OF SERVICE sк NEARS SUBOPTION 158 Multiple Resources Х Recovery Monitoring Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl \$91 М xxx 93 - M 159 \$275 Recovery Monitoring Surveys to Monitor Marine Bird and Sea-Otter Populations 160 Reduce Disturbance by Field Presence 161 XXX М Reduce Disturbance Through Public Info Public Information and Education \$316 XXX М 162 Reduce Disturbance Through Public Info Publish and Distribute Brochures on Injured Species \$50 Xxxx 163 **Restoration Monitoring** Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species \$500 М X X X 164 \$6,000 М Restoration Monitoring Ecosystem Study 165 Pacific Herring X М Intensify Management Genetic Stock Identification for Herring in PWS \$205 х М $\succ$ 166 \$400 Intensify Management Herring Spawn Deposition, Egg Loss, and Reproductive Impairment 167 х М Intensify Management PWS Herring Tagging Feasibility Study \$112 х 168 Monitoring Herring Embryo Viability Evaluation - Natural and Catastrophic Effects \$189 Μ X 169 М Monitoring Larval Herring Age and Growth in PWS Using Otoliths \$60<sup>-</sup> XXX Option Not Identified М 170 Enhancement of Pacific Herring \$120 171 Restoration Monitoring 172 Pigeon Guillemot x x x \$40 93 - M Monitoring Pigeon Guillemot Colony Survey xxx 173 \$180 Μ Monitoring Pigeon Guillemot Recovery Enhancement and Monitoring 174 Restoration Monitoring 175 Temporary Predator Control

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Name: Phone:

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST.	1	1	1	1 1	1	2 2	Do
or	or		P W	кк	COST/YR	DURATIO	9 9	9 9	9 9	999 999	9 9	0 0 0 0	Not I
SERVICE	SUBOPTION	A MARKET IN THE REPORT OF A MARKET AND A MARKET AND A MARKET AND A MARKET AND A MARKET AND A MARKET AND A MARKE	s	ND	\$K	(YEARS)	4	5	6	7 8	9	0 1	und
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x x	\$25	м							+
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		Х	\$28	1							
178	Fish Passes and Access	Otter Creek Fish Pass	Х		\$130	1							
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1							$\overline{\mathbf{x}}$
180	Fish Passes and Access	Sockeye Creek Fish Pass	X		\$60	1						`	$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		X	\$55	1							$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	x x	\$727	М							
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	м	X						
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	М	$\mathbf{X}$						
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	М	X						
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		\$253	M	X					·	
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	x x	\$152	М	X						
188	Intensify Management	Pink Salmon Escapement Enumeration	X	хх	\$705	м							<b>1</b>
189	Intensify Management	PWS Salmon Stock Genetics	X		\$150	м	X						
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	м							$\mathbf{+}$
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	x	\$686	М							$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	x	\$899	M							$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	М							$\mathbf{N}$
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M							$\mathbf{r}$
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	М	X						
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	x x	\$300	М							$\geq$
· · · · · · · · · · · · · · · · · · ·													
	<u></u>	، 											
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		x x	\$1,250	м							$\mathbf{N}$
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	x x	\$6,000	1							N
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	x x	\$40,000	1							
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	хx	\$500	M							
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	x x	\$500	M	X						

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	CIC	M	EST.	EST.	1	1	1	1	1 1	1 2	2	R
	or	or		PW	K E	ĸ	COST/VR	DURATIO	N 9	9 9	9 9	9 9	9 9 9 9	0	0 0	Not F
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS	4	5	6	7	8 9	°		und
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			x	\$500	1								$\geq$
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			Х	\$70	1								$\geq$
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X			\$50	м								$\mathbf{r}$
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	х	Х	\$100	М								$\overline{\Sigma}$
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X			\$58	М		<						
207		Monitoring	Recreation Field Management and Monitoring	x	Х	X	\$700	М								Σ
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X			\$150	1								
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	x			\$20	1	Y							$\mathbf{N}$
210		New Backcountry Recreation Facilities	Improve Marine Parks	X	х	Х	\$100	M								
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X			\$100	1							1	F
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X			\$70	1	$\mathbf{b}$	<						
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	X	X	\$150	М		Ì					-	Í.
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X			\$100	1								
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X			\$250	1	$\mathbf{b}$	<						
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	X	\$140	1								$\overline{\ }$
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X			\$400	м								
218		Option Not Identified	Sustainable Tourism in PWS	X			\$240	М								
219		Option Not Identified	Watchable Wildlife	X	X	X	\$65	М								
220		Option Not Identified	Increased Access PWS	X			\$100	М	Ì	<						
221		Plan Commercial Recreation Facilities	Recreation Development	X	X	Х	\$200	М								
222		Restoration Monitoring														
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	х	Х	\$77	М								5
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X				1								P
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	X	Х	\$310	М								P
226		Visitor Center	Cordova Environmental Education Center	X			\$15	1								
227		Visitor Center	Cordova Mini-Imaginarium	X			\$63	1								
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	X	X	\$155	М								N
229		Visitor Center	Environmental Education Center in PWS	X			\$90	1								Þ
230		Visitor Center	Environmental Learning Resource Center	X	X	X	\$90	1								$\overline{\nabla}$
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X			\$450	1								2

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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	John V.	ncmull	len
Phone:	42	24-751	

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# 1994 POTENTIAL PROJECT TITLES

# Page 11

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	GI	ON	EST.	EST.	1	1	1 1	1	1 2	2	Do N
OF	OF		P W S	K E N	K O D	COST/YR	DURATION	9 9 4	9 9 5	999 999 67	9 9 8	9 C 9 C 9 C		lot Fur
232 Recreation	Visitor Center	Information Center	x	x	X	\$600	1			<u> </u>		_	-	
233	Visitor Center	Interpretation of PWS	x			\$10	M				+			+
234	Visitor Center	Maritime Wing Valdez Museum	X	<u> </u>		\$150	1				+-+		+-	+1
235	Visitor Center	Multi-agency Library on PWS and Copper Biver Delta	x	-		\$150	1							$ \leq 1 $
236	Visitor Center	Valdez Visitor Center	x	<u> </u>		\$850	1	+			+-+			$ \leftarrow $
						4000	<b>.</b>							
237 River Otter	Monitoring	River Otter Recovery Monitoring	Х			\$180	М						-	
238	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	Х			\$40	М						/ /	
239	Restoration Monitoring													$\sum$
240	Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	Х	X	X	\$99	1							
					-									
241 Rockfish	Intensify Management	Develop a Rockfish Management Plan	x	x		\$175	M					+	+-	$\vdash$
242	Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	M	X			+-+		-	
243	Monitoring										+-+			
			+											
244 Sea Otter	Cooporative Prgm-Subsistence Users			-			<del></del>		+		++		1-	H
245	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	x	X	\$83	M		-				1	$\square$
246	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	М							
247	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	X	\$450	M						1	[]
248	Monitoring	Sea Otter Population Dynamics	X	x	X	\$291	93 - M						1	
249	Restoration Monitoring	CHANGES in Sea otter food types as a result	X			200	M	X	XZ	X		_		

of population pressure ~

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	ION	EST.	EST.	1	1	1	1 1	1	2	2
	or SERVICE	or SUBOPTION		PK WE SN	к о D	COST/YR \$K	DURATION (YEARS)	9 9 4	9 9 5	9 9 6	999 99 78	9 9 9	0 0 0	o o 1
250 Sea	Otter	Study: Eliminate Oil from Mussel Beds			Ī	1				T				Τ
											1			
								1						
251 Soc	keye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X	Τ	\$120	м		/	-			+	구
252		Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River	>	(	\$333	М						Ĩ	$\mathbf{F}$
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon		X	\$275	М							
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye	>	<	\$500	93 - M							7
255		Intensify Management	Kenai River Sockeye Salmon Restoration	>	<	\$1,000	93 - M							$\mathbf{\Sigma}$
256	·	Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement	>	<	\$143	М							
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		X	\$6								$\mathbf{i}$
258		Monitoring	Sockeye Salmon Overescapement		< X	\$641	93 - M							$\mathbf{h}$
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M	X	X	X)	XX	$\langle -$	+-+	
260		Option Not Identified	Red Lake Salmon Restoration		X	\$72	M	X	$\mathbf{X}$	XD	X	( -		
						-								
261 <b>Spo</b> l	ort Fishing	Recovery Monitoring												
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement	.)	<	\$4,200	1							
263		Restoration Monitoring												
										T				
														.4
264 Sub	sistence	Access to Traditional Foods									T			
265		Bivalve Shellfish Hatchery									-			
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X		\$200	М							
267	· · · ·	Option Not Identified	Mariculture Hatchery and Besearch Center Feasibility Study and Design	X )	< X	\$300	1							-

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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Name:	John Mcmullen
Phone:_	424-2511

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EG	ON	EST.	EST.	1	1	1	1	1 1	2	2 8
	or	or		P W	K E	к о	COST/YR	DURATION	9 9	9 9	9 9	9	999	0	0 Not F
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	4		6		<b>1</b> 9	0	
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	X	X	\$2,200	1							
269		Option Not Identified	Seward Shellfish Hatchery	X	X	X	\$1,300	1							
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	X	\$700	М							
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	<u> </u>			\$50	М							
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М	X	-	-				->
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X		\$2,500	1						-	$\vdash$
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X			\$1,000	1							
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	X	X	\$55	М							$\mathbf{n}$
276		Restoration Monitoring													
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	X	X	\$589	М							$ \rightarrow $
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	X	\$300	м							
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M						1	
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	Х		\$110	М							
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	м							$\mathbf{X}$
282		Monitoring	PWS Spot Shrimp Survey	X			\$90	М							
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	Х	X	\$275	м					1		
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M						T	
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	X	\$390	М							
286		Monitoring	Subtidal Recovery Monitoring	X	X	X	\$400	м	X	X	X	X-	-	-	
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	М							$ \land$
				_		1									
													.	L	
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	X	X	\$450	М						$\square$	
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X			\$75	М	$\succ$					1	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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John mcmulle Name:\_\_ 474 Phone:

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N	EST.	EST.	1	1		1 1	2	2	ß
	or	n		Р	к	к	COST/YR	DURATION ;	9 9	9 9	9 9	99 99	0	0 0	Not 1
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	5	6	7	8 9	0	1	Fund
290	<b>Technical Services</b>	Administration	Hydrocarbon Data Analysis and Interpretation	X	x	x	\$105	93 - M					$\square$	H	
291		Administration	Toxicological Profile of PWS	X			\$150	м							1
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	M							
293		Public Information	Database Integration	X	X	X	\$148	M							
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	х	x		м							Ē
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	X	Х	\$120	М						$\square$	F
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	M						$\square$	
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	х	X	\$72	м		1			$\square$	$\square$	-
			·												
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE	RESTORATION OPTION or	POTENTIAL PROJECTS	RE P W	GION EST.	EST. DURATION	1 1 9 9 9 9	1 1 9 9 9 9	1 1 9 ! 9	1 2 9 0 9 0	2 0 0 0 1
SERVICE	SUBOPTION		s	N D <b>SK</b>	(YEARS)					
	· · · · · · · · · · · · · · · · · · ·							+		_
 	0 Cilera								_	
	· Domproved mat.	aquaculture Corporation's \$25 million	X	\$25m.	1	1				
	· Wild stock protect	tion debt to the state of Alaska to reliev	e							
;···	· Improved economi portunity	· provide a funding cource for								
	· Improved recrea	Tional improvements in management and evaluation of poixed stock						+		
		fisheries of Prince Wm. Sound.								
		· .								
						-				
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	PEC W E S N	EST. COST/Y	EST. DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 1 9 9 9 9 7 8	1 2 9 0 9 0 9 0	2 0 Not Fund 1
		·.								
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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MAY 14 1993

EXXON VALDEZ OIL SPILL

TRUSTEE COUNCIL



# Prince William Sound Conservation Alliance

P.O. Box 1697 Valdez, Alaska 99686 (907) 835-2799 Fax (907) 835-5395

May 12, 1993

Exxon Valdez Trustee Council Exxon Valdez Restoration Office 645 G Street Anchorage, Alaska 99501

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

OCT 0 2 1995



We would like to take this opportunity to make three main recommendations regarding the Exxon Valdez Restoration Plan. We may have other comments before the August deadline, but we encourage you to include these suggestions in the Draft Plan.

1. We urge you to allocate the bulk of restoration monies to preserving, protecting and enhancing wildlife and fisheries habitats in Prince William Sound. We are unanimous in supporting the acquisition of forests, wetlands, and timber rights to this end. This must be done soon, before logging, mining and recreation developments interfere with the integrity of the ecosystem as a whole.

2. We strongly support City of Cordova's Resolution 93-25, which requests the Exxon Valdez Trustee Council to IMMEDIATELY provide emergency funds for three studies of Prince William Sound fisheries resources. Information provided by these studies will empower local fishermen to better manage their businesses and our collective fisheries resources.

3. We want to discourage using these monies for recreational developments, including docks, cabins, trails, camps, etc. in remote areas of the Sound, EXCEPT for those projects that would benefit local residents and be located near existing communities.

Thank you for sceking our ideas about the best ways to restore the damage done in our beloved Prince William Sound.

Since

Tony Milionta President of the Board of Directors



010390 ECE April 30, 1998 MAY 17 1993 OCT 0 2 1995 EXXON VALOEZ OIL SPILL Exxon ValdexxTrustee CouncilsPILL 1994 Work Plah Work Groupen. 645 "G" St. ADMINISTRATIVE RECORD TRUCTLE COUNCIL Anchorage, AK 99501

Dear 1994 Work Plan Work Group Members:

The recently formed Prince William Sound(PWS) Recreation Work Group has been asked to comment on the 1994 Potential Project List. In addition, we have been directed to submit noncontroversial recreation projects in PWS for the 1994 Work Plan. As funded by the EVOS Trustees, our work group consists of representatives from both the ADNR and Chugach National Forest. We have gathered some existing recreation data and been working with the PWS Land Managers Recreation Planning Group and various agency representatives to arrive at our recommendations.

We have listed projects that should be funded in 1994 on the attachment. In addition we have submitted several projects that we recommend be funded. We believe many other projects may warrant funding but should be delayed until the results of our work group's project. We will be going through an extensive public involvement process with the final outcome being informed consent to a list of recreational restoration project proposals for 1995 and beyond. This will also consolidate many of the repetitive project requests. We believe that most project proposals identified for recreation should go through this review before funding.

Because our work group has a focus on PWS, we have limited our comment to those projects concerning recreation and those influencing recreation in PWS. Although some project titles may represent a good idea, the actual proposed project may include actions that we can't support. Without further review, we can't recommend funding for projects other than listed on our attachment. We note that the various wildlife resource restoration projects will affect recreation, but we will avoid comment because of the lack of knowledge of the scientific backing for each project. The PWS Recreation Work Group believes that archaeology is closely tied to recreation. Education and interpretation of cultural resources is a form of recreation. Recreation uses often affect the archaeological resources in PWS. Certain aspects of the archaeology projects are time critical, therefore we commented on these.

A Recreation Work Group similar to this one should be funded for other areas affected by the EVOS. This would provide the Restoration Team and Trustee Council a means to identify important recreation projects supported by the public.

Thank you,

Wyn Mense <sup>C</sup>Wyn Menefee

Park Ranger ADNR, DPOR PWS Recreation Work Group

Enclosures

Steve Hennig

Landscape Architect Chugach National Forest PWS Recreation Work Group

1994 Potential Project Titles Recommended For Funding

#4 Coastal Archaeological Inventory and Evaluation of Archaeological Sites -Interagency

- #7 Site-specific Archaeological Restoration Interagency
- #15 Archaeological Site Stewardship Program
- #230 17(b) Easement Identification-Public Access
- #231 Acquisition of Important Recreation Lands (if this includes use of easements) (some acquisitions and easements are time critical)

Additional Recommended Project Titles (see enclosure for details)

Comprehensive Public Recreational Information Brochure for PWS (includes information from all land managers in PWS)

Monitoring and Collection of Cultural Resources of PWS

Design and Construction of Archaeological Curation and Display Facilities in the Native Villages of PWS

Restoration of Old Chenega School Building

Green Island Recreation Cabin Replacement

# **Project #1 Comprehensive Public Recreational Information Brochure for Prince William Sound**

Justification:

Recreational use patterns were changed as a result of the EVOS. Since the EVOS there is increased recognition of PWS, increased use in many areas, and displaced recreational use causing new areas to be used. The public is generally unaware of the different land ownerships, management practices, and regulations in the Sound. This sort of information needs to be consolidated and made available to the public in an understandable format.

**Project Description:** 

The PWS Land Managers Recreation Planning Group should be funded to create a free handout that consists of a map on one side and information on the other. The map would include ownership boundaries, cabins, ferry and ship routes, mooring buoys, public easements, tent platforms, trails, and major recreational attractions. Information would include access, allowable uses, general cultural resource site protection, permits required, recreation trespass, and where to get more detailed information. This information would be categorized in reference to each land manager including the Chugach National Forest, State of Alaska (including university lands), village native corporations, regional native corporations, private ownership, and municipal ownership.

Funds Needed: Personnel \$9.0 - for time spent on project - 40 days @ \$225/day (8 members for 1 week of time) Contractual \$12.0 - graphics (designer and writer/editor to get brochure to camera ready draft including color separation) \$6.0 - project coordinator for one month \$6.0 (includes their travel) Commodities \$22.0 - phone, fax, copy charges \$.5 - GIS mapping \$1.0 - printing brochures (first time printing to include enough for several years) 50.000 brochures @ 40 cents/brochure = \$20.0 - brochure distribution \$.5 two meetings **\$5.0** Travel Agency General Admin \$2.2 Duration of project is less than one year. Total Cost Estimate \$50.2

# Project #2 Monitoring and Collection of Cultural Resources of Prince William Sound

# Justification:

Cultural resources, including archaeological and historic, have been disturbed at an increasing rate well beyond that reasonably expected prior to the oil spill. The reason is increased use of PWS since the spill, displaced recreational use exposing new cultural sites to impact, and a heightened awareness of cultural resources in PWS. Many known archaeological and historic sites are now documented in PWS. Steps need to be taken to stem the impact of recreational use on cultural resources. Active monitoring of the sites is a deterrent to vandalism. Adverse impacts to cultural sites can be identified early so that surficial artifacts can be removed from sensitive sites.

The purpose for saving these artifacts is to prevent the destruction of a nonrenewable resource. The artifacts can be used for education, visitor interest, and cultural verification. Many facets of the public can enjoy correctly preserved cultural resources. After time for analysis, the general public would have access to the artifacts gathered through this project.

### **Project Description:**

Proposed is scheduled monitoring and record keeping of known cultural sites on native and federal lands in PWS. The existing cultural database would be enlarged to include any new cultural sites discovered through the monitoring process. Village and regional native corporations will be funded to monitor cultural sites on native lands. With the proper permits and management agreements between the native corporations and Chugach National Forest, the appointed representatives from the native corporations would monitor cultural sites on federal lands.

On resource sites that have known disturbances or that are expected to receive adverse impact, surface artifacts should be recorded, photographed and collected. On native corporation lands, the trained staff of this project would perform the collection. Chugach National Forest archaeologist only would perform the collection of artifacts from federal lands with the assistance of the staff of this project when needed. Federal laws pertaining to the collection and recording of artifacts on public lands will be followed. Most artifacts will be stored in qualified curation sites in Prince William Sound.(See project #3, Design and Construction of Archaeological curation and Display Facilities in the Native Villages of PWS) Some larger artifacts may be stored in appropriate facilities outside of PWS.

The Site Monitoring Coordinator will be a representative from one of the native corporations of PWS. The Coordinator will manage the monitoring and collection of cultural resources on native corporation lands. In addition, under approval and consultation of federal archaeologist, he/she would manage the project member's work

# (Project #2 continued)

on federal lands. The Coordinator will work closely with the Chugach National Forest and State Historic Preservation Office through all aspects of this project. The staff of this project will cooperate with any larger state or nation wide cultural protection programs that are in effect. The federal and state agencies will be responsible for much of the training. Because of the confidential nature of the cultural sites, only trained local native residents would be allowed to participate in this monitoring and collection project. The use of volunteers will be encouraged once the project is established.

Team leaders and monitors will spend one week at the beginning, middle and end of the summer season monitoring sites. A maximum of 5 monitors will be used at any one time. An additional week will be used for collection of artifacts from specific sites. This will be done as needed through the summer.

Once this system is in place with trained staff, state archaeologist can determine if there will be any cooperative effort on state lands using the staff of this project. While the emphasis of this project is only for PWS, there is a great deal of interest in the same type of project carried out by respective interests for the Kenai Peninsula.

Funds Needed:

# \$44.0

- Site Monitoring Coordinator (Native Corp. representative) part time, total of two months or 40 work days \$10.0

- Team leaders and monitors 10 people @ \$150/day for 14 days/year including training time \$21.0

- USFS archaeologist time for training and managing work on federal lands \$10.0

- SHPO time for training \$3.0

Travel **\$16.0** 

Personnel

- State and Federal archaeologist travel for training and field coordination \$5.0

- Monitoring Coordinator for travel to villages for monitoring and training \$8.0

- to train team leaders and monitors \$3.0

Contractual \$28.0

- boat and plane 4 weeks a year (28 days) @ \$1.0/day Commodities **\$1.5** 

- GIS mapping \$1.0

- film developing \$.5

Equipment **\$2.1** 

- video camera \$1.0

- 2 cameras (weatherproof) \$.5

- write in the rain notebooks and field records equip. \$.1

# - office and archaeological supplies \$.5 Gen Admin **\$8.5**

This is a multi-year project that receives initial funding and then will be phased out by the fifth year. The burden of funding will be transferred to native land managers. The use of volunteers and funding sources from state and federal contracts, grants and native corporation donations will be sought to carry the project beyond the fifth year.

Total Cost Estimate **1994 \$100.1** 1995 \$100.1 1996 \$80.0 1997 \$60.0 1998 \$30.0 Grand Total: **\$370.2** over five years

# Project #3 Design and Construction of Archaeological Curation and Display Facilities in the Native Villages of Prince William Sound

### Justification:

Increased use of the Sound during the EVOS clean up effort created a greater awareness of the cultural resources in the Sound. As a result, increased vandalism is being done by recreationalist. Displaced recreation resulting from EVOS is putting greater pressure on other sites. To prevent looting and vandalism, surface artifacts should be removed from sensitive sites to prevent damage to a non-renewable resource. Because of this need, the unanimous desire of the native corporations to keep the artifacts local, and the need to educate the public about the importance of and need to protect these resources, archaeological curation and display facilities should be developed in the local villages.

These facilities along with the collection of artifacts would go a long way to repair existing cultural site damage and future adverse impacts caused by displaced and increased recreation. Archaeological curation and display facilities would provide increased recreational opportunities and services in the villages. This may offset some of the perceived damages to recreational opportunities and services in the villages.

The existence of climate controlled facilities in the villages would allow the villages to be the recipients of artifacts collected off state land according to state law. Artifacts can be loaned to the villages if the proper curation facilities exist. This is desired by the native corporations.

#### **Project Description:**

Small cultural artifact curation and display facilities should be developed in Chenega, Eyak, and Tatitlek. The native corporations would be funded to contract the design and construction of these facilities and be responsible for the operation and maintenance thereafter. Future operations and maintenance of the facilities will be funded through entrance fees, grants, and corporate donations. The respective native corporations will be responsible for future maintenance and operations. Annual operations and maintenance costs are estimated to be \$30,000/village. This is based on a percentage of the construction costs.

These facilities will be climate controlled and allow for the cleaning and caring of artifacts. These artifacts would come from the results of the Monitoring and Collection Project and state loaned artifacts. Interpretive display facilities will also be developed in conjunction with the curation sites. This would allow the local and visiting public to enjoy the educational and interpretive possibilities relating to cultural resources of the area. The displays would be open to the general public at reasonable hours with a reasonable cost.

# (Project #3 continued)

Conceptual plans for each of the respective facilities will be developed by July, 1993 by each village corporation. Each corporation has identified land available for this project. The conceptual plans will show the proposed location and whether the facility is a new building or an addition to an existing building.

Funds Needed:

This is a one time expenditure with a two year duration for design and construction. Annual maintenance costs of the facilities would be assumed by the village corporations.

Total Cost Estimate \$350.0/village site(Chenega, Tatitlek, Eyak) = \$1050.0

Although this recommended project is only for PWS, there is a great deal of interest in the same type of project carried out by respective interests in Seward, Port Graham and English Bay.

# **Project #4 Restoration of Old Chenega School Building**

# Justification:

The school building at the old Chenega village site was vandalized during the EVOS cleanup efforts. Graffiti is the only EVOS documented damage done in the village. Chenega Corporation reports additional damage to both the school and cemetery markers.

The old village site is seen as the traditional home of the Chenega people and the location of the 1964 tsunami disaster which killed approximately 30 people. This site is visited often by the local residents and recreational boaters. By restoring the school, a damaged historical site would be repaired and improved. This would also improve a recreational opportunity through historical interpretation within one of the heaviest oiled areas of PWS.

**Project Description:** 

This project would fund the restoration of the existing school at the old Chenega village site. Repairs would be made to the walls and general structure. A historic architect specialist would determine the best method of restoration and construction. Thereafter tear out and reconstruction of the interior walls and general restoration of the school building would be initiated. A foreman and crew of five laborers would work twenty days on site with five days preparation time. The work crew would make two ten day trips to the site.

After the restoration is completed, the Chenega Corporation would assume the responsibility of continued maintenance of the building as a historic structure. The general public would be provided access to this building and historic site at a reasonable cost. The monitoring, collection of fees, and upkeep will be the responsibility of the Chenega Corporation.

Funds Needed:

Personnel \$30.5

- Project Director  $3.3/day \ge 6.0$ 

- Historic Architect Specialist \$75/hr x 32hrs = \$2.4 plus

\$1.5 airfare to bring them to the site = \$3.9

- Foreman 20 days + 15 day plan and pre-work 20/hr = 5.6

- 5 Laborers 20 days on site + 5 days prep \$.6/crew/day = \$15.0

Contractual **\$5.0** barging supplies from Seward

- Barging supplies from Seward \$3.0

- Boat to take laborers to site 4 trips/\$.5/day = \$2.0

Commodities \$2.4

- Subsistence for laborers \$20/person/day 6 people for 20 days = \$2.4

Equipment \$13.5

- Weatherport and cook tent \$2.5

- Miscellaneous field camp equipment \$1.0

- Miscellaneous tools \$.5

- Project materials \$9.5

General Admin \$4.9

Duration of this project is less than two months. Total cost estimate: **\$56.3** 

# **Project #5 Green Island Recreation Cabin Replacement**

Justification:

During the clean-up of the EVOS, the Green Island Public Use Cabin was used extensively by clean-up crews and various support organizations as a staging area and quarters for workers. Prior to and after the EVOS clean-up efforts, this cabin has been used by the public as a recreation cabin.

During the clean-up, the heavy use of the cabin placed excessive wear and tear on the structure and surrounding site, beyond what it was intended or designed to withstand. The most efficient way to bring this cabin and surrounding area back to pre-spill conditions is to replace the cabin.

**Project Description:** 

This project will replace the existing cabin and do adjacent site restoration to return the cabin and immediate vicinity to its pre-spill condition. Because of the favorable topography at this site, work will also include facilities to make the cabin accessible for people with disabilities. This additional step would increase the recreational opportunities to an additional segment of the population using the spill affected area.

The existing cabin will be removed at the same time the new cabin is brought on site.

Funds Needed:Personnel\$22.0- Cabin construction crew\$14.0- Site rehab crew\$5.0- Subsistence\$3.0Contractual\$5.5- Barging materials to and from site\$3.0- Air charter\$2.5Equipment\$21.0- Cabin\$17.5- Additional Materials\$3.5General Admin\$3.7

Project duration is less than 1 year. Total Cost Estimate: **\$52.2** 



July 12, 1993

Representative Harley Olberg Alaska State Legislature P.O. Box 1068 Delta Junction, AK 99737 P.O. Box 705 Cordova, AK 99574 (907) 424-5800 FAX: (907) 424-5820



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

Dear Harley:

This letter is in response to your request for justification of PWSCOR's proposed project for an acoustic assessment program for Prince William Sound herring in the fall of 1993.

The Prince William Sound herring population, its food base, rearing and spawning habitat were exposed to the EXXON VALDEZ oil spill in the spring spawning season of 1989. Subsequently, damage was detected at individual and population levels. In the spring of 1993, an unexpected collapse of the spawning population occurred and the few fish that did return to spawn were in poor condition, diseased, and to some extent deformed.

Since the egg deposition survey and the herring reproductive capacity experiments were <u>not</u> funded in the spring of 1993, the fall acoustic/net sampling survey is the <u>only</u> remaining option for collecting quantitative information on the herring population this year. The quantitative information that this survey provides is needed to manage the spring 1994 fishery. Without any quantitative information on the herring population size in 1993, the capability to assess long-term damages will be severely compromised.

The proposed acoustic and net sampling techniques are accepted by the scientific community and can improve fisheries management. For instance, the egg deposition survey in 1992 predicted a large herring return in the spring of 1993. Because of this prediction, prior to the fishing season some area fishermen intensively lobbied ADF&G to reduce the 1993 herring quotas for economic reasons. This prediction was almost the opposite of the term happened. If acoustical measurements were made in conjunction will deposition surveys, they would increase the credibility of the currer However, it would probably take three to five years of comparative demonstrate to ADF&G that the current egg deposition surveys could

LOMASS Otolith MARK



July 12, 1993

Representative Harley Olberg Alaska State Legislature P.O. Box 1068 Delta Junction, AK 99737

(907) 424-5800 FAX: (907) 424-5820

P.O. Box 705

Cordova, AK 99574

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL Administrative record

Dear Harley:

This letter is in response to your request for justification of PWSCOR's proposed project for an acoustic assessment program for Prince William Sound herring in the fall of 1993.

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Letter to Harley Olberg July 12, 1993 Page 2

I appreciate your interest in this project and, again, want to state that the proposed fall 1993 acoustic/net sampling survey is our only remaining option to gain any quantitative information on the herring population.

Sincerely,

G.L. Thomas G.L. Thomas, Ph.D. (18)

President





# FACSIMILE TRANSMISSION

July 12, 1993

Dr. Jerome Montegue, Director Oil Spill Division Alaska Department of Fish and Game (907) 465-4759

Dear Jerome:

Rep. Olberg requested justification for the fall acoustic net sampling survey for PWS herring (see attachment 1).

I developed a proposal for a fall 1993 acoustic/net-sampling survey for PWS herring at John Wilcox's request. I discussed it with Wayne Donaldson and Fritz Funk. We all agreed that the fall 1993 acoustic/net-sampling survey should be done. We all agreed that the spring 1994 egg deposition survey should be done.

Working with the PWSCORS, we endorsed both studies. PWSCORE was informed that the spring 1994 egg deposition survey was approved for the 1994 work plan. We were told the acoustics/net-sampling survey was not approved for a late addition to the 1993 plan. We are now attempting to get the 1993 acoustic/net-sampling survey approved. We need your support.

The 1993 survey will provide immediate information on the status of the stock that will be used for 1994 management decisions, and is the only remaining way for the Trustees to collect quantitative information on the herring stock in 1993, after not funding the spring surveys and experimental work.

As we all know the present herring management process would benefit from improvement of stock assessment techniques. This project is an opportunity for the Center and the Department to work cooperatively to improve the *status quo*.

Thank you for the support.

Sincerely,

G.L. Thomas, President cc: Wayne Donaldson

2

Project Number:

Project Title: Retirement of Debt for Prince William Sound Salmon Hatcherles

Project Category: Resource Restoration and Replacement

Lead Agency: Alaska Dept. of Commerce & Economic Development

Cooperating Agencies: Alaska Dept. of Fish & Game

Project Term: Fiscal Year 1994.

#### INTRODUCTION:

The private, non-profit salmon hatchery program in Alaska was established in the early 1970's following a period of low salmon production in the state. Regional aquaculture associations, designated by the ADF&G commissioner, were formed by the limited entry permit holders of each region, who also voted to tax themselves as one means of funding their programs.

The ADF&G developed a companion program to that of the private sector, but that organization, the FRED Division, was disbanded by Executive Order in 1993. The state administration and the legislature now believe that commercial fisheries should be self supporting, and therefore provided the regional aquaculture associations with the opportunity to operate state hatcheries that would otherwise be closed.

Representativess of the ADF&G staff and the regional aquaculture associations are responsible for the development of regional comprehensive salmon plans which required the approval of the commissioner. These plans document the salmon restoration, replacement, and enhancement opportunities available in the respective regions.

The Prince William Sound Comprehensive Salmon Plan was operational prior to 1989, when the Exon Valdez oil spill occurred. The flow of crude oil through Prince William Sound followed the traditional path of outmigrant salmon, which leave the Sound through Montague Strait and Latouche and Elrington Passages. Young salmon were not only subjected to Exon Valdez crude, but in 1989 and subsequent years were subjected to chemicals used in beach cleaning. Direct mortalities occurred when the young fish were forced to the oiled surface water by predators from below or through direct ingestion of hydrocarbons. Apparent deviations in migratory behavior in 1991, the unexplained shortfall of pink salmon in the EVOS impacted region in 1992, and the shortfall in sockeyes in 1993 all suggest continued responses to environmental disruptions.

In the fall of 1989, the Regional Planning Team has decided to revise and update the Prince William Sound Regional Comprehensive Salmon Plan because of its concern for the salmon stocks and fisheries of the Sound. Evos has heightened the concerns of fisheries managers regarding interactions between wild and hatchery stocks and between salmon and their environments. As a result, new controls have been placed on the procedures by which salmon are allowed to be restored and enhanced.

#### WHAT:

: \$

The goal of this project is to provide ongoing funding through the private, nonprofit hatchery associations with which to evaluate the salmon stocks and and their environmental interactions within the Sound, and undertake projects necessary for the restoration and enhancement of these impacted salmon resources. (Let it be known that if disagreement exists as to the extent to which salmon were impacted by the EVOS, there is agreement that impacts occurred.)

#### The objectives of this project are;

1. Retire the Prince William Sound Aquaculture Corporation and Valdez Fisheries Development Association's indebtedness to the state aquaculture revolving loan fund. Funds formally necessary for debt service would then be available for the following programs which are designed to enable fisheries managers to protect wild stocks in mixed stock fisheries and to restore and enhance stocks. The list of studies which follow are those determined to be necessary for any restoration project, and which will be applied to the restoration of Coghill lake sockeye salmon which have failed to return from the ocean in 1993.

a. Mark and recapture wild and hatchery salmon to determine spatial and temporal distribution of wild and hatchery salmon in the fisheries and at spawning locations.

b. Test fish to determine the presence/absence of wild stocks at targeted remote release locations for hatchery fish.

c. Operate fish weirs to assess straying of hatchery fish into streams occupied by wild fish. and also to assess straying between wild stocks.

d. Fund genetics studies to describe stocks and the geographical boundaries of each stocks spawning streams, and to determine if hatchery stocks are genetically altered over time.

e. Continually Monitor fish health in wild and hatchery stocks utilizing the services of the ADF&G Fish Pathology Laboratory.

f. Restore salmon stocks with in-stream egg-takes, hatchery incubation, and release of fry or smolts in native stream or lake.

#### WHY:

The ADF&G has a mandate to manage wild salmon stocks for sustained yield. The pink, sockeye, and chum salmon fisheries in Prince William Sound are comprised of mixtures of wild and hatchery stocks. Wild stocks, in general, cannot withstand the high rates of exploitation to which hatchery fish can be subjected. Therefore, wild stocks already impacted by the EVOS became increasingly susceptible to overexploitation, causing the ADF&G to increase its efforts to manage them for sustained yield and therefore to place added emphasis on the need for stock status studies.

The costs associated with the development and management of the salmon fisheries of the Sound are shared by the ADF&G and the local aquaculture associations. These costs have increased dramatically since the EVOS, while funding for ADF&G fisheries programs has declined. The aquaculture associations in the Sound are willing to utilize their facilities and expertise to restore, replace, and enhance designated salmon stocks in the EVOS impacted areas. However, these associations are not financially able to fund the fisheries evaluation studies which are listed above, and which must precede and accompany each restoration/enhancement effort.

#### EXXON VALDEZ OIL SPILL PROJECT DESCRIPTION FY-94 WORK PLAN

**Project Number:** 

Project Title: System for Marking All Prince William Sound Hatchery Salmon.

Project Category: Fisheries Resource Restoration and Enhancement

Lead Agency: Department of Fish & Game

Cooperating Agencies: Prince William Sound Aquaculture Corp., Valdez Fisheries Development Assn.

Project Term: Fiscal Year 1994

#### INTRODUCTION:

The salmon fisheries of Prince William Sound provide a large part of the region's economic base. About 810 limited entry permits are fished by seiners and drift gillnetters in the region in addition to 30 set gillnetters.

Two privately owned hatcheries and three state owned (but privately operated) hatcheries are located within the region. In 1991, the Alaska Board of Fisheries approved an allocation scheme for all stocks of wild and hatchery salmon within the Sound. First priority is for spawning escapement of wild stocks. Other priorities are for hatchery brood stocks and cost recovery, with an allocation of 70% of all hatchery fish to the common property fisheries.

#### WHY:

The Alaska Department of Fish & Game has a mandate to manage for the sustained harvest of wild salmon stocks. Therefore, in a fishery of mixed wild and hatchery stocks it is essential to be able to differentiate between wild and hatchery fish.

In 1989, the Exxon Valdez oil spill occurred. The flow of crude oil through Prince William Sound followed the traditional paths used by outmigrant salmon, which leave the Sound through Montague Strait, and Latouche and Elrington Passages. Young salmon were not only subjected to the Exxon Valdez crude, but in 1989 and subsequent years were subjected to chemicals used in beach cleaning. Direct mortalities occurred when young fish were forced to the oiled surface of the Sound by predators attacking from below them. Apparent deviations in migratory behavior in 1991, the unexplained shortfall of pink salmon in the EVOS impacted area in 1992, and an apparent shortfall in sockeyes in 1993 all suggest continued responses to the 1989 oil spill and associated environmental disturbances.

The decline in Prince William Sound wild stock returns since the EVOS have resulted in the need for better information regarding the spatial and temporal distribution of wild fish in fisheries now dominated by hatchery stocks. Until this time, it has not been feasible to mark large percentages of either hatchery or wild fish. Now, however, a method has been found to mark 100% of all fish released by hatcheries. Fish captured in the fisheries and found to be without marks could be realistically classified as wild fish, if the new hatchery marking technique was implemented.

#### HOW:

This project proposes to replace coded wire tags as a method of marking and identifying salmon. The chosen method is one of marking the otoliths of young salmon while they are still in hatchery incubators. It is believed that the otolith marking process will result in less disturbance to the fish.

Recently hatched salmon tend to grow at an even rate which can be disrupted by abrupt, but small changes in the temperature of the water in which they are incubating. This disruption is recorded in the bony structure of the fishes' otoliths as seen through a microscope. Repeated manipulations of water temperature results in a series of disruptions, which appear as growth rings similar to those found in trees. Also, each hatchery can apply a number of coded marks which are different than those used by other hatcheries.

Large scale, otolith marking studies in Washington and Alaska have revealed this process to be 100% effective. Therefore, the installation of hot water plumbing systems in Prince William Sound hatcheries, at a one time cost, will provide for the marking of all hatchery fish released in the Sound for the lifetime of the hatcheries.

The otolith marking program will need to operate concurrently with a reduced coded wire tag program for 4 - 5 years for the purpose of comparing the results of past and future tagging results. Following that period, coded wire tags would only be used on small, special projects.

WHEN:

Fund in the 1994 Work Plan.

COST:

Engineering, design, purchase of components, and installation of hot water systems:

Cannery Creek Hatchery:	\$ 50,000
Armin Koernig Hatchery:	\$ 60,000
Main Bay Hatchery:	\$ 40,000
Wally Noerenberg Hatchery:	\$100.000
Solomon Gulch Hatcherv:	\$ 50,000

Total Cost: \$300,000.



P.O. Box 705 Cordova, AK 99574 (907) 424-5800 FAX: (907) 424-5820

May 20, 1993

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EXXON VALDEZ TRUSTEE COUNCIL TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

DECEIVED N MAY 2 7 1993

Dear Trustees:

EXXON VALDEZ OIL SPILL

This letter is in response to your April 19, 1993 correspondence, requesting public COUNCIL input to the 1994 program. It would be inappropriate for me to recommend projects for the 1994 program based upon titles alone. Statements of qualification for principal investigators and detailed proposals are minimum criteria for such evaluations. Therefore, all I can provide you is a brief description of ongoing planning efforts and projects that the Center is involved in and have you relate these to some of the short titles that you listed.

The following planning and implementation effort is based on interactions between the Science Center and colleagues at the Alaska Department of Fish and Game, Copper River Delta Institute, Cordova District Fishermen United, Prince William Sound Aquaculture Corporation, Eyak Native Corporation, Department of Environmental Conservation, the City of Cordova, federal agencies, the University of Alaska and the public. In general, six areas of Trustee funding have been discussed: (1) acquisition of critical habitat to protect natural fisheries and wildlife resources and the services they provide, (2) applications of research to solve fisheries problems, (3) long-term environmental monitoring to develop better predictive capabilities for populations and ecosystem productivity, (4) regional improvement of science education and appreciation, (5) improvement of better regional water quality and hazardous waste disposal practices to reduce the cumulative impacts that may exacerbate long term damage by the oil spill, and (6) enhancement of the regional recreational opportunities, while protecting subsistence and commercial interests.

Lists of projects, proposals and costs have been generated in these six areas, as well as others. Some of these projects are very important in the short term, some in the long term, and others may not be very important at all! The problem is a lack of a strategic plan with accepted criteria to guide the process.

To that end, I have been working in several areas through the Science Center and OSRI to facilitate better planning. These efforts have been:

# (1) Critical habitat acquisition

1. The Science Center held a workshop on critical forest habitats in the Fall of 1992.

2. Several papers from the workshop participants have been submitted for journal publication and are currently in peer review.

3. To provide information on the importance of habitats in Prince William Sound, one of the

projects of the workst was to map the distribution of natural purces and human activities. These maps have been agitized and are undergoing peer review.

4. A framework for using a scientific data base, an expert system of management options, industry determined cost-benefit, public review and private and public financing to develop and implement a plans for exploiting individual resources with minimal collateral damage to other resources is being developed for presentation to Congress in 1993.

#### (2) Applied fisheries research and enhancement

The Center held a workshop on hatchery and wild salmon interactions in the fall of 1991.
A dedicated issue of *Fisheries Research* with papers contributed by workshop participants will be published sometime this summer.

3. The Center participated in a cooperative effort by ADF&G, PWSAC, and CDFU to develop a plan for the Trustees that represented the commercial fisheries interests throughout the oil affected area (Cook Inlet, Kodiak and PWS). The results are the formation of the Commercial Fisheries Coalition.

4. The Center has been working cooperatively with ADF&G, PWSAC and CDFU to draft strategic plan for fisheries research and management for the Prince William Sound region. 5. The Center supported the publication of the 1989 workshop on fisheries acoustics as a dedicated issue of the journal *Fisheries Research*.

6. The Center has been participated in several specific fisheries research projects:

a. The development of improved "BMP's" for fish offal: recycling of fish offal to enhance sportfish and crab populations in Orca Inlet and improve water quality in the vicinity of Cordova harbor.

b. The development of release strategies for hatchery salmon fry to minimize near field predation in Prince William Sound.

c. Acoustic Assessment of the passage rates of downstream salmon smolts in the Kenai River.

d. Acoustic assessment of the marine passage rates of adult salmon in Cook Inlet.

#### (3) Long term environmental or ecosystem monitoring

1. The Science Center held a symposium, "Research in the 1990's in Prince William Sound" in the spring of 1990.

2. The Science Center, Copper River Delta Institute and Ecotrust published an overview of the Northern Gulf of Alaska/Prince William Sound/Copper River Delta ecosystem that advocated an ecosystem approach.

3. The Science Center's Oil Spill Recovery Institute is developing a long-term environmental monitoring plan for the oil spill affected region that is based on an ecosystem approach.

#### (4) Science education enhancement

1. The Science Center, in cooperation with the Copper River Delta Institute and U.S. Forest Service, has developed and implemented a science education outreach program for Prince William Sound. The program that was originally developed in Cordova, was recently demonstrated in the communities of Tatitlek, Chenega Bay and Whittier.

2. The Science Center published the Alaska Oil Spill Curriculum, which has been widely distributed.

#### (5) Water quality and hazardous waste problems

1. The Science Center is providing staff and operational support for the Oil Spill Recovery Institute (OPA90, Title 5, OSRI).

2. The Science Center is providing staff and operational support for the Hazardous Substance Spill Review Council to coordinate overlapping missions of the Council and OSRI.

3. The Science Center has participated in several specific water quality and oil related re-

search projects:

- a. A comparison of on-sorbents for absorbent efficiency.
- b. The Alaska water watch program.
- c. Lake Eyak vegetation surveys.

#### (6) Recreational and subsistence enhancement

- 1. Monitoring of remote release king salmon in Orca Inlet.
- 2. Development of recreation and subsistence activities maps in our GIS.

The above list is not comprehensive or complete, but it is intended to inform you about some of the Center's activities. The Science Center has submitted many pre-proposals to the Trustee's Council for the above programs and projects, as well as many others. The Science Center has worked hard to establish cooperative programs between university, agency, and private organizations and has been very successful at publishing its products in the peer reviewed journal literature. There is a significant overlap between the Trustees Council and the Science Center's missions and we would like to encourage the Trustees Council to build local capacity in the Prince William Sound. In this manner, we are working to establish a memorandum of understanding between the OSRI and the Trustees Council and look forward to a productive relationship.

If you have any questions please call, (206) 424-5800.

Thank you.

Sincerely,

Dany Umm

G.L. Thomas, President
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#### 1994 POTENTIAL PROJECT TITLES

Page 1

	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	F P W S	EG K E N	СN к о D	EST COSTAN LK	eusation Cusation (Veans)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 9 9 9	2 0 0 0	Do Not Fund
. 1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	>	( X	( X	\$41	М							
2	· · · · · · · · · · · · · · · · · · ·	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	>	(		\$300	1		·					
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	>	( X	( X	\$200	м	$\boldsymbol{\lambda}$			_		-A	
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	( X	(X	\$525	M							
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	>	( X	(X	\$400	М		_					
6		Option Not Identified	Restoration of Chenega Village Site	>	(		\$75	1							
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	>	$\langle x \rangle$	X	\$300	93 - M							
8	•	Public Information	Passports in Time-Cultural Resource Patterns in PWS	>	(		\$230	М							
9		Public Information	Heritage Information Replacement	>	$\langle x \rangle$	X	\$200	М							
10		Public Information	PWS Landmarks-Evaluation and Interpretation	>	<		\$400	М	_						
11		Public Information	Public Education and Interpretation of Archaeological Resource	>	<u>(</u>	<u> </u>	\$400	Μ							_
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	>	( X	( X	\$225	М							
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	>	< X	( X	\$150	М							
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	>	( X	( X	\$210	M							. <i>A</i>
15		Site Stewardship Program	Archaeological Site Stewardship Program	>	( X	( X	\$114	М							
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	>	(		\$1,200	1							
÷															
17	Baid Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats		< X	( X	\$262	М				X	X	<b>८</b>	$\mathbf{X}$
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	>	< X	( X	\$10	М	•						
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	>	( X	( X	\$200	М							
															·
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	>	$\langle \rangle$	( X	\$108	93 - M				1			
21	1	Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	>	<		\$125	М							

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#### Name:\_ Phone:\_

	RESOURCE	RESIGNATION OPTION	POTENTIAL PROJECTS	P W c	G D K E	N K O	EST. 1 SOSTIVA	ESTA DURATIO	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fur
22	Black Oystercatcher	Bestoration Monitoring					<u>&gt;x</u>	(PEAUS)							
		Trestoration Montening		. 1	+		•		-				$\vdash$		
		······································		-											+
		-												÷ [ .	
23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	x	X	x	\$1,100	м				V	X		
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	x	X	x	\$385	М			1	4			
25		Intensify Management	Fishery Industrial Technology Center	X	X	x	\$3,500	1							
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X		\$150	м							
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X		\$300	м	1						
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X	x	\$200	M							
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X			\$5,000	1	·						$\times$
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	x			\$868	м							
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	X	x	\$50	м							
32	· · · · · · · · · · · · · · · · · · ·	Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island			X	\$45	М							·
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X			\$80	M							
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X		\$50	м							
35		Replace Harvest Opportunities	Red Lake Mitigation			x	\$191	м							-
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	X	x	\$280	М						·	
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	x	<b>X</b> [	x	\$51	93 - M	$\mathbf{X}$	$\vdash$	-			$\mathbb{X}$	
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	X	X	\$73	М							
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	X	X	\$191	М							
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	x	X	x	\$40	М							
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			T	\$460	м						T	

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Name:\_ Phone:\_

RES	OURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC	10E	EST.	EST.	1	1	1 1	1	1	2	2 8
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SE	RVICE	SUBOPTION		5 1	D	ŝK	(P(EASS)	4	5	6 7	8	9	0	' Und
42 Commor	n Murre	Restoration Monitoring					М							
			· ·											
			· .											
43 Cutthroa	t/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	М							
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$285	М							
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	м							
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	M							
47		Restoration Monitoring					M							
						-								
48 General		Administration	Oil Spill Restoration Support Service and Facilities	X	x x	\$600	1							
49	· .	Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	M	-						
50		Option Not Identified	Hazardous Material Collection Facility	X	x x	\$100	1							
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	хX	\$488	м							
52		Public Information	Public Broadcasting System Program on Oil Spill	X	xx	\$70	м							
53		Public Information	Publish and Distribute Brochures on Injured Species	X	x x	\$90	м							
54		Public Information	PWS Brochures	X		\$65	М							
55		Public Information	PWS Implementation of Interpretive Plan	X		\$150	М							
56		Public Information	PWS Large Format Photographic Book	X		\$100	м							
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	М							
58		Public Information	PWS Video Programs	X		\$100	м							
59		Public Information	Science of the Sound- Education Program	X		\$53	M							
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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS		$(\mathbf{e})$	л.	BSTA	193	1	-1	1	1 1	1	2 2	8
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	SERVICE	SUE(0):11(0))		s	Ñ	D	<u>. 86</u>	NEGO.	4	5	6	7 8	9	0 1	Ĕ
60	Harbor Seal	Cooperative Program-Fishermen													
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X			\$39	M							
62		Option Not Identified	Subsistence Harvest Assistance	X			\$23	М							
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X			\$165	93 - M							
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	Х	Х	\$230	М							
65	Harlequin Duck	Eliminate Oil from Mussel Beds													
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	X	x	\$700	93 - M	X	$\neq$	$\mathbf{X}$	ĸК			
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	X	X	\$53	М			<u> </u>				
						·  .									
				<u> </u>											
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	X	X	\$20	М							
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	X	X	\$70	М							1
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	X	X	\$300	M				-			
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	X	x	\$50	М	<u> </u>		_				
72		Accelerate Recovery of Intertidat	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X			\$500	M							
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	Х	x	\$800	М				_			
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	X	x		M							
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	Х	X	\$620	M	L						_
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X			\$600	M					· .		
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	X	X	\$500	М	<u> </u>				<b> </b>		
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		X	X	\$200	M	X	$\mathcal{L}$	X	XK	N	XX	
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	Х	X	\$275	M	Ľ		i				
80	· · · · · · · · · · · · · · · · · · ·	Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	X	X	\$50	M							
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X	X	X	\$186	Μ							

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	G	ЭN к	EST. COSTAR	EST.	.1 9 9	1 9 9	1 9 9	1 9	1 1 9 9	L 2 9 0	2 0	Do Not
	SERVICE	SUBOPTION		W S	E N	O D	\$K	(YEARS)	4	5	6	7	8 9	0	1	Fund
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	x	Х	X	\$500	М	Ī							
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	Х	X	\$600	М								
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	Х	X	\$195	М								
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	Χ.	X	\$500	93 - M								
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M								
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	Х	X	\$860	М								
88		Option Not Identified	Clam Enhancement	X	Х	X	\$120	M								
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	Х	X	\$500	M								
90		Option Not Identified	Restoration of Mussel Beds	X	Х	X	\$500	М	X	X	$\mathcal{L}$	XB	K)	XX	-4	
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X	\$237	М						ĺ.		
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			·				······	·								
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M		-						
93		Monitoring	Recovery Monitoring	X			\$125	M								
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М							_	
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				M							1-	
					·											
	-		•						1							
		6 			-	<b> </b>		·								
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X	\$240	93 - M	Ķ	X	X	_				
97	· · · · · · · · · · · · · · · · · · ·	Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	X	\$180	93 - M	17	X	$\lambda$				<u> </u>	_
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	X	\$250	м	1							
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	X	\$509	M	1							
100		Minimize Incidental Take							1						<u> </u>	
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks	1	X	X	\$200	М		1			]			

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1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	- -	ଗାଡ	EST.	EST	1	1	1 1	1	1 2	2 8
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	SERVICE	SUEDPTION	and the second second second second second second second second second second second second second second second	s	N D	SK.	(VEARS)	4	5	6 7	8	9 0	1 md
102	2 Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	x >	\$250	М					Ī	
[													
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	x	\$150	м	_					
104	1	Habitat Protection	Riparian Habitat Assessment	X	x >	\$110	М		<u>}</u>	KΧ.			
105	5	Habitat Protection	Stream Channel Capability Modeling	X	x	\$110	М		ľ	ľ.			
106	3	Habitat Protection	Stream Habitat Assessment	X	x >	\$361	93 - M						
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1						
108	1	Habitat Protection	Vegetation and Stream Classification and Mapping	X	X)	\$276	93 - M	$\times$	_		<u> - `</u>	X	
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	X	\$100	. M	ι			]. [		
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	x >	\$750	м						
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		x >	\$111	11	$\not \sim$					
112	2	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		>	(	1.	-	X				
113	3	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		>	(	1			$\boldsymbol{\lambda}$			
114		Habitat Protection and Acquisition	Valdez Duck Flats	X			1		(	X			
115	5	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X	\$20	1	X					
116	3	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		>	(	1				$\bowtie$		
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		>	\$250	1					X	
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1						
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		>	\$200	1					$\bigwedge$	
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		>	\$77,000	11			$\triangleleft$			
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$90	1		1	X	1		
122	2	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		x	\$60	1	Ţ		X	1 T		
123	3	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		x	\$400	1		Ι		X		
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		x	\$80	1			×			
125	5	Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X	\$740	1					2	
126	3	Habitat Protection and Acquisition	Habitat Acquisition	X	x >	\$25,000	93 - 1	A			11		
127	7	Habitat Protection and Acquisition	Habitat Acquisition, Afognak		)	\$112,500	1.		X				

Name:\_\_ Phone:\_\_

#### 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	ĸ	EST. COST/YR	EST. DURATION ,		1 1 9 9 9 9	1 9 9	1 9 9	1 9 9	2 2 0 0 0 0	Do Not J
SERVICE	SUBOPTION		s	м	D	ŝk	(YEARS)		5 6	7	ð	9	0 1	щd
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		Ī	X	\$20,000	1		IΧ	$\langle \Box$				
129	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			X	\$4,000	1			Y	(			
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			X	\$1,000	1				X			
131	Increase Natural Food Supply					-			i					
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X	X	\$50	. M ·							
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	X	X	\$408	M		1					
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		_	\$200	М							
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	М		1					
136	Intensify Management	Seabird Colony Restoration	X	X	X	\$250	М							-
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	М		l					
138	Monitoring	Shoreline Worm Life Monitoring	X	X	X	\$388	м		ļ					
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	Х	X	\$416	М		1					
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X	X	one billion	M							
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X	x	\$280	М		i					
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	X	\$7	М		ľ					
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	X	\$650	1		1					
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	х	X	\$48	М							
145	Option Not Identified	Shoreline Assessment	X	X	X	\$250	93 - M		1					
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			X	\$28	М			X	X			
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	X	\$500	93 - M							
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X		\$800	М			T				
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	X	X	\$2,300	1		T					
150	Recovery Monitoring	Injured Resource Food Supply	X	X	X	\$850	М			1				
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	X	\$500	М		Ţ					
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	М							
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	М		Τ					
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X	X	\$150	M	T						
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X	X	\$100	M	T						
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	X	\$200	М							
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X			\$35	M			_	1			1

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1994 POTENTIAL PROJECT	TITLES
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Name:\_ Phone:\_

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	P W S	K E N	р к о	EST. COST/YR	EST DURATION	1 9 9.	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fun
158 Multiple Resources	Becovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	M			_			VN.	ā.
159	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	x	x	\$275	93 - M	-			+		SIC-	
160	Reduce Disturbance by Field Presence									- +				
161	Reduce Disturbance Through Public Info	Public Information and Education	X	x	x	\$316	M				+-+			
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	x	x	x	\$50	м	1						
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	x	x	\$500	м	+					-	
164	Restoration Monitoring	Ecosystem Study	X	x	x	\$6,000	м					1	N	
			-											
										•				
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X			\$205	M				T			
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X			\$400	М						Ţ	
167	Intensify Management	PWS Herring Tagging Feasibility Study	X			\$112	M	Ī						
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X			\$189	М							
169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	М							
170	Option Not Identified	Enhancement of Pacific Herring	X	X	x	\$120	М							
171	Restoration Monitoring	4												
	and the second second second second second second second second second second second second second second second													
172 Pigeon Guiliemot	Monitoring	Pigeon Guillemot Colony Survey	X	X	X	\$40	93 - M							
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X	X	\$180	М							
174	Restoration Monitoring													
175	Temporary Predator Control													
							•							
	•									-				

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#### Name:\_ Phone:\_

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	: 0	(e)[(e	R	EST,	EST	1	1	1 1	1	1	2 2	8
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SERVICE	SUBOPTION		s	N	D	SK	(NEALS)	4	5	6 7	8	9	0 1	Pund
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x	X	\$25	М							
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1							
178	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1							
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration			x	\$11	1							
180	Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1							
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			X	\$55	1							
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	X	X	\$727	М							
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	М							
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	м			-				
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	м							
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М							
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	X	\$152	м							
188	Intensify Management	Pink Salmon Escapement Enumeration	X	X	x	\$705	М					<b> </b>		
189	Intensify Management	PWS Salmon Stock Genetics	X			\$150	М							
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М							
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	М							
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X		\$899	м							
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М							
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M					•		
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М	1						
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	X	X	\$300	М							
			Π											
				-					·					
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		Х	x	\$1,250	М							
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	х	x	\$6,000	1							
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	X	x	\$40,000	1					T		
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	X	\$500	М			X	X	YI		
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	x	\$500	М	X		4		_		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

## Page 10

	RESOURCE	RESTONATION OPTION	POTENTIAL PROJECTS	RE	e ( 9)	J	ECT.	EST		1	T			2 2	8
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	SERVICE	SUE(OPTIO)	A MARINA MARINA AND A MARINA AND A MARINA	S	N E		<u>ex</u>	NEALSS)	•	5 6	i 7	в	9	0 1	und
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		_  <b>&gt;</b>	<	\$500	1				$\mathbb{N}$		1	
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		>	<	\$70	1				X			
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X			\$50	M	T						
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	x >	< ·	\$100	М							
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X			\$58	M						$\langle  $	
207		Monitoring	Recreation Field Management and Monitoring	X	x >	<	\$700	М				T	b	2	
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X			\$150	1		X.			ſ		
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	X			\$20	1	X	A					
210		New Backcountry Recreation Facilities	Improve Marine Parks	X	x	<	\$100	М	1				X	ZK	
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X			\$100	1						X	
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X	·		\$70	1	$\triangleright$	A					
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	x)	< -	\$150	M			$\mathbb{Z}$	$\checkmark$	$\mathbf{Z}$		
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X			\$100	1	1	$\left \right\rangle$	4	71			
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X	_		\$250	1			Y				
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		x >	<	\$140	1	-		T				
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	<b>X</b>			\$400	M							
218		Option Not Identified	Sustainable Tourism in PWS	X			\$240	М							
219		Option Not Identified	Watchable Wildlife	X	x)	<	\$65	М				Ţ			
220		Option Not Identified	Increased Access PWS	X			\$100	М	_		-				
221		Plan Commercial Recreation Facilities	Recreation Development	X	x >	<	\$200	М							X
222		Restoration Monitoring													
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	x	< _	\$77	М							
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X				1							
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	x)	< _	\$310	М							
226		Visitor Center	Cordova Environmental Education Center	X			\$15	1							
227		Visitor Center	Cordova Mini-Imaginarium	X			\$63	1			T				
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	x)	<	\$155	М							
229		Visitor Center	Environmental Education Center in PWS	· X			\$90	1							
230		Visitor Center	Environmental Learning Resource Center	X	x)	<	\$90	1							
231	1	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x			\$450	1		-					$\square$

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS		<b>(c)</b> [(	$\mathbf{R}$	EST.	EST.	1	1	1	1	1 2	2	8
	or. SERVICE	or SUBOPTION		P W S	K E N	K O D	Cost/ya \$K	VEARS)	9 9 5	9 9 6	9 9 7	9 9 8	90 90 90	0 0 1	Not Fund
232	Recreation	Visitor Center	Information Center	X	x	x	\$600	1							
233		Visitor Center	Interpretation of PWS	X			\$10	м							
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1			·				
235	F. M. M.Y. D. A. Annual Control Weights Barriel March 1998 (1998) 1994 (1998).	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1							
236		Visitor Center	Valdez Visitor Center	X		1	\$850	1							
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	М		_	12	$\boldsymbol{\mathcal{E}}$	۲_		
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	M		_	Ľ				
239	,	Restoration Monitoring								_					
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	X	X	\$99	1						-	
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241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	м							_
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М							
243		Monitoring													
	0														
244	Sea Otter	Cooporative Prgm-Subsistence Users		$\downarrow$		_									
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	x	\$83	M				-			
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	x	\$337	M	_		ļ			_	
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	×	\$450	M		_			_		_
248	· · · · · · · · · · · · · · · · · · ·	Monitoring	Sea Otter Population Dynamics	X	X	x	\$291	93 - M							
249		Restoration Monitoring													

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**POTENTIAL PROJECTS** RESOURCE **RESTORATION ORTION** REGION 337 201 (e/s).Sir/s'/; 21111.23 0 SERVICE SUBORTION YEAL 250 Sea Otter Study: Eliminate Oil from Mussel Beds 251 Sockeye Salmon хI \$120 Fish Passes and Access Solf Lake Fish Pass М x \$333 Μ 252 Intensify Management Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River \$275 М 253 Intensify Management Genetic Monitoring of Kodiak Island Sockeye Salmon Х Х 93 - M 254 Intensify Management Genetic Stock Identification of Kenai River Sockeye \$500 х 255 \$1,000 93 - M Intensify Management Kenai River Sockeye Salmon Restoration Х \$143 М 256 Intensify Management Lower Cook Inlet Sockeye Salmon Restoration and Enhancement Х М \$6 257 Monitoring Ayakulik River Sockeye Salmon Escapement Evaluation хx \$641 93 - M 258 Monitoring Sockeye Salmon Overescapement 93 - M **Option Not Identified** Restoration of the Coghill Lake Sockeye Salmon Stock \$165 259 Х 260 Red Lake Salmon Restoration \$72 М Option Not Identified 261 Sport Fishing Recovery Monitoring × I.X \$4,200 Replace Harvest Opportunities Fort Richardson Hatchery Improvement 1 262 263 **Restoration Monitoring** 264 Subsistence Access to Traditional Foods 265 Bivalve Shellfish Hatchery Option Not Identified Chenega Bay Subsistence Restoration Project (Remove Oil) X 266 \$200 М 267 Option Not Identified Mariculture Hatchery and Research Center Feasibility Study and Design xxx \$300 1

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	SERVICE	SUBOPTION	the second second second second second second second second second second second second second second second se	s	N	D	\$K	(YEARS)	4	5 6	7	8	90	1 1 1 1
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	X	x	\$2,200	1		1				
269		Option Not Identified	Seward Shellfish Hatchery	X	X	X	\$1,300	1						
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	x	\$700	М						
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X			\$50	М						
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М						
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X		\$2,500	1						
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X			\$1,000	1						
275	•	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	X	X	\$55	М						
276		Restoration Monitoring												
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	X	X	\$589	М						
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	X	\$300	м						
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M						
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280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X		\$110	м						
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	М						
282		Monitoring	PWS Spot Shrimp Survey	X			\$90	м						
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	X	x	\$275	М						
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X	ŀ		\$265	93 - M						
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	x	\$390	М						
286		Monitoring	Subtidal Recovery Monitoring	X	X	x	\$400	М						
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	<b>\$90</b>	м						
									T					
	·		·											
288	<b>Technical Services</b>	Administration	Electronic Archiving of Exxon Valdez Records	X	X	X	\$450	М	$\checkmark$	< >	2			
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X			\$75	м						

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	SERVICE	SUBOPTION		5	NI	SK	(YEARS)	ĽĽ		Ľ	<u> </u>	Ľ		ĥ
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	x x	(\$105	93 - M							
291	<u>.</u>	Administration	Toxicological Profile of PWS	X		\$150	М							
292	· .	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X X	(\$8	- M							
293		Public Information	Database Integration	X	x x	(\$148	М							
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X X	<	М							
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x >	(\$120	м							
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	(\$100	M			·		-		
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	x >	(\$72	M							
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area



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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	B	GIQ	2N	EST	EST	1	1	1 1	1	1	2	2 2	]
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<b>—</b>			Archaeological Spacimona Collection, University of Alagka Museum					M					╇	<b></b>	ĭ.	4
	, a chacology		Archaeological Specimens Collection, University of Alaska Museum			4	\$200	1				• • •				
		Habitat Protoution and Acquisition	Archaoological Site Acquisition	$\frac{1}{\mathbf{v}}$	Y	x	\$200	<u>_</u>	./	VI	/-					
		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites Intergency	·   🗘	Ŷ		\$525		<b>!</b>			-	· ·		ł	
		Intensified Management	Vandalized Cultural Resources, Javantary, Evaluation, Interpretation		$\widehat{\mathbf{v}}$	Ŷ	\$400	M								
5		Option Not Idontified	Postorotion of Chanaga Villago Site			<u>^</u>	¢75	1							.	
7		Option Not Identified	Site specific Archaeological Posteration Interagency	- I.Ç	v	v	\$300	03 . M								•
		Public Information	Pasenote in Time-Cultural Resource Patterns in PM/S	Ŷ			\$230							-		
		Public Information	Heritage Information Replacement	Ŷ	x	x	\$200						1			
		Public Information	PWS Landmarks Evaluation and Interpretation				\$400			.						
	<u> </u>	Public Information	Public Education and Interpretation of Archaeological Resource	Î	x	x	\$400		<u> </u>							
12	· · · ·	Bestoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	M								1
13		Site Patrol and Monitoring	Archaeological Site Protection Public Education Interagency		$\frac{2}{x}$	$\frac{1}{\mathbf{x}}$	\$150	M			·	-		-		-
14		Site Patrol and Monitoring	Archaeological Site Protection Site Patrol Monitoring-Interagency	X	X	x.	\$210	M				-				
15		Site Stewardship Program	Archaeological Site Stewardshin Program	X	x	x	\$114	· · · · · · · · · · · · · · · · · · ·							ļ	
16		Visitor Center	Churach National Forest Heritage Interpretive Center, Design	X			\$1 200	1								
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17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Fagle Habitats	×	x	x	\$262	м	V	e						
18		Becovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	x	x	\$10	M	V	rI	VI	1v	- 2	Ni		
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	x	x	\$200	M							ĺ	
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	······································								†				†	-		
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	x	x	x	\$108	93 - M	V	1					-	
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Ovstercatchers in PWS	x			\$125	M	V	N	X	1	1			

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE		EST. COST/YA	ESTA. DURATIO	1 9 9 9	1 1 9 9 9 9	1 9 9	1 1 9 9 9 9	2 2 0 ( 0 f	Do Not
	SERVICE	SUBORTION		s	N D	\$K	(YEARS	4	5 6	7	89	0 1	7 Lind
22	Black Oystercatcher	Restoration Monitoring											
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1													
		· · · · · · · · · · · · · · · · · · ·											
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	XX	\$1,100	M						
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	XX	\$385	M						
25	- -	Intensify Management	Fishery Industrial Technology Center	X	XX	\$3,500	1						H
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		<b>X</b>	\$150	м		.				4
27		Intensify Mariagement	Susitna River Sockeye Salmon Production Evaluation		X	\$300	м						11
28	n an an an an an ang	Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	XX	\$200	M	V					7
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	Х		\$5,000	1						4
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recove	ry X		\$868	м						-
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	XX	\$50	М	4	rr				
-32		Replace Harvest Opportunities	Miligation Fishery at Kitol Bay Hatchery on Afognak Island		×	\$45	•••• <b>M</b> •••••	-					4
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	М	V					
34	_	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		x	\$50	М						H
35		Replace Harvest Opportunities	Red Lake Mitigation		X	\$191	M						
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						<u> </u>					_		
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	хx	\$280	M						L
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	хx	\$51	93 - M						4
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	хx	\$73	М						L
39	·	Recovery Monitoring	Common Murre Population Monitoring OUT	X	XX	\$191	м	1	VV	V	VV	21	× -
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	хx	\$40	M	1	VV	1			
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT	·		\$460	м	1	VV	V	VV	UL	

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42 Common Murre	Restoration Monitoring	······································			150	M			VV	11	1	
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										-		
43 Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	M						7
44	Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	<b>X</b>		\$285	<b>M</b> 1						И
45	Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X	· · · · · · ·	\$35	M	14					
46	Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	M						5
47	Restoration Monitoring				<u></u>	М						
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0									. [			
48 General	Administration	Oil Spill Restoration Support Service and Facilities	X )		\$600	1	11	V	00	26		
49		Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	M	VV					
50	Option Not Identified	Hazardous Material Collection Facility	XX		\$100	1			4	VI		. 1
51	Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X >		\$488	M						9
52		Public Broadcasting System Program on Oil Spill	X >		\$70	M	VV			·	.	
53		Publish and Distribute Brochures on Injured Species	X >		\$90	M	100	V				
54		PWS Brochures	X		\$65	M						7
55	Public Information	PWS Implementation of Interpretive Plan	X		\$150	M						1
56		PWS Large Format Photographic Book	X		\$100	M						1
57		PWS Scenic Byway Nomination and Interpretive Plan	<b>X</b>		\$70	M					.	4
58	Public Information	PWS Video Programs	<u> </u>		\$100	M	111	1				
59		Science of the Sound- Education Program	<b>X</b>		\$53	M	VV	-1-16	/			
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE	RESTORATION.OPTION	POTENTIAL PROJECTS	R	e Gilo	2N	EST.	EST.	1	1	1	1	T	2 2	8	].	
OF			P W	ĸ	<b>K</b>	Cost/yr	DURATION	9	9	9	9	9 1	0 0	Nor 1		
CO Harbor Seal	SUBORTION CALL		s	м	D	SK.	(YEARS)					<u> </u>		pur		
	Cooperative Program-Fishermen					····										
61	Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	<b>X</b>			\$39	M	14	1	V	11	VL	1	1.		-
62	Option Not Identified	Subsistence Harvest Assistance		.		\$23	<u>M</u>		ļ			.		Ľ		
63	Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X			\$165	93 - M	14	1							
64	Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	X	X	\$230	M	ch	1							•
65 Harlequin Duck	Eliminate Oil from Mussel Beds														-	
66	Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	x	X	\$700	93 - M							L	T	
67	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	X	X	\$53	М	VI		1				•		
															_	
					-									-		
68 Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clarn Recruitment-Feasibility Study	X	X	x	\$20	М					1		1	Τ_	
69	Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	X	x	\$70	м		-				1	L	$\square$	
70	Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	X	x	\$300	М			1		Ì		1	P	
71	Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	X	X	\$50	М	VI	7.	İ		1				
72	Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X			\$500	М	11	-					L	T.	
73	Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	$ \mathbf{x} $	x	\$800	М		Î	1		1		1.		
74	Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	X	X	200	M	42	-1	1		- 1		-	1	
75	Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	X	x	\$620	М					́.		1		
76	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X			\$600	M	~			l I	1				
77	Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	X	x	· <b>\$50</b> 0	M			1		ļ		-		
78	Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		x	x	\$200	M	VI	- 1	1			ļ		1	
79	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	x	x	x	\$275	. M			1		ł		1	1	
80	Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	x	x	x	\$50	м	2	12	 	4	· 1				
81	Monitoring	Monitoring for Recruitment of Littleneck Clams	x	x	x	\$186	м	1-1-	• • • •	1				-	1	

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93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS		REC		EST. COST/YR	EST. DURATIO	1 9 9	1 9 9	1 9 9	1 1 9 9	1 9	2 0 0	2 0 0	Do Not 1	
	SERVICE	SUBOPTION		\$ i 19	s I	D	SK SK	(YEARS)	4	5	6	7 6	9	0	1	Ба а	
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	]	x :	x   x	\$250	м	ĪĪ		1	1	1				
											ĺ						
					Ì									1			
				1													
103	Multiple Resources	Habitat Protection	Habitat Modelling		x	x x	\$150	М			ľ					4	-
104		Habitat Protection	Riparian Habitat Assessment	.]	x :	x   x	\$110	м	V	4	1	ł					
105		Habitat Protection	Stream Channel Capability Modeling		xĽ	x x	\$110	м						ł	ľ		
10 <b>6</b>		Habitat Protection	Stream Habitat Assessment		x :	x x	\$361	93 - M									
107		Habitat Protection	Valdez Hazardous Waste Collection	1	x		\$200	1							1		
108		Habitat Protection	Vegetation and Stream Classification and Mapping		$\mathbf{x}$	x x	\$276	93 - M					l				
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	·	x	x x	\$100	M							<u> </u>		
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	1	$\mathbf{x}$	x x	\$750	м	11						1		
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge			x x	\$111	1	V	Í	Ì				1		
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			x	(	1	14	'	- 1	. 1					
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			X		1	1								,
114		Habitat Protection and Acquisition	Valdez Duck Flats		x			1					1				
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge			X	\$20	1	V			1	-	-			
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1	-				1				
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		· - · [·	٦ x	\$250	1	11	Ì			1		1		
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		X		\$3,500	1	~						ł		
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			- X	\$200	1					1.	•••			
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1	1	· [			†				
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay			x	\$90	1	-						-		
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		1	ĸ	\$60	1	2	Ť	•••	l	1	ţ	1		
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay			x	\$400	1	2			ł					
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		+-	x	\$80	1	1		-				1		
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay			x	\$740	1	1			-	T		1		
126		Habitat Protection and Acquisition	Habitat Acquisition	· · · · · · · · ·	x	x x	\$25,000	93 - 1	11		·· -  -	+	-	+-	F		
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak				\$112,500	1	<u> </u>		f	.  -					

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	ÍON	EST.	EST.	1	1	1 1	1	1 2	2 2	8
or	or	and the second second second second second second second second second second second second second second second	PK	к	COSTAR	DURATION	9 9	9 9	999 999	9 9	9 0 9 0		Not F
SERVICE	SUBOPTION		SN	D	\$K - 2	(YEARS)	Ľ	5	6 7	8	9 0	2	und de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1	V	1					
129	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		X	\$4,000	1	-						
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1	V	i			Ţ		
131	Increase Natural Food Supply							Ì		<b>·</b>			
132	Intensify Mar agement	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X X	X	\$50	М	V	611	2				
133	Intensify Maragement	Genetic Risk Assessment of Injured Salmonids	x x	X	\$408	м			ſ				
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	М	V	V	1				
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	М		÷	ļ				
136	Intensify Management	Seabird Colony Restoration	XX	X	\$250	Μ	V	V					
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	M		-					
138	Monitoring	Shoreline Worm Life Monitoring	XX	X	\$388	М							
139	Option Not. Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	XX	X	\$416	М							
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	XX	X	one billion	M		•••				-	
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X X	X	\$280	М		i					
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	x x	X	\$7	М	V	Vit	1	+1	LL	- 1-	
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	XX	X	\$650	1							
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X X	X	\$48	М	L	V .					
145	Option Not Identified	Shoreline Assessment	X X	X	\$250	93 - M	1	V	4				
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М		Ì					
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	XX	X	\$500	93 - M		1					
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program	X		\$800	М							
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	XX	X	\$2,300	1	V						
150	Recovery Monitoring	Injured Resource Food Supply	XX	X	\$850	М							
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	XX	X	\$500	M							
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay	X		\$600	М							
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М	V	VI	1	12	24		
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X X	X	\$150	М	6	VL	- 2	12	c c		
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X X	X	\$100	М	4	4	12		44	-	
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X X	X	\$200	М							
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М	2	00	-12				

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#### 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	Glor	EST.	EST.	1	1 1	1	1	1 2	2	Ŋ
or	or relations		P W		COST/YR	DURATION	9 9	999 99	9 9	9	90 90	0 0	Not n
SERVICE	SUBOPTION		S I	ND	SK	(YEARS)	4	5 6	7	B	9 0	1	und 1
158 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	М				1			
159	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	x x	\$275	93 - M	V	VV	0	101	20	10	
160	Reduce Disturbance by Field Presence					· · · · ·							
161	Reduce Disturbance Through Public Info	Public Information and Education	x	x   x	\$316	М	V	00		11			
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	x x	\$50	М	2	44	1				
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	x x	\$500	М							
164	Restoration Monitoring	Ecosystem Study	x	x   x	\$6,000	M				ŀ [			
							,			$\left\{ \right\}$			
								-					
										:			
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	М							
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	М							
167	Intensify Management	PWS Herring Tagging Feasibility Study	X		\$1.12	M							
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	М							
.169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	М							
170	Option Not Identified	Enhancement of Pacific Herring	X	xx	\$120	M							
171	Restoration Monitoring												
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										11			
										í [		T I	
	· · · · · · · · · · · · · · · · · · ·												
172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	x x	\$40	93 - M	V	1		L I			
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	x x	\$180	М				( I			
174	Restoration Monitoring									Î			
175	Temporary Predator Control												
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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST,	1	1 1	۱	1	1 2	2	
or	or		P W	K K E O	COSTAY	DURATION	9 9	999	9	9	90	0	οr Σ
SERVICE	SUBOPTION	in a start with the second second second second second second second second second second second second second	s	ND	<b>\$K</b>	(YEARS)	Ĺ	<u> </u>		Ľ	<u> </u>	ĽĮ	ä
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	xx	\$25	M							
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		X	\$28	1							
178	Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1		ļ					l
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1							
180	Fish Passes and Access	Sockeye Creek Fish Pass	X		\$60	1					ł		
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration Fish Improvement		X	\$55	1							
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	xx	\$727	М		i i					
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	М							
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	м					Į		
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	M							
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		\$253	M							
187	Intensify Maragement	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	XX	\$152	М	2	24	10	2	4	4	
188	Intensify Management	Pink Salmon Escapement Enumeration	X	XX	\$705	М							
189	Intensify Management	PWS Salmon Stock Genetics	X		\$150	М	1	cc	1				
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	M							
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X	\$686	М							
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X	\$899	М							
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	М							· ]
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M							
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	М							
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	xx	\$300	м							
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		xx	\$1,250	М	-	VL	1				, L
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	xx	\$6,000	1							7
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	xx	\$40,000	1					[		
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	xx	\$500	М	6				İ		
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	хx	\$500	M	V						

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS		REG	ON	EST.	EST.			T				8
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	SERVICE	SUBORTION	A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A		N	D	SK -	(YEARS)	•	5	6	7 8	9	0	Pund
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System	1		X	\$500	1	1		Ī				
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System	· ·		X	\$70	1							11
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	1:	x i		\$50	M							
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism		x x	$ \mathbf{x} $	\$100	M				Ì			
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS		ĸ		\$58	М	1		- 1				
207		Monitoring	Recreation Field Management and Monitoring		x x	X	\$700	M							-
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails		<b>K</b>		\$150	1		11					
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement		<b>x</b>	1-1	\$20	1					1-		
210		New Backcountry Recreation Facilities	Improve Marine Parks		k x	X	\$100	M							
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area		<b>k</b>		\$100	1				. 1.		·	2
212		New Backcountry Recreation Facilities	Prince William Sound Campground		<b>K</b>	11	\$70	1	FV			•			
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	·	< x	X	\$150	M	12	<b>j</b>				· · · · ·	
214		New Backcountry Recreation Facilities	PWS Kayak Trail		k i		\$100	1	V			ļ			
215		New Backcountry Recreation Facilities	PWS Recreation Facilities		<	t I	\$250	1	V						
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	x	\$140	1		i I					
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan			· · · ·	\$400			j					
218		Option Not Identified	Sustainable Tourism in PWS		<		\$240	M					1	-	12
219	1	Option Not Identified	Watchable Wildlife		< x	x	\$65	м							
220		Option Not Identified	Increased Access PWS	;	<		\$100	M							4
221	1	Plan Commercial Recreation Facilities	Recreation Development		< x	X	\$200	м					·····	· •	4
222		Restoration Monitoring				† †			1						
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	3	< x	x	\$77	м	12	0	1/2	10	12	2	
224	· .	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	)	<			1		11					
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	3	< X	X	\$310	M	L	6	20	22	12	e	
226		Visitor Center	Cordova Environmental Education Center	)	<	1-1	\$15	1						•	
227		Visitor Center	Cordova Mini-Imaginarium	;	<	11	\$63	1	Ţ						
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts		< x	X	\$155	M	1						
229	-	Visitor Center	Environmental Education Center in PWS	)	<b>c</b>		\$90	1	1		1				
230		Visitor Center	Environmental Learning Resource Center	,	(   X	X	\$90	1			-			-	
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	)	<b>(</b>	1-1	\$450	1		†		1			

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EG	ON	EST,	EST.	1	1	1		1	2 2 8
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267	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	•	<u> </u>	6 7	8	9	0 1 5
23	Recreation	Visitor Center	Information Center	X	X	X	\$600	1		1				
23	3	Visitor Center	Interpretation of PWS	X			\$10	м						
23		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1						
23	5	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1						
23	5	Visitor Center	Valdez Visitor Center	X			\$850	1						
23	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	м						
23		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	м						
239	, en en en en en en en en en en en en en	Restoration Monitoring			1									
240	).	Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	X	X	\$99	1					i. I	
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			la de la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp				an An an an an an an an an an an an an an an							
		· · · · · · · · ·												
24	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X	1	\$175	M				.] ]		
24		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	M						
24:		Monitoring	· · · · · · · · · · · · · · · · · · ·											ļļ
	and an example of the	·····		ļ	ļ.		· · · · · · · · · · · ·							
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244	Sea Otter	Cooporative Prgm-Subsistence Users	· · · · · · · · · · · · · · · · · · ·	ļ		-								
24!	· · · · · · · · · · · · · · · · · · ·	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	X	\$83	M						
240	· · · · · · · · · · · · · · · · · · ·	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	. <b>M</b>						
24	· · · · · · · · · · · · ·	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	X	\$450	M						
24		Monitoring	Sea Otter Population Dynamics	X	X	X	\$291	93 - M	U	4	14	14	4	00
24		Restoration Monitoring		1		1 .								

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### Page 12

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	}EC	310	N EST.	EST,	1	1				1 2	2	ğ	
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	SERVICE	SUBOPTION		s	/ E : N		° D <b>SK</b>	(YEAR	S) (	5	6	7	8	9 0	1	Fund	
25	Sea Otter	Study: Eliminate Oil from Mussel Beds			-	1				1		1 1	1		-	1	
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1.																	
1							1							•	İ		
																	· ·
25	Sockeye Salmon	Fish Passes and Access	Solf Lake Fich Pase				\$120	NA			-{						
252		Intensify Management	Dovelon and Doploy In Diver Hydropopultic Counters for Sockeys Salmen in the Kenni Diver		<b>`</b> [,	$\mathbf{v}$	¢220	M									
250		Intensity Management	Cenetic Monitoring of Koulist, Ist and Surface Selmon		1	^ ,	4000 V 075					. .					
254		Intensify Management	Constinuition of Konsi Diver Sections			$\mathbf{v}$	A \$2/3				+						ľ
254		Intensity Management	Kenzi Biyes Cookeye Solman Battersting		1	<u>.</u>	000¢	93-1								-	
256		Intensity Management	Kenai River Sockeye Saimon Restoration			).	\$1,000	93 - N								}	
250	- ·		Lower Cook Inlet Sockeye Salmon Restoration and Enhancement			× .	\$143	M			Ļ.,		.				
25/			Ayakulik River Sockeye Salmon Escapement Evaluation	-			X \$6				1	+		·			
258		Monitoring	Sockeye Salmon Overescapement			X	X \$641	93 - N	A								
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock		×		\$165	93 - N	<u>/</u>								
260		Option Not Identified	Red Lake Salmon Restoration			- ] 3	X \$72	M				. 1					
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		· · · · · · · · · · · · · · · · · · ·									<b>.</b>						1
261	Sport Fishing	Recovery Monitoring												;			
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		2	x	\$4,200	1								2	F
263		Restoration Monitoring															
													1				
ŀ	· ·				1												
																	ł
264	Subsistence	Access to Traditional Foods			-	T					1			•••		1	
265		Bivalve Shellfish Hatchery		1							1					1	
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	)	x	Ť	\$200	M		· ·	1	† †				1	1
267	1	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	۲.	x	x :	X \$300	1			1		f.	-	h		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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Name: Moid Choseneme Phone: (907) 235 3895

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIÓN	EST.	EST.		ı <b>I</b> ,	1		1 2		8
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	SERVICE	SUBOPTION		s	ND	\$K	(YEARS)	4	56	7	8	9 0	1	bund
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	xx	\$2,200	1		ļ	ļ			1	1
269	•	Option Not Identified	Seward Shellfish Hatchery	X	xx	\$1,300	1						6	T
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	xx	\$700	М							1
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		\$50	М						11	T
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X		\$55	M							4
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X	\$2,500	1			{				4
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,000	1		Í	T		· [		屮
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	хx	\$55	м							4
276		Restoration Monitoring				•								
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	xx	\$589	м							
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	xx	\$300	м							
279		Test Subsistence Foods	Subsistence Food Safety Testing	. X	хx	\$308	93 - M	20						
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280	Subtidal	Habitat Protection	Juvenile Spot Shrimo Habitat Identification	x	x	\$110	M	100						
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	x		\$715	M	in	el y					
282		Monitoring	PWS Spot Shrimp Survey	x		\$90	M	UL						·
283		Monitorina	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	xx	\$275	M	4						~
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	x		\$265	93 - M	11	12	10	ł			
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	x	хx	\$390	M						<u> </u>  -	
286		Monitoring	Subtidal Recovery Monitoring	X	xx	\$400	M							
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	хx	\$90	М						· ·	
					11		t ••• •• •• •• ••				1 1			
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	•													
288 1	echnical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	xx	\$450	м	40	v	1				
289	· ·	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X		\$75	м			1				

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RE P w s	GIC ĸ E N	к о D	est. Cost/yr \$k	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	2 0 0 1 1
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	x	x	\$105	93 - M	4	VL	10			j
291		Administration	Toxicological Profile of PWS	X			\$150	М						
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	<b>X</b>	X	\$8	M						<u> </u> <b> −</b>
293		Public Information	Database Integration	$ \mathbf{x} $	x	X	\$148	М						
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	x	x		М						
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x	X	\$120	М						
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	М	-		[]			
297	and a second second second second second second second second second second second second second second second	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	М						
	·····													

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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#### Page 15

RESOURCE RESTORATION OPTION POTENTIAL PROJECTS REGION ES os les òr COST/YR SERVICE SUBOPTION \$K MEATER DNA Idout, FICATION OF Common MUMAN, Stocks, 3 100-150 046 Common Muano NTXXX Monitoria DNA FINGER PRINT MUMAES At colmics IN the QUEFOF Ataskes. As a pilot study SAMPLO 6-7 Cohonics IN Western Call & ALSO REMY ALROADY EXISTING SAMPLOS FROM other Cohonics in Alaska. (10-220 Smoothes or Ach chang). Concopt is to ideratify via markins mutares betwying to various cotonios. Firtho ISVERTOR, ADDATONS COLONIOS. Firtho USVERTOR, ADDATON SPILL, dord MUHARDS W CONTOR ADDATON SPILL, dord MUHARDS W CONTOR ASSOCIATED, with impredict CAN Cohonless + populations.

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: Maria C. Rosenerne Phone: (909) 235 3895

#### Page 16

RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	REG P K W E S N	K O D	EST. Cost/ya \$K	EST; DURATION (YEARS)	1 9 9 4	1 J 9 5 9 9	1 1 9 9 9 9 6 7	1 1 9 9 9 9 8 5	1 2 3 0 9 0 9 0	2 0 0 1
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area




Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	8	EG	$\mathbf{O}_{\mathbf{k}}^{\mathbf{k}}$	54571	ा हरह	1	1	1 1	1	1	2	2 2
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SERVICE	SUBOPTION SUBOPTION		S	N	P	<u>i se i se a</u>	11012065						Ľ	5
Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	M		*. 		-			
	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X	<b> </b>		\$300	1							
	Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	M		_					
••••••	Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	M							.
	Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X	X	X	\$400	М							
_	Option Not Identified	Restoration of Chenega Village Site	X			\$75	1							
	Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	X	\$300	93 - M							
	Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М							
	Public Information	Heritage Information Replacement	X	X	X	\$200	M							
	Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М							
· · · · · · · · · · · ·	Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	M		22.1					
····	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	M							
	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	×	X	X	\$150	м			1				ľ
	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М							
· ·	Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	M							
· · · · · · · · · · · · · · · · · · ·	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X	:		\$1,200	1							
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•														
Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	М				1		·  ·	
	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	x	X	X	\$10	м			ţ.	1		·	ĺ
	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М							
· · · · · · · · · · · · · · · · · · ·				-					• • • •				-	
Black Oystercatche	er Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	X	\$108	93 - M				-			
	Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	M				T			Ĩ

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

#### Page 2

RESTORATION OPTION RESOURCE **ITIAL PROJECTS** REGION 13.5 or COSTAYR DURATIO SUBOPTION IVEARS SERVICE 22 Black Oystercatcher Restoration Monitoring 23 Commercial Fishing Habitat Protection and Acquisition x x x Weir And Conservation Land Acquisition \$1,100 М 24 Intensify Management Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources XXX \$385 Μ 25 Intensify Management Fishery Industrial Technology Center  $\mathbf{x} | \mathbf{x} | \mathbf{x}$ \$3,500 26 Intensify Management Model for Capacity of Salmon Production for the Susitna Drainage \$150 м 27 Intensify Management Susitna River Sockeye Salmon Production Evaluation \$300 м 28 Monitoring Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment \$200 М X X X 29 Option Not Identified Payoff Debt of Valdez Fisheries Development Association \$5,000 1 30 **Recovery Monitoring** Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery X \$868 м 31 **Recovery Monitoring** Wild Fish Stock Information Assessment \$50 м XX -32 **Replace Harvest Opportunities** Mitigation Fishery at Kitol Bay Hatchery on Alognak Island \$45 33 Replace Harvest Opportunities Montague Island Chum Salmon Restoration \$80 м 34 Replace Harvest Opportunities Paint River Fish Ladder Salmon Stocking Program \$50 Μ 35 Replace Harvest Opportunities М **Red Lake Mitigation** \$191 Common Murre XXX 36 Feasibility Study: Improve Nest Sites Testing of the Feasibility of Enhancing Productivity \$280 Μ xxx 37 Feasibility Study: Social Stimuli Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement \$51 93 - M xxx 38 Feasibility Study: Social Stimuli \$73 М Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study 39 **Recovery Monitoring** xixix **Common Murre Population Monitoring** OUT \$191 М 40 Reduce Disturbance Reduce Disturbance Near Murre Colonies Injured by the Oil Spill x x x \$40 М Remove Introduced Species 41 Removal of Introduced Predators from Bird Colonies OUT \$460 М

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Name: Phone:

#### Name: Phone:

#### RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS REGION 1.25 COSTAY or Ör SERVICE SUBOPTION NEAS 42 Common Murre М **Restoration Monitoring** 43 Cutthroat/Dolly Cutthroat Trout and Dolly Varden Habitat Restoration \$200 М Intensify Management X ¥ \$285 М Intensify Management Enhanced Management of Cutthroat Trout and Dolly Varden 44 **Option Not Identified** \$35 М Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration 45 Option Not Identified М 46 Cutthroat Trout and Dolly Varden Hatchery X \$950 47 **Restoration Monitoring** M 48 General Administration Oil Spill Restoration Support Service and Facilities XXXX \$600 1 Monitoring X Monitoring of Small Cetaceans (Dall Porpoises) in PWS \$200-M. 49 xx Option Not Identified \$100 50 Hazardous Material Collection Facility 1 xx Option Not Identified \$488 М Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model 51 Public Information X Public Broadcasting System Program on Oil Spill X \$70 М 52 x x Public Information \$90 М Publish and Distribute Brochures on Injured Species 53 X Public Information \$65 М 54 PWS Brochures X Public Information PWS Implementation of Interpretive Plan М 55 \$150 X M Public Information PWS Large Format Photographic Book 56 \$100 x 57 Public Information PWS Scenic Byway-- Nomination and Interpretive Plan \$70 М X Public Information М \$100 58 PWS Video Programs Public Information м **59** Science of the Sound- Education Program \$53

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIQ	N EST.	EST	1	1 1	1	1	1	2 2	р х	1
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60	Harbor Seal	Cooperative Program-Fishermen				<u>  30</u>			-		4			<u>¤</u>	1
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		\$39	M	· · · •					•	ł	
62		Option Not Identified	Subsistence Harvest Assistance	x		\$23	м			• • •	• · · •			1.	
63		Option Not Identified	Habitat Use and Behavior of Harbor Seats in PWS	x		\$165	93 - M	V	•			ľ			
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	xb	\$230	м			.  .					1
								<u>+</u>  -							ł
	•							9 ····							
65	Harlequin Duck	Eliminate Oil from Mussel Beds						1 1		•					
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	x	xb	<b>\$700</b>	93 - M	i							
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	x	x )	(\$53	M	1							
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68	intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	x	xĎ	<b>(</b> \$20	М							Ì	
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	xb	(\$70	M		-	İ	-		1	ţ	
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	x	x)	K \$300	М	1 1.	1						1
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	x	<b>\$</b> 50	М								
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	M			1.1.1					
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	x>	<b>\$8</b> 00	м		1					Ì	
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	x>	<	м			-					1
75		Monitoring	Coastal Habitat Injury Assessment - Intertidat Algae	X	x	<b>\$620</b>	м	V	イ	イレ	トレ	5	1	-	1
76	•	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	M		Ţ.					1	1
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	x	<b>\$</b> 500	M	1	1	42	1	4	イ	41	NS .
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait	1-1	x>	<b>〈 \$</b> 200	M								1
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	x	<b>\$275</b>	М		-						1
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	xb	<b>&lt; \$</b> 50	M	1 1	Ť						
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X	x >	(\$186	М								

93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	GIC	N	EST.	EST.	1	1	1	1	1 1	2	2	8
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	SERVICE	SUBOPTION		5	N	D	\$K	(YEARS)	Ľ	5	6	7	9	O I		ina
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	X	\$500	М								
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	X	\$600	М					ļ			
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	×	\$195	М	1	V						
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	X	\$500	93 - M								
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M	14	4	4	1	4	11	~	
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	X	\$860	М								
88		Option Not Identified	Clam Enhancement	X	X	x	\$120	м								
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	M								
90		Option Not Identified	Restoration of Mussel Beds	X	X	X	\$500	м								
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X	\$237	м								
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	n an an an an an an an an an an an an an															
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92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M			.   .					
93 .		Monitoring	Recovery Monitoring	X			\$125	М								
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	M				l				
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X		.  .		М								
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96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	<u>x</u>	X	\$240	93 - M	6							
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	х	\$180	93 - M	V							
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	×	\$250	M		.		.   .				
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	x	\$509	м								
100		Minimize Incidental Take							_							
101	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	X	\$200	М								

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE		V E	ST.	EST.	1 9	1 1 9 9	1 9	1 9	1 2 9 0	2 0 Not
	SERVICE	SUBOPTION		W S	E O N D		ĸ	(YEARS)	9	999 56	7	9 8	90	0 1 755
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	x)	( \$2	50	м	Ī					
		· · · · · · · · · · · · · · · · · · ·									Į			
													ĺ	
[														
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	x	(\$1	50	м						
104		Habitat Protection	Riparian Habitat Assessment	X	X >	( \$1	10	M	_					
105		Habitat Protection	Stream Channel Capability Modeling	X	x	(\$1	10	М	.		·			
106	•	Habitat Protection	Stream Habitat Assessment	X	X	( \$3	61	93 - M						
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$2	200	1						
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	X >	( \$2	76	93 - M						
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	-X   >	( \$1	00	M	i					· · · · · · · · · · · · · · · · · · ·
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	х	X	(\$7	′50	M						
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		x >	( \$1	11	1						
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		)	¢	• • •	1			1			
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		·	(		- 1	ł		-			
114		Habitat Protection and Acquisition	Valdez Duck Flats	Х				1						
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X	\$	20	1	]					
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		>			1						
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		)	(\$2	50	1						
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	Х		\$3,	500	1						
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		>	(\$2	200	1			Ĵ.			
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		>	( \$77	,000	1						
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$	90	1	2					
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$	60	1	Ĺ					
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X	\$4	00	1						
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	\$	80	1						
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X	\$7	40	1			[		l.	
126		Habitat Protection and Acquisition	Habitat Acquisition	X	x>	\$25	,000	93 - 1						
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak		>	(\$112	2,500	1						

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC P	ilon ×	EST. COST/YR	EST. DURATIO	1 9 9	1 1 9 9 9 9	1 9 9	1 9 9	1 2 9 0 9 0	2 0 0	00 70 r
SERVICE	SUBOPTION		S N	D	SK 1	(YEARS)	•	5 6	7	8	9 0	1	- Unu
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		I					
129	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		X	\$4,000	1		1					
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1		i					
131	Increase Natural Food Supply							ł					
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	x x	\$50	М		1					
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x x	\$408	М							
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	M			.				
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	М		:					
136	Intensify Management	Seabird Colony Restoration	X	x x	\$250	м							
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	M		Ì				1	
138	Monitoring	Shoreline Worm Life Monitoring	X	x x	\$388	М		•					1
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish		x x	\$416	M	-	-					ł
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	x x	one billion	М						1	Ì
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	x x	\$280	М		i			Ī		
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	x x	\$7	М		1					1
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	x	x x	\$650	1		• • • •					ŀ
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	<b>x</b> ]	x x	\$48	М	11					ľ	
145	Option Not Identified	Shoreline Assessment	X	x x	\$250	93 - M				ĺ			
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М						_	
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x x	\$500	93 - M							I
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	М	4	1	10	c	1.0	10	
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x x	\$2,300	1`	ŢŢ						
150	Recovery Monitoring	Injured Resource Food Supply	X	x x	\$850	М					-		I
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x x	\$500	М							
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		x	\$600	M	r	- 0		-	/ -	1	$\left  \right $
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М							İ
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	x x	\$150	M							
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x x	\$100	М		j.					
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	x x	\$200	M							1
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М			1 1		1.		

93=Funded in 1993 M=Multi-year Project

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	RESOURCE or SERVICE	RESTORATION OPTION OF SUBOPTION	POTENTIAL PROJECTS	RE P W S		EST. COST/YR \$K	EST. DURATION (YEARS)	1 9 9 4	) 1 7 9 9 9 5 6	1 1 9 9 9 9	1 9 9 9	2 0 0 0	Do Not Fund	
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	м							
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	xx	\$275	93 - M						. 1	
160		Reduce Disturbance by Field Presence												
161		Reduce Disturbance Through Public Info	Public Information and Education	X	xx	\$316	м							
162	2	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	xx	\$50	M							
163	l ·	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	xx	\$500	М	2	به لم	+1	イン	1.		
164		Restoration Monitoring	Ecosystem Study	X	xx	\$6,000	M				1.		$\downarrow$	
		Recovery Mountaring	Deterministion of the Health of the Ocean	×	xx	2,000	R			- :		-	-	
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	x		\$205	M	11	شل-					
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	М	1-	A	h	لمالي	r		
167		Intensify Management	PWS Herring Tagging Feasibility Study	x		\$112	M				a ta s			
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	М							LIN
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	М		1					
170		Option Not Identified	Enhancement of Pacific Herring	x	xx	\$120	М		1 -					7
171		Restoration Monitoring							l					
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172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	XX	\$40	93 - M							
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	хx	\$180	М							
174		Restoration Monitoring				 								
175		Temporary Predator Control												
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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50	RESOURCE	RESTORATION OPTION.	POTENTIAL PROJECTS	REC	BION	EST.	EST.	1 I	1	1	<b>,</b>	1 2	2	8
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	SERVICE	SUBOPTION		S I	N D	\$K	(YEARS)	4 5	6	7	8	9 0	1	5 d
176	Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	xx	\$25	M		•			-	1	
177		Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		X	\$28	1							
178		Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1	<b>*</b>						
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1			- -				
180		Fish Passes and Access	Sockeye Creek Fish Pass			\$60	1	a						
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		X	\$55	1	• • • •		·				
182		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	x   x	\$727	М							
183		Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	М							
184		Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	М							
185		Intensify Mar agement	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	x		\$500	М		1					
186		Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		\$253	м							
187		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	XX	\$152	M							
188		Intensify Management	Pink Salmon Escapement Enumeration		xx	\$705	M		-					
189		Intensify Management	PWS Salmon Stock Genetics	X		\$150	M		1					
190	•	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	M .							
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X	\$686	M			1				
192		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X	\$899	М							
:193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	M			1				
194		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M							
195		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	M							
196		Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	XX	\$300	M							
197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		x x	\$1,250	М							
198		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	XX	\$6,000	1		ļ					
199		Establish Marine Environmental Institute	Seward Sea Life Center	X	XX	\$40,000	1							
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	x x	\$500	M							
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	x x	\$500	M							

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIØI	EST.	EST,	1	1 1		1 1	2	2 8
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128	SERVICE	SUBORTION CONTINUES		s	ND	\$K	(YEARS)	Ľ	5 6	1	89	0	1 5
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		X	\$500	1 1						
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70	1						
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	м						
205	5	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	x x	\$100	м						
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X		\$58	М						
207	,	Monitoring	Recreation Field Management and Monitoring	X	XX	\$700	М						
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		\$150	1		Ì				
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1						
210		New Backcountry Recreation Facilities	Improve Marine Parks	X	xx	\$100	M						
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1		Í				
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1						
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	XX	\$150	М					1	
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1	V	1				
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X		\$250	1			1.			
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		XX	\$140	1	- i	ĺ			İ	
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M	j					
218		Option Not Identified	Sustainable Tourism in PWS	X		\$240	М						
219		Option Not Identified	Watchable Wildlife	X	XX	\$65	М		İ				
220		Option Not Identified	Increased Access PWS	X		\$100	М		1	11			
221		Plan Commercial Recreation Facilities	Recreation Development	X	xx	\$200	м					~	
222		Restoration Monitoring								,		-	
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	XX	\$77	м			1			
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1						
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	хx	\$310	M	V	Vi	1			
226		Visitor Center	Cordova Environmental Education Center	X		\$15	1						
227		Visitor Center	Cordova Mini-Imaginarium	X		\$63	1			1			
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	x	XX	\$155	М					1	
229		Visitor Center	Environmental Education Center in PWS	X	Ţ	\$90	1						
230		Visitor Center	Environmental Learning Resource Center	X	xx	\$90	1				T T	-	
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X		\$450	1		· F		·  ··		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RI P W S	EGIC × E N	N × D	EST. OST/YR \$K	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 2 9 0 9 <del>0</del> 9 0	2 0 0 1
232 Recreation	Visitor Center	Information Center	X	X	x	\$600	1			Ī			
233	Visitor Center	Interpretation of PWS	X			\$10	М						
234	Visitor Center	Maritime Wing Valdez Museum	X			\$150	1						
235	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1			_			
236	Visitor Center	Valdez Visitor Center	X			\$850	1						
			An de color e de color de color			<b>.</b>						• • •	
237 River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	м	1					
238	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	М	V					
239	Restoration Monitoring			[· · [					• · •				
240	Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	X	X	\$99	1 .						
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<b>. .</b>	and the parameter of the second second												· · · · · -
1 - A													<b>.</b>
241 Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	M			·			
242	Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	• M	.					
243	Monitoring												
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244 Sea Otter	Cooporative Frgm-Subsistence Users							.					
245	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	-   X		<u>.</u>	\$83 6007	M		.   .				
246	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Heproduction, and Mortality	X		<u>.</u>	9337 6450							
247	Monitoring	Hadio-Telemetry Project to Monitor Hecovery of Sea Otters		H\$	<u>-</u>	\$45U							
248	Monitoring	Sea Otter Population Dynamics	<b>X</b>		<u>A</u>	\$291	93 - M		1				
249	Restoration Monitoring	÷ · · · · · · · · · · · · · · · · · · ·		1				1 1			1		

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93=Funded in 1993 M=Multi-year Project

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#### RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS REGION EST. EST. or or SUBOPTION COST/YR DURATIO SERVICE SK. 12 (YEARS) 250 Sea Otter Study: Eliminate Oil from Mussel Beds 251 Sockeye Salmon Fish Passes and Access Solf Lake Fish Pass \$120 Μ 252 Intensify Management Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River Х \$333 Μ 253 Intensify Management Genetic Monitoring of Kodiak Island Sockeye Salmon \$275 м 254 Intensify Management Genetic Stock Identification of Kenai River Sockeye \$500 93 - M Х 255 Intensify Management Kenai River Sockeye Salmon Restoration X \$1,000 93 - M 256 Intensify Management Lower Cook Inlet Sockeye Salmon Restoration and Enhancement Х \$143 М 257 Monitoring Ayakulik River Sockeye Salmon Escapement Evaluation \$6 М 258 Monitoring Sockeye Salmon Overescapement XX \$641 93 - M 259 Option Not Identified Restoration of the Coghill Lake Sockeye Salmon Stock \$165 93 - M 260 **Option Not Identified** Red Lake Salmon Restoration \$72 X M 261 Sport Fishing Recovery Monitoring 262 **Replace Harvest Opportunities** Fort Richardson Hatchery Improvement Х \$4,200 1 263 Restoration Monitoring-264 Subsistence Access to Traditional Foods 265 Bivalve Shellfish Hatchery Option Not Identified 266 Chenega Bay Subsistence Restoration Project (Remove Oil) \$200 M 267 **Option Not Identified** Mariculture Hatchery and Research Center Feasibility Study and Design x x \$300

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	SERVICE	SUBOPTION		s	И	D	\$K	(YEARS)	4	5	6 7	8	9	0	1
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	x	x	\$2,200	1							
269 ·		Option Not Identified	Seward Shellfish Hatchery	X	x	x	\$1,300	1		Ī					
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	X	\$700	М							
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X			\$50	М		Ī			1		
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М					1		
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X		\$2,500	1							• •
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X			\$1,000	1					1		
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	X	x	\$55	м						Î	
276		Restoration Monitoring													
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X		x	\$589	М							
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	X	\$300	М			ч				• •
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M							
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											1				
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X		\$110	М							
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	М							
282		Monitoring	PWS Spot Shrimp Survey	X			\$90	M							
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	X	X	\$275	M							
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M	V	1	1				
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	X	\$390	M							
286		Monitoring	Subtidal Recovery Monitoring	X	X	X	\$400	M		_					
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	М							
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288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	. X	X	X	\$450	М		-		1		*	
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X			\$75	M			-	1	1	- 1	

93=Funded in 1993 M=Multi-year Project

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	2N	EST.	EST	1	1 1	1 1	1	1 2	2 8
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SERVICE	SUBOPTION		s	R	D	\$K	(YEARS)		<u>`</u>	° /	Ľ	9 0	
290 Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	x	X	\$105	93 - M						
291	Administration	Toxicological Profile of PWS	X			\$150	M					. [*	
292	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	М					÷.	
293	Public Information	Database Integration	. X	x	x	\$148	М						·   v
294	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	x		М						-
295	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	X	X	\$120	М						-
296	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	- X	x	X	\$100	•••••••••••••••						
297	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	М	- [-		T			
										1			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: Treyez Phone: (967) 474-7835 1994 POTENTIAL PROJECT TITLES

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RESOU or SERV		RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	<b>R</b> P W S	EGION K K E O N D	EST. COST/YR \$K	EST. DURATION (YEARS)	1 1 9 9 9 5 4 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9	2 2 0 0 0 0 1	Do Noc Fund
Multple	Resource	Mondering	Determine the changes in the Alaske Coastal Current that delivers nutrients, heat and salt to PWS. Estimate the effects of the changes in that corrent system and contact	X	××	1,500	*					4	
		· · · · ·	(This job is not impossible since more Alian 20 yrs. a physical clarke are already available).	of			······						
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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## 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	P S S	<b>GIC</b> K E N	X O D			1 9 9	1995	1 1 9 9 9 9 6 7	199	199	2 0 0 0	20 No: 5413	
1	Archaeology	Acquire Archaeological Artilacts	Archaeological Specimens Collection, University of Alaska Museum	Х	X	X	\$41	М							$\square$	1
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	Х		].	\$300	1								
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	x	X	\$200	М								
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	Х	X	X	\$525	М								
5		Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	Х	X	X	\$400	М								
6		Option Not Identified	Restoration of Chenega Village Site	Х			\$75	1								
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	х	X	x	\$300	93 - M								
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М								
9		Public Information	Heritage Information Replacement	X	X	x	\$200	M				I				
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М					1			
° 11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	M		- <u> </u>		-		-		
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	M								-
13		Site Patrol and Monitoring	Archaeological Site Protection Public Education-Interagency	Х	X	X	\$150	M	1	1						
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	×	X	\$210	M	1	1	1	ľ				
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	×	X	\$114	М	5			1-	-			
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	Х	_		\$1,200	1	レ		ļ	1	.		ī I	
<sub>17</sub>	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Fagle Habitats	x	x	x	\$262	M								ļ
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	x	X	\$10	M								
19		Recovery Monitoring	Long Term Population Monitoring for Bald Eagles	X	x	x	\$200	м					·			
								· · · ·								
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	X	\$108	93 - M								
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	М								

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-10- C	RESOURCE or SERVICE	SUBORTION L	POTENTIAL PROJECTS AND A MARK AND A MARK		P W S	GION K K E O N D	COSTIN	DLIRA IAN	1 9 9 5	1 9	1 9 9 7	1 9 9 1	1 2 9 0 9 0 9 0	2 0 0 1	De Not Find
22	Black Oystercatcher	Restoration Monitoring							Ī	Ī	Ī	Ī	1	Ī	П
						1			1			11			
														1	
23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition		X	xx	\$1,100	M							
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources		X	xx	\$385	м						1	
25		Intensify Management	Fishery Industrial Technology Center	-	X	xx	\$3,500	1	· [						
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage			x	\$150	м							
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation			x	\$300	M			Ì				
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment		X	xx	\$200	M		-					
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association		X	· [	\$5,000	1							
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Reco	overy	X		\$868	Μ			1.				
31		Recovery Monitoring	Wild Fish Stock Information Assessment		X	XX	\$50	м							
32		Replace Harvest Opportunities	Mitigation Fishery at Kitol Bay Hatchery on Alognak Island		- · -	X	\$45	M			1			-	
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration		х		\$80	M			1				
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program			X	\$50	м			1				
35		Replace Harvest Opportunities	Red Lake Mitigation			X	\$191	M					.		
1															
		· · · ·													
						-									
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity		X	XX	\$280	M							
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement		X	XX	\$51	93 - M							
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study		X	XX	\$73	M					İ		
<b>39</b>		Recovery Monitoring	Common Murre Population Monitoring OL	UT	X	XX	\$191	M							
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill		X	XXX	\$40	M					Ì		
41	1.	Remove Introduced Species	Removal of Introduced Predators from Bird Colonies Ol	UT	1		<b>\$460</b>	M				1 1		1	1

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#### **1994 POTENTIAL PROJECT TITLES**

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Phone: RESOURCE **RESTORATION OPTION** POTENTIAL PROJECT 10 SERVICE SUBOPTION 42 Common Murre **Restoration Monitoring** М 43 Cutthroat/Dolly Cutthroat Trout and Dolly Varden Habitat Restoration Intensify Management \$200 M X \$285 М Intensify Management Enhanced Management of Cutthroat Trout and Dolly Varden Option Not Identified \$35 Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration X М Option Not Identified \$950 М Cutthroat Trout and Dolly Varden Hatchery М Restoration Monitoring 48 General Administration Oil Spill Restoration Support Service and Facilities XXX \$600 1 M Monitoring Monitoring of Small Cetaceans (Dall Porpoises) in PWS \$200 Option Not Identified xxxx Hazardous Material Collection Facility \$100 1 Option Not Identified XXX \$488 М Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model Public Information М Public Broadcasting System Program on Oil Spill XXXX \$70 Public Information XXXX \$90 М Publish and Distribute Brochures on Injured Species 1 -Public Information М **PWS Brochures** X \$65 Public Information X М PWS Implementation of Interpretive Plan \$150 Public Information PWS Large Format Photographic Book X \$100 М Public Information \$70 Μ PWS Scenic Byway-- Nomination and Interpretive Plan X Public Information **PWS Video Programs** \$100 М Public Information Science of the Sound- Education Program, \$53 М ~ -

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## 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION ORIGINA	POTENTIAL PROJECTS	RE		CONTRACT		1 .	1 9 9	1 1 9 9 9 9	199	1 2 9 0 9 0	2 0 0	Do Not P
		SUBORTION		s	ND		ME (S)		<u>`</u>	<u> </u>	Ľ	ĽĽ		5
60	narbor Seal	Cooperative Program-Fishermen												
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X		\$39	м							
62		Option Not Identified	Subsistence Harvest Assistance	X		\$23	м							
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X		\$165	93 - M							
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	xx	\$230	м							
	· · ·				-									
65	Harlequin Duck	Eliminate Oil from Mussel Beds												
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	XX	\$700	93 - M							
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	XXX	\$53	M							
		··· · · · · · · · · · · · · · · · · ·					· · · · ·							
68	ntertidal	Accelerate Recovery of Intentidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	x	xx	\$20	M							
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	x	xx	\$70	м				-			
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	x	xx	\$300	M		1			1		
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	x	xx	\$50	м							
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	x		\$500	м							
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	x	xx	\$800	м							
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	x	xx		м							
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	x	xx	\$620	м						1	
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	x		\$600	. <u>м</u>							
$\overline{n}$	•	Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	x	xx	\$500	м							
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska. Cook Inlet and Shelikof Strait		xx	\$200	м							
79	•	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	x	xx	\$275	м							
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	x	xx	\$50	M							
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X	XX	\$186	M						· ·	

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	RESOURCE	RESTORATION OPTION.	POTENTIAL PROJECTS	ŖE	Gla			EST.	1		, , ,	1	1	2	, 8	
	Or	or		P	K	K I	POENA G	DURÁTION	9 9	9	9 9 9 9	9 9	9 9	0	0 <sup>V</sup> 01	l
7.3	SERVICE	SUBOPTION		s	N	D		(YEARS)	•	5	6 7	8	'	U	1	
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	x	\$500	М			Ī		1 1			ł
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	x	x	x	\$600	М								
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	x	x	x	\$195	М								
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	x	x	\$500	93 - M								Ľ
86		Monitoring	Herring Bay Experimental and Monitoring Studies	х			\$495	93 - M			- {·					
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	х	X	×	\$860	м								
88	1 - A	Option Not Identified	Clam Enhancement	X	x	x	\$120	М								
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	×	\$500	М								1
90		Option Not Identified	Restoration of Mussel Beds	X	X	×	\$500	м				stat.				ł
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	х	х	X	\$237	М								
																l
														.		
																Ľ
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		·	\$120	93 - M	1	1	1-	1-	1			l
93		Monitoring	Recovery Monitoring	X			\$125	М								
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М								l
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				M								
1																l
														·		Ĺ
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	×	\$240	93 M								
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	X	\$180	93 - M								
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	X	\$250	М		}						
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X.	×	X	\$509	М				{				
100		Minimize Incidental Take	· · · · · · · · · · · · · · · · · · ·	.												
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	хL	\$200	М	-	-	1.	Ł-	+1			1

93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION 14	POTENTIAL PROJECTS	R	ÊĞ	ON ×	COST/YR	EST	1 9 9	1 1 9 1 9 1	;	;	2 0 0	2 0 0	De Not 7		
				S S			6250	(YEARS)	-	1		Ľ			54		
"			Survey to monitor necovery of marbled murrelets	1	` <b> ^</b>	^	\$20U	M									
													1.				
																1	
																Į	E E
10	3 Multiple Resources	Habitat Protection	Habitat Modelling	X	: x	x	\$150	м									
10	14	Habitat Protection	Riparian Habitat Assessment	X	x	x	\$110	м					1			5	
10	5	Habitat Protection	Stream Channel Capability Modeling	X	:   x	X	\$110	м								Į	
10	6	Habitat Protection	Stream Habitat Assessment	.   X	( x	X	\$361	93 - M					1				
10	7	Habitat Protection	Valdez Hazardous Waste Collection	X	:		\$200	1							ĺ		
10	8	Habitat Protection	Vegetation and Stream Classification and Mapping	X	(X	X	\$276	93 - M									
10	9	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	_   ×	()X	X	\$100				 ł		·				
fm	0	Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	(  X	X	\$750	м							ļ		
11	1	Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		X	X	\$111	1				1					
11	2	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge	1.		X		<b>1 1 1</b>	ľ		 		ľ.		- · ·	··· . · ·	
11	3	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			, <b>X</b>		i <b>1</b>	- 41		 .	. <u>6</u>			<b> </b>	1. <sup>1</sup> .	
111	4	Habitat Protection and Acquisition	Valdez Duck Flats	X				1			1				ŀ	l	
111	5	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X		\$20										
11	6	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		1.	X		1									6
111	7	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X	\$250	1									`~
	8	Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X			\$3,500										
11	9	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		ł	X	\$200								1	1	
12	0	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			<b>X</b>	\$77,000										
12	1	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X		\$90										
12	2	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay				\$60										
12	3	Habitat Protection and Agguisition	Conservation Easement-Doglish Bay	ł			\$400										
12	4	Habitat Protection and Acquisition	Conservation Easement-Port Chatham				\$80					1.	i				
12	5	Habitat Protection and Acquisition	Conservation Lasement-Hock Bay			F.	\$/40						1			1	
12		Habitat Protection and Acquisition	Habitat Acquisition	. <b>  X</b>	X	녇	\$25,000	93 - 1				-	<u> </u> .	+			
112	/	Habitat Protection and Acquisition	Habitat Acquisition, Alognak			1X	\$112,500			Ĺ			1	1	1	]	

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	ESTE		1 1	1	1	, 1		8	]
	TO			Ľ	K K	COSTAR	DUNTIEN,	, ,	999	9	9	9 9	0 0	Not	
	SERVICE	SUBOPTION STREET		s	ND	SKEL	NELEN	<u> </u>	5 6	'	6	'	0	7150	
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		I.				Ī	1	1
129	9	Habitat Protection and Acquisition	Habitat Acquisition, North Alognak Island		x	\$4,000	1		÷						1
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1	ļļ	i						
131		Increase Natural Food Supply													1
132	2	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	xx	\$50	. <b>M</b>		Ì						1
133	3	Intensity Management	Genetic Risk Assessment of Injured Salmonids	X	xx	\$408	м			•					
134		Intensity Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	м								
135	<b>i</b>	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	м		:						
136	5	Intensify Management	Seabird Colony Restoration	X	xx	\$250	м								
137		Intensity Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	м								
138		Monitoring	Shoreline Worm Life Monitoring	X	XX	\$388	M				- -	1 1	·		
139	) [	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	x x	\$416	. M						-		
140	) 	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	xx	one billion	м								
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	xx	\$280	м	ļ	. •						1
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	xX	\$7	•• M• ••			+ -					
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	xx	\$650	1								
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x x	\$48	M								
145	5	Option Not Identified	Shoreline Assessment	X	x x	\$250	93 - M	1-		- -	+ -	$\vdash$		+	- 1
146	<b>3</b>	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	м		i						
147	/	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	xx	\$500	93 - M		!						
148	3	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	м	+	1-	1-	1 -	F+		+	+- '
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	XX	\$2,300	1 ľ			1					
150		Recovery Monitoring	Injured Resource Food Supply	X	xx	\$850	м								
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	xx	\$500	м	1	- -	- -	-	t −1 ·	- -	+	
152	2	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		×	\$600	• M		ļ						
153	3	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	м								
154	•	Recovery Mor.itoring	Migratory Waterfowl and Shorebird Monitoring	X	xx	\$150	м		ļ						
155	5	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	xx	\$100	м		ł						
156	6	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	XX	\$200	М			1					
157	7	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М								

93=Funded in 1993 M=Multi-year Project

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158 Mu 159 160	ultiple Resources			5 6	0 1 D	all sk w	NELIS.	•	5 6	,		9 0 9 0	0	:: 7554
159 160		Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterlowl	X		\$91	м		Ī	Ī		1		
160		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations		x x	\$275	93 - M					1		
1		Reduce Disturbance by Field Presence				1				1.1				
161		Reduce Disturbance Through Public Info	Public Information and Education	X	x x	\$316	м	1-	- -	-1-1	F+	4-	1-1	
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species		x x	\$50	м							
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species		xx	\$500	M			1 '		Į		
164		Restoration Monitoring	Ecosystem Study		x x	\$6,000	M		-	. [ !	LL	,	11	, I
									-					
165 Par	cific Herring	Intensity Management	Genetic Stock Identification for Herring in PWS	x		\$205	м		1					
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	x		\$400	м							
167		Intensily Management	PWS Herring Tagging Feasibility Study	x	- I ·	\$112	- M	l l		- [ · - ]				
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189			.		<u>[</u> ].			
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	м							
170		Option Not Identified	Enhancement of Pacific Herring	X	xx	\$120	M			1				i 1
171		Restoration Monitoring												
ł		-												
	an Guillomat					640	00.14							
1/2 <b>Pig</b>	jeon Gumemot	Monitoring	Pigeon Guillemot Colony Survey			\$40	93 - M							,
/3		Monitoring	Pigeon Guillemot Hecovery Ennancement and Monitoring		~\^	\$180	м							
-/4		Hestoration Monitoring							1					
/5		remporary Predator Control										, <u> </u>		
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	• . •										11			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area Name:\_\_\_ Phone:\_\_\_ 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	<b>GIO</b>	N EST COST/	EST.)	1 9 9	1 9 9	i 1 9 9 9 9	19	1 / 9 () 9 ()	2	Wet
SERVICE	SUBOPTION		s	Ň		(YEARS)	$ \cdot $	5	6 )	8	• (	1	Pund
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	K \$25	м	I Î	Ī	Ī			11	
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			K \$28	. 1							
178	Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1							
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration			K \$11	1				İ			
180	Fish Passes and Access	Sockeye Creek Fish Pass	X		\$60	1							
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			K \$55	1							
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	x	K \$727	м						<u> </u> .	
183	Intensity Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	M							
184	Intensity Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	M							
185	Intensity Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	M							
186	Intensity Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	<b>X</b>		\$253	M							<b> </b>
187	Intensity Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	K \$152	" M. "							
188	Intensity Management	Pink Salmon Escapement Enumeration	X	X	K \$705	м							
189	Intensity Management	PWS Salmon Stock Genetics	X	-	\$150	м		j.					
-190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		- \$66	M	· · · · ·			:,			i
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	x	\$686	м							
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	x	\$899	м							i I
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X	•	\$141	M							
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M							
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	x	. I	\$50	м							
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	<b> </b> x	X	K \$300	м							
								i					
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak		X	K \$1,250	M	11		- -	-		+	
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	x	X	K \$6,000	1							
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	x :	<b>\$40,00</b>	D 1 1							
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	x	K \$500	M						1	
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	x	x	\$500	M							

Name:\_\_\_\_\_

### 1994 POTENTIAL PROJECT TITLES

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Phone:														
RESOURCE	RESTORATION OPTION	RITENTIAL PROJECTS		EG	<b>X</b> 0	NE ROTA	EST	1 9 9	1 9 9	1 1 9 9 9 9	1 9 9	1 9 9 9	2 ;	
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Korliak Road System		<b>Г</b> .		\$500				_ <b>_</b>			-	
203	Habitat Protection and Acquisition	Land Exchange Shuvak for Korliak Land on Board System			x	\$70	1							
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project		d		\$50	M							
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Towism		d x	x	\$100	м	l						
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	,	d		\$58	M							
207	Monitoring	Recreation Field Management and Monitoring	5	dx	x	\$700	M			•				
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	5	d		\$150	1							
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	5	c i		\$20	1							
210	New Backcountry Recreation Facilities	Improve Marine Parks		dx	x	\$100	M							
111	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area		đ		\$100	1		Ì					1
12	New Backcountry Recreation Facilities	Prince William Sound Campground	<b>b</b>	d		\$70	1							
13	New Backcountry-Recreation Facilities-	Public Use Cabins in State Marine Parks		dx	x	\$150	M	i						
14	New Backcountry Recreation Facilities	PWS Kayak Trail	)	d .		\$100	- 1			1				
15	New Backcountry Recreation Facilities	PWS Recreation Facilities	b	d		\$250	1					İ		
16	Option Not-Identified	Development of Gulf of Alaska Recreation Plan	1	X	X	\$140	1	i						
17	Option Not Identified	Implement-Prince William Sound Area Recreation Plan	· · · · )	(		\$400	м	i						÷
8	Option Not Identified	Sustainable Tourism in PWS				\$240	м	i			1		Ĩ	1
19	Option Not Identified	Watchable Wildlife	) j	( x	x	\$65	М	İ			1		1	
20	Option Not Identified	Increased Access PWS		<[ ]		\$100	м							
21	Plan Commercial Recreation Facilities	Recreation Development		( x	X	\$200	м							
22	Restoration Monitoring													
23	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum		( x	X	\$77	м							ſ
24	Visitor Center	Center for PWS Oil Spill and Natural Resource Education		(			1							
25	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum		dx	X	\$310	M						ſ	
26	Visitor Center	Cordova Environmental Education Center	>	<[]		\$15	1	1						
27	Visitor Center	Cordova Mini-Imaginarium	>	4		\$63	1							
28	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts		( x	X	\$155	м							
29	Visitor Center	Environmental Education Center in PWS	X			\$90	1							
30	Visitor Center	Environmental Learning Resource Center		( x	X	\$90	1	1						
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova		d		\$450	1					ΙĨ		

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Name: Phone:

Γ		RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EG	ION	* EST	EST.		T	Γ.		1	2	2	Ŷ	
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		SERVICE	SUBOPTION		s	N	D	SK	(YEARS)	Ľ		. '	Ľ	Ľ	0	'	5	
2	232	Recreation	Visitor Center	Information Center	X	(  X	X	\$600 ·		1								
2	33		Visitor Center	Interpretation of PWS	X			\$10	м									
2	34		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1									
2	35		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X	:		\$150	1									
2	36		Visitor Center	Valdez Visitor Center	X	: [ -		\$850	1	-	+							
	ļ		· · ·								ļ							
	İ																	(
																		(
2	37 F	River Otter	Monitoring	River Otter Recovery Monitoring	X	:		\$180	м								·   .	
2	38		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	.   <b>.</b> x	:		\$40										
2	39		Restoration Monitoring			1.				1.				·			- I -	
2	40		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	x	\$99	1									
								1										
		1	· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · ·			:							
2	41	Rockfish	Intensify Management	Develop a Rocklish Management Plan	X	x x		\$175	M									
2	42		Monitoring	Monitoring Injury to Rocklish in PWS	X			\$117	м									
2	243		Monitoring													- [		
			. 1						-								- I -	
						1.												
2	44	Sea Otter	Cooporative Prgm-Subsistence Users		ľ													
2	45		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	x	x	\$83	М									
2	246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	x	x	\$337	м		1							,
2	247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	: <b>  x</b>	X	\$450	м									
12	248		Monitoring	Sea Otter Population Dynamics	X	: <b>  x</b>	X	\$291	93 · M									
	249	· · · ·	Restoration Monitoring										ŀ					

93=Funded in 1993 M=Multi-year Project

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## Name:\_\_\_\_\_

#### Page 12

Phone: POTENTIAL PROJECTS RESOURCE **RESTORATION OPTION** EST. COST/VR REGION The second or 👘 1.7 SUBORTION 35 SERVICE 711 . . . 250 Sea Otter Study: Eliminate Oil from Mussel Beds 251 Sockeye Salmon Fish Passes and Access Solf Lake Fish Pass \$120 М 252 Intensity Management х \$333 Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River М 253 Intensity Management Genetic Monitoring of Kodiak Island Sockeye Salmon \$275 М 254 X Intensify Management Genetic Stock Identification of Kenai River Sockeye \$500 93 - M x x 255 Intensify Management Kenai River Sockeye Salmon Restoration \$1,000 93 - M 256 Intensify Management Lower Cook Inlet Sockeye Salmon Restoration and Enhancement \$143 Μ 257 Monitoring Ayakulik River Sockeye Salmon Escapement Evaluation -\$6-M-258 Monitoring Sockeye Salmon Overescapement x x \$641 93 - M 259 Option Not Identified Restoration of the Coghill Lake Sockeye Salmon Stock \$165 93 - M 260 Option Not Identified Red Lake Salmon Restoration \$72 м 261 Sport Fishing **Recovery Monitoring** 262 **Replace Harvest Opportunities** Fort Richardson Hatchery Improvement Х \$4,200 1 263 Restoration Monitoring Subsistence 264 Access to Traditional Foods **Bivalve Shellfish Hatchery** 265 Option Not Identified 266 Chenega Bay Subsistence Restoration Project (Remove Oil) \$200 Μ Mariculture Hatchery and Research Center Feasibility Study and Design 267 Option Not Identified \$300 1

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD



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:	99501	

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Name: Daryl A. Schenkenbach Phone: 563-8100

## 1994 POTENTIAL PROJECT TITLES

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Ъ.	RESOURCE	RESTORATION OBTION	POTENTIAL PROJECTS	RE	ciol			1					, X
	State of the			e.	K K E O	្រទួងអង្	PERMIN	9 9	9 9	;	. 9 . 9	9 G 9 G	0 X
44	SERVICE	State State of an one		5	ND		L MEUEL	•	5	6 7	ß	9 0	
1	Archaeology	Acquire Archaeological Artilacts	Archaeological Specimens Collection, University of Alaska Museum	X	XX	\$41	М						X
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X		\$300	1						X
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	хx	\$200	M						×
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	XX	\$525	M						X
5		Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X	xx	\$400	м						4
6		Option Not Identified	Restoration of Chenega Village Site	X		\$75	1	.					×
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	xx	\$300	93 - M						×
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X		\$230	м						×
9		Public Information	Heritage Information Replacement	X	XX	\$200	M		1				×
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X		\$400	M	1	ļ	l			×
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	XX	\$400	M				·		
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites		XX	\$225	<b>M</b>			ł			<b></b> - <b>-</b>
13		Site Patrol and Monitoring	Archaeological Site Protection Public Education-Interagency	X	xX	~ \$150	M			ļ			·   <b>)</b>
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	XX	\$210	M						1.3
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	XX	\$114	М						>
16	•	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	×		\$1,200	1		ļ				X
					ľ								
										~			
								h	· · · ·			•	
			Hending and Protection of Important Pold Engle Habitate		v v	\$262	 A#	×		c	X	2	
17	Baid Eagle	Habital Protection	Identification and Protection of Important Data Eagle Habitats			\$10	M NA		1	J		x	
18	a	Hecovery Monitoring	Datu Bayle Floudclivity Survey and Catalog		Ŷ	\$200	M	~	$\overline{\mathbf{x}}$	$\gamma_{x}$		x	X
19	·	Hecovery Monitoring	Long-renn ropulation Monitoning for Data Lagies	$ ^{} $	<u>^</u> _^	WE UU							
1						. · · ·							
	Black Ovstercatcher	Pocoveni Meritorina	Black Ovstercatcher Interaction, with Intertidal Communities	x	xx	\$108	93 - M	$\times$	×	٤	$\propto$		
20	DIACK UYSICICALLIEI		Eagling Ecology and Reproductive Success of Black Ovstercatchers in PWS			\$125	M	x	×		X	×	:
21	1	Intecovery Monitoring	requiry concy and reproductive ouccess of black cystercations in two			1 4120					I.		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

# Name: Dary 1 Scherkenbach Phone: 563-8100

### 1994 POTENTIAL PROJECT TITLES

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	1. 1. 1.	RESOURCE or SERVICE	ALARENT TONIQUION	POTENTAL PROJECTS AND ADDRESS OF ADDRESS		EG K E N	K O D		EULE ISN IVEARS)	1 9 9 4	1 9 9 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9 9	2 2 0 0 0 0 0 1	De Not Fund
	22	Black Oystercatcher	Restoration Monitoring		T		II				Ī	Ì	Ī		1	1
	. 1				ł											
												ĺ				
	23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	×	x	x	\$1,100	м	x	×	×	xX	X	x x	
	24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	×	x	X	\$385	М	×	×	x   >	< 🗶	×	××	
	25		Intensity Management	Fishery Industrial Technology Center	×	x	x	\$3,500	1							X
	26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X		\$150	м			Ì				X
	27		Intensity Management	Susitna River Sockeye Salmon Production Evaluation		X		\$300	М			i				X
	28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X	X	\$200	М	×	×	×	××	×	××	
	29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		_	\$5,000	1		İ	Ì	j			X
	30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recov	ery X			\$868	<b>M</b>			ļ			.   .	
	31	•	Recovery Monitoring	Wild Fish Stock Information Assessment	×	( X	X	\$50	M	×	×	<u>K</u> []3	K 🗶	×	×X	
	32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Alognak Island			X	\$45	М			İ				X
	33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	×	4		\$80	M			į				X
	34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X	_	\$50	M				-			X
	35		Replace Harvest Opportunities	Red Lake Mitigation			X	\$191	M							X
															·	
					· .											
	-															
						-										ł
	36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	X	<b>X</b>	\$280	M						-   ·	X
	37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement			1 <u>0</u>	\$51	93 - M							X
	38		Feasibility Study: Social Stimuli	Hestoration of Murres by Way of Transplantation of Chicks-Feasibility Study	_  ×		L <u>X</u>	\$73	M						× .	X
	39		Recovery Monitoring	Common Murre Population Monitoring OU			X	\$191	M	×	X	X	< ×		YX	5
	40		Heduce Disturbance	Heduce Disturbance Near Murre Colonies Injured by the Oil Spill	_   X	\  <u>×</u>	<b>     </b>	\$40	M						ł	X
- 1	41		Hemove Introduced Species	Hemoval of Introduced Predators from Bird Colonies OU	<i>i</i> 1	1	1	<b>\$4</b> 60	M		1	1	1	1 1	1.	18

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area
Name: Dary Scherkenbach Phone: 563-8/00

#### 1994 POTENTIAL PROJECT TITLES

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[.		RESOURCE or SERVICE	OF SUBOPTION	POTENTIAL PROJECTS	<b>R</b> E 	K E N			1 9 9	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 0	1 2 9 0 9 0 9 0	2 0 0 1	Do Not Pind
4	2	Common Murre	Restoration Monitoring					M		*					
										2					
															•
							\$200								
1	3 0	Cutthroat/Dolly	Intensify Management	Cuthroat Trout and Dolly Varden Habitat Hestoration			\$200						.		$\mathbf{v}$
1	4		Intensity Management	Enhanced Management of Cutthroat Trout and Dolly Varden			\$285	M   M			ł		İ		7
4	5		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Hestoration			CL¢	M							
4	6		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	×		\$950	M							~
4	7		Restoration Monitoring					M					-		
		· · · · · · · · · · · ·													
				na an an an an an an an an an an an an a											
İ.		Conoral	Administration	Oil Spill Rectoration Support Service and Facilities	x	x	x \$600								x
		20110121	Monitorina	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	M	X	X	xx	$d \mathbf{x}$	XX		
	9		Ontion Not Identified	Hazardous Material Collection Facility	x	x	X \$100	1			~ ~				Кİ
Ľ			Option Not Identified	Testing of Patch Besponse Patch Dependence Hypothesis Testing of an Ecosystem Model	x	x	X \$488	M							
			Public Information	Public Broadcasting System Program on Oil Spill	x	x	X \$70	Ň			-				21
	2			Publish and Distribute Brochures on Injured Species	X	x	X \$90	м							$\mathbf{x}$
			Public Information	PWS Brochures	X		\$65	м							X
	54 56	• •	Public Information	PWS Implementation of Interpretive Plan	x		\$150	M							хÌ
	50		Public Information	PWS Large Format Photographic Book	x		\$100	M					İ		Z
			Public Information	PWS Scenic Byway Nomination and Interpretive Plan	x		\$70	M							xÌ
	"a		Public Information	PWS Video Programs	x	11	\$100	M							
			Public Information	Science of the Sound- Education Program	X		\$53	M							
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### Name: Dary 1 Schenhach Phone: 563-8/00

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE Desperation SERVICE	RESTORATION	A POTENTIAL PROJECTS	<b>RE</b> • •	G CO K K E O N D			1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7		2 0 0 0	2 0 1	The way pund
60	Harbor Seal	Cooperative Program-Fishermen			1								1		-
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		\$39	м	X	x	×	K	~ K	. ×	×	
62		Option Not Identified	Subsistence Harvest Assistance	x		\$23	м			İ				1. 1,	×I.
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M								
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	xx	\$230	M			~				ſ	1
	· · · · · ·												~		
	· · · · · ·											1			
65	Harlequin Duck	Eliminate Oil from Mussel Beds			·		•								
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	XX	\$700	93 - M	×	X	×	×  }	ĸx	. 🗙	- <b>X</b>	
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	xx	\$53	. <b>M</b> .	!			ļ			$ \cdot $	ĸĮ
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		in a second second second second second second second second second second second second second second second s	e and a second second second second second second second second second second second second second second second										4.1		
		•													
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	XXX	\$20	M								51
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	XXX	\$70	M								Л
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	XXX	\$300	M								
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	xx	\$50	M							l b	e l
72	н. н.	Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	<b>X</b>		\$500	M			1				1 3	<
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	XX	\$800	M								<
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	x x		м								1
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	x x	\$620	м								
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	м	X	X	X	×>	<b>K</b> X	X	X	
177		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	x x	\$500	м	X	X	X.	XX	6 ×	X	X	
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		x x	\$200	м	X	×	X	XX	c x	X	×	
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	хx	\$275	. <b>M</b>								
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	xx	\$50	M	$ \times $	×	×	X	××	×	×	
8		Monitoring	Monitoring for Recruitment of Littleneck Clams	x	xx	\$186	м								1

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### Name: Daryl Schenhentarch Phone: 563-8/00

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GİQ		E	T. 6*				Τ.			, 8
· · ·	or	or		P W	K I	COL	CA DURA	TION	, ,	9 9	2	9	;	0	Not 1
¥. <sup>3</sup>	SERVICE	SUBOPTION		s	N		A INYE	R\$)	<u> </u>	Ľ			Ľ	°	
32	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	х	X	X \$50	0 N	•							
3		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	х	X)	X \$60	0 1	1	K	×þ	()2	xjx	( ×	XIP	4
4		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	х	X	X \$19	5 N	1							X
5		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	х	X	X \$50	093	M	- {		1	•			
ò	1	Monitoring	Herring Bay Experimental and Monitoring Studies	Х		\$49	5 93	M	1			1			
7		Option Not Identified	Bivalve Shellfish Rehabilitation Project	Х	X 2	X \$86	O   N	•	×	• >	<	×	:	>	2
3		Option Not Identified	Clam Enhancement	X	X	X \$12	0   N	•	·	×	×	4	X	>	(
)		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X   \$50	0 N	•							×
)		Option Not Identified	Restoration of Mussel Beds	Х	X	X \$50	0   N	•						·	
		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X \$23	7 N	۱.	· 1						
	and and a second														
		•	$\mathbf{v}$ is the second s			•••			-1			1	1 1		
-						ļ.									-
							·							_	-
2	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer-Whales	X		\$12	0 93	M		. ]					×
I		Monitoring	Recovery Monitoring	X		\$12	5 N	1							×
4		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$18	0 N	1							×
5		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X			· · · · N	<b>1</b>	×	×××	<   ×	(X	×	×Þ	(
								ł							
							l l								
						[									
									-						
6	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X \$24	0 93	M							×
7		Habitat Protection	Survey to Identify Upland Use by Murrelets	X		K 518	U 93	M							×
9.		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	X <b>5</b> 25	U N								X
9	· · · ·	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	×  \$50	a   v								×
ю		Minimize Incidental Take		.,				[	. 1						.
01	1	Becovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X   X	X  \$20	0 L N		KB	X X	_ IX	: IX	XI	X X	. 1

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93=Funded in 1993 M=Multi-year Project

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	or SERVICE	RESTORCTION OPTION T	PUTENTIAL PHOJECTS	RE P N S	GIC E N		A DURATIO	1 1 9 9 4	1 9 9 5	1 '9 x 9 6	1 9 1	1 1 9 9 9 9 9 9 8 9	2 0 0 0	2 0 0 1	De Not Pund
10	2 Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	X	X \$250	м	X	X	×¥	4	× ×		X	-1
							·								
1														a.	
10:	Multiple Resources	Habitat Protection	Habitat Modelling	x	x	X \$150	M								
104	1	Habitat Protection	Riparian Habitat Assessment	x	x	X \$110	м			Ì					
10	5	Habitat Protection	Stream Channel Capability Modeling	X	x	X \$110	М								
1 106	5	Habitat Protection	Stream Habitat Assessment	X	<b>X</b>	X \$361	93 - M		(* <sup>*</sup> * *		·· · · [		1		
107	7	Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1								
108	3	Habitat Protection	Vegetation and Stream Classification and Mapping	X	X	X \$276	93 - M								
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	- <b>X</b> -	X <b>\$1</b> 00			· ···		<del>  ;</del>				
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	x	X \$750	M				-				
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		x	X \$111	1								
112	2. 	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X	1								
113	3	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			X	·····					i i i i i i i i i i i i i i i i i i i			-
114		Habitat Protection and Acquisition	Valdez Duck Flats	X			1								
115	5	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X	\$20	1								
116	5	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			x	1								
.117	7	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X \$250	1						13		1
116		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,50	) 1								
119	9	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X \$200	1								
120	D	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X \$77,00	0 1								
121	1	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$90	1			1	,				
12	2	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		x	\$60	1	8 7			׾				
123	3	Habitat Protection and Appuisition	Conservation Easement-Dogfish Bay		x	\$400	1			×					
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	\$80	1		×						
12	5	Habitat Protection and Acquisition	Conservation Easement-Rock Bay		x	\$740	1	X							
120	6	Habitat Protection and Acquisition	Habitat Acquisition	X	X	X \$25,00	0 93 - 1	×							
12	7	Habitat Protection and Acquisition	Habitat Acquisition, Afognak			X \$112,50	0 1	ľ							

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST	1	1	1		1	2	2 8	8
	or	or as		P	K K E O	COSTAR	DI BARION	9 9	9 9	;	9 9	;	0	0	NOC
1	SERVICE	SUBOPTION SUBOPTION		s	N D	-SK P	NCA:9)	<b>'</b>	5	6	' '	<u>'</u>	U	1	Lind
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		1	1				*	K
129		Habitat Protection and Acquisition	Habitat Acquisition, North Alognak Island		X	\$4,000	1							)	X
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1		I						X
131		Increase Natural Food Supply				l			į						
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	xx	\$50	м	×	x	×	xx	cx	X	K.	
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x   x	\$408	м								
134		Intensily Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X	ľ	\$200	м	X	X	×	X				
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	м	×	÷	X	X	-	×		
136		Intensify Management	Seabird Colony Restoration	X	x x	\$250	м	X	$\mathbf{X}_{\mathbb{P}}$	×.	×	1			
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	M		:			-		:	
138		Monitoring	Shoreline Worm Life Monitoring	X	XX	\$388						-	-		
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	XX	\$416	M			].					
140	na i i i i i i i	Option Not Identilied	Alaska Land and Wildlife Conservation Fund	X	x¦x	one billion	м					ļ.		>	X
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	xX	\$280	M	X	X						
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	<u>x x</u>	\$7	M		3. Q						X
143	and the second second second second second second second second second second second second second second second	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	xx	\$650	1								×
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	xx	\$48	м	×	×	×þ	K  >	ε×			
145		Option Not Identified	Shoreline Assessment	X	XX	\$250	93 - M	X	×					×	
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	м		ļ					2	X
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	xx	\$500	93 - M	X	×	×	××				
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X	\$800	м	メ	×	X	<b>x</b>   ;	* *	X	K	
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	XX	\$2,300	1			×	•				
150	;	Recovery Monitoring	Injured Resource Food Supply	X	xx	\$850	м	×	*	~	××	<   ×	× 1	×	ч, <sup>т</sup>
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	xx	\$500	м	×	×	~	××	×ا	X	~	
152		Recovery Monitoring	Long Term Monitoring of Marine Environment of Resurrection Bay		X	\$600	M		ļ						
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	м	X	׾	×	XX	X	×	X	•
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	xx	\$150	м	X	X	$\times$	××	( <b>X</b>	X	×	
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x x	\$100	м	X	X	×	X				
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	XX	\$200	M	×	×	×	X	K X	×	×	
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	M	X	<b>X</b> .	XI.	<b>X</b>		11		

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#### 1994 POTENTIAL PROJECT TITLES .

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	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS			COST/VR		1 9 9 4	1 9 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9	2 0 0 0	De Net Fund
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	x	1	\$91	м					]		X
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	<b>x</b>	x   x	\$275	93 - M							X
160		Reduce Disturbance by Field Presence												
161		Reduce Disturbance Through Public Info	Public Information and Education		x   x	\$316	М		2					. <b>x</b>
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species		x   x	\$50	М			-				×
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species		x x	\$500	М		.	4				r
164		Restoration Monitoring	Ecosystem Study		x x	\$6,000	М							×
					•									
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	М -							X
166		Intensity Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	м							_ X
167	· · · · · · · · · · · · · · · · · · ·	Intensily Management	PWS Herring Tagging Feasibility Study	X	۰ (	- \$112	M							$\mathbf{X}$
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	- x		\$189	м	X	X	×)	<b>C</b>			
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	м	X	×	×J	K 🗍			
170		Option Not Identified	Enhancement of Pacific Herring	<b>x</b>	x x	\$120	M S	×	X	×	××	×	x	₭]
171		Restoration Monitoring					· ·			1		$\left[ \cdot \right]$		
-							00.14	×						
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey			\$40	93-M	$\left  \mathcal{T} \right $	_  '	$\mathbf{r}$				
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring		x x	\$180	м							
174		Restoration Monitoring												
175		Temporary Predator Control												

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#### 1994 POTENTIAL PROJECT TITLES

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	5 F	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GļO	W .	EST	EST.	1	1	1	1 1	1	,	2 8
		or	10 P		P	K E		costina	DURATION	9 9	9	9 9	9 9	;	0 0	a 70 0
		SERVICE	SUBOPTION STATE		s	N	D 8	****	(YEARS)	4	2	6	1	2	0	1 254
1	76 Pink	Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x	X	\$25	M							X
1	77		Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration	ŀ		x	\$28	1							X
1	78		Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1							X
1	79		Fish Passes and Access	Pink Creek Pink Salmon Restoration			x	\$11	1							×
1	во		Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1							×
1	B1		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			x	\$55	<u> </u>							X
1	82		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	x	x	\$727	M							X
1.1	83		Intensily Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	м							×
1	84		Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	M							×
1	85		Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		-	\$500	м							×
-1-1	86		Intensity-Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		· .	\$253								
1	87		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	X	\$152	M	×		×		C	x	
1	88		Intensity Management	Pink Salmon Escapement Enumeration	X	X	X.	\$705	м							×
1	89		Intensify Management	PWS Salmon Stock Genetics	X		. 1	\$150	м	~	×		×	×		X
1	90		Intensity Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		:	\$66		,						
1	91		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	м							_ ×
h	92		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X		\$899	м							X
1	93		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	м							2
1	94		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M							¥
1	95		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	м	×	X	×				
1	96	-	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	X	x	\$300	· M							×
ľ																
			P													
1	97 <b>Rec</b> i	reation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak		X	x	\$1,250	M				×	×		
	98		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	×	\$6,000	1							×
	99		Establish Marine Environmental Institute	Seward Sea Life Center	X	X	×	\$40,000	1							×
	200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	x	\$500	м							×
	201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	X	\$500	M							

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#### 1994 POTENTIAL PROJECT TITLES

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RES	OURCE RESTORATION OPTION	TROIT NTIAL PROJECTS		K K D		LESTI DURLATION	;	1   1 9   9 9   9 5   6	1 9 9 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	De Not Fund
202 Recreat	Ion Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		X	\$500	1							1×
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70	1		Ì					×
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	x	1	\$50	м							X
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	x x	x	\$100	м							×
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	x		\$58	м							X
207	Monitoring	Recreation Field Management and Monitoring	xx	x	\$700	м		. [					×
208	New Backcountry Recreation Facili	es Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	x		\$150	1							X
209	New Backcountry Recreation Facili	es Green Island Cabin Replacement	X		\$20	1							X
210	New Backcountry Recreation Facili	es Improve Marine Parks	хx	x	\$100	м							X
211	New Backcountry Recreation Facili	es Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	x		\$100	1							×
212	New Backcountry Recreation Facili	es Prince William Sound Campground	x		\$70	1				·			×
. 2.13	New Backcountry Recreation Facili	es Public Use Cabins in State Marine Parks	XX	X	\$150	М				1			X
214	New Backcountry Recreation Facili	es PWS Kayak Trail	<b>x</b>		\$100	1		· [					×
215	New Backcountry Recreation Facili	es PWS Recreation Facilities			\$250	. 1							$\mathbf{X}$
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan	X		\$140	1	ŀ	Ĩ					X
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	· · · · · · · · · · · · · · ·		\$400	М							
218	Option Not Identified	Sustainable Tourism in PWS	X		\$240	M	1						×
219	Option Not Identified	Watchable Wildlife	хx	$(\mathbf{x})$	\$65	м							×
220	Option Not Identified	Increased Access PWS	X		\$100	м							×
221	Plan Commercial Recreation Facilit	es Recreation Development	X X	X	\$200	м		{					×
222	Restoration Monitoring												
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	xx	(X	\$77	м		ł					×
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	x			1							X
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	XX	( X	\$310	м							×
226	Visitor Center	Cordova Environmental Education Center	X		\$15	1							X
227	Visitor Center	Cordova Mini-Imaginarium	X		\$63	1							×
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	xx	( X	\$155	м							X
229	Visitor Center	Environmental Education Center in PWS	X		\$90	1			T				X
230	Visitor Center	Environmental Learning Resource Center	x x	x	\$90	1 1							X
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x		\$450	1							X

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#### 1994 POTENTIAL PROJECT TIFLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	M	EST	EST.	,	,	, <b>I</b> ,			, <b>Г</b>	γ
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1.10	SERVICE	SUBOPTION		S	E N	D A	SKS	(YEARS)	۱	5	6 7	8	9	0	75.4
232	Recreation	Visitor Center	Information Center	X	x	x	\$600	1	Ī	Ī	Ī			Ī	X
233	· •	Visitor Center	Interpretation of PWS	X			<b>\$</b> 10	м			·				×
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1							×
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1							X
236		Visitor Center	Valdez Visitor Center	X			\$850	1							×
												·			
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	м	×	×à	~	K			
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	. М							
239		Restoration Monitoring													
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	X	X	\$99	1						×	
							•								
. <u></u>	-									·					-
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	M		>	< >	c X			
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			<b>\$</b> 117	м							
243		Monitoring					-								
			· · · ·												
ľ															
			• • • • • • • •	.											
244	Sea Otter	Cooporative Prgm-Subsistence Users		I, I			<b>e</b> 02								
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Utters and Designation of Protected Areas		Ĵ,	Ĵ	\$03 \$227	M A4							
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Heproduction, and Mortality			Ĵ	\$337 \$450	M		*	×		×		·   _
247	1	Monitoring	Radio-1 elemetry Project to Monitor Hecovery of Sea Utters		Ĵ	<b>:</b>	\$45U \$204	M.							X
248		Monitoring	Sea Otter Population Dynamics	^	^	^	9 <b>7</b> 91	93 · M							×
1249	1	Bestoration Monitoring		1					1		1				

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Г	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	P	EGI	ON	EST	LEST		- T-	T	ГТ		
	Or			F	ĸ		COSTAN	DURATION	3	1 1 9 9	,	1 9	2	2∕° 0 ₹
	SERVICE	SUBORTION		∦ S	EN	0		NP DO		999 56	, ,	8	9 0 9 0	0' 1 5
25	0 Sea Otter	Study: Eliminate Oil from Mussel Beds			-		28. 878 <b>- 1</b> 9. 878 - 286	C C C COME DO THE P			نــ∎ـــا ا	■ <b>■</b>	-	
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					1									
25	1 Sockeye Salmon	Fish Passes and Access	i Solf Lake Fish Pass				\$120	м						K
25	2	Intensity Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		x		\$333	м		Ì	i.			
25	3	Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Satmon			x	\$275	м						
25	4	Intensify Management	Genetic Stock Identification of Kenai River Sockeve		x		\$500	93 - M					-	X
25	5	Intensify Management	Kenai River Sockeye Salmon Restoration		x		\$1.000	93 - M						k
25	6	Intensity Management	Lower Cook Inlet Sockeve Salmon Restoration and Enhancement		x		\$143	M						
25	7	Monitoring	Avakulik River Sockeye Salmon Escapement Evaluation			x	\$6	M				·		
25	8	Monitoring	Sockeye Salmon Overescapement		x	x	\$641	93 - M						R
25	9	Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		·	\$165	93 - M						X
26	0	Option Not Identified	Red Lake Salmon Restoration			x	\$72	. <u>M</u>					· <u>*</u>	X
							• •	· · · · · · · · · · · · · · · · · · ·	· . 					
			· .											
				1						.				
26	1 Sport Fishing	Recovery Monitoring											- I -	
26	2	Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X		\$4,200	1						
26	3	Restoration Monitoring												
										·   .				
						ŦĨ								
		<b>*</b>												
26	4 Subsistence	Access to Traditional Foods				ļ								
26	5	Bivalve Shellfish Hatchery												
26	6	Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X	( ) · ·		\$200	М		×	×		K	×
26	7	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	X	X	\$300	1						

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Dary 1 Schenhenbech 563-8100 Name: Phone:

#### **1994 POTENTIAL PROJECT TITLES**

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC	ION	e EST.	EST.	, I			1 1		8	
	or			2	ĸ	COST/YR	DURATION	9 4 9 9	9	9 9	9 9 9 9	0	Nor	
	SERVICE	SUBOPTION		5 5	D	SK SK	(YEARS)	4 4	6	'	A 9	0	250	
26	B Subsistence	Option Not Identified	Mariculture Technical Center	X	x]x	\$2,200	1	Ĩ			1	11	X	:
26	9	Option Not Identified	Seward Shellfish Hatchery	X	x   x	\$1,300	1				-			
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	x x	\$700	м				į		×	
27	1	Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	x		\$50	м				İ		X	
272	2	Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	x		\$55	м				İ			
27:	3	Replace Harvest Opportunities	Port Graham Salmon Hatchery		K	\$2,500	1						$\mathbf{\hat{z}}$	
274	1	Replace Harvest Opportunities	Silver Lake Fish Hatchery	x		\$1,000	1				i			
275	5	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	<b>  x</b> [:	k   x	\$55	м				Ì		$\mathbf{\hat{x}}$	
276	<b>i</b>	Restoration Monitoring												
277	1	Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming		x x	\$589	м						×	•
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	x x	\$300	м						X	
279	1	Test Subsistence Foods	Subsistence Food Salety Testing	X	K X	\$308	93 - M				-		X	τ.
	1													
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	1	n an an <u>a</u> n an an an an ar tha an an an an an an an an an an an an an									·   ·	tin fa		
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification		K	\$110	M	×	×		×	×		
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X		\$715	м							
282		Monitoring	PWS Spot Shrimp Survey	X		\$90	• <b>M</b>	×	×	.  ×	e	X		
283		Monitoring	Injury and Recovery of Deep-Benthic Macrolaunal Communities		K X	\$275	M							
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X		\$265	93 - M						×	
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources		K X	\$390	м							
286		Moniloring	Subtidal Recovery Monitoring		K  X	\$400	M							
287	•	Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates		× ×	\$90	M							
Ì														
1														
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	<b>  X</b>  2	K X	\$450	M						×	
289	14	Administration	Geographic Information System Mapping of Natural Resources in Western PWS			\$75	M	×	×		×	X		

PWS=Prince William Sound, KEN#Kenai Peninsula and Cook Intet, KOD Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: <u>Dary l</u> Phone: Scherben 563-8100

#### 1994 POTENTIAL PROJECT TITLES

#### Page 14

RESOURCE or SERVICE	OF SUBOPTION	POTENTIAL PROJECTS	*** <b>R</b> 	EGI K E N	ON K D	EST. COST/VR SK	DURATION (YEARS)	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 2 9 a 9 0 9 0	2 3 0 0 0 1	Do Not Fund
290 Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	X	\$105	93 - M.		-			- 1-		×
291	Administration	Toxicological Profile of PWS	×			\$150	M	×		×	×	×	e l	;
292	Public Infermation	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	М	×	×	XX	×	××	×	
293	Public Information	Database Integration	X	X	x	\$148	· M =					·	•	X
294 ·	Public Information	Develop User Friendly Synopsis of Oil Spill Information	×	X	x		M							X
295	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	×	X	x	\$120	M							X
296	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	М							×
297	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	М							Ý
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

I'd like to emphasize three points. First, money should be spent with the original intent of the settlement in mind. Public programs not associated with resources affected by the spill should not be funded with this money. 'PWS video programs', 'Chugach National Forest Heritage Interpretive Center design', 'public education and interpretation of archeological resources' and many other projects fall under this category.

It is important to note that assessment of the current status of resources is an important goal. After all, it is difficult to do injury assessment or resource replacement or enhancement without knowing what baseline is for various resources. How do you know what to enhance? It would be a good use of this money to gain this type of knowlege for future use.

Second, it is unnecessary, and even irresponsible, to spend all of the money in the year that it is received. The projects I have checked do not add up to the \$100 million that the state will receive annually. This is not an oversight. Any infrastructure (hatcheries, visitors centers, campgrounds, cabins, trails etc.) paid for with this money will create maintenance costs in the future. There should be money set aside to meet these future costs.

Third, there are duplications within this list that could be eliminated to save money. Some projects appear to have overlapping purposes, and the projects should be combined. Also, the logistical costs that I assume are calculated separately for each study in this list could certainly be decreased by combining some aspects of certain projects. There are many projects that appear to overlap in area. For example, in the intratidal zone, many projects cover monitoring of different species over the same beaches. Rental or purchase costs of boats used to transport scientists, equipment, and samples to and from the same study areas could be combined to decrease total costs.

This is a lot of money. Because it is a lot of money it's easy to dish out excessive amounts of money to good projects, and to fund poorly conceived or unnecessary projects. Let's not waste it.

Dayl a Schlock

# Exxon Valdez JI Spill Trustee Council

Restoration Office 645 "G" Street, Anchorage, AK 99501 Phone: (907) 278-8012 Fax: (907) 276-7178

April 19, 1993 POB 218 KASILOF AK 99610

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EXXON MALJEL OIL SPILL

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**Dear Concerned Citizen:** 

The Trustee Council is in the process of developing the 1994 program of work to help (1). S restore the resources and services injured by the Exxon Valdez Oil Spill. "Restoration includes....injury assessment, restoration, replacement and enhancement of natural resources, and acquisition of equivalent resources or services," (Memorandum of Agreement and Consent Decree for Civil Action A91-081CV in U.S. District Court, District of Alaska, filed August 29, 1991). Attached is a list of titles for potential restoration projects for 1994 which are being considered for this program. These potential projects have been derived from the following sources:

- (1) Public comments on the Restoration Framework (an April 1 discussion document),
- (2) Public comment on the 1992 and 1993 work plans,
- (3) Federal and state trustee agency recommendations,
- (4) Other solicited and unsolicited public comments,
- (5) Projects identified by the Exxon Valdez Oil Spill Public Advisory Greense COUNCIL
- (6) Projects suggested by individuals testifying at Trustee Council meetings.
- (7) Projects identified by the Chief Scientist and peer reviewers.

Please review and comment on this list of potential projects. It may be difficult for you to comment on many of the projects because of the limited information available. However, you are being asked to comment now so that you have an opportunity to influence the projects that will be selected for inclusion in the draft 1994 Work Plan. Project descriptions of these titles will be developed for the draft 1994 Work Plan to be released for public comment this summer. After reviewing those public comments, the Trustee Council will select the projects to be conducted in 1994.

Please check the columns on the right hand side of the attached table to indicate whether a project should be conducted and when. Additional space has been provided under each resource name in the table for new project titles. Be sure to note in the appropriate column the injured resource or service and the restoration option/suboption your project title addresses. Titles should be as complete and meaningful as possible. Please indicate the geographic area in which the project would be conducted. If the project is outside of the spill area please write "out" in the region columns. Your cost estimates and duration may be preliminary estimates and subject to change as are ours. A paragraph explaining your new proposed project would be useful to make sure we understand what you are proposing. At the end of the project title listing, two blank sheets are included for your new project ideas. Summary of injury tables are attached as background information to assist your deliberations on restoration projects.

State of Alaska: Departments of Fish & Game, Law, Natural Resources, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior The \$900 million civil recovery from the *Exxon Valdez* Oil Spill is to be paid over a 10 year period. In September 1993, a \$100 million payment will occur, and, from 1994 through 2001, yearly payments of \$70 million will be made. Since the money is being paid over a multi-year period, not all potential projects can be funded in 1994. No decision has been made on the total amount that will be spent for the 1994 program of work (October 1, 1993 through September 30, 1994). Please note that in addition to project costs, any program of work will require funding for the administration of restoration activities.

A <u>Restoration Plan</u> is being developed as a long-term guide to the restoration of the resources and services injured by the *Exxon Valdez* oil spill. The <u>Restoration Plan</u> will be used to guide the selection of specific projects to be included in each annual work plan. A draft <u>Restoration Plan</u> is expected to be available in June 1993; the final version will be published by the end of 1993.

There is a 30-day period to review and comment on the enclosed potential project titles. To make sure your comments are considered, they must be postmarked by May 20, 1993. Please return your comments to:

Exxon Valdez Trustee Council 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

Thank you.

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Michael A. Barton Regional Forester Alaska Region Forest Service U.S. Department of Agriculture

Paul D. Gates
Regional Environmental Officer
Office of the Secretary
U.S. Department of Interior

Carl L. Rosier Commissioner Alaska Department of Fish and Game

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Charles E. Cole Attorney General State of Alaska

Attim Pennager

Steve Pennoyer Director Alaska Region National Marine Fisheries Service

ando,

John A. Sandor Commissioner Alaska Department of Environmental Conservation

Resources: Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill

Resource	Desc	cription of	Injury	Status of Recovery in December, 1992		y Geographic Extent of 2 Injury (a)				Comments/Discussion						
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.							
MARINE MAMM	ALS															
Harbor Seals (c)	YES (200)	YES	YES	POSSIBLY STABLE, BUT NOT RECOVERING (a)	UNKNOWN	YES	YES (d)	UNKNOWN	UNKNOWN	Many seals were directly oiled . There was a measurable difference in populations between oiled and unoiled areas in PWS in 1989 and 1990. Population was declining prior to the spill and no recovery evident in 1992. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990.						
Humpback Whales	NO	NO	NO	(e)	(e)	(e)	(e)	(e)	(e)	Other than fewer animals being observed in Knight Island Passage in summer 1989, which did not persist in 1990, the oil spill did not have a measurable impact on the north Pacific population of humpback whales.						
Killer Whales	YES (13)	YES	UNKNOWN	RECOVERING	UNKNOWN	YES	UNKNOWN	UNKNOWN	UNKNOWN	13 Adult whales of the 36 in AB pod are missing an presumed dead. The AB pod has grown by 2 whales since 1990. Circumstantial evidence links whale disappearance to oiling.						
Sea Lions (C)	UNKNOWN	UNKNOWN	NO	CONTINUING DECLINE	(e)	(e)	(e)	(e)	(e)	Several sea lions were observed with oiled is and oil residues were found in some tissue was not possible to determine population effects or cause of death of carcasses recovered. Sea lio populations were declining prior to the oil spill.						

1

(a) There may have been an unequal distribution of injury within each region;

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

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Resource	Des	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Injui	ic Exter ry (a)	nt of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Sea Otters	YES (3,500 TO 5,000)	YES	YES	STABLE, BUT NOT RECOVERING	YES, POSSIBLY	YES	YES	YES (d)	YES (d)	Post-spill surveys showed measurable difference in populations and survival between oiled and unoiled areas in 1989, 1990 and 1991. Survey data have no established a significant recovery. Prime-age animals were still found on beaches in 1989, 1990 and 1991. Carcasses of sea otters feed in the lower intertidal and subtidal areas and may still be exposed to hydrocarbons in the environment.
TERRESTRIAL	MAMMALS	•···	· · · · · · · · · · · · · · · · · · ·							
Black Bear	NO	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	No field studies were done.
Brown Bear	NO	NO	NO	(e)	(e)	(e)	(e)	(e)	(e)	Hydrocarbon exposure was documented on Alaska Peninsula in 1989 including high hydrocarbon level in the bile of one dead cub. Brown bear feed in the intertidal zone and may still be exposed to hydrocarbons in the environment.
River Otters	YES (NUMBER UNKNOWN)	UNKNOWN	YES	UNKNOWN	YES	YES	UNKNOWN	UNKNOWN	UNKNOWN	Exposure to hydrocarbons and sub-lethal effects were determined, but no effects were established o population. Sub-lethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may be still be exposed to hydrocarbons in the environment.
Sitka Black- tailed Deer	NO	NO	NO	(e)	(e)	(e) !	(e)	(e)	(e)	Elevated hydrocarbons were found in tissues in some deer in 1989.

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(a) There may have been an unequal distribution of injury within each region;

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(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

Resource	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Geo	ographi Injur	c Exter y (a)	it of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
BIRDS		······································								
Bald Eagles	YES (614-902)	YES	YES	RECOVERING	UNKNOWN	YËS	YES	YES (d)	YES (d)	Productivity in PWS was disrupted in 1989, but returned to normal in 1990. Exposure to hydrocarbons and some sub-lethal effects found in 1989 and 1990, but no continuing effect observed on populations.
Black-legged Kittiwakes	YES (NUMBER UNKNOWN)	NO	NO	NO CHANGE	NO	YES	YES (d)	YES (d)	YES (d)	Total reproductive success in oiled and unoiled areas of PWS has declined since 1989. Hydrocarbon contaminated tissues were detected in 1989. Hydrocarbon contaminated stomach contents were detected in 1989 and 1990. This species is known for great natural variation and reproductive failure may be unrelated to the oil spill.
Black Oyster- catchers	YES (129 ADULTS; UNKNOWN FOR CHICKS (f)	YES	YES	RECOVERING	YES	YES	YES (d)	YES (d)	YES (d)	Differences in egg size between oiled and unoiled areas were found in 1989. Exposure to hydrocarbon: and some sublethal effects were determined. Populations declined more in oiled areas than unoiled areas in post-spill surveys in 1989, 1990 and 1991. Black oystercatchers feed in the intertidal areas and may be still be exposed to hydrocarbons in the environment.
Common Murres	YES (175,000 to 300,000)	YES	YES	DEGREE OF RECOVERY VARIES IN COLONY	YES	NO	YES	YES	YES	Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding is still inhibited in some colonies in the Gulf of Alaska.
Glaucous- winged gulls	YES (NUMBER UNKNOWN)	NOT DETECTED	NO	NO CHANGE	NO	YES (d)	YES (d)	YES (d)	YES (d)	While dead birds were recovered in 1989, there is no evidence of a population level impact when compared to historic (1972, 1973) population levels.

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(a) There may have been an unequal distribution of injury within each region;

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(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

Resource	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Înjui	c Exter ry (a)	nt of	Comments/Discussion					
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.						
Harlequin Ducks	YES (423)	YES	YES	STABLE OR CONTINUING DECLINE	YES	YES	YES (d)	YES (d)	YES (d)	Post-spill samples showed hydrocarbon contaminat: and poor body conditions. Surveys in 1990-1992 indicated population declines and near total reproductive failure. Harlequin ducks feed in th intertidal and shallow subtidal areas and may st be exposed to hydrocarbons in the environment.					
Marbled Murrelets (c)	YES (8,000 TO 12,000)	YES	UNKNOWN	STABLE OR CONTINUING DECLINE	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Measurable population effects on were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the spill. Hydroch contamination was found in livers of adult ds.					
Peale's Peregrine Falcons	UNKNOWN	UNKNOWN	NO	(e)	(e)	(e)	(e)	(e)	(e)	When compared to 1985 surveys a reduction in population and lower than expected productivity was measured in 1989 in the PWS. Cause of these changes are unknown.					
Pigeon Guillemots (c)	YES (1,500 TO 3,000)	YES	NO	STABLE OR CONTINUING DECLINE	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Pigeon guillemot populations were declining prior to the spill. Hydrocarbon contamination was found in birds and, externally, on eggs.					
Storm Petrels	YES (NUMBER UNKNOWN)	NO	AWAITING RESULTS	NO CHANGE	UNKNOWN	YES (d)	YES (d)	YES (d)	YES (d)	Few carcasses were recovered in 1989 although petrels ingested oil and transferred oil to their eggs. Reproduction was normal in 1989.					
Other Seabirds	YES (375,000- 435,000)	VARIES BY SPECIES	UNKNOWN	VARIES BY SPECIES	UNKNOWN	YES (d)	YES (d)	YES (d) YES (d)		Seabird recovery has not been studied. Species collected dead in 1989 include common, yellow- billed; pacific, red-throated loon; red-necked and horned grebe; northern fulmar; sooty and short- tailed shearwater; double-crested, pelagic, and red-faced cormorant; herring and mew gull; arctic and Aleutian tern; Kittlitz's and ancient mworelet Cassin's, least, parakeet, and rhinoceros					

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(a) There may have been an unequal distribution of injury within each region;

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

Resource	Description of Injury Status of Recovery Geographic Extent of in December, 1992 Injury (a)					Comments/Discussion				
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Other Sea Ducks	¥ES (875) (b)	NO	UNKNOWN	UNKNOWN	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Species collected dead in 1989 include Stellar's, king and common eider; white-winged, surf and black scoter; oldsquaw; bufflehead; common and Barrow's goldeneye; and common and red-breasted merganser. Sea ducks tend to feed in the intertidal and shallow subtidal areas which were most heav impacted by oil.
Other Shorebirds	YES (NUMBER UNKNOWN)	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Species collected dead in 1989 include golden plover; lesser yellowlegs; semipalmated, western, least and Baird's sandpiper; surfbird; short-billed dowitcher; common snipe; red and red-necked phalarope.
Other Birds	YES (NUMBER UNKNOWN)	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	YES (d)	YES (d)	YES (d)	YES (d)	Species collected dead in 1989 include emperor and Canada goose; brant; mallard; northern pintail; green-winged teal; greater and lesser scaup; ruddy duck; great blue heron; long-tailed jaeger; willow ptarmigan; great-horned owl; Stellar's jay; magpie common raven; northwestern crow; robin; varied and hermit thrush; yellow warbler; pine grosbeak; savannah and golden-crowned sparrow; white-winged crossbill.
FISH		• • • • • • • • • • • • • • • • • • •	•							
Cutthroat Trout	YES, SEE Comments	POSSIBLY	YES	STABLE, BUT NOT RECOVERING	UNKNOWN	YES	UNKNOWN	UNKNOWN	UNKNOWN	Differences in survival and growth between anadromous adult populations in the oiled and unoiled areas persisted in 1991 despite the decrease in exposure indicators. This could to continuing injury to the food base.
Dolly Varden	YES, SEE Comments	POSSIBLY	YES	STABLE, BUT NOT RECOVERING	UNKNOWN	YES	UNKNOWN	UNKNOWN UNKNOWN		Differences in survival between anadromous adult populations in the oiled and unoiled areas persisted in 1991 despite the decrease in exposure indicators. This could be due to continuing injury to the food base.

(a) There may have been an unequal distribution of injury within each region;

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(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

Resource	Dese	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Injui	c Exter ry (a)	nt of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Pacific Herring	YES, TO EGGS AND LARVAE	UNKNOWN	YES	UNKNOWN	NO	YES	UNKNOWN	UNKNOWN	UNKNOWN	Measurable difference in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and to a lesser extent in 1990; in 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured and could result in reduced recruitment to the fishery.
Pink Salmon (Wild) (c)	YES, TO EGGS	POSSIBLY	YES	SEE COMMENTS	YES	YES	UNKNOWN	UNKNOWN	UNKNOWN	There was initial egg mortalituy in 1989. mortality continued to be high in 1991, possary due to genetic damage to spawners. Abnormal fry were observed in 1989. Reduced growth of juveniles was found in the marine environment, which can be correlated with reduced survival.
Rockfish	YES (20) (f)	UNKNOWN	YES	UNKNOWN	UNKNOWN	YES	YES	UNKNOWN	UNKNOWN	Few dead fish were found in 1989 in condition to be analyzed. Exposure to hydrocarbons with some sub- lethal effects were determined in those fish, but no effects established on the population. Closures to salmon fisheries increased fishing pressures on rockfish which may be impacting population.
Sockeye Salmon	UNKNOWN	YES	YES	SEE COMMENTS	YES	UNKNOWN	YES	YES	NO	Smolt survival continues to be poor in the Red Lake and Kenai River systems due to overescapements in Red Lake in 1989, and in the Kenai River in 1987, 1988, 1989. As a result, future adult returns are expected to be low in 1994 and successive years. Trophic structures of Kenai and Skilak Lakes have been altered by overescapement.
SHELLFISH		·								
Clam	YES (NUMBER UNKNOWN)	UNKNOWN	POSSIBLY, FINAL ANALYSES PENDING	UNKNOWN	UNKNOWN	YES	YES	YES	YES	Native littleneck and butter clams were impaced by both oiling and clean-up, particularly high pressure, hot water washing. Littleneck clams transplanted to oiled areas in 1990 grew significantly less than those transplanted to unoiled sites. Reduced growth recorded at oiled sites in 1989 but not 1991.

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(a) There may have been an unequal distribution of injury within each region;

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

Resource	Des	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Inju	c Exter ry (a)	nt of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Crab (Dungeness)	UNKNOWN	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	Crabs collected from oil areas were not found to have accumulated petroleum hydrocarbons.
Oyster	UNKNOWN	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	Although studies were initiated in 1989, the re not completed because they were determined of limited value.
Sea Urchin	UNKNOWN	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	Studies limited to laboratory toxicity studies.
Shrimp	UNKNOWN	UNKNOWN	NO	(e)	(e)	(e)	(e)	(e)	(e)	No conclusive evidence presented for injury linked to oil spill.
INTERTIDAL/S	UBTIDAL CO	MMUNITIES								
Intertidal Organisms/ Communities	YES	YES	YES	VARIABLE BY SPECIES, SEE COMMENTS	YES	YES	YES	YES	YES	Measurable impacts on populations of plants and animals were determined. The lower intertidal and, to some extent, the mid intertidal is recovering. Some species (Fucus) in the upper intertidal zone have not recovered, and oil may persist in and mussel beds.
Subtidal Communities	YES	YES	YES	VARIABLE BY SPECIES, SEE COMMENTS	YES	YES	UNKNOWN	UNKNOWN	UNKNOWN	Measurable impacts on population of plants and animals were determined in 1989. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet show little sign of recovery through 1991.

(a) There may have been an unequal distribution of injury within each region;

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

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Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill

Service	Description of Injury	Status of Recovery	Geographic Ext	ent of	Iniury	/ (a)	
		in December, 1992	PWS	Kenai	Kodiak	Alaska Penin.	Comments/Discussion
Passive Use	In 1991, over 90% of those surveyed (nation-wide) said they were aware of the <i>Exxon Valdez</i> oil spill. People report that values have been lost; their feelings about the spill area have changed. There is a wide-spread feeling that something has been lost.	Recovery status is unknown.	YES	YES	YES	YES	Over 50% of those surveyed believed that the spill was the largest environmental accident caused by humans anywhere in the world. The median household willingness to pay for future prevention was \$31. Multiplying this by the number of U.S. household results in a damage estimate of \$2.8 billion.
Recreation (e.g., hunting, fishing, camping, kayaking, sailboating, motorboating, environmental education)	The nature and extent of injury varied by user group and by area. About a quarter of key informants interviewed reported no change in their recreation experience, but others reported avoidance of the spill area, reduced wildlife sightings, residual oil, and more people. Overall, recreation use declined significantly in 1989. Between 1989 and 1990 a decline in sport fishing (number of anglers, fishing trips and fishing days) were recorded for PWS, Cook Inlet and the Kenai Peninsula. In 1992 an emergency order restricting cutthroat trout fishing was issued for western PWS due to low adult returns. Sport hunting of harlequin duck was affected by restrictions imposed in 1991 in response to damage assessment studies.	Declines in recreation activities reported in 1989 appear to be recovering for some user groups, but the degree of recovery is unknown. EVOS related sockeye over- escapement in the Kenai River and Red Lake system is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in sport fishing closures or harvest restrictions during these and perhaps in subsequent years. The 1992 sport fishing closure for cutthroat trout is expected to continue at least through 1993. Harvest restrictions are expected to continue for harlequin duck through 1993.	YES	YES	YES	YES	Survey respondents also reported changes in their perception of recreation opportunity in terms of increased vulnerability to future oil spills, erosion or wilderness, a sense of permanent change, concern about long-term ecological effects, and, in some, a sense of optimism.

(a) There may have been an unequal distribution of injury within each region, see map for location of regions.

**Status of Recovery Geographic Extent of Injury (a) Description of Injury** Service in December, 1992 **Comments/Discussion** PWS Kenai Kodiak Alaska Penin. Commercial During 1989, emergency commercial Currently there are no area-wide YES YES YES YES Injuries and recovery status of rockfish, pink salmon, Fishing oil spill-related commercial shellfish and herring are uncertain. Therefore, future fishery closures were ordered in PWS, Cook Inlet, Kodiak and the closures in effect. Management impacts on these fisheries is unknown. Alaska Peninsula. This affected actions to try to compensate for salmon, herring, crab, shrimp, the spill are still in effect. rockfish and sablefish. The 1989 EVOS related sockeye overclosures resulted in sockeye overescapement in the Kenai River and in escapement in the Kenai River the Red Lake system (Kodiak Island). and Red Lake system is anticipated to result in low adult returns in 1994 and 1995. These In 1990 a portion of PWS was over-escapements may result in closed to shrimp fishing. closure or harvest restrictions during these and perhaps in subsequent years. YES YES YES YES By 1990, 12% of the tourism Approximately 43% of the tourism Commercial businesses surveyed felt their. Tourism businesses surveyed felt their businesses had been significantly businesses had been significantly affected by the oil spill. affected by the oil spill in summer 1989. The net loss in visitor spending in the oil spill area in 1989 was \$19 million.

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Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill

(a) There may have been an unequal distribution of injury within each region.

Summary of Results of Injury Assessment Studies Done After the Exxon Valuez OII Sp
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Service	Description of Injury	Status of Recovery	Geographic Ext	ent of	Injury	/ (a)					
		in December, 1992	PWS	Kenai	Kodiak	Alaska Penin,	Comments/Discussion				
Subsistence	Subsistence harvests of fish and wildlife in 10 of 15 villages surveyed declined from 4 - 78% in 1989 when compared to pre-spill levels. At least 4 of the 10 villages showed continued lower than average levels of use in the period 1990-1991; this decline is particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989-1991, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat. In 1989-1991, health advisories were issued indicating that shellfish from oiled beaches should not be eaten.	Many subsistence users believe that continued contamination to subsistence food sources is dangerous to their health. In addition, village residents believe that subsistence species continue to decline or have not recovered from the oil spill.	YES	YES	YES	NO	For detailed information on village subsistence use see table _; page				

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(a) There may have been an unequal distribution of injury within each region.

### Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill

Other Natural Resources and Archaeology: Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill (b)

Resource Description of Injury		Status of Recovery	Geographic	Extent	of Injur	y (a)	Comments/Discussion				
		in December, 1992	PWS	Kenai	Kodlak	Alaska Penin.					
Air	Air quality standards for aromatic hydrocarbons were exceeded in portions of PWS. Health and safety standards for permissible exposure levels were exceeded up to 400 times.	Recovered	YES	NO	NO	NO	Impacts diminished rapidly as oil weathered and lighter factions evaporated.				
Sediments	Oil coated beaches and became buried in beach sediments. Oil laden sediments were transported off beaches and deposited on subtidal marine sediments.	Patches of oil residue remain intertidally on rocks and beaches and buried beneath the surface at other beach locations. Oil remains in some subtidal marine sediments and has spread to depths greater than 20 meters.	YES	YES	YES	YES	Unweathered buried oil will persist for many years in protected low-energy sites.				
Water	State of Alaska water quality standards may have been exceeded in portions of PWS. Federal and State oil discharge standards of no visible sheen were exceeded.	Recovered	YES	YES	YES	YES	Impacts diminished as oil weathered and lighter fractions evaporated.				
Archaeological sites/artifacts	Currently, 24 sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. 113 sites are estimated to have been similarly affected. Injuries attributed to looting and vandalism (linked to the oil spill) are still occurring.	Archaeological sites and artifacts cannot recover; they are finite non-renewable resources.	YES	YES	YES	YES	Ċ.				
Designated Wilderness Areas	Many miles of Federal and State Wilderness and Wilderness Study Area coastlines were affected by oil. Some oil remains buried in the sediments of these areas.	Oil has degraded in many areas but remains in others. Until the remaining oil degrades, injury to Wilderness areas will continue.	YES	YES	YES	YES					

(a) There may have been an unequal distribution of injury within each region.

(b) This page has not yet been reviewed by the Chief Scientist.

### (a) There may have been an unequal distribution of injury within each region.

# Name: Steve A Schoonmaker Phone: 262-4467

#### 1994 POTENTIAL PROJECT TITLES

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#### Page 1

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	STERNE STR	EST	1	1	1	1	1 1	2	2	р К
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341	SERVICE	SUBOPTION SUBOPTION	A MARSHE MARKER PROVIDENCE AND A STRATEGICAL AND A ST	s	N D	i. sii	(MEASIS)	4	5	6	7	8 9	0	1	und
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	XX	(\$41	M	X	X	X	X				
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X		\$300	1								X)
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	х×	\$200	M						1		V.
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	XX	\$525	M	X	X	$\varkappa$	$\times$	X			
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	хx	\$400	М						-		H
6		Option Not Identified	Restoration of Chenega Village Site	X		\$75	1								V
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	хx	\$300	93 - M	X	$\sim$	$\times$					
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X		\$230	. M.								V
9		Public Information	Heritage Information Replacement	X	XX	\$200	M								4
10	·	Public Information	PWS Landmarks-Evaluation and Interpretation	X		\$400	М								
11	· · ·	Public Information	Public Education and Interpretation of Archaeological Resource	X	х×	\$400	M	X	$\kappa$	$\chi$	<			·	
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	XX	\$225	M								Y
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	XX	\$150	M	X	X	$\mathbf{x}$	$\times$				
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	XX	\$210	M		.						Y
15	· · · · · · · · · · · · · · · · · · ·	Site Stewardship Program	Archaeological Site Stewardship Program	X	XX	\$114	M								V
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X		\$1,200	1								V
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	•											Î			
							<i></i>								
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	XX	\$262	М	X	X	X	X	$\kappa _{\mathcal{K}}$	X	X	1
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	XX	\$10	М	X	$\left[ X \right]$	$\mathbf{X}$	X	X[_	Ï		ľ
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	XX	\$200	М	$\sim$	X	$\times$	XX	$\langle   \rangle$	X	X	
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									:						
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	XX	\$108	93 - M	$\left  \mathcal{K} \right $	X	XZ	×۶	K			
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X		\$125	м	X	X	$\times$	XI	XX	٩X	X	

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PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### 1994 POTENTIAL PROJECT TITLES

#### Page 2

RESOUR	CE RESIDEATION OPTION	POTENTIAL PROJECTS	RE	GION	EST. 1	ESTA	1	1	1	1	1	2 7	Ŕ
or	all all and a second of the		Р W	K K E O	COST/YR	DURATION	9 9 4	9 9 5	9 9	9. 9.	9 9		Not T
SERVIC	E SUBOPTION TRACES		s		<u>SK</u>	(YEARS)		Ĺ			Ĺ	Ļ	5.
22 Black Oysterc	atcher Restoration Monitoring	· · · · · · · · · · · · · · · · · · ·										<b>.</b>	
			-										
	ching 11 the part of the second							-					
	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	XX	\$1,100	M							M
24	Intensity Management	Establish an Ecological Basis for Hestoring and Enhancing Mixed-stock Salmon Resources	X	XX	\$385	M	X	$\sum$	$\wedge r$	<u>\</u>	1 C	<u> </u>	
23		Fishery industrial recipiology Center	×	XX	\$3,500	1	X	X l	XXX	.  X.	K	×Χ	:
20		Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	M		1		1.5			17
27	Intensity Management	Susitna Hiver Sockeye Salmon Production Evaluation		X	\$300	M	X	Ň	ζ/				
-28	Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	XXX	\$200	M		X	$\sim$ $\gamma$	(X			
29	Option Not identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,000								
30	Hecovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	y X		\$868	M	$ \mathcal{X} $	X	Xγ	X	M	X	£
31	Recovery Monitoring	Wild Fish Stock Information Assessment	X	XX	\$50	M	Х	X	$\chi_{7}$				-
32	Replace Harvest Opportunities	Mitigation Fishery at Kitol Bay Hatchery on Alognak Island		X	\$45	M	$\overline{\boldsymbol{\mathcal{X}}}$	Ŷ	ХX				
33	Heplace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	M	$\sum$		XI		X	ХY	S
34	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X	\$50	M	X	$\mathcal{F}$	$\langle \rangle$			i.	
.35	Heplace Harvest Opportunities	Red Lake Mitigation		X	\$191	M ·	$\boldsymbol{\lambda}$	$\lambda_{1}$	X   2		X	XX	•
							· .						
	B Especibility Otudes Image No. 4 Ot	Tradic Alto Franklik, of Faharaka Dardeatik's		-									-
	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	XX	\$280	M	X	X	X   X		$ \lambda $	$\Delta$	-
37	reasibility Study: Social Stimuli	Hestoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	<u>×</u>	XX	\$51	93 - M	X	$\mathcal{X}$	XX	X			41
30	reasibility Study: Social Stimuli	Hestoration of Murres by Way of Transplantation of Chicks-Feasibility Study		XX	\$73	M	X	$\lambda$	XX	JX.			
39	Recovery Monitoring	Common Murre Population Monitoring OUT	X	XX	\$191	M	X	$\lambda$	X		24	X17	~
40	Heduce Disturbance	Heduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	<u> x   x</u>	\$40	M	Ň	X	XXX				±
41	Hemove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT	$ \cdot $		\$460	M	X	$\mathbf{X}$	XIX	٥X	1		

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#### 1994 POTENTIAL PROJECT TITLES

RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RE P W S	GION K K E O N D	EST. COST/YR	ESTI DURATIO (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9. 9 7	1 1 9 9 9 9 8 9	2 0 0	2 DO NOT Fund	
42 Common Murre	Restoration Monitoring					м	$ \mathcal{X} $	XX	X	XX	X	$\overline{X}$	1
									[·			1	
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						-							1
43 Cutthroat/Dolly	Intensify Management	Cuthroat Trout and Dolly Vardan Habitat Bastoration	v		\$200								
44	Intensify Management	Enhanced Management of Cutthroat Trout and Delly Varden	- 0		\$285	N		1.				L	X
45	Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory Evaluation, and Restoration	·   •		\$205	M		20		<b>~</b>			//
46	Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	$-\hat{\mathbf{y}}$		\$950	M	E.	~ X	~	$\sim$	+ 1		X
47	Bestoration Monitoring				4330	M						V	1
							n		- X.	<b>X</b>			
	· · · · · · · · · · · · · · · · · · ·												
		· · · · · · · · · · · · · · · · · · ·	-  ·				1		ľ				
48 General	Administration	Oil Spill Restoration Support Service and Facilities	X	XX	\$600	1	$\mathbf{X}$	XX	X	X			
49	Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X	· · · · · · · · · · · · · · · · · · ·	\$200	M	X	X   X	X	$\times$	$\langle X  $	X	
50	Option Not Identified	Hazardous Material Collection Facility	X	хx	\$100	1	X	$\mathbf{x}$	X	X			
51	Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	хx	\$488	M	· / - · ·		1			· ·	1
52	Public Information	Public Broadcasting System Program on Oil Spill	X	хx	\$70	M	X	XX	X	XX		· · ]	
53	Public Information	Publish and Distribute Brochures on Injured Species	X	хx	\$90	м	K	XX		X			
54	Public Information	PWS Brochures	X		\$65	М		· ['	r.			V	X
55	Public Information	PWS Implementation of Interpretive Plan	X		\$150	M	K	XX	X			Ţ.	
56	Public Information	PWS Large Format Photographic Book	x		\$100	M	- [ 						X
57	Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	M		••••		· · · • •			$\mathbf{X}$
58	Public Information	PWS Video Programs	x		\$100	M					· [ · · · · ]	ľ	X
59	Public Information	Science of the Sound- Education Program	x	• - • • • •	\$53	M	X	XX	X	$\aleph$			1
							1		$\gamma \sim$	·			
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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## Name: Steve Schoonmaker Phone: 262-4967

#### 1994 POTENTIAL PROJECT TITLES

#### Page 4

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W	GIO K 7 E 0	N C	est. Ost/ya	EST. I DURATION	1 9 9	1 9 9	1 1	1 1 9 9 9 9	1 9 9	2 2 0 0 0 1	Do Not Fu
107	SERVICE	SUBORTION ANA		s	N 1		<u>SK</u>	(YEARS)			Ļ			Ļ	ā
60	Harbor Seal	Cooperative Program-Fishermen		-					1.7						
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X			\$39	M	X	X	K Z			ХX	
62		Option Not Identified	Subsistence Harvest Assistance	X	-		\$23	M	<u> </u>	X	×[?	XX	X	XX	4
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X		ļ.,	\$165	93 - M	K.	X	<u> </u>			ХŶ	
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	X	×	\$230	М	X	Xi	×γ	×Χ	X	$\sim p$	
				1											
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									È.						
65	Harlequin Duck	Eliminate Oil from Mussel Beds													
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	X X	x	\$700	93 - M	$\mathbf{x}$	$\mathcal{N}$	$\infty$	X   X		ХX	
67	· · · · · · · ·	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	X	X	\$53	М	X	X	$\mathcal{K}$	χX		XX	
		and the second second second second second second second second second second second second second second second						· .	1		-				
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68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	X X	X	\$20	М						.  .	M
69	internet and the second second second second second second second second second second second second second se	Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	X	x	\$70	M	X	X	X				
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	X	x	\$300	М	X	$\times$	$\times >$	< X			
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	X :	x	\$50	М	X	X	X7	×Х			
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X			\$500	М	X	X	$\times$	×Х			
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	X	x	\$800	М	X	$\times$	$\times$	× ×			
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	x	X		М	$\mathcal{X}$	$ \chi $	X				
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	<b>x</b> [3	x	\$620	М	X	X	X 7	٩X	3		
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X			\$600	М							
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	X	X	\$500	М	$\left  \mathbf{x} \right $	$\times$	×]?	N/X		$\times \times$	] ]
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		x	x	\$200	М	X	$\infty$	X	XX	2		
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	X	x	\$275	М	X	X	XZ	ρX		$\varkappa$	
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	X	x	\$50	М	K	$\left  \mathbf{x} \right $	×1	\$7	9 X	$\boldsymbol{\mathcal{N}}$	
81	· · · · · · · · · · · · · · · · · · ·	Monitoring	Monitoring for Recruitment of Littleneck Clams	x	x	x	\$186	М	X		X1	XX	d		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	B	EGI	ON	EST.	EST.	1	1	Γ,	1	1	1	2	2
	or	or		P	K E	к о	COSTAR	DURATIO	9	9 9	9	9 9	9	9 9	0 0	o Not n
<u>اللا</u>	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	4	Ľ	6	7	8	Ľ		
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	X	\$500	M	X	$ \mathcal{P} $	$ \times $	X	î ×	$ \lambda $	$\times$	$\times$
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	X	\$600	М	X	$\left  \mathbf{X} \right $	X	×	X	X	×	$K \mid I$
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	X	\$195	М	ス	X	2	X	$\langle X \rangle$			
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	X	\$500	93 - M	X	X	$ \times$	X	X			
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M	X	$\times$	X	X	$\times$		ļ	
87	1	Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	X	\$860	M	X	X	X	: ×	$\langle   \times \rangle$		ĺ	
88		Option Not Icentified	Clam Enhancement	X	X	X	\$120	М	X	X	X		$\langle   X \rangle$	[		
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	м	X	X	$\mathbf{x}$					
90		Option Not Identified	Restoration of Mussel Beds	X	X	X	\$500	М	X	X	X	X		}	]	
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X	\$237	М	X	X	ĺΧ	X			İ	
																<b> </b>
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		and the second second second second second second second second second second second second second second second												· [ ·	a	
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X	1		\$120	93 - M	X	X	X	X	X	X	$\times$	X
93		Monitoring	Recovery Monitoring	X			\$125	M	X	X	×	X	X	X	K	
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	M	X	X	X	$ \times$	$\langle \times$	X	×.	$\times$
95	-	Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				М	X	X	X	X	X	'		
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		· · · · · ·							Ì							
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96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X	\$240	93 - M	X	$ \times $	X	X	$\langle X \rangle$	$ \mathbf{x} $	X	K I
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	X	\$180	93 - M	X	X	X	X	X			
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	X	\$250	M	X	X	X	$[\times$	$\langle N \rangle$			
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	X	\$509	. M	X	X	$ \times$	X	۲X	X	×	
100		Minimize Incidental Take			_											
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	X	\$200	M	X	X	X			·  `		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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# Name: StEVE Schoonmaker Phone: 262-4467

#### 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST.	1 9	1 1 9 9	1 9	1 9	1	2 2	
SERVICE	SUBORTION		W S	E O N D	SK	VEARS	9 4	999 56	. 9 7	9 8	9	) 0 ) 1	r F
102 Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	x x	\$250	M		XX		X	Xİ		<u> </u>
								/ <b>/</b>	16.5	'			
													1
	· · · · · · · · · · · · · · · · · · ·												
103 Multiple Resources	Habitat Protection	Habitat Modelling	X	xx	\$150	м	x	$\langle \mathbf{x} \rangle$				1	i I
104	Habitat Protection	Riparian Habitat Assessment	X	x x	\$110	М	X	XX	ζľ.	$\left[ \right]$			i I
105	Habitat Protection	Stream Channel Capability Modeling	X	xx	\$110	М	X	XX	<				
106	Habitat Protection	Stream Habitat Assessment	X	XX	\$361	93 - M	X	XX	$\langle  $				
107	Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1	X	< X	$\langle X \rangle$	X			1 - 1
108	Habitat Protection	Vegetation and Stream Classification and Mapping	X	XX	\$276	93 - M	X	XX	Ċ				
109	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	XX	\$100	M:	X	< 🛛	X	$\mathbf{x}$			·····
110	Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	XX	\$750	М	X	$\times$	$\langle X \rangle$	X			
111	Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		xx	\$111	• 1			ſ				1 V
112	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		X		1							ÍV
113	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		X		1							1
114	Habitat Protection and Acquisition	Valdez Duck Flats	x			1						<b>.</b>	1º
115	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X	\$20	1							M
116	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		X		1		Ä.					M
117	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		X	\$250	1	V						ίΙ.
118	Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1			1				4
119	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		X	\$200	1							
120	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		X	\$77,000	1			Ì				W
121	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$90	1			1				N,
122	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$60	1			-				V
123	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X	\$400	1					1		Y,
124	Habitat Protection and Acquisition	Conservation Easement-Port Chatham		x	\$80	1			.				V
125	Habitat Protection and Acquisition	Conservation Easement-Rock Bay	11	X	\$740	1	i li li		Ĩ	T I			V
126	Habitat Protection and Acquisition	Habitat Acquisition	X	xx	\$25,000	93 - 1						ſ	M
127	Habitat Protection and Acquisition	Habitat Acquisition, Afognak		X	\$112,500	1			-	[ ]			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KQD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

## Name: STEVE M Schoonmaker

Phone: 262-4467

#### RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS REGION EST COST/YR DURATIO or JO I I SUBOPTION SERVICE STEALS 128 Multiple Resources Habitat Protection and Acquisition Habitat Acquisition, Kodiak Island \$20,000 129 Habitat Protection and Acquisition Habitat Acquisition, North Afognak Island \$4,000 130 Habitat Protection and Acquisition Kodiak Bear Refuge Stream Mouth Inholdings Acquisition \$1,000 131 Increase Natural Food Supply 132 Intensify Management Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations XXX \$50 Μ 133 Intensify Management Genetic Risk Assessment of Injured Salmonids x x x \$408 М 134 Intensify Management Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife \$200 М 135 Intensify Management Restoration of Second Growth Habitat for Wildlife in PWS \$40 М 136 Intensify Management Seabird Colony Restoration \$250 М VV 137 VIV Intensify Management Stock Identification of Chum, Sockeye and Chinook Salmon in PWS \$250 М 138 M Monitoring Shoreline Worm Life Monitoring XXX \$388 **Option Not** Identified 139 M Instream Habitat and Stock Restoration Techniques for Anadromous Fish XXX \$416 V Option Not Identified 140 XXX М Alaska Land and Wildlife Conservation Fund one billion Option Not Identified 141 XXX Field Study of Bioremediation Enhancement Treatment Methods \$280 М 142 Option Not Identified $\mathbf{x} | \mathbf{x} | \mathbf{x}$ М Oil Spill Injured Resources Literature Research and Review \$7 Option Not Identified xxx 143 Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed \$650 **Option Not Identified** 144 Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration x x x \$48 М xxx Option Not Identified 145 93 - M Shoreline Assessment \$250 146 Option Not Identified \$28 М Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study 147 Recovery Monitoring Comprehensive Monitoring Program, Plan and Administer XX \$500 93 - M VVVV VIIIII 148 **Recovery Monitoring** Cook Inlet Comprehensive Monitoring Program х \$800 Μ 149 Recovery Monitoring Full Funding for Oil Spill Recovery Institute хİ x) \$2,300 1 XXX 150 M Recovery Monitoring Injured Resource Food Supply \$850 14444 VVVVV 151 x x x Recovery Monitoring Μ Inventory, Monitor, Protect Permanent Study Sites \$500 152 М Recovery Monitoring Long-Term Monitoring of Marine Environment of Resurrection Bay X \$600 x М 153 **Recovery Monitoring** Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS \$80 xxx IVVV 154 M Recovery Monitoring Migratory Waterfowl and Shorebird Monitoring \$150 VVVVVV xxx 155 Recovery Monitoring Monitor Population Status of Seabird Nesting Colonies in the Spill Zone \$100 Μ NNVVV 156 **Recovery Monitoring** XXX Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids \$200 М 157 X **Recovery Monitoring** \$35 Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds М

1994 POTENIIAL PROJECT TITLES

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# STEVE M Schoonmaker 262-4467 Name:

#### 1994 POTENTIAL PROJECT TITLES

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1	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGIC	DN	EST.	EST.		1	1 1		1	2	, V	1
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20	SERVICE	SUBOPTION		S	И	D	<u>\$K</u>	(YEARS)	Ľ	5	6 7	8	9	0	und.	
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	м	V	1	1	12	+1			
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X	X	\$275	93 - M	$\square$	$\checkmark$	$\Lambda_{\iota}$	Xu	11	11	7	1
160		Reduce Disturbance by Field Presence							1							
161		Reduce Disturbance Through Public Info	Public Information and Education	X	X	X	\$316	М	M	4	4	10	14	VI	1	1
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	X	X	\$50	M							. (	
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	X	X	\$500	м	М	イ	1	1-	11			V
164		Restoration Monitoring	Ecosystem Study	X	X	X	\$6,000	M							V	1
															Į	ł
				·  :												<u>}</u>
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X			\$205	M	N	M	V C	イレ	19	4	+	1
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X			\$400	М		V	V	10	14	1	1	ľ
167		Intensity Management	PWS Herring Tagging Feasibility Study	X		:	\$112	M		1	VI	XL	$\mathcal{L}$			ľ
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	. X		- 1.	\$189	M		1	1/1	ノレ	11			1 1
169	and the second second second second second second second second second second second second second second second	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	M	$\mathbb{N}$	V	1	Yr	11			1
170		Option Not Identified	Enhancement of Pacific Herring	X	X	X	\$120	M		$\mathcal{N}$	11	Χν	14	4	1	<u>ا</u>
171		Restoration Monitoring									·.					
			· · · · · · · · · · · · · · · · · · ·		[ ]											
			· · · · · · · · · · · · · · · · · · ·											-		l
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	X	X	\$40	93 - M			1	1-	11			ŀ
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X	X	\$180	М	$\mathcal{N}$	レ	VIL	10	14	5	7	1
174	· · · · · · · · · · · · · · · · · · ·	Restoration Monitoring														
175		Temporary Predator Control												Í		
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# Name: Steve M Schoonmaker Phone: 262-4467

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC	ION	EST.	EST.	,			Ϊ,	Ι,	2	2 8	
	or	or discussion	and the second second second second second second second second second second second second second second second	P	к	COST/YR	DURATIO	N 9	9	999	9	9	0	o Not	
<u>, 1</u>	SERVICE	SUBOPTION		5 1	D	\$K	(YEARS	4	5	6 7	в	9	0	1 ynd	
176	Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration		x   x	\$25	M	X	$\overline{\mathbf{x}}$	XX	57	4			
177	,	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration	11	X	\$28	1	$\propto$	X	x   y	4X	3	Ì		
178	5	Fish Passes and Access	Otter Creek Fish Pass	X	١.	\$130	1	X	$\chi$	XI	A >				
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1	X	$\mathbf{x}$		Í				
180		Fish Passes and Access	Sockeye Creek Fish Pass	x		\$60	1	X	$\mathbf{X}$	$\chi \chi$	γX	3			
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		X	\$55	1	$\times$	X						
182		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	$ \mathbf{x} $	x x	\$727	м		$\times$	$\chi \gamma$	$\langle \rangle$	$d \propto$	X	$\rtimes$	
183		Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	м	1×	X	$\chi$	ďγ	ĺΧ	X	$\times$	
184		Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	м	X	X	XX	(by		$\mathbf{\lambda}$	$\mathbf{x}$	
185		Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	м	1	$\langle \rangle$	XX	ίx	$\mathbf{x}$	X	$\mathbf{x}$	
186		Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	<b> </b> x		\$253	м		X	XX	X		X	$\times$	
187		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X :	x x	\$152	М	X	X	XX	X		X	$\times$	
188		Intensify Management	Pink Salmon Escapement Enumeration	$ \mathbf{x} $	x x	\$705	M	K	X	XX	X	X		<	
189		Intensify Management	PWS Salmon Stock Genetics	X		\$150	M	X	X	xx			$\mathbf{x}$	X	
190	-	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	м	X	$\mathbf{x}$	$  \times   \times$	Ś		X	×	
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities		X I	\$686	M	X	$\mathbf{x}$	XX	<		v		
192		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	x	\$899	М	X	X	XX			$ \hat{\boldsymbol{\varphi}} $	$\mathcal{Y}^{-1}$	
193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	м	X	X	$\langle \rangle \rangle$	Z	-2	$\left  \mathbf{x} \right $	$\tilde{\checkmark}$	
194	· ·	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M	X	$\mathbf{X}$	$\langle \langle \rangle$	ζx		$\mathbf{\hat{x}}$	$\mathbf{\mathcal{A}}$	
195		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	м	X	X	XX	dx	X	Ŷ	́Я '	
196		Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X :	x x	\$300	м	$\times$	X	XX	ζŊ		Ŷ	X '	
												ľ			
									- T						
															/
197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak		x x	\$1,250	М								
198		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	x x	\$6,000	1	$\mathbf{X}$							/
199	· · · · · · · · ·	Establish Marine Environmental Institute	Seward Sea Life Center	$ \mathbf{x} $	x x	\$40,000	1					1		$\vee$	
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	x x	\$500	м								1
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	<b>x</b>	xIx	\$500	M				1	1			/

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#### 1994 POTENTIAL PROJECT TITLES

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RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P S	GION K K E O N D	EST. COST/YR SK	EST. DURATIO	1 1 9 9 9 9 4 5	1 1 9 9 9 9 6 7	1 9 9 8	1 2 9 0 9 0 9 0 9 0	2 Not Fund
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			\$500	1					TV-
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70	1					1V
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	x		\$50	M					14
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	x	xx	\$100	м					V
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X	-	\$58	M	XX	'XX			
207	Monitoring	Recreation Field Management and Monitoring	x	xx	\$700	M		16 Č [Č	[' ]		14
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		\$150	1					M
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X	-1-1	\$20	1			·   · · ·   ·		14
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	хx	\$100	М					W/
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1					
212	New Backcountry Recreation Facilities	Prince William Sound Campground	x		\$70	1					M
13	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	xx	\$150	M					V
14	New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1					V
15	New Backcountry Recreation Facilities	PWS Recreation Facilities	x		\$250	1					ht
16	Option Not Identified	Development of Gulf of Alaska Recreation Plan		хx	\$140	1					11
17	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M		.			it
18	Option Not Identified	Sustainable Tourism in PWS	X		\$240	М			T T		11
19	Option Not Identified	Watchable Wildlife	X	хx	\$65	м					14
20	Option Not Identified	Increased Access PWS	X		\$100	М					H/
21	Plan Commercial Recreation Facilities	Recreation Development	X	x x	\$200	м					V
22	Restoration Monitoring										4
23	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	xx	\$77	м					4
24	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1					W/
25	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	хx	\$310	M					M
26	Visitor Center	Cordova Environmental Education Center	x		\$15	1	X				
27	Visitor Center	Cordova Mini-Imaginarium	X		\$63	1					W
28	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	хx	\$155	м	X				
29	Visitor Center	Environmental Education Center in PWS	X		\$90	1					4
30	Visitor Center	Environmental Learning Resource Center	X	хx	\$90	1					M/
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x		\$450	1	T I				

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# Name: StEVE M SchoonMAKer Phone: 262-4467

### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N	EST,	EST.	1	1	,	1	1	1 2	2	8
	or	or states of the		P W	K E	ĸ	Cost/yr	DURATIO	N ,	9 9	9 9	9	9	) () 9 ()	0	Not F
967	SERVICE	SUBOPTION A Section A		s	Ν	D	\$K	(YEARS			Ľ	Ĺ	*	<u> </u>	Ľ	
232	Recreation	Visitor Center	Information Center	X	X	X	\$600	1								4
233		Visitor Center	Interpretation of PWS	X			\$10	М								V.
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1								4
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	x			\$150	1	X							
236		Visitor Center	Valdez Visitor Center	X			\$850	1								4
										ļ						
	n na an garanta an sa	• • • • • • • • •	· · · · · · · · · · · · · · · · · · ·													
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	м	X	X	X	X	xİ	dx	·	
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	x			\$40	м	X	5		5	ZK	$\geq$	X	
239	····	Restoration Monitoring								1~		$\sim$				- 1 - C
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	x	x	x	\$99 <sup>,</sup>	1	X	X	X	X	$\mathbf{x}$			
							•						•			
		· · · · · · · · · · · · · · · · · · ·														
		· · · · · · · · · · · · · · · · · · ·								. <sup>*</sup> .		·		• • •		
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	M	X	X	X	$\times$	<			
242	· · ·	Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М	X	X	X	X	XX	cX		
243		Monitoring														
				ľ						I						
244	Sea Otter	Cooporative Prgm-Subsistence Users							· · · ·	1						1
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	x	\$83	М	X	K	X	$\mathbf{x}$	$\mathbf{x}$	$\mathbf{x}$	1	
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	x	\$337	М	X	X	X	X	λß	cix	$\mathbf{x}$	·
247	· ····	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	x	x	x	\$450	м	X	X	X	Ň	χľ		$\left[ \right] $	
248		Monitoring	Sea Otter Population Dynamics	X	X	x	\$291	93 - M	X	X	X	X	X	xx		
249		Restoration Monitoring								1	1.1		· - [`			

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### 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P		EST.	EST.	1 1 9 9	1 9	1 1 9 9	1 9	2 ; 0 \	2 Do Not
SERVICE	SUBOPTION		W S	E O N D	SK SK	(YEARS)	999	9	99 7.8	9	0 0	Fund
250 Sea Otter	Study: Eliminate Oil from Mussel Beds										-	
	· · · · · · · · · · · · · · · · · · ·				· · · · · ·							
Sockova Salmon							·     :				.	
251 Sockeye Samon	Fish Passes and Access	Solf Lake Fish Pass	X		\$120	M	XX	X	XX		~~	
252	Intensity Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		X	\$333	M	XX		XX		~ ^	
253	Intensity Management	Genetic Monitoring of Kodlak Island Sockeye Salmon			\$2/5				$\hat{\mathbf{x}}$			. ( <b>(</b> )
255	Intensity Maragement	Genetic Stock Identification of Kenal Hiver Sockeye		X.	\$500	93 - M						
255	Intensity Mar agement	Kenal Hiver Sockeye Samon Restoration		<u>.</u>	\$1,000	93 - M		$\mathbb{C}$			:	
257		Avakulik Diver Seckeye Salmon Responset Evaluation				1VI		$\mathbf{C}$				
258	Monitoring	Sockeve Salmon Overescapement		XX	\$641	93 - M		N.	XČ	X	XIX	
259	Option Not Identified	Bestoration of the Conbill Lake Sockeye Salmon Stock	x		\$165	93 - M	22	$ \mathbf{x} $	$\mathcal{S}\mathcal{G}$			
260	Option Not Identified	Red Lake Salmon Bestoration		x	\$72	M			$\sum$		x ·	
					· · · · · · · · · · ·				~ /			
<u> </u>	and an an an an an an an an an an an an an										•	
261 Sport Fishing	Recovery Monitoring											
262	Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X	\$4,200	- 1						4
263	Restoration Monitoring											
5. C			·									
										. [ . ]		
a. Buhalatarra										.	-	
264 SUDSISTENCE	Access to Traditional Foods						4		Ì	.	•	
265	Bivaive Shelli sh Hatchery		-									
266		Chenega Bay Subsistence Restoration Project (Remove Oil)	X		\$200	i M	XX	X	×Χ			
267	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	XX	\$300	1	XX	X	XX	6		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area





Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



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品語社會。 月代,也不愿望**新史,报源的实**验 1990年1月1日, 总社會部分過度 1999年 - 1991年1月1日, 同時和新校公司的新行。

Fold This Page Over Your Comment Sheets....

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Attach Correct Postage

Name: Jerome M. Phone: USe-G Muyor

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	ા	EST.	EST. 1	1	1	1 1	1	2	2 8
	or	or		P K W E	ĸ	COST/YR	DURATION ;	9 9	9 9	999 99	9 9	0 0	0 Vor 17
	SERVICE	SUBOPTION		S N	D	\$K	(VEARS)	5	6	7 8	9	0	und
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	x >	( X	\$105	93 - M						X
291		Administration	Toxicological Profile of PWS	X		\$150	М						X
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	XX	X	\$8	M	X					
293		Public Information	Database Integration	X >	( X	\$148	м		X 2	XX			-
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X		М		ľ				X
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X >	( X	\$120	M						
296	•	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X )	( X	\$100	M						_Χ
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X >	( X	\$72	М						Ń
										1			ſ
										1			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Serome M. Selhy Muser 486-9300 Name: Phone:\_

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG		- EST.	EST.	1	1 9	1 1	1 9	1 2 9 0	2 0 2
	or SERVICE	SUBOPTION		P I W I S I		COST/YR SK	OURATION (YEARS)	9 4	9 5	999 67	9 8	9 0 9 0	0 Fund
268	Subsistence	Option Not Identified	Mariculture Technical Center Fulled hist	alax	x x	\$2,200	1						Ī
269		Option Not Identified	Seward Shellfish Hatchery	X	хx	\$1,300	1						
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence 7	X	хх	\$700	М						
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		\$50	M						
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X	_	\$55	М						
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X	\$2,500	1						
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,000	1						
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	хx	\$55	М						X
276		Restoration Monitoring	•		·								
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming Fueld in Stulle	X	хх	\$589	M						
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	x x	\$300	М	X	$\chi$ >	۲			e
279		Test Subsistence Fcods	Subsistence Food Safety Testing	X	хx	\$308	93 - M						X
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	x	\$110	м						X
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X		\$715	м						X
282		Monitoring	PWS Spot Shrimp Survey	X		\$90	М	X					
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	хх	\$275	M						
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS ?	X		\$265	93 - M						
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	x x	\$390	М						
286		Monitoring	Subtidal Recovery Monitoring	X	x x	\$400	М						X
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	хx	\$90	М						X
						-		+					
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	x	x x	\$450	M				3	X	
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X		\$75	M				11		

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Name: Jerome M. Selby Mayor Phone: 476-9300

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	EST.	EST.	1	1 1	1	1	1 2	2
10	OF	and the second second second second second second second second second second second second second second secon	P	K K	COST/YR	DURATION	9 9	999 99	9 9	9 9	9 ( 9 (	o o
SERVICE	SUBORTION		s	ь о D	\$K	(VEARS)	4	56	7	8	9 (	1 Pund
250 Sea Otter	Study: Eliminate Oil from Mussel Beds											
251 Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X		\$120	М						
252	Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		X	\$333	М			X	X		
253	Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon		)	\$275	М	X	XX				
254	Intensify Management	Genetic Stock Identification of Kenai River Sockeye		X	\$500	93 - M	X	XX				
255	Intensify Management	Kenai River Sockeye Salmon Restoration		X	\$1,000	93 - M	Í		X	X	X	
256	Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		X	\$143	M		X	X	X		
257	Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		<u> </u>	\$6	м	X					
258	Monitoring	Sockeye Saimon Overescapement		ХХ	\$641	93 - M	X	X)				
259	Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M	X					
260	Option Not Identified	Red Lake Salmon Restoration		×	\$72	М	X					
		•				Dan service		.		.	{	
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261 Sport Fishing	Recovery Monitoring											
262	Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X	\$4,200	1			·			$\perp X$
263	Restoration Monitoring											11
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264 Subsistence	Access to Traditional Foods	Fordal					-					
265	Bivalve Shellfish Hatchery	- Stull					$\left  \right $			-		
266		Chenega Bay Subsistence Restoration Project (Remove Oil)	X.		\$200	М			_			
267	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design		XXX	\$300	l 1	1	Į				$ \mathcal{V} $

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Jerome M. Selly, Mayror 480 9300 Name:\_\_\_\_ Phone:\_\_\_\_

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RESOURCI	E RESTORATION OPTION	POTENTIAL PROJECTS	RI	EGI	ON	EST,	EST.	1	1	1	1 1	1	2	2
or SERVICE	or SUBOPTION		P W S	K E N	K O D	COST/YR SK	DURATION (YEARS)	9 9 4	9 9 5	9 9 6	999 999 78	9 9 9	0 •0 0	0 0 Fund
232 Recreation	Visitor Center	Information Center	ta	X	X	\$600	1							X
233	Visitor Center	Interpretation of PWS	X			\$10	М			•				R
234	Visitor Center	Maritime Wing Valdez Museum	X			\$150	1							17
235	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1			_				X
236	Visitor Center	Valdez Visitor Center	X			\$850	1					1		X
237 River Otter	Monitoring	River Otter Recovery Monitoring	X		1	\$180	М							X
238	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X	1	1	\$40	М		-		+-			X
239	Restoration Monitoring			-					-		-			
240	Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	X	X	\$99	1							X
- 														
														· .
241 Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	M		$\boldsymbol{X}$			-		
242	Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М			ハ	X	<u></u>		
243	Monitoring		·											
244 Sea Otter	Cooporative Prgm-Subsistence Users			1								-		
245	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	Х	X	\$83	М		X	X				
246	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	М				22		[ ]	
247	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	X	\$450	М							X
248	Monitoring	Sea Otter Population Dynamics	X	X	X	\$291	93 - M							X
249	Bestoration Monitoring		-					1				1		1

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Jerome M. Selby Major Ufle 9300 Name: Phone:

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RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P ¥ S	GION KKK EOND	EST. Costar Sk	EST. DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 9 9 7	l 1 9 9 9 9 8 9	2 0 0 0	2 0 0 1
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System	$\overline{ }$	X	\$500	1				マメ		1
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70	1	X					
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	м	X					
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	хx	\$100	М						X
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X		\$58	М						X
207	Monitoring	Recreation Field Management and Monitoring	X	хх	\$700	М						X
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails for Seil hy So	1X		\$150	1		T				X
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1						X
210	New Backcountry Recreation Facilities	Improve Marine Parks /	X	хx	\$100	M						X
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area 1	X		\$100	1						X
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1						$\mathbf{X}$
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	X-X	\$150	М		-				X
214	New Backcountry Recreation Facilities	PWS Kayak Trail (	X		\$100	1						X
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	X		\$250	1						<u> </u>
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		хx	\$140	1						X
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X	÷	\$400	M	-					X
218	Option Not Identified	Sustainable Tourism in PWS	X		\$240	М						X
219	Option Not Identified	Watchable Wildlife	X	x x	\$65	М						X
220	Option Not Identified	Increased Access PWS	X		\$100	М						X
221	Plan Commercial Recreation Facilities	Recreation Development ((	X	x x	\$200	М						X
222	Restoration Monitoring											_
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	x x	\$77	м						
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1		_				X
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	x x	\$310	М						X
226	Visitor Center	Cordova Environmental Education Center	X		\$15	1						X
227	Visitor Center	Cordova Mini-Imaginarium	X		\$63	1		T				X
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	x x	\$155	М						X
229	Visitor Center	Environmental Education Center in PWS	X		\$90	1						X
230	Visitor Center	Environmental Learning Resource Center	X	хх	\$90	1						X
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X		\$450	1						X

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST.	1	1	1	1 1	1 1	2	2 7
or SERVICE	or SUBOPTION		P W S	K K E O N D	COST/YR \$K	DURATIO	9 4	9 5	9 6	999 7ξ	, 9 9 9 8 9	0	o o l
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x x	\$25	м							X
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		X	\$28	1	X						
178	Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1		·					
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1	X						
180	Fish Passes and Access	Sockeye Creek Fish Pass 2	X		\$60	1							
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		X	\$55	1	X						
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks 2,	X	хx	\$727	M							
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	М							
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	М							X
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	М	X	X	x				
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		\$253	м					XX	X	
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	x x	\$152	м	X	X>	$\boldsymbol{\times}$	X			
188	Intensify Management	Pink Salmon Escapement Enumeration	X	хx	\$705	М							×
189	Intensify Management	PWS Salmon Stock Genetics	X		\$150	М							X
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	М	X	オブ	X	X	ŀ		
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X	\$686	М							0
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X	\$899	м				义:	X)	<b>J</b> X	
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	<sub>c</sub> M							>
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M							X
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	М							X
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	хx	\$300	М	X	X	X	XI	X		
								_	Ī				
				-								1	
											·		
197 Recreation	Establish Marine Environmental Institu	te Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		ХХ	\$1,250	М							
198	Establish Marine Environmental Institu	te Oiled Wildlife Rehabilitation Center	X	хx	\$6,000	1							
199	Establish Marine Environmental Institu	le Seward Sea Life Center Fueld In Stute	X	хx	\$40,000	1							)
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	хx	\$500	M	X						
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	xx	\$500	M	1	)	X				

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGIC	R	EST.	EST.	1	1	1	1		2	2 8
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SERVICE	SUBOPTION		s	И	D	<u>sk</u>	(YEARS)	4	5	6	7	1 9	°	1 Ind
158 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	M							X
159	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X	Х	\$275	93 - M							X
160	Reduce Disturbance by Field Presence													
161	Reduce Disturbance Through Public Info	Public Information and Education	X	X	X	\$316	M							X
162	Reduce Disturbance Through Public Infe	Publish and Distribute Brochures on Injured Species	X	X	X	\$50	М							X
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	X	x	\$500	М							X
164	Restoration Monitoring	Ecosystem Study 7	X	X	Х	\$6,000	M							
	· · ·							1.5						
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X			\$205	М	X						
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X			\$400	<u>M</u>							X
167	Intensify Management	PWS Herring Tagging Feasibility Study	X			\$112	М	X						
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X			\$189	М							-X
.169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	M					· · · · ·		X
170	Option Not Identified	Enhancement of Pacific Herring	X	X	X	\$120	М				>	$\langle \chi \rangle$	X	
171	Restoration Monitoring												Ľ	
						· .								
	· · · · · · · · · · · · · · · · · · ·													
									~ ~					
172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	X	X	\$40	93 - M							X
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X	X	\$180	М							XI.
174	Restoration Monitoring	·						-						Í
175	Temporary Predator Control													
												_		
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			1							1				

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W		EST. COST/VR	EST. DURATION	1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	2 0 1
128	SERVICE Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition. Kodiak Island		× ľ	\$20,000	1		X		$\frac{1}{\sqrt{1}}$			
129		Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island	-+-+	x	\$4 000	' 1	X	2	3	X	xv	切	5
130	· · · · · · · · · · · · · · · · · · · ·	Habitat Protection and Acquisition	Kodiak Bear Befuge Stream Mouth Inholdings Acquisition	- { †	x	\$1,000	 1			-	14	TA	12	4
131	······································	Increase Natural Food Supply		-{{	-								+ -+	
132	· · · · · · · · · · · · · · · · · · ·	Intensify Management	Develop Management Strategy for Enhancing Recovery Bate of Bird and Sea Otter Populations	x	хx	\$50	M	+				+-	++	-1
133		Intensify Management	Genetic Bisk Assessment of Injured Salmonids	x	xx	\$408	М				-+-		+-+	
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	x		\$200	М						+-+	X
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	x		\$40	М					-	11	1
136		Intensify Management	Seabird Colony Restoration	X	хx	\$250	М							
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	x		\$250	М	X	X	X				
138		Monitoring	Shoreline Worm Life Monitoring	X	хх	\$388	М						1	5
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	x x	\$416	М				Xi	XX		
140	······	Option Not Identified	Alaska Land and Wildlife Conservation Fund	x	хx	one billion	М							1
141	· · · · · · · · · · · · · · · · · · ·	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	x x	\$280	М		i				T	
142		Option Not Identified	Oil-Spill Injured Resources Literature Research and Review	X	хx	\$7	М		i					
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	х х	\$650	1		1					
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x x	\$48	М		1					
145		Option Not Identified	Shoreline Assessment	X	ХX	\$250	93 - M							
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М	X						
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x x	\$500	93 - M				X			
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	М							4
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	хх	\$2,300	1							
150		Recovery Monitoring	Injured Resource Food Supply	X	x x	\$850	M							
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x x	\$500	M							
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X	\$600	M	-					_	
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М							F
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	x x	\$150	M							
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x x	\$100	. M							<u> </u>
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	x x	\$200	M							2
157		Becovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	l x l		\$35	м	1			1			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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Page 6

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST	1 9	1 1 9 9	1 9	1 9	12 90	2 0 0
	SERVICE	SUBORTION		¥ S	E O N D	SK	(VEAES)	9 4	999 56	9 7	9 8	90 90	0 7 1 1
102 Mai	rbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	XX	\$250	м		<b>_</b>	1	▋		X
								·		T			
103 Mul	Itiple Resources	Habitat Protection	Habitat Modelling	x	xx	\$150	M			+			
104	•	Habitat Protection	Riparian Habitat Assessment	X	XX	\$110	M				1		- 2
105		Habitat Protection	Stream Channel Capability Modeling	x	хx	\$110	М				· • · · · · · · · · · · · · · · · · · ·	••••	
106		Habitat Protection	Stream Habitat Assessment	x	xx	\$361	93 - M						-2
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	-1			-	· • • • • •	•••	Î
108		Habitat Protection	Vegetation and Stream Classification and Mapping	x	x x	\$276	93 - M			n		-	X
109	· · · · · · · · · · · · · · · · · · ·	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	хx	\$100	M					-	
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	XX	\$750	M			-			X
111	· · · · · · · · · · · · · · · · · · ·	Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		XX	\$111	1			X			
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		X		1						X
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		X	$\square$							X
114		Habitat Protection and Acquisition	Valdez Duck Flats 7	X	(		2 1			1			X
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		x	\$20	1				X		
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve	3	X	$\bigcirc$	1						X
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		X	\$250	1				7	$\overline{\mathbf{V}}$	
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1						
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		X	\$200	1		X				
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		X	\$77,000	1	X	Κ¥	$\mathbb{Y}$	ŃΧ	X	X
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$90	1		Ĺ				
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$60	1						
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		x	\$400	1						
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	\$80	1						
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X	\$740	1						
126		Habitat Protection and Acquisition	Habitat Acquisition	X	хx	\$25,000	93 - 1						
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak		X	\$112,500	1	Xy	LX	X	K S	4X	IX

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: Seron sellon Lazor Phone:

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	ION	EST	EST.	1	1	1	1	1 1	2	2 8
or	n		P K W E	K O	(NOSTIMI;	DURATION	9	9	9	9	999	0	
SERVICE	SUBOPTION		S N	P	SK SK	(YEARS)	4	Ľ	Ľ	Ĺ	Ľ	Ľ	1 19
82 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X )	( X	\$500	M	X	$\mathbf{X}$	X		· .		1.1
83	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	<b>x</b> >	( X	\$600	М			1			_	X
84	Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X >	( X	\$195	M -							D
85	Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X >	( X	\$500	93 - M							2
36	Monitoring	Herring Bay Experimental and Monitoring Studies	X		\$495	93 - M							
87	Option Not Identif.ed	Bivalve Shellfish Rehabilitation Project	X >	( X	\$860	М							
88	Option Not Identified	Clam Enhancement	X >	( X	\$120	М	· .						
89	Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X >	(X	\$500	M							5
90	Option Not Identified	Restoration of Mussel Beds H Mussen	X)	( X	\$500	М	1			,		X	X
91	Option Not Identified	Characterization of Near-Shore Bottom Habitat	x >	(X	\$237	М							
	· · · · · · · · · · · · · · · · · · ·									· ·		-	
										1			
									.				
92 Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		\$120	93 - M							0
93	Monitoring	Recovery Monitoring	X		\$125	М							
94	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$180	М							Þ
95	Reduce Fishery Interactions	Change Black Cod Fishery Gear	X			М							i
96 Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X >	< X	\$240	93 - M	X	X	X				
97	Habitat Protection	Survey to Identify Upland Use by Murrelets	<b>x</b> >	< X	\$180	93 - M							0
98	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	<b>x</b> >	< X	\$250	M							7
99	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	x >	< X	\$509	м							3
00	Minimize Incidental Take			T									3
01	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks	)	( X	\$200	M						1	1.0

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Derone M. Selly Mayor 1016-9300 Name: Phone:

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	<b>REC</b> P K W E	K O D	EST. COST/YA	EST DURAT(O)	1 9 9 4	1 9 9 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9 9	2 0 0 0	2 0 0 1	Do Not Fun
60	SERVICE Harbor Seal	Cooperative Program-Eisbormon				36									
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		\$39	M		-+			-+			$\mathbf{i}$
62		Option Not Identified	Subsistence Harvest Assistance	x	+	\$23	M	+							7
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M	†+	+-						
64		Becovery Monitoring	Habitat Use Monitoring Population Modelling and Information Synthesis	x ,	( x	\$230	M	X	X	v		++	-		
	· · · · · · · · · · · · · · · · · · ·	Theovery Monitoring				<b>4100</b>				Υ		+			•
							·								
65	Harlequin Duck	Eliminate Oil from Mussel Beds				-									•••
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X)	< X	\$700	93 - M	[].				11			X
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	-x >	( X	\$53	M	X	X	X					
	· · · · · · · · · · · · · · · · · · ·														
														• • • • • •	
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X)	( X	\$20	м		T					)	X
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X)	< X	\$70	М								A
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X)	( X	\$300	М				-			N	X
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	x)	( X	\$50	М							-	X
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	М					T		6	2
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X)	( X	\$800	М							X	2
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	x >	( X		М								X)
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X)	( X	\$620	М							3	X
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	М					TI		X	$\partial$
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X)	( X	\$500	М	X	K)	X					0
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait	)	( X	\$200	М	X	X	2					
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X)	( X	\$275	М							D	2
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X)	( X	\$50	М							D	X
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X >	( X	\$186	М							X	2

Jerome M. Seeby, Muyer 486-9300 Name: Phone:\_

### Page 3

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC	ION	EST.	EST.	1	1	1 1	1	1 2	2	Do No
	OF	or SUBOPTION		PK WE SN	к О D	COSTAIR SK	UUHATIO (YEARS)	9 4	9 5	9 9 6 7	9 8	9 0 9 0	0	t Fund
42	Common Murre	Restoration Monitoring			1		М							
			•											
			· · · · · · · · · · · · · · · · · · ·						_					
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	М	X						
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$285	М			X				
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	М							X
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	М							X
47		Restoration Monitoring			,		М							
		· · · · · · · · · · · · · · · · · · ·		_					· .					-
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X :	x x	\$600	1	X	_	->			-	
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	М			-				X
50		Option Not Identified	Hazardous Material Collection Facility	X	XX	\$100	1							X
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	x x	\$488	М				<			
52		Public Information	Public Broadcasting System Program on Oil Spill	X	x x	\$70	М							X
53		Public Information	Publish and Distribute Brochures on Injured Species	X	x x	\$90	м				ΤŢ			X
54		Public Information	PWS Brochures	X		\$65	М							X
55		Public Information	PWS Implementation of Interpretive Plan	X		\$150	М							X
56		Public Information	PWS Large Format Photographic Book	X		\$100	M							X
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	M				X			
58		Public Information	PWS Video Programs	X		\$100	М				1			X
59		Public Information	Science of the Sound- Education Program	X		\$53	М	X					1	1

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

- All and the second se

# Name: Jerone M. Selbis Mayor Phone: 416-9306

POTENTIAL PROJECTS RESOURCE RESIGRATION OPTION REGION 13.3 or COSTAN DULAT SERVICE SUEOPTION SK IVEASS 22 Black Oystercatcher Restoration Monitoring . 23 Commercial Fishing Habitat Protection and Acquisition x x x \$1,100 Weir And Conservation Land Acquisition м ххх \$385 24 Intensify Management Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources М XXX 25 Intensify Management Fishery Industrial Technology Center \$3,500 1 х \$150 M 26 Intensify Management Model for Capacity of Salmon Production for the Susitna Drainage х 27 Intensify Management Susitna River Sockeye Salmon Production Evaluation \$300 М x x x M 28 Monitoring Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment \$200 29 Option Not Identified Payoff Debt of Valdez Eisheries Development Association Х \$5,000 1 Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery X \$868 М Recovery Monitoring 30 xxx 31 Recovery Monitoring Wild Fish Stock Information Assessment \$50 м x M 32 **Replace Harvest Opportunities** Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island \$45 х 33 Replace Harvest Opportunities Montague Island Chum Salmon Restoration \$80 M Replace Harvest Opportunities х \$50 М 34 Paint River Fish Ladder Salmon Stocking Program 35 X Replace Harvest Opportunities **Red Lake Mitigation** \$191 м Common Murre x x x 36 Feasibility Study: Improve Nest Sites Testing of the Feasibility of Enhancing Productivity \$280 М x x x 37 Feasibility Study: Social Stimuli Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement \$51 93 - M X x x Feasibility Study: Social Stimuli 38 Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study \$73 М XXX 39 **Recovery Monitoring** Common Murre Population Monitoring OUT \$191 М xxx 40 Reduce Disturbance Reduce Disturbance Near Murre Colonies Injured by the Oil Spill \$40 М 41 **Remove Introduced Species** Removal of Introduced Predators from Bird Colonies OUT \$460 Μ

93=Funded in 1993 M=Multi-year Project

### Page 1

RES	OURCE RESTORATION OPTIO	POTENTIAL PROJECTS	BE	e (0) i	(58)],	EST	1	1 1	1	1 1	1 2	2 Z
SE	or SUBOPTION	<ul> <li>Comparison of Physics and the second state of the sec</li></ul>	P W S	K K E O N D	COSTOR SK	DURATION NYEARS)	9 9 4	999 999 56	9 9 7	9 9 9 9 8 9	9 0	0 0 1
1 Archaeo	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	. X	x x	\$41	м						X
2	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	x		\$300	1		>	(			
3	Habitat Protection and Acquisition	Archaeological Site Acquisition	X	x x	\$200	м						X
4	Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	x x	\$525	м	X	XX	$\langle$			
5	Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	x	x x	\$400	М			X	XD	X	
6	Option Not Identified	Restoration of Chenega Village Site	X		\$75	1					,	
7	Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	x x	\$300	93 - M						X
8	Public Information	Passports in Time-Cultural Resource Patterns in PWS	X		\$230	M						
9	Public Information	Heritage Information Replacement	X	x x	\$200	м						
10	Public Information	PWS Landmarks-Evaluation and Interpretation	X		\$400	М						X
11	Public Information	Public Education and Interpretation of Archaeological Resource	X	XX	\$400	M						
12	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	хx	\$225	М						X
13	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	x x	\$150	М						X
. 14	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	хx	\$210	• • • M •						X
15	Site Stewardship Program	Archaeological Site Stewardship Program	X	x x	\$114	М	X					
16	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X		\$1,200	1						X
									_			
17 Baid Eag	le Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	x	x x	\$262	М	X	X			-	
18	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	x	x x	\$10	М		,				X
19	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	x	x x	\$200	м			X	XV	X	
20 Black Oy	stercatcher Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	хx	\$108	93 - M		X	(X			
21	Becovery Monitoring	Feeding Ecology and Benroductive Success of Black Ovstercatchers in PWS	X	T	\$125	M	1	,			T	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: <u>Service M. Selh</u>, Mayer Phone: <u>486-9300</u>



# Kodiak Island Borough

710 MILL BAY ROAD KODIAK, ALASKA 99615-6340 PHONE (907) 486-5736

May 19, 1993

Exxon Valdez Trustee Council 1994 Work Plan Group 645 G Street Anchorage, AK 99501

Dear Council members:

On behalf of the Kodiak Restoration Committee, I would like to thank you for the opportunity to comment and indicate our preference regarding the 1994 Work Plan. I have indicated our preference for funding a few projects rather than funding a lot of the projects that are proposed for the 1994 Work Plan. I would like to refer you back to the Kodiak Island Borough's Restoration Proposal that we submitted a year ago as a reference document that we still feel qualifies as a very strong basis for restoration of the damage done by the Exxon Valdez oil spill in the Kodiak area..

We urge the Trustee Council to focus on a few restoration projects which will have the greatest impact, particularly for future economic benefit to the State of Alaska and to the people in the oil spill region, and on the acquisition of habitat as the major expense categories for the FY94 Work Plan. We have consistently maintained that there are a few species of birds and mammals for which we fully support research efforts, and particularly on salmon fishery enhancement and/or restoration. We continue to advocate that the Red Lake projects be fully funded in FY 94. It would be wise to complete these projects soon since time is running out and the escapement problem is now showing up in the salmon population figures for the Red Lake system.

We are fully supportive of some pink salmon restoration in the Kodiak area as well as some research and work being done in Prince William Sound on the pink salmon fishery where evidence of problems is now surfacing, as well as the Prince William Sound herring fishery where significant impacts are now showing up.

Our top priority project, which will assist research efforts in many categories for restoration purposes, continues to be the Fisheries Industrial Technology Center. We continue to request a full \$7.5 million of funding for this project, which will have long term advantages for the State of Alaska as well as for Kodiak. This project is a \$15 million project being entered into jointly by the National Oceanic and Atmospheric Administration/National Marine Fisheries, and the University of Alaska School of Fisheries. This project represents the single most significant Exxon Valdez restoration potential of any project on the FY94 potential projects list in terms of multiple restoration efforts and benefits to the State of Alaska far into the future. We urge that this project be fully funded.

Trustee Council Work-foup May 19, 1993 Page 2

We have noted that several of the projects that are proposed in the FY94 potential projects list have now been funded by the State of Alaska in the legislative process just completed. We anticipate that since the bill was introduced by the Governor, it will also be signed by the Governor and therefore should be removed from the Trustee Council's FY94 potential projects list.

I have left question marks by a few of the projects on the list because I am simply not familiar enough with them and lack enough information to evaluate them. It is clear to me, however, that a number of projects on the list should be permanently removed from further consideration, since many of them are overlapping proposals or in my view do not merit funding from the Exxon Valdez funds through established criteria.

We will continue to support some reasonable projects for research of various species beyond FY94, assuming that the Fisheries Technology Center is fully funded in FY94. We urge the Trustee Council to focus heavily on the acquisition of land during the period of 1995 through 2001 with the remaining balance of the funds that are available. We would be interested in participating in discussions on an endowment fund if some reasonable size endowment fund can be established to continue some monitoring and restoration projects past 2001. Once again, thank you for the opportunity to comment on these potential projects for FY94. We will be available for any discussion or questions and request that your staff be directed to contact the Kodiak Island Borough when any discussion takes place about projects that impact Kodiak Island so that we will have an opportunity to fully explain the projects and work with the staff for full consideration. Thank you for your consideration.

Sincerely,

### KODIAK ISLAND BOROUGH

Jerome M. Selby Borough Mayor

Enclosure

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# Seward Chamber of Commerce

P.O. BOX 749 • SEWARD, ALASKA 99664 PHONE: (907) 224-8051

ACT 0 2 1995

April 29, 1993

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EXXON VALUEZ OL SPILL TRUSTEE COUNCIL

EXXON VALDEZ OL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD Federal Exxon Valdez Oil Spill Trustees 645 G Street Anchorage, AK 99501

Dear Trustees:

I am writing to you on behalf of the Seward Chamber of Commerce in support of the Federal Exxon Valdez Oil Spill Trustees' proposed acquisition of lands currently designated as part of the Kenai Fjords National Park.

We understand that the lands in question are scheduled to be conveyed to the Nanwalke and Port Graham Native Corporations, and that the corporations have indicated a willingness to sell the land.

The Kenai Fjords National Park has had a dramatic impact on the Seward area, and has created endless business and recreational opportunities for residents and visitors. Aside from enhancing the local economy, the park is truly a national treasure that affords hundreds of thousands of people the opportunity to understand and appreciate this remarkable environment.

The acquisition of this land will preserve approximately 77,000 acres of land for the park, representing over 60 percent of the park's coast. We strongly urge you to make the acquisition of these lands a top priority.

Sincerely,

Irene Ransom Secretary





Name: W. Shirley Phone: 314/537-1225

### Page 1

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	X	EST.	EST.	a	1	1	1 1	1	2	2 7
	e or			PW	E	K O	0(0)51/1777	00177477(0)	9 9 4	9 9 5	9 9 6	9 9 9 9 7 8	9 9 9	0. 0 0	0 6 0 7 1 1
1	Archaeology	SUBOPTION					5K	MALEARE)			<u> </u>	_	Ļ		1
	, in connection gy	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum		X	X	\$41	M			-				
			Nuchek Heritage Interpretive Center, Design	X			\$300	·····							X
		Habitat Protection and Acquisition	Archaeological Site Acquisition		X	X	\$200	M	1.						X
1		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	M							
5	- · ·	Intensitied Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	X	X	\$400	М							×
0	-	Option Not Identified	Restoration of Chenega Village Site	X			\$75	1							X
<u>′</u>		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	×	x	\$300	93 - M							X
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	M				. ( 	ĺ		
9		Public Information	Heritage Information Replacement	×	X	X	\$200	М							X
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X		.	\$400	M							
- 11-	· · ·	Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	M	-					· ·	×
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	М							X
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	M							×
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	×	X	\$210	M							
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	M	-		·····				$ \mathbf{X} $
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1							
			•						1.				1		
													.		
17	Raid Eagle														
17	Daid Lagie	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	M	X		_				XII
10			Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	M	$\left  \right\rangle$		-+	-+-	┿╸	1	
19	· • •	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	M	X		-+-			+	$\sim$
	Black Oveterestet			.									ŀ		
20	DIACK UYSTERCATCHER	Hecovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	X	\$108	93 - M	X	. †		+	·+	$\left  - \right $	X
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	м	X			-+-		┼──┤	$\mathbf{X}$

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name:		
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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGIC	N EST		1	, ,	Ϊ.		Ι,	, <u></u>
	or	OC.		Р	ĸ	COST	YR DURATIO	9 9 9	9 9	9	9		Not 1
1	SERVICE	SUBOPTION		s	N	D <b>SK</b>	(YEARS)	4	56	7	8		1 5 d
22	Black Oystercatcher	Restoration Monitoring								1			
		·											
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	X	X \$1,10	0 M	X					$\bowtie$
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	X	X \$385	м	$ \gamma $	$  \rangle  $				
25		Intensify Management	Fishery Industrial Technology Center	×	X	X \$3,50	0 1		$\sim$			X	
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	M		$ \chi $				
27	· · · ·	Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X	\$300	M			N -			
-28-		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	×	X	X \$200	• • • • • • • •			X	17		
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,00	0 1			$\pm \lambda$	1		
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	ery X		\$868	M					ļ	
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	X	X \$50	м			1	$\Lambda$		
-32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island			X \$45	•••••• ••• ••• ••• ••• ••• ••• ••• •••			/			i i i i i i
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X	:[ ]	\$80	M			Î	N		
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X	\$50	м		/		N		
35		Replace Harvest Opportunities	Red Lake Mitigation			X \$191	м	X		<u></u>	++	K	
	1				11					I		1	Γ I I
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				•					ан. С				
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	×	x	X \$280	M	1.				1	
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	x	X \$51	93 - M	K					
38		Feasibility Study: Social Stimuti	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	X	X \$73	М	11		$\checkmark$			
39	······································	Recovery Monitoring	Common Murre Population Monitoring OUT	X	x	X \$191	M	11			$\mathbb{N}$	1	
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	x	X \$40	M	l			$\uparrow \uparrow$	$\downarrow$	
41	, *	Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$460	M	$\mathbf{x}$	L¥		┝╌┼╸	+	$\mathbf{N}$

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	SERVICE	SUBOPTION		s	ND	\$K*	(YEARS)	4	5 6	7	8 9	0	1 I I
42	Common Murre	Restoration Monitoring					М						
	· · ·												
		· · · · · · · · · · · · · · · · · · ·											
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	М					<b> </b> }	*
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$285	M	$\times$				┿┿	×
45		Option Not Icentified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	м						
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	M						
47		Restoration Monitoring					M						
		•											
											-		
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48	General	Administration								а., <b>н</b>			
40		Monitorina	Oil Spill Restoration Support Service and Facilities	X	XX	\$600	1	X					
3 50		Ontion Not Identified	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	м	×	+	+-+		+-+	×
50		Option Not Identified	Hazardous Material Collection Facility	X	XX	\$100	1	X			-		-
51		Public Information	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	XX	\$488	M	X					$ \lambda $
52			Public Broadcasting System Program on Oil Spill	X	XX	\$70	M			] .		X	
53		Public Information	Publish and Distribute Brochures on Injured Species	X	XX	\$90	M			N			
56		Public Information	PWS Brochures	X		\$65	M				$\bigwedge$		
56		Public Information	PWS Implementation of Interpretive Plan	X		\$150	M				$\overline{\mathbf{A}}$		.
57		Public Information	PWS Large Format Photographic Book	X	-	\$100	M			/			
5/		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	М		1	1			
50			PWS Video Programs	X		\$100	M		K			+	$\sqrt{1}$
59	- • · · ·		Science of the Sound- Education Program			\$53	M	X					~
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

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### Name:\_ Phone:\_

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	CIO	EST.	EST	1 1	1	1	1	2 2	8
or SERVICE	SUBORTION	A second s Second se Second s Second seco	P W S	K K E O N D	COST/YA \$K	DURATION (YEARS)	9 9 9 9 4 5	9 9 6	999 999 78	9 9 9	0 0 0 0 0 1	Not Fund
60 Harbor Seal	Cooperative Program-Fishermen							ĪĪ				
61	Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X		\$39	M	$\mathbb{X}^{+}$	┼╌┾		┼╌┼	-×	
62	Option Not Icentified	Subsistence Harvest Assistance	x		\$23	M			·			
63	Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M	X	-+		┼─┼	-K	
64	Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	x >	\$230	M	×	-+		┝╌┼	X	
65 Harlequin Duck	Eliminate Oil from Mussel Beds				1 .							
66	Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	$\mathbf{x}$	\$700	93 - M	X -	┼╌┼		┾╌┼	-¥	
67	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	x	( \$53		$\times$	╪╌┼		+	×	
68 Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	x	\$20	м		+		$\downarrow$	-k	Ί
69	Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	x >	<b>(</b> \$70	M					ł	
70	Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	x	\$300	M		$\{ \mid$			/ )	
71	Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	x>	\$50	м		$\mathbb{N}$		$ \Lambda $		
72	Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	м						
73	Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	x	\$800	M			$\mathbb{N}$			
74	Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	x	4	M			$\wedge$			
75	Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	x	X	\$620	M			Λ	$ \mathbf{N} $		
76	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	м						
77	Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	x	\$500	м	17				$\setminus  $	
78	Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait	1-1	$\mathbf{x}$	\$200	м	Ι/Ι.	XI	İ		$\mathbb{N}$	
79	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	x	x>	\$275	M	/				M	Ì
80	Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	x	(\$50	M			1		$\ $	
81	Monitoring	Monitoring for Recruitment of Littleneck Clams	$ \mathbf{x} $	xb	\$186	м	XI	╪╼╍╬		+	-12	1

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### Name:\_\_\_\_\_ Phone:\_\_\_\_\_

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4.3	SERVICE	SUBOPTION 3		5	N	D A	\$K	(YEARS)	Ľ	ĽĽ	<u> </u>		9 0		ä
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	x   x	×	\$500	М	$\succ$	$\vdash$		++	+7		
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	×	\$600	М		+	$\checkmark$		$\mathcal{A}$		
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	X	\$195	М				$\bowtie$			
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	X	\$500	93 - M	11		+				
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M	$\succ$	1-+	-+	1	_		$\mathbf{v}$
87		Option Not Icentified	Bivalve Shellfish Rehabilitation Project	x	x	x	\$860	М							$\mathcal{T}$
88		Option Not Identified	Clam Enhancement	X	x i	<b>x</b>	\$120	М							
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	М	-	ſ ľ					
90		Option Not Identified	Restoration of Mussel Beds	X	X	x	\$500	М							1
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	x	X	x	\$237	М							$\times$
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			a da anti-anti-anti-anti-anti-anti-anti-anti-										. 1 -		
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M	X	1	-	++			
93		Monitoring	Recovery Monitoring	X			\$125	М				$\checkmark$	-	11	
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М				1 ]	$\geq$	- [']	
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				М	Y	$F \downarrow$	T	TI		Y	
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		والمالية والوران والمسائلة ماراه											}		
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	x	X	×	\$240	93 - M	$ \times$	+	-+	+-+	-+-	$+\times$	
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	x	\$180	93 - M		$ \uparrow$	$\checkmark$			1	
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	x	\$250	М				$\bowtie$			
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	x	\$509	M			$\checkmark$	11	+		
100	· ••	Minimize Incidental Take							L	17					
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	x	\$200	M	17	1 +	-+	+-+	T	X	

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1 de	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGI	QN	EST.	EST.	1	1	ı I 1	1	1	2 2	8
	or	10.0 A		P	ĸ	ĸ	COST/VR	DURATION	9 9	9 9 9 9	999 99	9	9 9	0 0 0 0	Not
	SERVICE	SUBOPTION		\$ 5	N	D	\$K	(YEARS)	4	5 (	6 7	8	9		Ę
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	(X	X	\$250	M	$\times$	-	+	+		- ×	:
				.											
	-														
									L.						
103	Multiple Resources	Habitat Protection	Habitat Modelling	.   X		X	\$150	M.	M	Ĺ				$\gamma$	$\sim$
104		Habitat Protection *	Riparian Habitat Assessment	. X		X	\$110	М			$\checkmark$				
105		Habitat Protection	Stream Channel Capability Modeling	X		X	\$110	М	'			$\times$		Į.	
106		Habitat Protection	Stream Habitat Assessment	X		X	\$361	93 - M		4		+-+	$\rightarrow$	>₽<	
107		Habitat Protection	Valdez Hazardous Waste Collection	X			\$200	1	X						
108		Habitat Protection	Vegetation and Stream Classification and Mapping	. X		X	\$276	93 - M	X	+	-	+-	$\rightarrow$	- 🚩	1
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	X	X	\$100	M			$\rightarrow$	$\mathbf{\times}$			/
- 1-10		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X		X	\$750	M	X	-	+	+-			e
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		X	X	\$111	1	X	-				-4	、
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X		1	1				Λ	М	
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		]	X	s	1							
-114	ید است. در در از از از ا د	Habitat Protection and Acquisition	Valdez Duck Flats	X	4			1				Х			
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X		\$20	1.				$\langle   \rangle$			
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1			Λ		M		
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition	1		X	\$250	1		Y				-  '	
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		Ł	\$3,500	1	·						
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X	\$200	1	X	+	+		-	X	()
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1							$\mathbf{X}$
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X		\$90	1	$ \chi $						
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X		\$60	1	1 i l						
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X		\$400	1							
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham	Î	X		\$80	1							
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X		\$740	1	×					•	
126		Habitat Protection and Acquisition	Habitat Acquisition	X	x	X	\$25,000	93 - 1					I	ľ	$ \mathbf{x} $
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak	-		X	\$112,500	1			1			Ì.	X

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GlO	N EST.	EST,	1	1			1 2		8
	or	or		P	ĸ	COST/YR	DURATION	9 9	9 9	9 9	9 9	9 0 9 0	0	Nor
25	SERVICE	SUBOPTION		S	NC	\$K	(YEARS)	4	5	5 7	۹ I	90	1	75a
12	8 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		$ \rangle$	\$20,000	1		į					7
12	9	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			\$4,000	1		i			Ì		4
130	D	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			(\$1,000	1		i	1				$\langle  $
13	1	Increase Natural Food Supply							1					
132	2	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	x	\$50	M	$\mathcal{H}$	1		++		ĮΧ.	1
133	3	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	$\mathbf{x}$	\$408	М					X		
134	1	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	м			V	$  \rangle$			
135	5	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	М		:		ΥĪ			ļ
136	3	Intensify Management	Seabird Colony Restoration	X	x	\$250	M	11		X	N		1	Ì
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	м				$ \uparrow$			
138	3	Monitoring	Shoreline Worm Life Monitoring	X	x)	\$388	M						11	
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X	\$416	M	$\times$			+-+		+×	·
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	x	one billior	M							
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X)	\$280	м	Х			┿┯┿		X	
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	x	(\$7	M	X			++	-		
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	\$650	1 · · · 1	X			4. 1		{ · }	
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x	\$48	М	$\times$					X	
145	n 🕈	Option Not Identified	Shoreline Assessment	X	x	\$250	93 - M	1	~_i			F	ÎÌ	
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		. )	\$28	м	[]	1	$\checkmark$	$\square$	Ì		
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x	(\$500	93 - M	1	i,	$\nearrow$	$\square$			
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X	\$800	М	X			+	$\rightarrow$		
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x)	\$2,300	1		ļ					<
150		Recovery Monitoring	Injured Resource Food Supply	X	x)	\$850	М	$\times$						Ì
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X)	\$500	М	1	$\overline{\}$	+	┿╼┼		171	
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X	\$600	М			X		V		l
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	м		l		$\mathbb{V}$			
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	x	\$150	м				$\square$			
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x >	\$100	M			$\mathbf{X}$		X		
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	x]	x	\$200	M	t	. [ *	1	$\left[ \cdot \right]$		11	
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X	- 1	\$35	M	$\times$	$\sim$	+	+-+	T	メ	1

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	SERVICE	SUBOPTION		្តី ទ	ND	\$K	(YEARS)	4	5 6	7	8	9 0	, He	
15	8 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X	1	\$91	м	$\times$ +	+	+	$\vdash$	1	$\bowtie$	
15	9	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	XX	\$275	93 - M	$\mathbf{N}$				1/	111	
16	io	Reduce Disturbance by Field Presence						N						
16	1	Reduce Disturbance Through Public Info	Public Information and Education	X	xx	\$316	М		$\left\{ \cdot \right\}$			X		
16	2	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	XX	\$50	м					Λ		
16	3	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	xx	\$500	М		X			/		
16	4	Restoration Monitoring	Ecosystem Study	X	xx	\$6,000	м		$-\Lambda$		/			
										X				
									- }-	1.				-
16	5 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	М							
16	6	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	м							
16	7	Intensify Mariagement	PWS Herring Tagging Feasibility Study	X	-	\$112	м						·	1
16	8	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	M N			1	[A]	<b>-</b>		
16	9	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	м			/				
17	0	Option Not Identified	Enhancement of Pacific Herring	X	хx	\$120	м		- [/		LN			
17	1	Restoration Monitoring							1			$\backslash [$		
									Λ			V		
												Λ		
								/	· .					
								' /Ι						
17	2 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	XX	\$40	93 - M	1						
17	3	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	x	xx	\$180	м	$\checkmark$		+	$\vdash$	<u> </u>		
17	4	Restoration Monitoring												
17	5	Temporary Predator Control								[		I		
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST.	1	1 1	1		1 2	2 <sup>7</sup>
or	or		P W	K K E O	COST/YR	DURATION	9 9	999 999	9	9	9 0	
SERVICE	SUBOPTION		s	N D	\$K	(YEARS)	Ľ	5 6	' I '	Ľ	9 0	1 5a
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x x	\$25	М	X	+		+-+	<del>-+</del> .	×
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		X	\$28	1					K	
178	Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1 -					X	
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1				Í	×	
180	Fish Passes and Access	Sockeye Creek Fish Pass	X		\$60	1						
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		X	\$55	1					X	
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	XX	\$727	м	X	-	+-	+-+		*
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	<sup>1</sup> M						
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	М			Ν		X	
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	м			$\left[ \right]$			
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		\$253	м				XX		
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	хx	\$152	М		· · ·		Y		-
188	Intensify Management	Pink Salmon Escapement Enumeration	X	XX	\$705	М						
189	Intensify Management	PWS Salmon Stock Genetics	X		\$150	м				Λ		
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	М					$\mathbf{N}$	
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X	\$686	М			X			
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X	\$899	м			/] -		۱.	
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	М						
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M						
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	M	'.				.   '	$\langle 1 \rangle$
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	xx	\$300	м	Ľ		+	+		$\left  \right\rangle$
						6						
· ···· · · · · · · · · ·				1								
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		XX	\$1,250	M	$\times$	$\times$	$\langle X \rangle$	- X	$\times$	
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	xx	\$6,000	. 1	]					
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	XX	\$40,000	1						X
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	XX	\$500	M	$ \times$	4	+	+-+	$\rightarrow$	X
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	XX	\$500	М	ľ		1.		<u> </u>	

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93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS		REC	lok	EST.	EST.		1 1			1 2	2 8
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	SERVICE	SUBOPTION			5 1	D	\$K	(YEARS)	4	56	7	8	9 0	1 Pund
20	2 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			X	\$500	1						
20	3	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			X	\$70	1						$\times$
20-	4	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	]	x		\$50	м	$\times$	$\blacklozenge$		┿╍┿	->	$ \times $
20	5	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism		x	x x	\$100	М						
20	6	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS		x		\$58	м	$\times$	$\leftarrow$		+	→	$\times$
20	7	Monitoring	Recreation Field Management and Monitoring		X	x x	\$700	М	$\boldsymbol{\checkmark}$	Ł	+	┼╌┼	->	$\left  \right\rangle$
20	8	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails		x		\$150	1		Ţ				X
209	9	New Backcountry Recreation Facilities	Green Island Cabin Replacement		X		\$20	1						A
210	D	New Backcountry Recreation Facilities	Improve Marine Parks		X	x x	\$100	м						1 11
21	1	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area		x	}	\$100	1						
21	2	New Backcountry Recreation Facilities	Prince William Sound Campground		X		\$70	1						
21:	3	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	· -	X	x x	\$150	M			-			
214	4	New Backcountry Recreation Facilities	PWS Kayak Trail		x		\$100	1			ļ		· •	
215	5	New Backcountry Recreation Facilities	PWS Recreation Facilities		X		\$250	1						X
216	5	Option Not Identified	Development of Gulf of Alaska Recreation Plan		;	x x	\$140	1						
217	7	Option Not Identified	Implement Prince William Sound Area Recreation Plan		X		\$400	М						
218	3	Option Not Identified	Sustainable Tourism in PWS		X		\$240	м						X
219	9	Option Not Identified	Watchable Wildlife	Į	X	x x	\$65	М			{			X
220	D	Option Not Identified	Increased Access PWS		X		\$100	М					.[	X
22	1	Plan Commercial Recreation Facilities	Recreation Development		X	x x	\$200	М						X
222	2	Restoration Monitoring			ľ									
223	3	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	·	X	x x	\$77	м	X	4		┿╍┿	>	$\times$
224	4	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	Ĵ	X			1		X	- f			
225	5	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum		X	x x	\$310	M	X	4	+	┶┷	>	X
226	5	Visitor Center	Cordova Environmental Education Center		X		\$15	1 *		>	×		F	
227	7	Visitor Center	Cordova Mini-Imaginarium		X		\$63	5 1			X			
228	B	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts		x :	x x	\$155	м	X	4		$\downarrow \downarrow$	>	
229	9	Visitor Center	Environmental Education Center in PWS	1	x		\$90	1		$\times$			4	
230	o l	Visitor Center	Environmental Learning Resource Center		X	x x	\$90	1		$\times$				
23	1	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova		X		\$450	1		≯			T	

PWS≅Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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### 1994 POTENTIAL PROJECT TITLES

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1.0	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOł	EST,	EST.	1 1	, ,	1 1	2 2	Ŋ
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1. <b>92</b> - 51	SERVICE	SUBOPTION		s	ND	\$K	(YEARS)	4 5	6 7	8 9	0 1	Fund
232	Recreation	Visitor Center	Information Center	x	xx	\$600	1		140	405	4	2
233		Visitor Center	Interpretation of PWS	X		\$10	М	X	Æ	<u> </u>	$\Rightarrow$  ×	
234		Visitor Center	Maritime Wing Valdez Museum	x		\$150	1		$\times$			
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	x		\$150	1	×				
236		Visitor Center	Valdez Visitor Center	x		\$850	1		1			X
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İ							ļ					
237	River Otter	Monitoring	River Otter Recovery Monitoring	x		\$180	М		·		$\downarrow$	
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	x		\$40	м		<u>-</u>		**	
239	·····	Restoration Monitoring							,			
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	x	xx	\$99	1	×				
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241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X	\$175	M	⋞⋠	<u>_</u>	┝━┼━	$\rightarrow x$	•
242		Monitoring	Monitoring Injury to Bockfish in PWS	X		\$117	M	⋧⋠	<u>-</u>	┝╍┼╼╸	봗⋉	
243		Monitoring										
- 1							.					
244	iea Otter	Cooporative From-Subsistence Users		-	-							
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	xx	\$83	M	/		<b>├</b> ── <b>├</b> ──	+	
246		Monitoring	Monutoring of Sea Otter Population Abundance, Distribution, Benroduction, and Mortality	X	xx	\$337	M				した	
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	Ŷ	x	\$450	M	/				
248	•• • ••	Monitoring	Sea Otter Population Dynamics	- <del>-</del>	XX	\$291	93 . M	14	44			
249		Bestoration Monitoring						$\sim$			t F	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE RESTORATION OPTI	POTENTIAL PROJECTS	P W		EST. COST/YR	EST. DURATION	1 9 9	1 1 9 9 9 9 5 6	1 1 9 9 9 9. 7 8	1 2 9 0 9 0 9 0	2 0 0 1
		5		<u>SK</u>	(YEARS)		_┦_┦_	▁┩╌┦		<u>2</u>
Study: Eliminate Oil from Muss	el Beds			· ·						
	- ···									
251 Sockeye Salmon Fish Passes and Access	Solf Lake Fish Pass	x		\$120	м		$\leftarrow$			$\times$
252 Intensify Maragement	Develop and Deploy In-Biver Hydroacoustic Counters for Sockeye Salmon in the Kenai Biver		x	\$333	M					
253 Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon		x	\$275	М	YNY		r In	7171	
254 Intensify Management	Genetic Stock Identification of Kenai River Sockeye		x	\$500	93 - M					1
255 Intensify Management	Kenai River Sockeye Salmon Restoration		x	\$1,000	93 - M					
256 Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		x	\$143	м	WI				
257 Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		x	\$6	- M		N   V   V		, <b>v</b>	)
258 Monitoring	Sockeye Salmon Overescapement		xx	\$641	93 - M	$\times$	4		$\rightarrow$	$\times$
259 Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M				≤┲∣	$\times$
260 Option Not Identified	Red Lake Salmon Restoration		X	\$72	М				47	X
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	· · · · · · · · · · · · · · · · · · ·									
261 Sport Fishing Recovery Monitoring		-								
262 Heplace Harvest Opportunities	Fort Richardson Hatchery Improvement		X	\$4,200	1					X
Page 1263 Hestoration Monitoring	en en en en en en en en en en en en en e		}						.	
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264 Subsistence Access to Traditional Foods			.			+ -	1			
265 Bivalve Shellfish Hatchery	· · · · · · · · · · · · · · · · · · ·		- ·	•••						
266 Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	<b>x</b>	-	\$200	M			_		$\times$
267 Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	x	xx	\$300	+ <u> </u>	fF				

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93=Funded in 1993 M=Multi-year Project

Name:\_\_\_\_\_ Phone:\_\_\_\_\_

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIÓ	N	EST.	EST.		1	<b>1</b> , )	Ι, Ι	1 2	, ÿ	1
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SERVICE	SUBOPTION		S	N	D	\$K	(YEARS)	4	56	7	8	9 0	1 5	
268 Subsistence	Option Not Identified	Mariculture Technical Center	x	x)	x  \$	52,200	1						$ \rangle$	3
269	Option Not Identified	Seward Shelifish Hatchery	x	$\mathbf{x}$	x  \$	51,300	1						¦  >	
270	Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	x	x	x	\$700	М	X	4	+	┝─┼╸	$\Rightarrow$	X	
271	Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	x			\$50	M	A		A		ri		
272	Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	x			\$55	М	۲Ņ	111	N M	$\gamma$			
273	Replace Harvest Opportunities	Port Graham Salmon Hatchery		x	. \$	52,500	1							
274	Replace Harvest Opportunities	Silver Lake Fish Hatchery	x		\$	51,000	1.	V	V V	$\mathbb{V}$	√ N		$ \Psi $	
275	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	x	x	×	\$55	м	$\left \times\right $	4	<u>+</u>		≯	$ \times $	
276	Restoration Monitoring			ľ	-				-					ľ
277	Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	x	$\mathbf{x}$	x i	\$589	M	X	te		┟╼╌┼╸	\$		
278	Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	x	$\mathbf{x}$	X I	\$300	М		R	·	-i	-		
279	Test Subsistence Foods	Subsistence Food Safety Testing	X	x	x i	\$308	93 - M	X	*	-		1>		
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280 Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X		\$110	M							
281	Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	М							1
282	Monitoring	PWS Spot Shrimp Survey	X			\$90	М							
283	Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	x)	x i	\$275	М							
284	Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	x			\$265	93 - M							
285	Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	x	x	× ×	\$390	м							
286	Monitoring	Subtidal Recovery Monitoring	X	x)	x i	\$400	М							
287	Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	x)	×	\$90	М							
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		· · · · · · · · · · · · · · · · · · ·												
288 Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	x	x	x	\$450	м	X	$\ll$		╞╼╍┠╴	>.	X	
289	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	x			\$75	м	X	Æ		┝╌┼╴	≯	$ \chi $	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project
Name:\_\_\_\_\_ Phone:\_\_\_\_\_ Page 14

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE(		EST. COST/YR	EST. DURATION	1 9 9	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 2 9 0 9 0 9 0	2 0 0 1	Do Not Fun
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	×	x x	\$105	93 - M	*)	$ \times $		$ \times $	××		
291		Administration	Toxicological Profile of PWS			\$150	М	$\times$	4-	+-	┼╍╀		ľ×.	
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	хx	\$8	М	$\times$	~		┼─┾	->	X	
293	ļ	Public Information	Database Integration	- X	x x	\$148	M M		111	4		11		1 1
294	:	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	x x		М							
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment		x x	\$120	М							[
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	×	xx	\$100	м			1/	111		V	· -
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	x	xx	\$72	M	XIV	V	W	V	l V	X	
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#292 Duly if the cost can be recovered from users.

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KQD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION		POTENTIAL PROJECTS			REGION EST	r. est. , (YR DUFATION ; (YEARS) 4	1 1 9 9 9 9 5 6	1 1 1 2 9 9 9 0 9 9 9 0 7 8 9 0		
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE or SERVICE	RESTORATION OPTION of SUBOPTION	POTENTIAI	PROJECTS		P K H E S N	N EST. E COST/YR DUR \$K (YE	ST: ATION ; ARS) 4	l 1 1 9 9 9 9 9 9 5 6 7	1 1 2 9 9 0 9 9 0 8 9 0	2 Do Not Fund
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Per insula, OUT=Outside Oil Spill Area

# Exxon Valdez Jil Spill Trustee Council

Restoration Office 645 "G" Street, Anchorage, AK 99501 Phone: (907) 278-8012 Fax: (907) 276-7178

April 19, 1993

Dear Concerned Citizen:

OCT 0 2 1995

The Trustee Council is in the process of developing the 1994 program of work to help cill restore the resources and services injured by the Exxon Valdez Oil Spill Restoration RECOMP includes....injury assessment, restoration, replacement and enhancement of natural resources, and acquisition of equivalent resources or services," (Memorandum of Agreement and Consent Decree for Civil Action A91-081CV in U.S. District Court, District of Alaska, filed August 29, 1991). Attached is a list of titles for potential restoration projects for 1994 which are being considered for this program. These potential projects have been derived from the following sources:

- (1) Public comments on the Restoration Framework (an April 1992 restoration discussion document),
- (2) Public comment on the 1992 and 1993 work plans,
- (3) Federal and state trustee agency recommendations,
- (4) Other solicited and unsolicited public comments,
- (5) Projects identified by the Exxon Valdez Oil Spill Public Advisory Group,
- (6) Projects suggested by individuals testifying at Trustee Council meetings.
- (7) Projects identified by the Chief Scientist and peer reviewers.

Please review and comment on this list of potential projects. It may be difficult for you to comment on many of the projects because of the limited information available. However, you are being asked to comment now so that you have an opportunity to influence the projects that will be selected for inclusion in the draft 1994 Work Plan. Project descriptions of these titles will be developed for the draft 1994 Work Plan to be released for public comment this summer. After reviewing those public comments, the Trustee Council will select the projects to be conducted in 1994.

Please check the columns on the right hand side of the attached table to indicate whether a project should be conducted and when. Additional space has been provided under each resource name in the table for new project titles. Be sure to note in the appropriate column the injured resource or service and the restoration option/suboption your project title addresses. Titles should be as complete and meaningful as possible. Please indicate the geographic area in which the project would be conducted. If the project is outside of the spill area please write "out" in the region columns. Your cost estimates and duration may be preliminary estimates and subject to change as are ours. A paragraph explaining your new proposed project would be useful to make sure we understand what you are proposing. At the end of the project title listing, two blank sheets are included for your new project ideas. Summary of injury tables are attached as background information to assist your deliberations on restoration projects.

State of Alaska: Departments of Fish & Game, Law, Natural Resources, and Environmental Conservation United States: National Oceanic and Atmospheric Administration, Departments of Agriculture and Interior The \$900 million civil recovery from the *Exxon Valdez* Oil Spill is to be paid over a 10 year period. In September 1993, a \$100 million payment will occur, and, from 1994 through 2001, yearly payments of \$70 million will be made. Since the money is being paid over a multi-year period, not all potential projects can be funded in 1994. No decision has been made on the total amount that will be spent for the 1994 program of work (October 1, 1993 through September 30, 1994). Please note that in addition to project costs, any program of work will require funding for the administration of restoration activities.

A <u>Restoration Plan</u> is being developed as a long-term guide to the restoration of the resources and services injured by the *Exxon Valdez* oil spill. The <u>Restoration Plan</u> will be used to guide the selection of specific projects to be included in each annual work plan. A draft <u>Restoration Plan</u> is expected to be available in June 1993; the final version will be published by the end of 1993.

There is a 30-day period to review and comment on the enclosed potential project titles. To make sure your comments are considered, they must be postmarked by May 20, 1993. Please return your comments to:

Exxon Valdez Trustee Council 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

Thank you.

Mile Bart

Michael A. Barton Regional Forester Alaska Region Forest Service U.S. Department of Agriculture

Paul D. Gates Regional Environmental Officer Office of the Secretary U.S. Department of Interior

Carl L. Rosier Commissioner Alaska Department of Fish and Game

Charles E. Cole Attorney General State of Alaska

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Steve Pennoyer Director Alaska Region National Marine Fisheries Service

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John A. Sandor Commissioner Alaska Department of Environmental Conservation

Resource	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Inju	c Exter ry (a)	nt of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Sea Otters	YES (3,500 TO 5,000)	YES	YES	STABLE, BUT NOT RECOVERING	YES, POSSIBLY	YES	YES	YES (d)	YES (d)	Post-spill surveys showed measurable difference in populations and survival between oiled and unoiled areas in 1989, 1990 and 1991. Survey data have not established a significant recovery. Prime-age animals were still found on beaches in 1989, 1990 and 1991. Carcasses of sea otters feed in the lower intertidal and subtidal areas and may still be exposed to hydrocarbons in the environment.
RESTRIAL	MAMMALS	· · · · · ·								
Black Bear	NO	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	No field studies were done.
Brown Bear	NO	NO	NO	(e)	(e)	(e)	(e)	(e)	(e)	Hydrocarbon exposure was documented on Alaska Peninsula in 1989 including high hydrocarbon levels in the bile of one dead cub. Brown bear feed in the intertidal zone and may still be exposed to hydrocarbons in the environment.
River Otters	YES (NUMBER UNKNOWN)	UNKNOWN	YES	UNKNOWN	YES	YES	UNKNOWN	UNKNOWN	UNKNOWN	Exposure to hydrocarbons and sub-lethal effects were determined, but no effects were established on population. Sub-lethal indicators of possible oil exposure remained in 1991. River otters feed in the intertidal and shallow subtidal areas and may be still be exposed to hydrocarbons in the environment.
Sitka Black- tailed Deer	NO	NO	NO	(e)	(e)	(e)	(e)	(e)	(e)	Elevated hydrocarbons were found in tissues in some deer in 1989.

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

Resource	Dese	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Injui	c Exter y (a)	it of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
MARINE MAMN	ials									
Harbor Seals (c)	YES (200)	YES	YES	POSSIBLY STABLE, BUT NOT RECOVERING (a)	UNKNOWN	YES	YES (d)	UNKNOWN	UNKNOWN	Many seals were directly oiled . There was a measurable difference in populations between oiled and unoiled areas in PWS in 1989 and 1990, Population was declining prior to the spill and no recovery evident in 1992. Oil residues found in seal bile were 5 to 6 times higher in oiled areas than unoiled areas in 1990.
Humpback Whales -	NO	NO	NO	(e)	(e)	(e)	(e)	(e)	(e)	Other than fewer animals being observed in Knight Island Passage in summer 1989, which did not persist in 1990, the oil spill did not have a measurable impact on the north Pacific population of humpback whales.
Killer Whales	YES (13)	YES	UNKNOWN	RECOVERING	UNKNOWN	YES	UNKNOWN	UNKNOWN	UNKNOWN	13 Adult whales of the 36 in AB pod are missing and presumed dead. The AB pod has grown by 2 whales since 1990. Circumstantial evidence links whale disappearance to oiling.
Lions (c)	UNKNOWN	UNKNOWN	NO	CONTINUING DECLINE	(e)	(e)	(e)	(e)	(e)	Several sea lions were observed with oiled pelts and oil residues were found in some tissues. It was not possible to determine population effects or cause of death of carcasses recovered. Sea lion populations were declining prior to the oil spill.

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(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

Resource	Dese	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Injui	c Exter ry (a)	it of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Harlequin Ducks	YES (423)	YES	YES	STABLE OR CONTINUING DECLINE	YES	YES	YES (d)	YES (d)	YES (d)	Post-spill samples showed hydrocarbon contamination and poor body conditions. Surveys in 1990-1992 indicated population declines and near total reproductive failure. Harlequin ducks feed in the intertidal and shallow subtidal areas and may still be exposed to hydrocarbons in the environment.
Marbled crelets (c)	ÝES (8,000 TO 12,000)	YES	UNKNOWN	STABLE OR CONTINUING DECLINE	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Measurable population effects on were recorded in 1989, 1990 and 1991. Marbled murrelet populations were declining prior to the spill. Hydrocarbon contamination was found in livers of adult birds.
Peale's Peregrine Falcons	UNKNOWN	UNKNOWN	NO	(e)	(e)	(e)	(e)	(e)	(e)	When compared to 1985 surveys a reduction in population and lower than expected productivity was measured in 1989 in the PWS. Cause of these changes are unknown.
Pigeon Guillemots (c)	YES (1,500 TO 3,000)	YES	NO	STABLE OR CONTINUING DECLINE	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Pigeon guillemot populations were declining prior to the spill. Hydrocarbon contamination was found in birds and, externally, on eggs.
Storm Petrels	YES (NUMBER UNKNOWN)	NO	AWAITING RESULTS	NO CHANGE	UNKNOWN	YES (d)	YES (d)	YES (d)	YES (d)	Few carcasses were recovered in 1989 although petrels ingested oil and transferred oil to their eggs. Reproduction was normal in 1989.
Other Seabirds	YES (375,000- 435,000)	VARIES BY SPECIES	UNKNOWN	VARIES BY SPECIES	UNKNOWN	YES (d)	YES (d)	YES (d)	YES (d)	Seabird recovery has not been studied. Species collected dead in 1989 include common, yellow- billed; pacific, red-throated loon; red-necked and horned grebe; northern fulmar; sooty and short- tailed shearwater; double-crested, pelagic, and red-faced cormorant; herring and mew gull; arctic and Aleutian tern; Kittlitz's and ancient murrelet; Cassin's, least, parakeet, and rhinoceros auklet; and horned and tufted puffin.

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

Resource	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Geo	ographi Injur	c Exten y (a)	it of	Comments/Discussion
- 1 1 1 1. 	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
BIRDS								•		
Bald Eagles	YES (614-902)	YES	YES	RECOVERING	UNKNOWN	YES	YES	YES (d)	YES (d)	Productivity in PWS was disrupted in 1989, but returned to normal in 1990. Exposure to hydrocarbons and some sub-lethal effects were found in 1989 and 1990, but no continuing effects were observed on populations.
Black-legged Kittiwakes	YES (NUMBER UNKNOWN)	NO	NO	NO CHANGE	NO	YES	YES (d)	YES (d)	YES (d)	Total reproductive success in oiled and unoiled areas of PWS has declined since 1989. Hydrocarbon contaminated tissues were detected in 1989. Hydrocarbon contaminated stomach contents were detected in 1989 and 1990. This species is known for great natural variation and reproductive failure may be unrelated to the oil spill.
Black Oyster- catchers	YES (129 ADULTS; UNKNOWN FOR CHICKS (f)	YES	YES	RECOVERING	YES	YES	YES (d)	YES (d)	YES (d)	Differences in egg size between oiled and unoiled areas were found in 1989. Exposure to hydrocarbons and some sublethal effects were determined. Populations declined more in oiled areas than unoiled areas in post-spill surveys in 1989, 1990 and 1991. Black oystercatchers feed in the intertidal areas and may be still be exposed to hydrocarbons in the environment.
Common Murres	YES (175,000 to 300,000)	YES	YES	DEGREE OF RECOVERY VARIES IN COLONY	YES	NO	YES	YES	YES	Measurable impacts on populations were recorded in 1989, 1990 and 1991. Breeding is still inhibited in some colonies in the Gulf of Alaska.
Glaucous- winged gulls	YES (NUMBER UNKNOWN)	NOT DETECTED	NO	NO CHANGE	NO	YES (d)	YES (d)	YES (d)	YES (d)	While dead birds were recovered in 1989, there is no evidence of a population level impact when compared to historic (1972, 1973) population levels.

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(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

Rescurce	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Geo	ographi Injur	c Exten y (a)	nt of	
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Pacific Herring	YES, TO EGGS AND LARVAE	UNKNOWN	YES	UNKNOWN	NO	YES	UNKNOWN	UNKNOWN	UNKNOWN	Measurable difference in egg counts between oiled and unoiled areas were found in 1989 and 1990. Lethal and sublethal effects on eggs and larvae were evident in 1989 and to a lesser extent in 1990; in 1991 there were no differences between oiled and unoiled areas. It is possible that the 1989 year class was injured and could result in reduced recruitment to the fishery.
Salmon () (c)	YES, TO EGGS	POSSIBLY	YES	SEE COMMENTS	YES	YES	UNKNOWN	UNKNOWN	UNKNOWN	There was initial egg mortalituy in 1989. Egg mortality continued to be high in 1991, possibly due to genetic damage to spawners. Abnormal fry were observed in 1989. Reduced growth of juveniles was found in the marine environment, which can be correlated with reduced survival.
Rockfish	YES (20) (f)	UNKNOWN	YES	UNKNOWN	UNKNOWN	YES	YES	UNKNOWN	UNKNOWN	Few dead fish were found in 1989 in condition to be analyzed. Exposure to hydrocarbons with some sub- lethal effects were determined in those fish, but no effects established on the population. Closures to salmon fisheries increased fishing pressures on rockfish which may be impacting population.
Sockeye-Salmon	UNKNOWN	YES	YES	SEE COMMENTS	YES	UNKNOWN	YES	YES	NO	Smolt survival continues to be poor in the Red Lake and Kenai River systems due to overescapements in Red Lake in 1989, and in the Kenai River in 1987, 1988, 1989. As a result, future adult returns are expected to be low in 1994 and successive years. Trophic structures of Kenai and Skilak Lakes have been altered by overescapement.
SHELLFISH									:	
dm	YES (NUMBER UNKNOWN)	UNKNOWN	POSSIBLY, FINAL ANALYSES PENDING	UNKNCWN	UNKNOWN	YES	YES	YES	YES	Native littleneck and butter clams were impacted by both oiling and clean-up, particularly high pressure, hot water washing. Littleneck clams transplanted to oiled areas in 1990 grew significantly less than those transplanted to unoiled sites. Reduced growth recorded at oiled sites in 1989 but not 1991.

(b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;

(c) Population may have been declining prior to the spill;

(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

(f) Total body count, not adjusted for carcasses not found.

Resource	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Ge	ographi Injui	c Exter ry (a)	nt of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	
Other Sea Ducks	YES (875) (b)	NO	UNKNOWN	UNKNOWN	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Species collected dead in 1989 include Stellar's, king and common eider; white-winged, surf and black scoter; oldsquaw; bufflehead; common and Barrow's goldeneye; and common and red-breasted merganser. Sea ducks tend to feed in the intertidal and shallow subtidal areas which were most heavily impacted by oil.
Other Shorebirds	YES (NUMBER UNKNOWN)	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	YES	YES (d)	YES (d)	YES (d)	Species collected dead in 1989 include golden plover; lesser yellowlegs; semipalmated, western, least and Baird's sandpiper; surfbird; short-billed dowitcher, common snipe; red and red-necked phalarope.
Other Birds	YES (NUMBER UNKNOWN)	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	YES (d)	YES (d)	YES (d)	YES (d)	Species collected dead in 1989 include emperor and Canada goose; brant; mallard; northern pintail; green-winged teal; greater and lesser scaup; ruddy duck; great blue heron; long-tailed jaeger; willow ptarmigan; great-horned owl; Stellar's jay; magpie; common raven; northwestern crow; robin; varied and hermit thrush; yellow warbler; pine grosbeak; savannah and golden-crowned sparrow; white-winged crossbill.
<b>⊮</b> ISH		••••••••••••••••••••••••••••••••••••••								
Cutthroat Trout	YES, SEE Comments	POSSIBLY	YES	STABLE, BUT NOT RECOVERING	UNKNOWN	YES	UNKNOWN	UNKNOWN	UNKNOWN	Differences in survival and growth between anadromous adult populations in the oiled and unoiled areas persisted in 1991 despite the decrease in exposure indicators. This could be due to continuing injury to the food base.
Dolly Varden	YES, SEE Comments	POSSIBLY	YES	STABLE, BUT NOT RECOVERING	UNKNOWN	YES	UNKNOWN	UNKNOWN	UNKNOWN	Differences in survival between anadromous adult populations in the oiled and unoiled areas persisted in 1991 despite the decrease in exposure indicators. This could be due to continuing injury to the food base.

- (a) There may have been an unequal distribution of injury within each region;
- (b) Adjusted for carcasses not found, not reported, scavenged, or otherwise lost;
- (c) Population may have been declining prior to the spill;
- (d) Based on recovery of dead animals from this region of the spill zone;
- (e) If no injury was detected or known, no assessment of recovery could be made;
- (f) Total body count, not adjusted for carcasses not found.

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Service	Description of Injury	Status of Recovery	Geographic Ex	tent of	Injury	/ (a)	
*		in December, 1992	PWS	Kenai	Kodiak	Alaska Penin.	Comments/Discussion
Passive Use	In 1991, over 90% of those surveyed (nation-wide) said they were aware of the <i>Exxon Valdez</i> oil spill. People report that values have been lost; their feelings about the spill area have changed. There is a wide-spread feeling that something has been lost.	Recovery status is unknown.	YES	YES	YES	YES	Over 50% of those surveyed believed that the spill was the largest environmental accident caused by humans anywhere in the world. The median household willingness to pay for future prevention was \$31. Multiplying this by the number of U.S. household results in a damage estimate of \$2.8 billion.
R ation (e.g., g, fishing, camping, kayaking, sailboating, motorboating, environmental education)	The nature and extent of injury varied by user group and by area. About a quarter of key informants interviewed reported no change in their recreation experience, but others reported avoidance of the spill area, reduced wildlife sightings, residual oil, and more people. Overall, recreation use declined significantly in 1989. Between 1989 and 1990 a decline in sport fishing (number of anglers, fishing trips and fishing days) were recorded for PWS, Cook Inlet and the Kenai Peninsula. In 1992 an emergency order restricting cutthroat trout fishing was issued for western PWS due to low adult returns. Sport hunting of harlequin duck was affected by restrictions imposed in 1991 in response to damage assessment studies.	Declines in recreation activities reported in 1989 appear to be recovering for some user groups, but the degree of recovery is unknown. EVOS related sockeye over- escapement in the Kenai River and Red Lake system is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in sport fishing closures or harvest restrictions during these and perhaps in subsequent years. The 1992 sport fishing closure for cutthroat trout is expected to continue at least through 1993. Harvest restrictions are expected to continue for harlequin duck through 1993.	YES	YES	YES	YES	Survey respondents also reported changes in their perception of recreation opportunity in terms of increased vulnerability to future oil spills, erosion of wilderness, a sense of permanent change, concern about long-term ecological effects, and, in some, a sense of optimism.

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(a) There may have been an unequal distribution of injury within each region, see map for location of regions.

Resource	Desc	cription of	Injury	Status of in Decem	Recovery ber, 1992	Gei	ographi Injur	c Exter y (a)	nt of	Comments/Discussion
	Oil Spill Mortality (total mortality estimate)(b)	Decline in Population after the spill	Evidence of Sublethal or Chronic Effects	Current Population Status	Evidence of Continuing Sublethal or Chronic Effects	PWS	Kenai	Kodiak	Alaska Penin.	-
Crab (Dungeness)	UNKNOWN	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	Crabs collected from oil areas were not found to have accumulated petroleum hydrocarbons.
Ovster	UNKNOWN	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	Although studies were initiated in 1989, they were not completed because they were determined to be of limited value.
Sea Urchin	UNKNOWN	UNKNOWN	UNKNOWN	(e)	(e)	(e)	(e)	(e)	(e)	Studies limited to laboratory toxicity studies.
Shrimp	UNKNOWN	UNKNOWN	NO	(e)	(e)	(e)	(e)	(e)	· (e)	No conclusive evidence presented for injury linked to oil spill.
INTERTIDAL/S	UBTIDAL CON	OMUNITIES								
Intertidal Organisms/ Communities	YES	YES	YES	VARIABLE BY SPECIES, SEE COMMENTS	YES	YĘS	YES	YES	YES	Measurable impacts on populations of plants and animals were determined. The lower intertidal and, to some extent, the mid intertidal is recovering. Some species (Fucus) in the upper intertidal zone have not recovered, and oil may persist in and mussel beds.
Subtidal Communities	YES	YES	YES	VARIABLE BY SPECIES, SEE COMMENTS	YES	YES	UNKNOWN	UNKNOWN	UNKNOWN	Measurable impacts on population of plants and animals were determined in 1989. Eel grass and some species of algae appear to be recovering. Amphipods in eel grass beds recovered to pre-spill densities in 1991. Leather stars and helmet crabs show little sign of recovery through 1991.

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(d) Based on recovery of dead animals from this region of the spill zone;

(e) If no injury was detected or known, no assessment of recovery could be made;

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(f) Total body count, not adjusted for carcasses not found.

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Service	Description of Injury	Status of Recovery	Geographic Ext	ent of	Injury	/ (a)	
		in December, 1992	PWS	Kenai	Kodiak	Alaska Penin,	Comments/Discussion
Subsistence	Subsistence harvests of fish and wildlife in 10 of 15 villages surveyed declined from 4 - 78% in 1989 when compared to pre-spill levels. At least 4 of the 10 villages showed continued lower than average levels of use in the period 1990-1991; this decline is particularly noticeable in the Prince William Sound villages of Chenega and Tatitlek. In 1989-1991, chemical analysis indicated that most resources tested, including fish, marine mammals, deer, and ducks, were safe to eat. In 1989-1991, health advisories were issued indicating that shellfish from oiled beaches should not be eaten.	Many subsistence users believe that continued contamination to subsistence food sources is dangerous to their health. In addition, village residents believe that subsistence species continue to decline or have not recovered from the oil spill.	YES	YES	YES	NO	For detailed information on village subsistence use see table _, page

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Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill

(a) There may have been an unequal distribution of injury within each region.

Summary of Results of Injur	Assessment Studies Done	After the Exxon Valdez Oil Spill

Service	Description of Injury	Status of Recovery	Geographic Ext	tent of	Injury	/ (a)	
		in December, 1992	PWS	Kenai	Kodiak	Alaska Penin.	Comments/Discussion
Commercial Fishing	During 1989, emergency commercial fishery closures were ordered in PWS, Cook Inlet, Kodiak and the Alaska Peninsula. This affected salmon, herring, crab, shrimp, rockfish and sablefish. The 1989 closures resulted in sockeye over- escapement in the Kenai River and in the Red Lake system (Kodiak Island). In 1990 a portion of PWS was closed to shrimp fishing.	Currently there are no area-wide oil spill-related commercial closures in effect. Management actions to try to compensate for the spill are still in effect. EVOS related sockeye over- escapement in the Kenai River and Red Lake system is anticipated to result in low adult returns in 1994 and 1995. These over-escapements may result in closure or harvest restrictions during these and perhaps in subsequent years.	YES	YES	YES	YES	Injuries and recovery status of rockfish, pink salmon, shellfish and herring are uncertain. Therefore, future impacts on these fisheries is unknown
Commercial Tourism	Approximately 43% of the tourism businesses surveyed felt their businesses had been significantly affected by the oil spill in summer 1989. The net loss in visitor spending in the oil spill area in 1989 was \$19 million.	By 1990, 12% of the tourism businesses surveyed felt their businesses had been significantly affected by the oil spill.	YES	YES	YES	YES	-

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(a) There may have been an unequal distribution of injury within each region.

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# Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill

Other Natural Resources and Archaeology: Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill (b)

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Resource	Description of Injury	Status of Recovery	Geographic	Extent (	of Injur	y (a)	Comments/Discussion
	:	in December, 1992	PWS	Kenai	Kodiak	Alaska Penin.	
Air ·	Air quality standards for aromatic hydrocarbons were exceeded in portions of PWS. Health and safety standards for permissible exposure levels were exceeded up to 400 times.	Recovered	YES	NO	NO	NO	Impacts diminished rapidly as oil weathered and lighter factions evaporated.
Sediments	Oil coated beaches and became buried in beach sediments. Oil laden sediments were transported off beaches and deposited on subtidal marine sediments.	Patches of oil residue remain intertidally on rocks and beaches and buried beneath the surface at other beach locations. Oil remains in some subtidal marine sediments and has spread to depths greater than 20 meters.	YES	YES	YES	YES	Unweathered buried oil will persist for many years in protected low-energy sites.
Water	State of Alaska water quality standards may have been exceeded in portions of PWS. Federal and State oil discharge standards of no visible sheen were exceeded.	Recovered	YES	YES	YES	YES	Impacts diminished as oil weathered and lighter fractions evaporated.
Archaeological sites/artifacts	Currently, 24 sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. 113 sites are estimated to have been similarly affected. Injuries attributed to looting and vandalism (linked to the oil spill) are still occurring.	Archaeological sites and artifacts cannot recover; they are finite non-renewable resources.	YES	YES	YES	YES	
Designated Wilderness Areas	Many miles of Federal and State Wilderness and Wilderness Study Area coastlines were affected by oil. Some oil remains buried in the sediments of these areas.	Oil has degraded in many areas but remains in others. Until the remaining oil degrades, injury to Wilderness areas will continue.	YES	YES	YES	YES	

(a) There may have been an unequal distribution of injury within each region.

(b) This page has not yet been reviewed by the Chief Scientist.

# (a) There may have been an unequal distribution of injury within each region.





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Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

Erron Valdes Trustees 645 "G" Street Anchorage, AK 99501

Attach Correct Postage

# Name: <u>Sue Smith</u> Phone: <u>424-3245</u>

# 1994 POTENTIAL PROJECT TITLES

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1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	М		1			T	Τ	Ţ	
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	x			\$300	1								
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	М								
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	М								
5		Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X	X	X	\$400	М								
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1								
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	X	\$300	93 - M								
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М								
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М	1	1				1.		
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М								
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	М								
12	·····*· · · · · · · · · · · · · · · · ·	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	М			- -				-	
13	· · · · · ···	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	M		-						
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М								3
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	м		ĺ						
16	ngin an contract -	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X	1.		\$1,200	1					-  -			
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										•						
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	М								
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	М		1						
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	x	X	X	\$200	М	-							
			·													
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	x	\$108	93 - M								
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	М								

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

Page 1

Name: Sue Smith	
Phone: 424-3215	

#### 1994 POTENTIAL PROJECT TITLES

### Page 2

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIÓN	EST	<b>EST</b>						Ι.	ТТ	20
	or	OF STREET		e	K K	COSTINA	DURATION	9 9	9 9	9 9	9	9		0 0	Not 1
ġ	SERVICE	SUBOPTION IS		s	N D	\$K	(YEARS)	4	5	6	7		• •	1	i i
22	Black Oystercatcher	Restoration Monitoring													
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		··· · · · ·													
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	XX	\$1,100	M								
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	XX	\$385	M	~	~			1			
25		Intensify Management	Fishery Industrial Technology Center	X	XX	\$3,500	1								
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	M								
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X	\$300	M							.	
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	XX	\$200	M								
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,000	1								
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	y X		\$868	M	~	~	10	17		1.	14	
-31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	XX	\$50	M	~	1	1	~	V	10		
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island		X	\$45	М								
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	M	~	1	1	1	4	1-	11	
34	_	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		x	\$50	M			]					
35		Replace Harvest Opportunities	Red Lake Mitigation		X	\$191	M								
i															
		· · · · · · · · ·													
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	x x	\$280	М								
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	XX	\$51	93 - M								
38	·	Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	хx	\$73	M	_							
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	xx	\$191	M								
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	x x	\$40	M			<b>[</b>	[]		1		
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$460	M			1					

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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# Name: Ju Inith Phone: 424-3215

#### **1994 POTENTIAL PROJECT TITLES**

#### Page 3

RESTORATION OPTION POTENTIAL PROJECTS REGIO RESOURCE or SERVICE SUBOPTION 42 Common Murre M. **Restoration Monitoring** 43 Cutthroat/Dolly М Cutthroat Trout and Dolly Varden Habitat Restoration \$200 Intensify Management \$285 М 1 Enhanced Management of Cutthroat Trout and Dolly Varden 44 Intensify Management **Option Not Identified** \$35 М 45 Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration \$950 М Option Not Identified 46 Cutthroat Trout and Dolly Varden Hatchery Μ **Restoration Monitoring** 47 48 General \$600 Administration Oil Spill Restoration Support Service and Facilities XXXX 1 \$200 Monitoring М 49 Monitoring of Small Cetaceans (Dall Porpoises) in PWS **Option Not Identified** Hazardous Material Collection Facility XXX \$100 1 50 Option Not Identified Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model \$488 М 51 Public Information \$70 Μ Public Broadcasting System Program on Oil Spill хł 52 xxx Public Information \$90 Publish and Distribute Brochures on Injured Species M 53 **Public Information** \$65 **PWS Brochures** М 54 Public Information PWS Implementation of Interpretive Plan \$150 М 55 Public Information PWS Large Format Photographic Book \$100 Μ 56 Public Information PWS Scenic Byway -- Nomination and Interpretive Plan \$70 Μ 57 Public Information \$100 М 58 PWS Video Programs **Public Information** Science of the Sound- Education Program \$53 м 59

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#### Name 424-3215 Phone:

# 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG		EST.	EST.	1	1 9	1	1 1	1	2 2 0 0	Do Not
SERVICE	SUECIPITION		W E S N	D	SK	YEARS	Ŷ	9 5	6	7 8	;	0 0	Zund
60 Harbor Seal	Cooperative Program-Fishermen			1					Ī	Ī			
61	Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		\$39	M	1	~	4				
62	Option Not Identified	Subsistence Harvest Assistance	x		\$23	М							
63	Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M							
54	Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	x x	\$230	м	•						
•				1				· ·			1	-	
5 Harlequin Duck	Eliminate Oil from Mussel Beds						1-	レ	U				
5	Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	×)	x   x	\$700	93 - M							
	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X >	x x	\$53	м							
							:						
· · · · · · · · · · · · · · · · · · ·		······································		-	· · · · · · · · ·					-			
listortidal					<b>*</b> 00								
	Accelerate Hecovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study			\$20	M					-		
· · · · ·	Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study			\$70	M			-	·   ·	.4. 1		I
· · · · ·	Accelerate Hecovery of Intertidal	Restoration of High-Intertidal Fucus	X	XX	\$300	M							
·	Accelerate Hecovery of Intertidal	Beach Subsurface Oil Recovery		<u> </u>	\$50	M					-ll		
	Accelerate He covery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X.		\$500	M							
р 	Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X		\$800	M							
	Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation		X X		M							
	Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X)	<u>x   x</u>	\$620	M							
	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X	-	\$600	M	-						
	Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program		XX	\$500	M	.						
· · · · · · · · · · · · · · · · · · ·	Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		XX	\$200	M							
) . 	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition		XX	\$275	M					.		
<b>P</b>	Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	XX	\$50	M	<b>. .</b>			-			
1	Monitoring	Monitoring for Recruitment of Littleneck Clams		X X	\$186	M	1	5					

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<b>[</b>	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE		NEST	EST.	1 1 9 9	1,	1 9	1,	1 2 9 0	2	De Not	
	SERVICE	SUBOPTION		W 5	E O N D	SK	(YEARS)	999 45	9 6	9 7	9 8	90 90	0	Pund	
	82 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	$ \mathbf{x} $	x	<b>&lt;</b> \$500	М				ľ		Ĩ		
	83	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	x >	<b>\$600</b>	M								
1	84	Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	x)	<b>(</b> \$195	М								ł
1	85	Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	x)>	\$500	93 - M					1			1
	86 .	Monitoring	Herring Bay Experimental and Monitoring Studies	X		\$495	93 - M								ļ
	87	Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	x)	\$860	M						1		
	88	Option Not Identified	Clam Enhancement	X	xþ	\$120	м					1			
	89	Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	x	<b>\$</b> 500	М					-			
1	90	Option Not Identified	Restoration of Mussel Beds	X	x)	K \$500	м			1		. ]		1.	1
1	91	Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	x)	\$237	М								l
						1									l
1-			a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l De la companya de la companya de la companya de la companya de la companya de la companya de la companya de la c		.  :			-		1			-		(÷
		and the second second second second second second second second second second second second second second second													
1	92 Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X	.   .	\$120	93 - M								[
1	93	Monitoring	Recovery Monitoring	X		\$125	M							1	
1	94	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$180	M								
1	95	Reduce Fishe y Interactions	Change Black Cod Fishery Gear	X			M		1	1					1
				[ [	[				1	1	<u>}</u>				l.
	a 🖬 🔤 👘 👘														1
														1	
		· · · · · · · · · · · · · · · · · · ·	······································									1	1.	ľ	l
1	96 Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	x )	<b>K</b> \$240	93 - M								[
1	97	Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	<b>X</b> \$180	93 - M				.				l
1	98	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	x	K \$250	M								1
1	99	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	x)	K \$509	M								
1	00	Minimize Incidental Take													1
1	01	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X)	K \$200	м								l

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# Name: Sur Amith Phone: 424-3215

#### 1994 POTENTIAL PROJECT TITLES

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- 19 C -	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS				EST. COST/YR	EST	1 9 9 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	2 0 0 1	
102	2 Marbled Murrelet	Bestoration Monitoring	Survey to Monitor Recovery of Marbled Murrelots	<u></u>	Y I		\$250	M	_	<b></b> !					-
					$\gamma$		\$250	101							
	4														
103	Multiple Resources	Habitat Protection	Habitat Modelling	Ì	x	xx	\$150	м						-	1
104	1	Habitat Protection	Riparian Habitat Assessment		x	xx	\$110	м							
105	5	Habitat Protection	Stream Channel Capability Modeling		x	xx	\$110	M							
106	5	Habitat Protection	Stream Habitat Assessment		x :	xx	\$361	93 - M							
107		Habitat Protection	Valdez Hazardous Waste Collection		x	1	\$200	1							
108		Habitat Protection	Vegetation and Stream Classification and Mapping		$\mathbf{x}$	x x	\$276	93 - M							
109	· · · · · · · · · · · · · · · · · · ·	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment		x	xx	\$100	М							
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species		x	xx	\$750	М							
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge			x x	\$111			1	[]				
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			x		1							
113		Habitat Protection and Acquisition	Inholdings in Becharot National Wildlife Refuge	1		X		1							
114		Habitat Protection and Acquisition	Valdez Duck Flats		<b>x</b>			1							
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge			x	\$20	1							
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1				]			
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X	\$250	1							
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		x		\$3,500	1				ŀ			
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X	\$200	1		'	11				
,120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge	[		X	\$77,000	1							· .
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay			x	\$90	1							
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay			X	\$60	1							
123	·	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay			x	\$400	1							
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		þ	x	\$80	1							·
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		)	×	\$740	1							
126		Habitat Protection and Acquisition	Habitat Acquisition		x x	x x	\$25,000	93 - 1							
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak			X	\$112,500	1					T		

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### 1994 POTENHAL PROJECT TITLES

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5.2	RESOURCE	<b>RESTORATION OPTION</b>	POTENTIAL PROJECTS	R	EGIO	N	EST	EST.	1		1 1	1	1	2 2	8
	or	or and		PW	K I	ĸ	COSTAR	DURATIO	n;	9	999 99	9 9	9	000	Not .
达藏的	SERVICE	SUBOPTION		s	N	•	SK 📲	NEARS	<u>}</u>	2	Ľ	Ľ	Ľ		Ę
128 N	luitiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island			x   :	\$20,000	1							
129		Habitat Protection and Acquisition	Habitat Acquisition, North Alognak Island			x	\$4,000	1							
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		:	x	\$1,000	1		i i					
131		Increase Natural Food Supply					-							Į	
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X		x	\$50	M							
133	•	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X		x	\$408	м	~	10	/~	11			
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	м							
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	м							
136		Intensify Management	Seabird Colony Restoration	X		x	\$250	м							
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	м	1		10	1		Į	
138		Monitoring	Shoreline Worm Life Monitoring	X	<b>  x</b>	x]	\$388	М			1				
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X		x	\$416	М	1	10	14	1			
40	a an an an an an an an an an an an an an	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X		X	one billion	Miss							
41		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	<b>x</b> :	x	\$280	M			··· [ · ·	1			
142	4	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	x	\$7	м							
43		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	x	\$650	1							
44		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X	x	\$48	М							
45		Option Not Identified	Shoreline Assessment	X		x	\$250	93 - M							
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			X	\$28	м							
47		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	x	\$500	93 - M						ſ	
48		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X		\$800	м						Ĩ	
49		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	X	x	\$2,300	1°							
150		Recovery Monitoring	Injured Resource Food Supply	X	X	x [	\$850	м							I
51		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	x	\$500	м							
52		Recovery Monitoring	Long Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	м	·		Ĩ				
53		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	м							
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X:	x	\$150	м			{				
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X	x	\$100	м						ł	
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	x[	\$200	M							1
157	•	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X	] -		\$35	М	·						

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GlÓ	N	EST.	< EST.ik	1	1 1	T.	П	1 2	2	X
	or	entres a sort i tradicio		P W	K E	* <b>C</b>	OSTAR	DURATION	9 9	9 9 9	<b>9</b> <b>9</b> 7		90	0	Nat 7
<u> </u>				5	N	0	SK I	(YEARS)		Ĺ	Ļ			Ļ	2
158	multiple resources	Hecovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			<b>\$9</b> 1	M							
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X	×	\$275	93 - M			-			1	
160		Reduce Disturbance by Field Presence													
161		Reduce Disturbance Through Public Info	Public Information and Education	X	X	X	\$316	M							
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	X	x	\$50	M							
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	<b>x</b>	×	\$500	М							
164		Restoration Monitoring	Ecosystem Study	X	X	X s	6,000	М				1		1	
						un 14 un 14									
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	x			\$205	M	~	4	<b>)</b> .:				
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	x			\$400	M	4	40	1.		· ·   .		
167		Intensity Management	PWS Herring Tagging Feasibility Study	X	•	•	\$112	M	1	41					
168	2	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	x	· · · [·		\$189	М	4	LL					
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	x		1	\$60	М	/	-1-	1	"			
170	-	Option Not Identified	Enhancement of Pacific Herring	x	x	x	\$120	M					1		
171	с .	Restoration Monitoring					t t	· · ··- ···		·		11	·		
							<i>r</i> -	• •					1	1	
						ţ									
172 F	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	x	x	x	\$40	93 - M							
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	x	x	x	\$180				+ -	1.1		1	
174		Restoration Monitoring			.:: <u> </u> :		····						•		
175		Temporary Predator Control	and a second second second second second second second second second second second second second second second			-					+			1	
			and a second second second second second second second second second second second second second second second	ŀ	•			• - • •							
							- · · ·	• • • •							

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93=Funded in 1993 M=Multi-year Project

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# 1994 POTENTIAL PROJECT TITLES

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	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	P W S	GIC K E N	N K D	EST. COST/YR \$K	EST. DURATION (YEARS)	1 9 9	1 9 9 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 1	; 2 ) 0 ) 0 9 0	2 0 0 1	Do Not Fund	· · ·
176	Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	x	\$25	М						1		$\square$	l
177	,	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1									i
178		Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1									
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration			x[	\$11	1				Ì		ĺ			
180		Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1									
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			x	\$55	1									1
182		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	x	x	x	\$727	М	1~	1	~						
183		Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	x			\$495	м	10	10	レ					$ \cdot $	
184		Intensity Mar agement	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	x			\$855	м	10	~							i
185		Intensify Mar.agement	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	x			\$500	м	10	~	0						
186		Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М	10	10	~					$ \cdot $	
187		Intensity Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	x	x	\$152	M		1	~				-	e.	
188		Intensify Management	Pink Salmon Escapement Enumeration	X	X	X	\$705	М	10	4	1	.					
189		Intensify Management	PWS Salmon Stock Genetics	X			\$150	М	10	V	~						1
190		Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	M	4	~	~						F
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	x		\$686		1	~	4						
192		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X		\$899	М	~								
193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М	1								
194		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	x			\$385	93 - M	10			,	1				
195		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М		-							
196		Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	x	×	\$300	М									
				_		-											-
197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		x	X	\$1,250	М								2	I
198		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	x	x	x	\$6,000	1	1							5	
199		Establish Marine Environmental Institute	Seward Sea Life Center	X	x	x	\$40,000	1								1	
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	x	x	x	\$500	М								1	l
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	x	x	\$500	M					- T			0	

PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: <u>Aur</u> Phone: <u>424</u>

### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	14 - N	REC	NOI	EST.	EST	,			ΓT	, ,	, 8
¥.Ř	dr or .				P	K	COST/YR	DURATION	9	999 99	9 9	9	9 0	0 Xo7
	SERVICE	SUBORTION SUBORTION	A AN ANALYMAN AN ARABITAR STATES	e 🙀	SN		sk .	(YEARS)	•	5 6	7	8	, ,	1 Prind
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		1	X	\$500	1			1			
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			x	\$70	1	Ī					1
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project		x		\$50	м	Ì					V
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism		x	xx	\$100	м						
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS		x		\$58	м	1	1				
207		Monitoring	Recreation Field Management and Monitoring		x	xx	\$700	M	1					
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails		x		\$150	1	1					
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	Ī	x	-	\$20	1		- 1				
210		New Backcountry Recreation Facilities	Improve Marine Parks	1	$\mathbf{x}$	x x	\$100	M	į		-			
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area		x		\$100	1	Ì		·			
212		New Backcountry Recreation Facilities	Prince William Sound Campground		x		\$70	<b>1</b>  -	[.				·	
213	· · · · · · · · · · · · · · · · · · ·	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks		x	x x	\$150	м	İ		-		l ·	, <b>  / </b>
214		New Backcountry Recreation Facilities	PWS Kayak Trail		x	ľ	\$100	1	İ					
215		New Backcountry Recreation Facilities	PWS Recreation Facilities		x		\$250	· 1		* <b> </b> ::	<b>`</b>	••••	<b>-</b>	14-1
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		<u> </u>	x x	\$140	i. 1						1
217	ana ana ang kana ata	Option Not Identified	Implement Prince William Sound Area Recreation Plan		x	-	\$400	м						
218		Option Not Identified	Sustainable Tourism in PWS	· · ·	x		\$240	м						
219		Option Not Identified	Watchable Wildlife		xb	k x	\$65	м	i					-11-1
220		Option Not Identified	Increased Access PWS		x		\$100	M	1					
221		Plan Commercial Recreation Facilities	Recreation Development		xb	x x	\$200	M						
222		Restoration Monitoring			Ť	-1				1			-	
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum		x)	k X	\$77	м		İ	1	t t		
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education		x			1	1		1		* *	
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum		xb	< X	\$310	M	.		· ·		-	
226		Visitor Center	Cordova Environmental Education Center		x [		\$15	1		ł	1.			
227		Visitor Center	Cordova Mini-Imaginarium	Ì	x	1	\$63	1						
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	··· · · · [	xb	( X	\$155	M			1			
229	· · · · · · · · · · · · · · · · · · ·	Visitor Center	Environmental Education Center in PWS		x	t	\$90	1						
230		Visitor Center	Environmental Learning Resource Center		xb	( x	\$90	1						
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova		x	1	\$450	1	·	t	1	t · t	··· [• · · ·	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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# Name: Jue Smith Phone: 424-3215

## 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION:	POTENTIAL PROJECTS	RE		EST. COST/YR	EST. DURATION	1 1 9 9 9 9	1 9 9	1 9 9 7	1 9 9 8	1 2 9 0 9 <del>0</del> 9 0	2 0 0 1	De Not Fu
222	SERVICE	SUBOPTION		s Y		S600	(YEARS)	Ļ	<b>I</b>			-		
232	· ·		Interpretation of PIMS	Ŷ		\$10	M					ł		1
200		Visitor Center	Maritime Wing Vatdez Museum	Ŷ		\$150	· · · ·	.	.					~
234			Walking wing value wuseum	<b>Q</b>		¢150								4
235		Visitor Center	Multi-agency Library on Pws and Copper River Della			\$150 \$050		ł						V
236	· -	Visitor Center				2620	· '		1					
	Diver Otter					¢100								
237	Hiver Otter	Monitoring	River Otter Hecovery Monitoring			\$180	M	~	10		Ê-}-			
238		Monitoring	Synthesis of Information on Ecology and Injury to Hiver Otters in PWS			\$40	м		1					
239		Restoration Monitoring									$\left\{ \right\}$			
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	XXX	\$99	1		· · • • •					
							an in the term							
									1.1	-				
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X	\$175	M	7						
242		Monitoring	Monitoring Injury to Rockfish in PWS	X		\$117	M	10	14					
243		Monitoring												
												-		
244	Sea Otter	Cooporative Prgm-Subsistence Users		· •										
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	xx	\$83	М							
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	XX	\$337	м							
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	xx	\$450	M							
248	· ··· ·	Monitoring	Sea Otter Population Dynamics	X	xx	\$291	93 - M				1			
249		Bestoration Monitoring				1	1 · · · · ·	1		1	11	- t	11	- 1

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: <u>Jue Smit</u> Phone: <u>424-3215</u>

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### 1994 POTENTIAL PROJECT TITLES

### Page 12

	RESOURCE or SERVICE	RESTORATION OPTION ! *	POTENTIAL PROJECTS	RE P S		EST. COST/YR SK	EST. DURATION (YEARS)	1 9 9 5	1 9 9 6	1 9 9 7	1 9 9 9 9	2 0 0 0	2 DC Not Fund
250	Sea Otter	Study: Eliminate Oil from Mussel Beds								1			
										1			
251	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X		\$120	М						
252		Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		x	\$333	м						
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon		X	\$275	M						
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye		X	\$500	93 - M						
255		Intensify Management	Kenai River Sockeye Salmon Restoration		X	\$1,000	93 - M						
256		Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		X	\$143	M						
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation	ŀ	X	\$6	М		l' l				
258		Monitoring	Sockeye Salmon Overescapement		x x	\$641	93 - M						
259	·	Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M	14	14				
260		Option Not Identified	Red Lake Salmon Restoration		X	\$72	M						
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-	1. A. A. A. A. A. A. A. A. A. A. A. A. A.												
261	Sport Fishing		and the second second second second second second second second second second second second second second second		-		· · · · · · · ·			-			
262	sport roning	Recovery Monitoring											
2631		Postoration Monitoring	For Hichardson Hatchery Improvement		<b>X</b>  -	\$4,200	· · · · · · · · · · · ·	•					
	· •• •• ·· •	nestoration wontoning.	a server a server a server a server a server a server a server a server a server a server a server a server a s		.			•			<b>.</b>		
·			ter and the second second second second second second second second second second second second second second s		-			-					
264	Subsistence	Access to Traditional Foods		<u></u>									
265		Bivalve Shellfish Hatchery	and the second second second second second second second second second second second second second second second	.  .			h	ł					
266	• • • • • • • • • • • • •	Option Not Identified	Chenena Bay Subsistence Restoration Project (Remove Oil)		<u> </u>	\$200		1.	11				
267	•	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design		XXX	\$300		·					·
			and resources and resources a cusionity order and besign	121	~ ~	1 4000			1.1		1	1 1	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: Sue Smith Phone: 424-3215

# 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIÓÌ	EST.	EST.	<u>,</u>	1		1 1	1	2	2 5	8
	or states			P	K K E O	COST/YR	DURATION	9	9 9	9 9	9 9 9 9	9 9	0 0	0	lor 7
	SERVICE	SUBOPTION		s s	ND	SK-	(YEARS)	<b>^</b>	5	6	7 8	2	0	1	á
268	Subsistence	Option Not Identified	Mariculture Technical Center	x	x   x	\$2,200	1					ł			
269		Option Not Identified	Seward Shellfish Hatchery	x	xx	\$1,300	1					1			
70		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	x	xx	\$700	м	V	$\mathbf{v}$	V		1			
71	•	Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		\$50	м	~	レ	V					
72		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program			\$55	м	~	レ	v		İ			
73		Replace Harvest Opportunities	Port Graham Salmon Hatchery		x	\$2,500	1								
4		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,000	1					ĺ			
75	l	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	xx	\$55	м								
76		Restoration Monitoring													
77		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	xx	\$589	м								.
8		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	x	xx	\$300	M					1			
'9	-	Test Subsistence Foods	Subsistence Food Safety Testing	X	x x	\$308	93 - M								
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30	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X	\$110	М	14	~	1		I			
11		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X		\$715	M	1	~	0					
2		Monitoring	PWS Spot Shrimp Survey	X		\$90	M	V	V	V					
33		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	x x	\$275	M								
34		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X		\$265	93 - M								.
95		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	x x	\$390	М								
36		Monitoring	Subtidal Recovery Monitoring	X	XX	\$400	M								
37		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	x	\$90	м								
							1								
<b>38</b>	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	xx	\$450	м								
89		Administration	Geographic Information System Mapping of Natural Resources in Western PWS			\$75	М								

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Name: <u>Jul Smit</u> Phone: <u>424-3215</u>

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RE P S	GIO K E N	к о р	EST. Cost/yr \$K	EST: DURATIC (YEARS	1 9 9 9	1 9 9 5	1 9 9 6	1 9 9 7	1 9 9	1 2 9 0 9 0 9 0	2 0 _0. 1	Do Not Fund	
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	x	x	\$105	93 - M	[·					1			
291		Administration	Toxicological Profile of PWS	X			\$150	М									
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	М								1	
293		Public Information	Database Integration	X	x	x	\$148	М	L	14	4	4				ļ	
294	-	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		M									
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	X	x	\$120	M									
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	М									
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	M	.			1]					
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T. SMITH JSJC CALENDOD ANCHORAGE, 9K 99508



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MAY 0 6 1993

EXXON VALDEZ GIL SPILL TRUSTEE COUNCIL

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EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

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EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD



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Name: <u>TIM SMITH</u> Phone: <u>762-2625(w)</u> 277-5064(H)

# 1994 POTENTIAL PROJECT TITLES

# Page 1

	RESOURCE	RESTORATION OFFICE	POTENTIAL PROJECTS	86	GIO		ES:TE	EST	1	1	1		1	1	2 2	۲,
	s or		The second second second second second second second second second second second second second second second se	P	K I	к	():)iiii	WN.WO	9 9	9 9	9. 9.	9 9	9 9	9	0 U 0 0	No: i
	SERVICE	SUBOPTION SUBOPTION		s	N	D		NEAGE	4	5	6	7	8	9	) 1	n an an an an an an an an an an an an an
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	М	14	1	7	×	×	××	-  ×	·T
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X			\$300	1		×						
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	x	\$200	М	×		X		X	)	$\langle  $	
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	<b>x</b> [	\$525	м	X	X	x	X	X	X	κX	
5		Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X	X	X	\$400	М	X	X	X	[ ]		.  .		]
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1			X					
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	x	\$300	93 - M	X	X	×	X	×	$\times$	K X	< X
-8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М		X		X		$\times$	X	,
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М	X	·	$\times$		X	<b>×</b>	<	
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М	X	X	×	X	X	$\times$	< X	·
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	М	1×	×	×	×	×.	××	=x	
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	M	×		X	[. ]	X	<b> </b> >	د .	
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	x	\$150	М	X	X	X	$\succ$	X	хy	c X	<u> </u>
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М	X	14	x	1×	×	ĸ	ex	
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	M	X	X	X	X	X	X	27	2
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1	X	]						
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- 11 N										1						
									1.							
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	М	1.							
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	М		1.						
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М	4.	ļ						
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20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	x	\$108	93 - M		<b> </b> .						
21	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X			\$125	M								

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#### 1994

#### RESOURCE िनिचः स्ति हो हो ENTIAL PROJECTS REGION Of COSTAYR DURAT SUBOPTION SERVICE YEARS 22 Black Oystercatcher Restoration Monitoring 23 Commercial Fishing Habitat Protection and Acquisition Weir And Conservation Land Acquisition \$1,100 М 24 Intensify Management Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources XXXX \$385 м 25 Intensify Management Fishery Industrial Technology Center XXX \$3,500 1 26 Intensify Management Model for Capacity of Salmon Production for the Susitna Drainage \$150 Μ 27 Intensify Management Susitna River Sockeye Salmon Production Evaluation \$300 М 28 Monitoring Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment XXX \$200 M 29 **Option Not Identified** Payoff Debt of Valdez Fisheries Development Association \$5,000 30 **Recovery Monitoring** Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery X \$868 Μ 31 **Recovery Monitoring** Wild Fish Stock Information Assessment \$50 М XX 32 **Replace Harvest Opportunities** Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island \$45 M 33 **Replace Harvest Opportunities** Montague Island Chum Salmon Restoration \$80 м 34 **Replace Harvest Opportunities** Paint River Fish Ladder Salmon Stocking Program \$50 M 35 Replace Harvest Opportunities Red Lake Mitigation \$191 М Common Murre 36 Feasibility Study: Improve Nest Sites Testing of the Feasibility of Enhancing Productivity XXXX \$280 М 37 x Feasibility Study: Social Stimuli Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement xx \$51 93 - M 38 Feasibility Study: Social Stimuli Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study x i x \$73 М 39 **Recovery Monitoring** Common Murre Population Monitoring OUT X XX \$191 М 40 Reduce Disturbance Reduce Disturbance Near Murre Colonies Injured by the Oil Spill \$40 XĽ М

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

**Remove Introduced Species** 

93=Funded in 1993 M=Multi-year Project

Removal of Introduced Predators from Bird Colonies

\$460

М

OUT

Page 2

Name:

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Phone:

Name:\_\_ Phone:\_\_

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	EST	EST.	1	3	1	1	1	2 2	2
	or	or		P	K K E C	COSTAL	DURATION	9 9	999 999	9 9	·9 9	9	0 0 0 0	) No : 0 ''
1	SERVICE	SUBOPTION		s	NC	ŠK	(YEARS)	4	5 6	7	в	9	0 1	l h
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X)	\$500	M					1		
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X)	<b>\$600</b>	M							
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X)	(\$195	M							
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X)	(\$500	93 - M							
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X		\$495	93 - M							
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	\$860	м							
88		Option Not Identified	Clam Enhancement	. X	x	(\$120	м							
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X)	\$500	М							
90		Option Not Identified	Restoration of Mussel Beds	X	X)	\$500	М							
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	x)	\$237	M							
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92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		\$120	93 - M			-		·		
93		Monitoring	Recovery Monitoring	X		\$125	М		1	1				
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$180	м	.						
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X			M							
1										1.				
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X)	(\$240	93 - M							
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	(\$180	93 - M							
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X)	(\$250	M							
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	(\$509	M			}				
100		Minimize Incidental Take												
101	1	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		x	\$200	M							

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93=Funded in 1993 M=Multi-year Project

Name: <u>TIM SMITH</u> Phone: 767-7675 .

#### Page 6

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	EST,	EST.	1	1	1 1	1	ι.	2 2	R
	or			P W	K K E O	COSTAG	DURATION	9 9	9	999	9	9	) 0	õr 7
	SERVICE	SUBORTION BAR		s	DN	SKOR	(YEARS)			Ľ	ľ	Ĺ		54
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	X X	\$250	M							
										1				
102	Multiple Recourses													
103	mumple nesources	Habitat Protection	Habitat Modelling	X	XX	\$150	. M.							
104	•	Habitat Protection	Riparian Habitat Assessment	X	XX	\$110	M	1.						
105		Habitat Protection	Stream Channel Capability Modeling		XXX	\$110	M		.	1				
106		Habitat Protection	Stream Habitat Assessment	X	XX	\$361	93 - M		·					
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1	X						
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	XX	\$276	93 - M							
109	-	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	x x	\$100	М	X	×;	××	×	X		
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	xx	\$750	м		ł					
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		XX	\$111	1		×			• •	2	: I
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge				1			×			- <b>-</b>	i i -
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		X		1		1	X				
114		Habitat Protection and Acquisition	Valdez Duck Flats	X			1			4		· ~		
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X	\$20	1		Ì.	2	X		X.	
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		X		1							1
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition	11	X	\$250	1		ľ					
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	x		\$3,500	1 .					X		
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park	1-1	×	\$200	1		$(\cdot, \cdot)$	*				
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		X	\$77,000	1			x			- I -	
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		x	\$90	1	1		X				
122	· · ·	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		x	\$60	1		ľ					
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		x	\$400	1		İ					
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham	++	x	\$80	1.			-				
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay	† †	x	\$740	1	1.1		1			İ	
126		Habitat Protection and Acquisition	Habitat Acquisition	X	хx	\$25,000	93 - 1							
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak	1	x	\$112,500	1 .							

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

# Name: 77-10 SMITH Phone: 762-2625

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#### 1994 POTENHAL PROJECT TITLES

#### Page 7

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGIC	M	EST.	EST.	1	1	1	1 1	1	. 2	2	V
or	or	the second second second second second second second second second second second second second second second s	P	ĸ	ĸ	COST/YR	DURATION	9 9	9 9	9 9	999 999	9	0 0	0	Not
SERVICE	SUBOPTION		s	Ν	Ð	\$K	(YEARS)	4	5	6	7 8	9	0	1	-End
8 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island			x	\$20,000	1			1	l		ľ		
9	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			x	\$4,000	1								
0	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			X	\$1,000	1	ŀ							
1	Increase Natural Food Supply														
2	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X	X	\$50	М								-
3	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	X	X	\$408	М								
1	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	м								
5	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	М								
6	Intensify Management	Seabird Colony Restoration	X	X	x	\$250	М								
7	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	M		:			1.			1
3	Monitoring	Shoreline Worm Life Monitoring	X	X	x	\$388	М						_		
	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X	X	\$416	М		.			1			
	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X	X	one billion	M		Ì.	1		1			
1	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	x	x	\$280	M	X	X	XX	k y	e x	Lx	x	
2	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	X	\$7	M								
	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	X	\$650	1		. :						
	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X	x	\$48	М								
5	Option Not Identified	Shoreline Assessment	X	X	X	\$250	93 - M								
5	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			X	\$28	М								
7	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	X	\$500	93 - M						1.		
8	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X		\$800	Μ								
9	Recovery Monitoring .	Full Funding for Oil Spill Recovery Institute	X	X	X	\$2,300	1								
0	Recovery Monitoring	Injured Resource Food Supply	X	X	X	\$850	М								
1	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	X	\$500	M								
	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	М								
	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X	. [		\$80	М								
4	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X	X	\$150	М								
5	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X	X	\$100	Μ							· •	
6	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	X	\$200	М							.	
17	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X			\$35	м								

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RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS REGION EST est COST/YR DURATIO SERVICE SUBOPTION **6**17 1121:5 158 Multiple Resources Recovery Monitoring хI \$91 M Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl 159 x x x \$275 **Recovery Monitoring** Surveys to Monitor Marine Bird and Sea-Otter Populations 93 - M 160 Reduce Disturbance by Field Presence X X X 161 Reduce Disturbance Through Public Info Public Information and Education \$316 Μ 162 x x x \$50 Reduce Disturbance Through Public Info Publish and Distribute Brochures on Injured Species Μ 163 Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species xxx **Restoration Monitoring** \$500 М 164 x x x **Restoration Monitoring** Ecosystem Study \$6,000 м 165 Pacific Herring Intensify Management Genetic Stock Identification for Herring in PWS х \$205 Μ 166 Intensify Management хİ Herring Spawn Deposition, Egg Loss, and Reproductive Impairment \$400 М 167 Intensify Management X PWS Herring Tagging Feasibility Study \$1.12 M 168 x Monitoring Herring Embryo Viability Evaluation - Natural and Catastrophic Effects \$189 М 169 Monitoring Larval Herring Age and Growth in PWS Using Otoliths х \$60 М 170 **Option Not Identified Enhancement of Pacific Herring** XXX \$120 Μ 171 **Restoration Monitoring** -----172 Pigeon Guillemot Monitoring \$40 Pigeon Guillemot Colony Survey XXXX 93 - M  $\mathbf{x} | \mathbf{x} | \mathbf{x}$ 173 Monitoring Pigeon Guillemot Recovery Enhancement and Monitoring \$180 М 174 Restoration Monitoring Temporary Predator Control 175

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOI	EST.	EST.	1	1	1	1	1 2	2	8
: 35	or	or Lighter		P W	K K E O	COST/VR	DURATION	9	9	9	9	9 0	0	5 9 7
	SERVICE	SUBOPTION		5	ND	\$K	(YEARS)	2	°		8			und
176	Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	xX	\$25	M							
177		Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		X	\$28	1							
178		Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1					i		
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1	ļ						
180		Fish Passes and Access	Sockeye Creek Fish Pass	X	.   .	\$60	1							
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		.   X	\$55	1		1.		Ì			
182		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	xX	\$727	M							
183		Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	м							
184		Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X	1	\$855	м							
185		Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	м	•						
186	,	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	x		\$253	M							
-187		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	xX	\$152	M		Ì					
188		Intensify Management	Pink Salmon Escapement Enumeration	X	XX	\$705	M		1		· ·			
189		Intensify Management	PWS Salmon Stock Genetics	X		\$150	M		Ì					
190		Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X		\$66	м		1					
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X	\$686	М							
192	2	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X	\$899	м							
193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		\$141	M							
194		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M							
195	5	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X		\$50	M		1					
196	5	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Scund, Lower Cook Inlet and Kodiak	X	x)	\$300	M							
	·												·	
						<u> </u>								
								ľ						
197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		x >	\$1,250	м				]			
198	3	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	x	\$6,000	1							
199	)	Establish Marine Environmental Institute	Seward Sea Life Center	X	xx	\$40,000	1							
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	XX	\$500	M							
201	1	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	XX	\$500	м							

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TH Name: Phone:\_ 762-267

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	Ri Pu	GIO K K E O	EST. COST/YR	EST. DURATIO	1 9 9	1   9 9	1 1 9 9 9 9	1 9 9	1 2 9 0 9 0	2 0 0	De Not Fi
SERVICE	SUBORTION CONTRACTOR		s	N D	SK SK	(YEARS)		<u>_</u>	<u> </u>			<u> </u>	in d
	Habitat Protection and Acquisition	Acquisition of Hecreational Sites on Kodiak Hoad System			\$500								
3	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70								
4	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	M							
	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism		XX	\$100	M							Ì
5	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS			\$58	M							
	Monitoring	Recreation Field Management and Monitoring	X	XX	\$700	M							
	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		\$150	1							
	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1		×					
	New Backcountry Recreation Facilities	Improve Marine Parks	X	XX	\$100	М	X	XS	44	·γ.	Y Y	- <b>x</b>	
	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1							
	New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1							
en el el compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	XX	\$150	М	X	x	xx	x	XX		
	New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1							
	New Backcountry Recreation Facilities	PWS Recreation Facilities	x		\$250	1							
	Option Not Identified	Development of Gulf of Alaska Recreation Plan		x x	\$140	1 1	l i						
· · · · · · · · · · · · · · · · · · ·	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M	1 - i						
	Option Not Identified	Sustainable Tourism in PWS	X		\$240	м	1 i			1			
	Option Not Identified	Watchable Wildlife	X	xx	\$65	M	11			1		1	1
	Option Not Identified	Increased Access PWS	X		\$100	M	1 1		1	1		-	1
1. J. J. J. J. J. J. J. J. J. J. J. J. J.	Plan Commercial Recreation Facilities	Recreation Development	X	x x	\$200	M						-	1
	Restoration Monitoring			<u>†</u> <u>†</u>									
	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	×	xx	\$77	м			.				1
· · · · · · · · · · · · · · · · · · ·	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	x	<u>†</u> <u>†</u>		1						·   ·	1
· · · · · · · · · · · · · · · · · · ·	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	x	х×	\$310	м	1						1
	Visitor Center	Cordova Environmental Education Center	X	<u>+</u>   -	\$15	1				-			
· · · · · · · · · · · · · · · · · · ·	Visitor Center	Cordova Mini-Imaginarium	x	<u>  </u> .	\$63	1							
	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	x	х×	\$155	M				1			ŀ
·····	Visitor Center	Environmental Education Center in PWS	X		\$90	1							ł
	Visitor Center	Environmental Learning Resource Center	X	хx	\$90					1			
	Visitor Center	Establish Natural Bassurge Library and Computer Support Technical Service in Cordeve	🗘	1212	\$450		1	ł				+	t <sup>i</sup> .

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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#### 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIÓ	N	EST.	EST.	1	1	1	1	1 1	2	2 7
or	A MARKET STATE		P W	K E	K C	:OST/YR	DURATION	9	9 9	9	9	9 9 9	0	0 ਹੋ 0 7
SERVICE	SUBOPTION		s	N	D	<b>\$</b> K	(YEARS)	Ľ	<u>`</u>	ľ		- <u> </u>	ľ	- 5
268 Subsistence	Option Not Identified	Mariculture Technical Center	X	X	x	\$2,200	1					į		
269	Option Not Identified	Seward Shellfish Hatchery	X	X	X	\$1,300	. 1							
270	Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	X	\$700	М					;		
271	Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		1	\$50	М							
272	Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М					ł		
273	Replace Harvest Opportunities	Port Graham Salmon Hatchery		X		\$2,500	1							
274	Replace Harvest Opportunities	Silver Lake Fish Hatchery	X			\$1,000	1					Ì		
275	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	X	X	\$55	М							ŀ
276 、	Restoration Monitoring													
277	Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	×	X	x	\$589	М					ļ		
278	Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	x	\$300	М					· L		
279	Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M					Ì		
		n en en en en en en en en en en en en en												
	-			· · · , <u> </u>		· ··							1	
280 Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	x	x		\$110	М							
281	Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	М					. [		
282	Monitoring	PWS Spot Shrimp Survey	X			\$90	М					-   ·		
283	Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	X	X	\$275	М							
284	Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M							
285	Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	X	\$390	М							. [
286	Monitoring	Subtidal Recovery Monitoring	X	X	X	\$400	М							
287	Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	М							
						i								
							-							
- 1														
288 Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	X	x	\$450	M							
289	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X		<u> </u>	\$75	М	X	.X	X	X	X		

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93=Funded in 1993 M=Multi-year Project

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Name:\_\_\_\_\_ Phone:\_\_\_\_\_

## 1994 POTENTIAL PROJECT TITLES

#### Page 14

RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	P w s	K E N	ON к о	EST. Cost/vr \$K	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 1 9 9 9 9 6 7	1 9 9	1 2 9 0 9 0 9 0	: 2 ) 0 ) 0 · ) 1 ·	Do Not Fund
290 Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	X	\$105	93 - M							
291	Administration	Toxicological Profile of PWS	X			\$150	М							
292	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	M							
293	Public Information	Database Integration	X	x	X	\$148	М							
294	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		M							
295	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x	X	\$120	М							
296	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	M							
297	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	м							
			*** <b>1</b> -,			<u> </u>								

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Other Natural Resources and Archaeology: Summary of Results of Injury Assessment Studies Done After the Exxon Valdez Oil Spill (b)

Resource	Description of Injury	Status of Recovery	Geographic	Extent	of Injur	γ (a)	Comments/Discussion
		in December, 1992	PWS	Kenal	Kodiak	Alaska Penin.	
Air	Air quality standards for aromatic hydrocarbons were exceeded in portions of PWS. Health and safety standards for permissible exposure levels were exceeded up to 400 times.	Recovered	YES	NO	NO	NO	Impacts diminished rapidly as oil weathered and lighter factions evaporated.
Sediments	Oil coated beaches and became buried in beach sediments. Oil laden sediments were transported off beaches and deposited on subtidal marine sediments.	Patches of oil residue remain intertidally on rocks and beaches and buried beneath the surface at other beach locations. Oil remains in some subtidal marine sediments and has spread to depths greater than 20 meters.	YES	YES	YES	YES	Unweathered buried oil will persist for many years in protected low-energy sites.
Water	State of Alaska water quality standards may have been exceeded in portions of PWS. Federal and State oil discharge standards of no visible sheen were exceeded.	Recovered	YES	YES	YES	YES	Impacts diminished as oil weathered and lighter fractions evaporated.
Archaeological sites/artifacts	Currently, 24 sites are known to have been adversely affected by oiling, clean-up activities, or looting and vandalism linked to the oil spill. 113 sites are estimated to have been similarly affected. Injuries attributed to looting and vandalism (linked to the oil spill) are still occurring.	Archaeological sites and artifacts cannot recover; they are finite non-renewable resources.	YES	YES	YES	YES	Lee, and this was largely ignored in FY 93. I hope archaeological projects do better in FY94 and beyond. Will the Trustee Cunsil please recogning that cultural recogning that cultural
Designated Wilderness Areas	Many miles of Federal and State Wilderness and Wilderness Study Area coastlines were affected by oil. Some oil remains buried in the sediments of these areas.	Oil has degraded in many areas but remains in others. Until the remaining oil degrades, injury to Wilderness areas will continue.	YES	YES	YES	YES	class resources ?!

(a) There may have been an unequal distribution of injury within each region.

(b) This page has not yet been reviewed by the Chief Scientist.

#### (a) There may have been an unequal distribution of injury within each region.

Chuck Smythe & D Box 244923 Anchorage A.K 99524-4923 Anchorage A.K 99524-4923 Anchorage A.K 99524-4923 UNIT CITY.AK AMOUNT .93 1-03 MAY \$0.52 0000 Haladahadahanadhahad EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

FIRST CLASS



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL

ECEIVE OCT 0 2 1995

EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD





Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

		Erron Valde 645 "O" Stre Ancherage, J 99501	s Trustees et AL
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Attach Correct Postage

Name: Chuck Smythe Phone:\_\_\_\_\_

Page 1

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	<b>F</b> W	EG	ON ĸ	EST: COSTAN	est Duratioi	1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7	1 9 9 8	1 9 9 9	2 0 0 0	2 0 Not. 1
1 Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X		X	\$41	M			-	<u> </u>				2
2	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	×		-	\$300	1					+			
3	Habitat Protection and Acquisition	Archaeological Site Acquisition	×	x	x	\$200	M	×	-	+	+				
4	Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	x	X	\$525	M	+		$t_{}$	+-		1,		
5	Intensified Management	Vandalized Cultural Resources-Inventory Evaluation Interpretation	×	X	x	\$400	M	ř		Ľ	$\mathcal{F}$	Ť	$\sim$	$\sim$	<u> </u>
6	Ontion Not Identified	Restoration of Chanena Village Site	X			\$75	1		/~	Ť				×-	
7	Option Not Identified	Site-specific Archaeological Restoration - Intergrency	X		x	\$300	93.M	Y	-	+	+	+			
8	Public Information	Passnorts in Time-Cultural Resource Patterns in PW/S	X		1^	\$230	M			+	+-	+			+
9	Public Information	Heritage Information Benjacement	X	· x	x	\$200	M	+	· ·	+-					
10	Public Information	DWS Landmarke-Evaluation and Interpretation		-		\$400	M	+		+-					
11	Public Information	Public Education and Interpretation of Archaeological Resource		· x	x	\$400	M	$\downarrow$	1	¥	$\downarrow$		12	2	
12	Bestoration Monitoring	Study of Petroleum Hydrocarbon Spactra at Selected Sites		Y X	X	\$225	M			14			1	<u>×</u>	<u>~</u>
13	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interarency		X	X	\$150	M	+		上		-	-		
14	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Intergency			X	\$210	M	+		¥	ľ	Ľ		$\sim$	
15	Site Stewardshin Program	Archaeological Site Stewardship Program	X	X	X	\$114	M	$\vdash$	X	X		17	-	1	
16	Visitor Center	Churach National Forest Heritage Interpretive Center, Design				\$1 200	1	Y		+ <u>~</u>	- <u> ``</u>	· · ·	<u> </u>	<u>~</u> _	
							· · · · · · · · · · · · · · · · · · ·	-							· · · · · · · · · · · · · · · · · · ·
17 Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	x	x	x	\$262	м		17	17	+	-			
18	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	×	×	X	\$10	М	İ		1*	-	1			
19	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	x	X	X	\$200	M	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$	し	1./	1	$\nabla$		
20 Black Oystercatc	her Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	x	x	x	\$108	93 - M	+	+	+	+-	+			
21	Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	x	:		\$125	М	tz	$\nabla$	レ	1	オブ	$\overline{\mathbf{X}}$	1	$\mathcal{I}^{-}$

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	RESOURCE or	RESTORATION OPTIONS	POTENTIAL PROJECTS	P F	GION K K	EST. COST/VR	EST DURATION	1 9 9	1 1 9 9 9 9	1 9 9		ι.2 ) 0	2 0 Not Fu
	SERVICE	SUBIDIPITION		s	ND	SK	(YEARS)				Ļ		
22	Black Oystercatcher	Restoration Monitoring		$\left  \right $						+			<b></b>
						·							
		· · · · · ·				ļ				_	<u> </u>		
	Operation Fighting							┼					
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	XX	\$1,100	M						
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	XX	\$385	M	<b> </b>					
25		Intensify Management	Fishery Industrial Technology Center	<b>x</b>	XX	\$3,500	1				┝┥		
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	M						
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X	\$300	M		<u> </u>				
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	XX	\$200	M		2-	10	24	42	
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,000	1			_			+
30	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	/×		\$868	M						<b></b>
31	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Wild Fish Stock Information Assessment	<b>X</b>	XX	\$50	M				<b></b>		₋⊢₋
32	····	Replace Harvest Opportunities	Mitigation Fishery at Kitol Bay Hatchery on Afognak Island		X	\$45	M						
33	· · · · · · · · · · · · · · · · · · ·	Replace Harvest Opportunities	Montague Island Chum Saimon Restoration	X		\$80	M	<u> </u>					+
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		x	\$50	M						<b></b>
35		Replace Harvest Opportunities	Red Lake Mitigation		X	\$191	M					_	
L	i			Ш									
	· · · · · · · · · · · · · · · · · · ·				_								
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	x x	\$280	M						
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	x x	\$51	93 - M				ŀ		
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	хx	\$73	М						
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	xx	\$191	M	M	1.	15		/~	
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	x x	\$40	M	$\bigvee$	1.	11	ノ	1/	1/
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$460	м	V	1	1~	1-	1.	7./

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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# Name: Chuck Smythe

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	B	GIO	N ES	Т.	EST	1	1	1	1	1	1 :	2 2	8
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	SERVICE	SUBOPTION		s	NC			(NEA:S		Ľ	Ľ	Ľ	Ľ	<u> </u>		h
42	Common Murre	Restoration Monitoring		_				м	$\nu$	É	+				+	_
								:		•						
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$20	00	М	~	12	1		~	1	1	/
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$28	35	М								
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$3	5	м	$\checkmark$	·//	, V		1	12	12	-
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$9	50	М								1
47		Restoration Monitoring						м	V	4-	$\mathbb{E}$					
															_	
												ł .				
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	x >	X \$60	00	1	$\bigvee$	1						
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	N X		- \$20	00	M								
50		Option Not Identified	Hazardous Material Collection Facility	X	x >	X \$10	00	1	$\bigvee$						·	
51	1 + . T	Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	x >	X \$48	38	М								
52		Public Information	Public Broadcasting System Program on Oil Spill	X	x >	X \$7	0	M								
53		Public Information	Publish and Distribute Brochures on Injured Species	X	x >	X \$9	0	M			_					
54		Public Information	PWS Brochures	X		\$6	5	М								
55		Public Information	PWS Implementation of Interpretive Plan	X		\$1!	50	М		Ĺ						
56		Public Information	PWS Large Format Photographic Book	X		\$10	00	М								
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$7	0	M								
58		Public Information	PWS Video Programs	X		\$10	)Ò	М								
59		Public Information	Science of the Sound- Education Program	X		\$5	3	м								
		· · · · · · · · · · · · · · · · · · ·														
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#### Name:\_ Phone:\_

	RESOURCE	RESTORATION OPTIONA	POTENTIAL PROJECTS	RE	NON	EST.	EST	1	1	1 1	1 1	1 7	2 2	Do No
	SERVICE	SUFICIATION		P 1 W 1 S 1	к с 1 D	SK	NEATS)	9 4	9 9 5 1	9 6 7	) 9 7 8	9 0 9 (	0 0	ot Fund
60	Harbor Seal	Cooperative Program-Fishermen							1	1				1
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X		\$39	м	~	~~	1	1/		$\overline{\Lambda}$	1
62		Option Not Identified	Subsistence Harvest Assistance	X		\$23	м		ス	$\overline{\Lambda}$	11	1-	N	1
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X		\$165	93 - M							-
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	хx	\$230	м		イ	ネ	11	N	11	1
		· · · · · · · · · · · · ·			-								-	
65	Harlequin Duck	Eliminate Oil from Mussel Beds												
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	xx	\$700	93 - M		-	_			-+	>
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	XX	\$53	M						->	
	· · · · · · · · · · · · · · · · · · ·			7								· · · · · · · · ·		
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	1x	x x	\$20	M		1			==	-3	
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	1x	хx	\$70	M	Ž					-5	× -
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	x	xx	\$300	M	V	+				-5	•
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	x	xx	\$50	M	1	_				->	~
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	M			1				1
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	xx	\$800	м							
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	хx		м							
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	хx	\$620	м							
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	M	~	_				->	-
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	хx	\$500	м						T	
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		x x	\$200	м	$\checkmark$				-+	>	•
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	x x	\$275	M							
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	x x	\$50	M	V	-			-+	$\rightarrow$	
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X	XX	\$186	M						T	

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Name: Chuck Smythe Phone:

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RESOU	RCE RESTORATION OPTION	POTENTIAL PROJECTS	RE	(	10 (33)	EST.	1	1	1	1 1		2 2	8
OF			P ¥ S	K J E C	COST	YE DURATIO	9 9 4	9 9 5	9 9 6	999 999 78	9 9 9	0 0 0 0 0 1	Not Fur
a2 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons		X	\$500	M					┛ ┙		
83	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	XX	< \$600	M	Ť			1	1-+		+
84	Monitoring	Quantification of Intertidal Algal Becovery Lising Multisnectral Digital Remote Sensing	- Â	X	( \$195	M		}	-+			-	
85	Monitoring	Becovery Monitoring of Intertidal Oiled Mussel Beds	X	x	\$500	93-M	+				++	_	
86	Monitoring	Herring Bay Experimental and Monitoring Studies	×	· ^ [ ^	\$495	93 - M	$ ^{\sim} $					-2	+
87	Option Not Identified	Bivalve Shellfich Rehabilitation Project		x	( \$860	M					•{{•		
88	Option Not Identified		X	XX	( \$120	M			•		╉──╉		
89	Ontion Not Identified	Beplacement of Oiled Mussels with Commercially Produced Mussels	$-\frac{1}{x}$	x	( \$500	M							+
90	Option Not Identified	Restoration of Mussel Reds	×	$\frac{x}{x}$	( \$500	M	1.7				╞═╪	$\Rightarrow$	
01	Option Not Identified	Characterization of Near-Shore Bottom Habitat	×	X	( \$237	M					+	-F-	
				<u>^ </u>	· •20/							+	
								[			·{ · · {·		
							-				•		
92 Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	x	-+	\$120	93 - M					1-1-		
93	Monitoring	Recovery Monitoring	X		\$125	M						-	1
94	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X	-	\$180	M							1
95	Reduce Fishery Interactions	Change Black Cod Fishery Gear	X			M	1	-					1
				-								1	-
				ļ									
	· · · · · · · · · · · · · · · · · · ·												$\top$
96 Marbled Mu	relet Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	x)	( \$240	93 - M	$\nabla$	-	_		-		T
97	Habitat Protection	Survey to Identify Upland Use by Murrelets	X	x)	( \$180	93 - M						1	1
98	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	x)	( \$250	M							1
99	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	x	x	(\$509	M	V	-+	$\neg$		╞╼┼╸	-	1
100	Minimize Incidental Take												1
101	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X)	( `\$200	м							1

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	il@R	EST.	EST	1	1 1	1	1	1	2	2
	or	STRUCTURE STRUCT		P W S		COSTAT:	DURATION	9 4	9 9 5 6	9 5 7	9 8	9	0	0 1
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets		xlx	\$250	M	11				└ <b>╨</b> ├───┼		
					<u>  </u>			┼╌┼			-+			
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			· · · · · · · · · · · · · · · · · · ·			<u> </u>				_				
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	x x	\$150	M					<b>  </b>		_
104	· · · · · · · · · · · · · · · · · · ·	Habitat Protection	Riparian Habitat Assessment	X	x x	\$110	M				!	1		
105		Habitat Protection	Stream Channel Capability Modeling	X	x x	\$110	M					L		
106		Habitat Protection	Stream Habitat Assessment	X	x x	\$361	93 - M		<u> </u>	+-		<b> </b>	-7	<u>}</u>
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1	<u> </u>			!			
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	x x	\$276	93 - M					<b>↓</b>		
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	x x	\$100	M				-	<u> </u>		
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	x x	\$750	М				/			
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		x   x	\$111	1			-				
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		X		1							
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		X		1							
-114-	· · ·	Habitat Protection and Acquisition	Valdez Duck Flats	X			1				1			
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		x	\$20	1				·			
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		X		1							
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		X	\$250	1			·				
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1				!			
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		X	\$200	1	11		· .				
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		X	\$77,000	1	~						<u>&gt;</u>
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		×	\$90	1	$  \land$				l		<u> </u>
122	·	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$60	1	$\square$				L.	· .	
123	Ĺ	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		x	\$400	1	$\square$				<u> </u>  -	-	
124	·	Habitat Protection and Acquisition	Conservation Easement-Port Chatham	ŀ	x	\$80	1	$\checkmark$						
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		x	\$740	1	$\checkmark$					··· -	_ در
126		Habitat Protection and Acquisition	Habitat Acquisition	X	хх	\$25,000	93 - 1							
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak	T	X	\$112,500	1	1.				1.		

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOI	EST.	EST.	1 9	1 1 9 9	1 9	1 1 9 9	2	2 0 8
or SERVICE	SUBOPTION		P W S	K K E O N D	SK -	UUHATION (YEARS)	9 4	999 56	9 7	9 9 8 9	0	0 Tund
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		ĺ				
129	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		X	\$4,000	1						-
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1	$\checkmark$					
131	Increase Natural Food Supply							i				
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	x x	\$50	М						
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x x	\$408	М		1				
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	М						
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	М						
136	Intensify Management	Seabird Colony Restoration	X	хx	\$250	м						
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	М						
138	Monitoring	Shoreline Worm Life Monitoring	X	x x	\$388	М		1				
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	хx	\$416	М						
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	хx	one billion	M						
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	x x	\$280	М	1	~-i				7
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	x x	\$7	м	V.					•
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	x x	\$650	- 1	$\checkmark$	1				
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x x	\$48	M						
145	Option Not Identified	Shoreline Assessment	X	x x	\$250	93 - M						>
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М						
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x x	\$500	93 - M					+-+	*
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	М						, [
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x x	\$2,300	1					11	
150	Recovery Monitoring	Injured Resource Food Supply	X	x x	\$850	M				-		-
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x x	\$500	м	1-				+	,
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		x	\$600	М	-			·	† †	
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	M						
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	x x	\$150	М					+ +	
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x x	\$100	M						
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	x x	\$200	M	1.	-	╞╼╪		++	*
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	x		\$35	м					+ f	

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Ja	RESOURCE or SERVICE	RESTORATION OPTION of SUBOPTION	POTENTIAL PROJECTS	P W S	EGIO R R E G N C	N K O D	est. Cost/yr sk	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fund
158	8 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	м			+-		+	=	•
159	9	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	x >	x	\$275	93 - M	~						
160	D	Reduce Disturbance by Field Presence				1					-				
161	1	Reduce Disturbance Through Public Info	Public Information and Education	X	x >	x	\$316	M							
162	2	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	x >	x	\$50	М			-				-
163	3	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	x)	x	\$500	М			+		+-+	2Þ	-
164	1	Restoration Monitoring	Ecosystem Study	X	X)	X	\$6,000	М	$\nabla$		-	+		>	
								· · · ·						· · · · · · · ·	
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	x			\$205	M				<u>. [ :</u>	+		-
166	3	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		1	\$400	М			-				
167	7	Intensify Management	PWS Herring Tagging Feasibility Study	X			\$112	. M.							
168	3	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X			\$189	М	V				+	$\rightarrow$	
169	<b>)</b>	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	М	V		+			>	-
170		Option Not Identified	Enhancement of Pacific Herring	X	X)	x	\$120	M		-	1				
171		Restoration Monitoring													
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	X   )	x	\$40	93 - M				_			
173	3	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X)	×	\$180	M			+	+			\$
174	l	Restoration Monitoring													
175	5	Temporary Predator Control		_											
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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RF	GI	ON	EST.	EST.	1	1	1	1	1	1 2	2	8
	or	or		Р	ĸ	к	COST/YA	DURATIO	9 9	9 9	9 9	9 9	9	90	0	Not
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	4	5	6	7	8	9 0	1	Fund
176	Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	X	\$25	м							11	
177		Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			X	\$28	1								
178		Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1								
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration	<b>—</b>		X	\$11	1								
180		Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1								
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			X	\$55	1								
182		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	х	X	\$727	М								
183		Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	М								
184		Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	М								
185		Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М								•
186		Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М								
187		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	х	X	\$152	М								
188		Intensify Management	Pink Salmon Escapement Enumeration	X	X	X	\$705	. W								
189		Intensify Management	PWS Salmon Stock Genetics	X			\$150	М								
190		Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М								
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	М	$\checkmark$		-				$\rightarrow$	
192		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	x		\$899	М							$\rightarrow$	
193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М	$\bigvee$			$\rightarrow$			≯	
194		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M	$\checkmark$						→	
195		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М							€	
196		Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	Х	X	\$300	М							Ī	
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197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		Х	X	\$1,250	М								
198		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	х	X	\$6,000	1								
199	-	Establish Marine Environmental Institute	Seward Sea Life Center	X	Х	X	\$40,000	1								
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	Х	X	\$500	М								
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	Х	X	\$500	М				T		T	T	

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RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	<b>A</b> P W S	K E N	к о р	EST. COST/VR SK	EST. DURATH (YEAR:	DN S)	1 9 9 4	1 9 9 5	1 1 9 5 9 9	1 1 9 9 9 9 7 8	1 9 9 9	2 0 0 0	Do Not Fund
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			x	\$500	1						1		
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			X	\$70	1							1	n
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X			\$50	м		1	4				$ \rightarrow $	•
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	X	X	\$100	М								1
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X			\$58	М			-					
207	Monitoring	Recreation Field Management and Monitoring	X	X	х	\$700	м						-		
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		_	\$150	1		_					1	
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X			\$20	1			-			1		
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	X	X	\$100	м				T	1			
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X			\$100	1								
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X	T T		\$70	1								
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	X	X	\$150	M						-		· .
214	New Backcountry Recreation Facilities	PWS Kayak Trail	X			\$100	1						1		
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	X			\$250	1								
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	X	\$140	1								
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X			\$400	М								
218	Option Not Identified	Sustainable Tourism in PWS	X			\$240	М								
219	Option Not Identified	Watchable Wildlife	X	X	X	\$65	М								
220	Option Not Identified	Increased Access PWS	X			\$100	М	7							
221	Plan Commercial Recreation Facilities	Recreation Development	X	X	X	\$200	М								
222	Restoration Monitoring														
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	X	X	\$77	м								
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X				1				Τ				1
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	X	X	\$310	М								
226	Visitor Center	Cordova Environmental Education Center	X			\$15	1			: [			1		
227	Visitor Center	Cordova Mini-Imaginarium	X			\$63	1								
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	X	X	\$155	М								
229	Visitor Center	Environmental Education Center in PWS	X			\$90	1				· · ·				
230	Visitor Center	Environmental Learning Resource Center	X	X	X	\$90	1								
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X	ΓŢ		\$450	1	-	1		1	T			

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	-C	ON	EST.	EST.	1	1	1	1	1	1 2	2	Do
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	SERVICE	SUBOPTION		s	Ν	P	\$K	(YEAES)		Ľ	Ľ					und
232	Recreation	Visitor Center	Information Center	X	X	X	\$600	1.			ļ					
233	3	Visitor Center	Interpretation of PWS	X	ļ		\$10	M								
234	·	Visitor Center	Maritime Wing Valdez Museum	X			\$150	1	$\overline{\checkmark}$						_	
235	5	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X	ļ		\$150	1								
236	<u> </u>	Visitor Center	Valdez Visitor Center	X			\$850	11								
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237	River Otter	Monitoring	River Otter Recovery Monitoring	X	<u> </u>		\$180	М								
238	l	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X	ļ		\$40	M	$\vee$					<u>_</u>	₽	
239		Restoration Monitoring						· · ·	1							
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	• • <b>X</b>	X	X	-\$99	1								
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241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	М								
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	M							· ·	
243		Monitoring														
			·													
	· · · · · · · · · · · · · · · · · · ·	-							<u> </u>							
244	Sea Otter	Cooporative Prgm-Subsistence Users	· · · · · · · · · · · · · · · · · · ·											_		
245	;	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	X	\$83	М						_		
246	i	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	М		-			-		$\Rightarrow$	
247	•	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	X	\$450	М						<u> </u>		
248	<u> </u>	Monitoring	Sea Otter Population Dynamics	X	X	X	\$291	93 - M								
249		Restoration Monitoring							$ \overline{\mathcal{I}} $	1 1						

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Phone: **RESTORATION OPTION** POTENTIAL PROJECTS RESOURCE REGION EST. <u> 580</u> OF SUBOPTION Costar Durato OF SERVICE 250 Sea Otter Study: Eliminate Oil from Mussel Beds 251 Sockeye Salmon М Fish Passes and Access Solf Lake Fish Pass \$120 Intensify Management 252 Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River Х \$333 М 253 Intensify Management \$275 М Genetic Monitoring of Kodiak Island Sockeye Salmon X Х 254 Intensify Management Genetic Stock Identification of Kenai River Sockeye \$500 93 - M x 255 93 - M Intensify Management Kenai River Sockeye Salmon Restoration \$1,000 256 х Intensify Management Lower Cook Inlet Sockeye Salmon Restoration and Enhancement \$143 М 257 M Monitoring X \$6 Ayakulik River Sockeye Salmon Escapement Evaluation  $\{\mathbf{x}\}$ Monitoring X 258 Sockeye Salmon Overescapement \$641 93 - M 93 - M 259 Option Not Identified Restoration of the Coghill Lake Sockeye Salmon Stock \$165 X 260 Option Not Identified Red Lake Salmon Restoration \$72 М 261 Sport Fishing Recovery Monitoring 262 Replace Harvest Opportunities ·X \$4,200 Fort Richardson Hatchery Improvement 1 263 Restoration Monitoring 264 Subsistence Access to Traditional Foods 265 **Bivalve Shellfish Hatchery** 266 Option Not Identified X \$200 М Chenega Bay Subsistence Restoration Project (Remove Oil) XXX 267 \$300 Option Not Identified Mariculture Hatchery and Research Center Feasibility Study and Design 1

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### **1994 POTENTIAL PROJECT TITLES**

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOI	EST.	EST.	1	1	1	1	1 1	2	2 8
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268	Subsistence	Option Not Identified	Mariculture Technical Center	X	x x	\$2,200	1							
269		Option Not Identified	Seward Shellfish Hatchery	X	XX	\$1,300	1							
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	XX	\$700	М	$\checkmark$						>
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		\$50	M	$\checkmark$	_					>
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X		\$55	М	$\checkmark$	•					X
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X	\$2,500	1							
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,000	1	$\checkmark$						
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	хх	\$55	М	$\checkmark$	-					>
276		Restoration Monitoring												
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	х×	\$589	М	$\bigvee$	-				-	>
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	хх	\$300	М	$\checkmark$	-4				$\vdash$	4
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	XX	\$308	93 - M		1		-			>
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280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X	\$110	М							
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	x		\$715	М							
282		Monitoring	PWS Spot Shrimp Survey	X		· -· · \$90 · ·	M							
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	x x	\$275	М							
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X		\$265	93 - M							
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	хx	\$390	м					_		
286		Monitoring	Subtidal Recovery Monitoring	X	хx	\$400	M							
287	· · · · · · · · · · · · · · · · · · ·	Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	хх	\$90	М							
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288	<b>Technical Services</b>	Administration	Electronic Archiving of Exxon Valdez Records	X	хx	\$450	М	$\checkmark$	-			1	$\square$	Ś
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X		\$75	M							$\mathbf{\mathbf{x}}$

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RESOURCE	<b>RESTORATION OPTION</b>	POTENTIAL PROJECTS	REG	sio	N EST.	EST.	1 1	1	1	1 1	2	2	b
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290 Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	x	x >	( \$105	93 - M				}		1	
291	Administration	Toxicological Profile of PWS	x		\$150	М	1-					2	
292	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	x >	( \$8	М							
293	Public Information	Database Integration	X	x)>	\$148	М		Ŧ			$ \downarrow  $	>	
294	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	x >	(	М							
295	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x >	\$120	M	1-	+				>	
296	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	x	(\$100	M	v -	-			+	2	
297	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	x >	(\$72	М							
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	RESOURCE or SERVICE	RESTORATION OPTION 91 SUBOPTION	POTENTIAL PROJECTS	P K W E S N	EST. COST/YR SK	EST DUFIATION 9 (YEARS)	1 9 9 5	1 1 1 9 9 9 9 9 9 5 7 8	1 9 9 9	2 2 2 0 0 0 0 1
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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-1	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	<b>A</b> P W S	EG K E N	ON ĸ o D	EST. GOST/MI	EST DURATION OVERNIS	1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	Do Not Fund 2 0 1
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	M				-	-		
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X		1	\$300	1							
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	М							
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	x	\$525	М							
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	X	X	\$400	М							
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1							
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	X	\$300	93 - M	V	-	1	4	10	V	
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	M							
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М					_		
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М							
11	<b>*</b>	Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	M							2
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	М							
13	-	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	М							
-14-		Site Patro! and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	• <b>M</b> • • •				-			
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	M	V						
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1							
		<u> </u>													
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Fagle Habitats		x	x	\$262	м	1/					+	
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	x	x	\$10	М	1						
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	×	x	x	\$200	м	1					+	
	· · ·	· · · · · · · · · · · · · · · · · · ·				-		•							
	-														
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	x	\$108	93 - M	V						
21		Recovery Monitoring	Feeding Ecology and Beproductive Success of Black Ovstercatchers in PWS				\$125	М	11						

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	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	P W S		N EST. COST/YA SK	ESTA DUHATION (YEARS)	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9	1 2 9 1 9 2	2 2 0 0 0 0 1	Do Not Fund
22	Black Oystercatcher	Restoration Monitoring			1					1	1		1	
· · ·											-			
23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	x >	<b>\$1,100</b>	М							
24	,	Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	X)	<b>(</b> \$385	М	V						
25		Intensify Management	Fishery Industrial Technology Center	X	x >	\$3,500	1							
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	М				-			
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X	\$300	М		ΠŤ					
28	· · · · · ·	Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X)	<b>\$200</b>	М							
29	· · · · · · · · · · · · · · · · · · ·	Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,000	• • • 1- • • •							
30	]	Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	X		\$868	М				-	1-1-	-	
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	x)	<b>〈</b> \$50	М			1				
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island		)	<b>〈</b> \$45	M							
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	. М		i					
34	-	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program	1	X	\$50	М							
35		Replace Harvest Opportunities	Red Lake Mitigation		)	K \$191	М	1					-	1
				-						-				
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	x	<b>〈</b> \$280	М							
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	x >	<b>(</b> \$51	93 - M							
38	-	Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	x )	(\$73	м							
3 <b>9</b>		Recovery Monitoring	Common Murre Population Monitoring OUT	X	X)	(\$191	М						-	
40	NY NY	Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	X)	<b>\$40</b>	М	1						
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$460	М	Í						

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#### RESTORATION OPTION POTENTIAL PROJECTS REGION EST. RESOURCE or CONTAX: SUBOPTION SERVICE (6) ( 2) ( ) : ( 42 Common Murre Restoration Monitoring М 43 Cutthroat/Dolly Intensify Management x \$200 M Cutthroat Trout and Dolly Varden Habitat Restoration X 44 Intensify Management \$285 М Enhanced Management of Cutthroat Trout and Dolly Varden Option Not Identified X 45 М Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration \$35 46 Option Not Identified x Cutthroat Trout and Dolly Varden Hatchery \$950 M 47 Restoration Monitoring M General Administration 48 Oil Spill Restoration Support Service and Facilities XXX \$600 1 Monitoring X 49 Monitoring of Small Cetaceans (Dall Porpoises) in PWS \$200 M XXX Option Not Identified . 50 Hazardous Material Collection Facility \$100 1 ххх Option Not Identified Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model \$488 М Public Information XXX 52 Public Broadcasting System Program on Oil Spill \$70 М **Public Information** x x x М Publish and Distribute Brochures on Injured Species \$90 Public Information PWS Brochures Х \$65 М 55 Public Information x PWS Implementation of Interpretive Plan \$150 М X Public Information 56 PWS Large Format Photographic Book \$100 М X Public Information М PWS Scenic Byway-- Nomination and Interpretive Plan \$70 Х

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Public Information

Public Information

93=Funded in 1993 M=Multi-year Project

PWS Video Programs

Science of the Sound- Education Program

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	RESOURCE	RESTORATION.OBTION	POTENTIAL PROJECTS	RE P W	GION K K E O	EST. COST/YR	EST DURATION	1 1 9 9 9 9	1 9 9	1 9 9 7	1 1 9 9 9 9	2 0 0	2 0 Not. Fu
	SERVICE	SUBORTION TO AND		s		<u>SK</u>	(YEARS)						1 I
60			Naciania Tranda in Abundance et Lantes Octobris DN/O			¢20		1					
			Outpaintenus linearet Assistance			\$39				++			<u>}</u>  ·
62				$\left  \begin{array}{c} \\ \\ \\ \end{array} \right $		\$23		V					
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS			\$165	93 - M	$V \vdash$		+	+		
64	+	Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	XX	\$230	M						
				+									
										1			
65	Harlequin Duck	Eliminate Oil from Mussel Beds							1				
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	x x	\$700	93 - M						
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	x	x x	\$53	M		-	++		-	: : = = : : - :
	····												· · · · ·
												-   -	
		n an an an an an an an an an an an an an										5	
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	хх	\$20	М						
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	x x	\$70	м						
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	XX	\$300	M		-				
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	хx	\$50	М	1					
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	М						
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	x x	\$800	М						
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	хx		м	1				1	
75	· · · · · · · · · · · · · · · · · · ·	Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	x x	\$620	М	1					
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	М					T	
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	хx	\$500	М	V					
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait	11	x x	\$200	М						
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	хх	\$275	M						
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	x x	\$50	M		<u> </u>				
81	*	Monitoring	Monitoring for Recruitment of Littleneck Clams	x	x x	\$186	M	1	1	1.			

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RESCURCE	RESTORATION OPTION	POTENTIAL PROJECTS		ลด	EGT	EST	ГТ		Ĩ	T		<b>Z</b>
or	or SUBOPTION		P W S	K K E O N D	COSTAT	DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	. 2 0 0 0	Not Fund
82 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	x)	(\$500	M				<b>_</b>		
83	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	x)	( \$600	М	V	-				
84 .	Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	<b>X</b> )	(\$195	М	1-1-		·			
85	Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X )	(\$500	93 - M	1					
86	Monitoring	Herring Bay Experimental and Monitoring Studies	X		\$495	93 - M					1-1-	
87	Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	x)	(\$860	М						
88	Option Not Identified	Clam Enhancement	X	<b>x</b> )	(\$120	M						
89	Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X)	(\$500	M						
90	Option Not Identified	Restoration of Mussel Beds	X	X >	\$500	М	V					
91	Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	x >	\$237	М	V					
	•											· · ·
92 Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		\$120	93 - M					-	
93	Monitoring	Recovery Monitoring	X		\$125	M	1					
94	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$180	M	1				<u> </u>	
95	Reduce Fishery Interactions	Change Black Cod Fishery Gear	x			M	1				1	
96 Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	x	x )	\$240	93 - M	1	-	<u> </u>		╞╾╋	
97	Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X)	<b>(</b> \$180	93 - M	V	1				
98	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X)	(\$250	М	V	1				
99	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X )	\$509	м	V					
100	Minimize Incidental Take					1						
101	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X)	( \$200	M	1					

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE or SERVICE	RESTORATION OPTIONS	POTENTIAL PROJECTS	R P W S	K M E C N L	COST/VE	EST. DURATION (YEARS)	1 9 9 4	1 9 9 5	1 1 9 5 9 9 6 7	1 ] 9 <u>9</u> 9 ! 7 i	1 1 9 9 9 9 8 9	2 0 0 0	2 0 0 1	Do Not Fund
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	x )	(\$250	м	V			T	Ī	Ī		
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	X)	<b>(</b> \$150	М	·	/						
104		Habitat Protection	Riparian Habitat Assessment	X	x >	<b>〈</b> \$110	М	V							
105		Habitat Protection	Stream Channel Capability Modeling	X	X)	<b>x</b> \$110	М								
106		Habitat Protection	Stream Habitat Assessment	X	XX	<b>(</b> \$361	93 - M	V							
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	.1								
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	X)	\$276	93 - M						_		
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	X X	K \$100	M		~					<u> </u>	
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	X)	\$750	М	1							
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		X X	<b>(</b> \$111	1	V							
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			<	1	V		_					
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		)	<	1	1							
114		Habitat Protection and Acquisition	Valdez Duck Flats	X			11								
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X	\$20	1	V							
116	:	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			<	1	V				•			L
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		)	<b>\$250</b>	1								L
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1	V							
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		)	<b>(</b> \$200	1								
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			<b>\$77,000</b>	1								<u> </u>
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$90	1	~							Í
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$60	1	~							į
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X	\$400	1	V	•						L
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	\$80	1	V							
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X	\$740	1	V							_
126		Habitat Protection and Acquisition	Habitat Acquisition	X	X X	\$25,000	93 - 1								
127		Habitat Protection and Acquisition	Habitat Acquisition. Afognak			\$112,500	1								1

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RESCURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	P w s	K K E O N D	EST. COST/Y	EST. DURATION (YEARS)	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fund
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		>	( \$20,000	) 1	1			- <b>-</b>			
129	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island	1	)	(\$4,000	. 1	V						
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		)	(\$1,000	1	V						
131	Increase Natural Food Supply							1			T		
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X >	(\$50	М	V						
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	X >	\$408	M							
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	M	1						
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	M	1				$\square$	-	
136	Intensify Management	Seabird Colony Restoration	X	X >	\$250	M	N	1				1	
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	M		l i					$\mathbb{N}$
138	Monitoring	Shoreline Worm Life Monitoring	X	X)	\$388	M		1					
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X >	(\$416	M		1				-	
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X >	one billio	m M							
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X)	\$280	м		i					
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	x>	(\$7	M		i					
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X X	( \$650	1		21		-			
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X >	\$48	М	V						
145	Option Not Identified	Shoreline Assessment	X	X)	\$250	93 - M	1						
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study	Τ	)	(\$28	M	V						
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X)	(\$500	93 - M	V	T				•	
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X	\$800	м				1		ŀ	
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x)	(\$2,300	1	V	F					
150	Recovery Monitoring	Injured Resource Food Supply	X	X)	<\$850	м	1						
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	<b>x</b> >	\$500	М							
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X	\$600	М	1						
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	м	V	F					
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	x)	(\$150	M	V	T					T
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X)	(\$100	м	V	TÌ					
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X)	<b>〈</b> \$200	м	-						
157 .	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	M	V	1					

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W		EST.	EST. DURATION	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 2 9 0 9 C 9 C	2 0 0 1	Do Not Fur
158 Multiple Resources	Becovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	M						┦╴┦	ă.
159	Becovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	хх	(\$275	93 - M				<u>+</u> +		-++	-
160	Reduce Disturbance by Field Presence		+-		1							+-+	
161	Reduce Disturbance Through Public Info	Public Information and Education	x	хx	\$316	M	<u>+</u> +			++		-	***
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	Tx	хx	\$50	м	1			1 1			
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	XX	\$500	M	1	/		1-1			
164	Restoration Monitoring	Ecosystem Study	X	хx	\$6,000	М	V						
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	м	$\dagger$						1.21
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X		\$400	M							
167	Intensify Management	PWS Herring Tagging Feasibility Study	X		\$112	М						+	
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	М	·						
169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		\$60	M		-				1-1	
170	Option Not Identified	Enhancement of Pacific Herring	X	XX	\$120	М	~						
171	Restoration Monitoring												
172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	XX	\$40	93 - M		e					
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	хx	\$180	М	1						
174	Restoration Monitoring											T	
175	Temporary Predator Control												

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	RESOURCE or	RESTORATION OPTION or	POTENTIAL PROJECTS	RE P. W. S		N к р	EST. COST/VR	EST. DURATION	1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	Do Noc Fun
176	Pink Salmon	Fish Passes and Access	Equilibrium of Fish Passage as Oil Spill Restoration		x l	x	\$25	M			-		-		<u> </u>
177		Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1							
178		Fish Passes and Access	Otter Creek Fish Pass	x	+	<u>-</u>  -	\$130	. 1			· •	· -		+	
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration	-		x	\$11	 1			• • • • •				
180		Fish Passes and Access	Sockeye Creek Fish Pass	x	+	<u>-</u>  -	\$60	i 							
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement	-	-+	x	\$55	i							
182		Improve Survival Bates	Erv Bearing to Improve Survival and Bestore Wild Pink and Chum Salmon Stocks	x	x	x	\$727	M	1	<i>(</i> ).					
183		Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	x	-+		\$495	M							
184		Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	x			\$855	М							
185	······	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	x			\$500	M							
186		Intensify Management	Inventory and Effect of Straving Hatchery Pink Salmon on Wild Pink Salmon Population	x			\$253	м	V	×					
187		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Beduce Wild Stock Salmon Exploitation	x	x	x	\$152	М							
188	······································	Intensify Management	Pink Salmon Escapement Enumeration	x	x	x	\$705	М						1	
189	•	Intensify Management	PWS Salmon Stock Genetics	x			\$150	М	•						
190		Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	x			\$66	м	+						
-191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	x	x		\$686	М							
192		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	x	x		\$899	М						+	
193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	x			\$141	М	1					1	
194		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	x		-	\$385	93 - M	ſ						
195		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	x			\$50	М	V	r+					
196		Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	x	x	x	\$300	М	V						
				-											
197 <b>F</b>	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak	t.	Х	x	\$1,250	М	1						
198		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	x	\$6,000	1							
199		Establish Marine Environmental Institute	Seward Sea Life Center	X	X	x	\$40,000	1							
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	x	\$500	М							
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	X	\$500	М					1		

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RESOURC	E RESTORATION OPTION	POTENTIAL PROJECTS	P W S	EGIC K E N	K O D	EST. COST/YR	EST. DURATIC (YEARS	1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7	1 9 9 8	2 0 0 0	2 0 1	
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			X	\$500	1						<b></b>	<b>└──</b> ■`	-
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			x	\$70	1		+						-
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		_	\$50	М		+		[-				
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	x	x	\$100	М		† T						
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X			\$58	М								
207	Monitoring	Recreation Field Management and Monitoring	x	x	x	\$700	М		1			-	-[		~
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	x			\$150	1	,			[-		-1	i – †	-
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X			\$20	1				-1				-
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	x	x	\$100	м	-	-	+	-				
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X			\$100	1		+			-			
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X			\$70	1						-+		-
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	X	x	\$150	м		T						-
214	New Backcountry Recreation Facilities	PWS Kayak Trail	X			\$100								[, ]-	-
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	X			\$250	1					1	-		
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	x	\$140	1						-		-
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X	- 1		\$400	М								1
218 .	Option Not Identified	Sustainable Tourism in PWS	X			\$240	М	V	1						-
219	Option Not Identified	Watchable Wildlife	X	x	x	\$65	М	V							
220	Option Not Identified	Increased Access PWS	X		:	\$100	M							i l'	-
221	Plan Commercial Recreation Facilities	Recreation Development	X	x	x	\$200	м								
222	Restoration Monitoring														
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	X	x	\$77	М								
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X		-		1								
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	x	x	\$310	М								
226	Visitor Center	Cordova Environmental Education Center	X			\$15	-1					1			
227	Visitor Center	Cordova Mini-Imaginarium	X		-	\$63	1								
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	x	x	x	\$155	М					+-			
229	Visitor Center	Environmental Education Center in PWS	x			\$90	1	V	1						
230	Visitor Center	Environmental Learning Resource Center	X	x	x	\$90	1	-	1-1		-+	-			
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x		-	\$450	1	-				-†-			

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RESOURCE POTENTIAL PROJECTS **RESTORATION OPTION** REGION 251 EST COST/YA DURATIO or . OF SUBOPTION SERVICE 6 ( C 612.1:5 232 Recreation xxx \$600 Visitor Center Information Center 1 Х М 233 Visitor Center Interpretation of PWS \$10 Х 234 Visitor Center Maritime Wing Valdez Museum \$150 1 X 235 Visitor Center Multi-agency Library on PWS and Copper River Delta \$150 1 \$850 236 Visitor Center Valdez Visitor Center 1 237 River Otter Monitoring River Otter Recovery Monitoring X \$180 М Х \$40 М 238 Synthesis of Information on Ecology and Injury to River Otters in PWS Monitoring 239 Restoration Monitoring x x x 240 Sport/trap Harvest Guidelines Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks **\$99** 1 хx 241 Rockfish Develop a Rockfish Management Plan \$175 М Intensify Management Х М \$117 242 Monitoring Monitoring Injury to Rockfish in PWS Monitoring 243 244 Sea Otter Cooporative Prgm-Subsistence Users 245 x x x \$83 Μ Habitat Protection (Public Land) Habitat Utilization by Sea Otters and Designation of Protected Areas x x x 246 Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality \$337 М Monitoring x x x 247 Radio-Telemetry Project to Monitor Recovery of Sea Otters \$450 М Monitoring XXX 248 \$291 93 - M Monitoring Sea Otter Population Dynamics 249 **Restoration Monitoring** 

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	EST.	EST.	1 9	1	1	1 9	1	L 2	2	Do No
	SERVICE	SUBOPTION		y W S	K K E O N D	SK SK	(YEARS)	9 4	9 5	9 6	9 7	9 9 B	9 0 9 0	0 1	c Pund
250	Sea Otter	Study: Eliminate Oil from Mussel Beds		Ĩ						Ĩ	Ī		T	1	
											-			-	
•															
251	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X		\$120	М						-		
252		Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		x	\$333	М								
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon	T	X	\$275	М								
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye		X	\$500	93 - M		,						
255		Intensify Management	Kenai River Sockeye Salmon Restoration		X	\$1,000	93 - M	1							
256		Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		X	\$143	М	$\checkmark$						T	
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		X	\$6	М								
258		Monitoring	Sockeye Salmon Overescapement		XX	\$641	93 - M								
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M		T						
260		Option Not Identified	Red Lake Salmon Restoration		X	\$72	М							T	
	• · · ·	· · · · · · · · · · · · · · · · · ·					•								
			· · · · ·			_									
261	Sport Fishing	Recovery Monitoring										-			
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		x	\$4,200	1							Ţ	
263		Restoration Monitoring												1	
264	Subsistence	Access to Traditional Foods													
265		Bivalve Shellfish Hatchery							/				1-		
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X		\$200	М							1	
267		Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	хx	\$300	1 <sup>°</sup>								

Name:\_ Phone:\_

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RESOURCE **RESTORATION OPTION POTENTIAL PROJECTS** REGION EST. EST COSTAYE DURATIO or SUBORTION -SERVICE NADARS 2374 268 Subsistence Option Not Identified Mariculture Technical Center XXXX \$2,200 1 xxx 269 **Option Not Identified** Seward Shellfish Hatchery \$1,300 1 270 xIxIXI Recovery Monitoring Survey of Impacted Native Communities-Subsistence \$700 Μ х 271 М **Replace Harvest Opportunities** Chenega Bay Replacement Subsistence Resource Project \$50 Х 272 **Replace Harvest Opportunities** Chenega Chinook and Coho Release Program \$55 M 273 X **Replace Harvest Opportunities** Port Graham Salmon Hatchery \$2,500 1 274 Replace Harvest Opportunities Silver Lake Fish Hatchery X \$1,000 1 xxx 275 М **Replace Harvest Opportunities** Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas \$55 276 **Restoration Monitoring** x x x 277 Subsistence Mariculture Sites Village Mariculture Project - Oyster Farming \$589 М xxx 278 Test Subsistence Foods Assessment and Quality Assurance of Shellfish Resources \$300 м XXX 279 \$308 93 - M Test Subsistence Foods Subsistence Food Safety Testing 280 Subtidal Habitat Protection Juvenile Spot Shrimp Habitat Identification XX \$110 М 281 Intensify Management X М PWS Spot Shrimp Recovery Management Plan \$715 х 282 Monitoring М PWS Spot Shrimp Survey \$90 x x x Injury and Recovery of Deep-Benthic Macrofaunal Communities \$275 M 283 Monitoring х 284 Monitoring Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS \$265 93 - M XXX 285 Monitoring Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources \$390 М 286 Monitoring XXX \$400 м Subtidal Recovery Monitoring xxx 287 Restoration Monitoring \$90 Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates М Administration 288 Technical Services x x x Electronic Archiving of Exxon Valdez Records \$450 Μ 289 Administration X Geographic Information System Mapping of Natural Resources in Western PWS \$75 М

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

Name:\_ Phone:\_ Name:\_\_\_\_\_ Phone:\_\_\_\_\_ Page 14 -

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGI	on	EST.	EST.	1	1	1	1	1	2 2 8	l
	or	<b>10</b>		P W	K E	к	COST/VR	DURATION	9 9	9 9	9 9 9 1	9	9   9		I
	SERVICE	SUBOPTION		s	И	D	\$K	(YEARS)	4	5	6 7	8	9		
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	$ \mathbf{x} $	\$105	93 - M				Ī		TT	
291		Administration	Toxicological Profile of PWS	X			\$150	М			·				
292	•	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8	M							ł
293		Public Information	Database Integration	X	X	X	\$148	M	1						
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		М							
295	-	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	X	X	\$120	М							I
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X		\$100								
297	·	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	X	\$72	М							
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE RESTORATION OPTION	POTENTIAL PROJECTS         REGION         EST.         EST.         1 <th1< th="">         1         <th1< th=""> <th1< <="" th=""></th1<></th1<></th1<>
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### Name:\_ Phone:\_

	RESOURCE or SERVICE	RESTORATION OPTION 5 SUEOPTION	P       K       K       K       COST/YR       LURATION       9       0       0       0       7
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

Page 16.



#### Subject: Expenditure of Oil Spill Settlement Money

Dear Mr. Gibbons:

In a review of the materials received from the Exxon Valdez Oil Spill Trustee Council on April 26, 1993 I noticed that the City's request for a \$550,000 grant in 1994 for the Kenai River Erosion Control and Habitat Restoration Project was not included with other potential restoration projects.

Enclosed with this letter is a copy of our previous correspondence which included an article written by Les Palmer concerning the Kenai River from the March 5, 1993 Tides portion of the Peninsula Clarion. Also enclosed is a synopsis of our project provided on your form.

If you require additional information pertaining to these habitat restoration and enhancement projects, please contact me at 262•9107. I would appreciate confirmation that the City of Soldotna's projects also will be given consideration during the Council's review process.

Sincerely,

Richard L. Underkofler City Manager

Enclosures as noted (3)

# River outlook dim despite agencies' work



f fishing is the main reason many of us live in Alaska — and it is — then it follows that we should take very seriously any threat to fishing.

But we don't.

The most insidious threat to fishing is the degradation and loss of habitat --- the food, water and cover that fish need in order to survive and thrive. You might think we would put more importance on a threat to habitat than we would on, say, watching sports on television, but I often wonder.

In his essay, "Population Growth Versus Fisheries Resources" (Fisheries, September-October 1992), C. Dale Becker wrote in brutal terms about what habitat loss means:

"The ultimate effect of human activity is extinction. During the past 100 years, 40 known taxa (species) of North American fish have become extinct from activities related to occupation and development by humans, and their extinction rates are expected to increase."

Scary stuff, that. But what does it mean to you and me? That happened Outside. This is Alaska, where we do things right. Right?

Right. Just look what's happening to our favorite fishing hole, the Kenai River. The situation on the Kenai

correctly, beside the Kenai - is not good. The most obvious problem is the annual Trampling of the Banks, when anglers flock to the Kenai by the thousands to fish for red (sockeye) salmon.

All up and down the river, they walk on the fragile banks, caving them into the water and killing the streamside vegetation. In the more popular fishing areas, the results are obvious; barren, rapidly eroding banks. Rearing king and coho salmon prefer ar-

, eas where natural cover — long grasses, willows and the like — hang over the water. Take away the cover, and you take . away the fish.

Anglers are not the only culprits. Some property owners clear-cut near the river for a "view." Others like neatly mown lawns, right to the river's edge. Still others fill in wetlands for a dry spot to build, anything to fulfill their Alaska dream.

' is' Ironically, both anglers and property owners are slowly but surely destroying their reason for being on the Kenai: the good fishing. てな酸けたい

Terry Bendock, a fisheries biologist with the Alaska Department of Fish and Game, is one of several scientists concerned about the health of Kenai River habitat.

"Something like one out of every five or six fish caught by anglers in Alaskan waters comes from the Kenai River, "Bendock said, "but we still don't have adequate protection for its fish habitat."

He cites the disastrous salmon runs of recent years in the Pacific Northwest as what we will see here, if we are not careful. Dams, urbanization, exploitation and forestry practices, to name but a few, have taken a heartbreaking toll on salmon there. Hatcherics, once thought to be a solu-

tion, have turned out to be just another this problem. Entire stocks have been lost from streams that were, less than a century ago. thick with fish.

Is anything being done to save the banks of the Kenai?

"I'm encouraged by the grass-roots," shotgun-type approach that's being taken by several agencies and organizations now," Bendock said.

• For the first time that he remembers, habitat problems were discussed by the Board of Fisheries at its meeting last fall.

• The Habitat Division is conducting a formal inventory of structures and physical changes in the river.

• The Kenai River King Salmon Fund (a non-profit organization funded mainly by the sale of kings caught in commercial setnets) is installing educational displays at visitor centers in Kenai and Soldotna.

Bing's Landing and Morgan's Landing some habitat studies in the works. • The Soil Conservation Service just reowners.

the banks near Soldotna Creek. .... This is small action, when multiplied 10,000 • Kenai River Sportfishing, through its 35.15 times, seriously damages fish habitat. They protect their riverbanks. Intra state the second protect their falls down. at this how we want

fish habitat?

Not according to Bendock. He said of the astronomy and state we're not really stemming the loss, and that it is a free-lance writer who there's no end in sight. Riverfront wetlands is lives in Sterling in the dynamical " heads the in Armenia, hai faithig acclues toperties

and the first of the second states of the Concerned about habitat? Property owners can obtain the "Kehal River Landowner's Guide" by call-Ing the Soll Conservation Service at 235-8176. Call Ben Ellis of Kenal River Sportfishing Inc. for information on the Kenal River Habitat Protection Program, 262-8588 Commercial fisherman who want to donate fish to the Kenal River King Salmon Fund can call 262-2492. 

are still being filled. More structures are being put in the river each year. More vegetation is being destroyed.

"The Kenai Peninsula Borough hasn't done anything since the comprehensive .management plan for the river was fin-• State Parks is revegetating portions of (100) ished," he said. "That's where land-use heavily damaged riverbank and steering an-,; controls should come from. Nothing is likeglers away from severely impacted parts of anyly to happen until people start pounding on the borough doors. • The Fish and Wildlife Service has the state of the quality of fishing for future generation tions depends on what we do now." Anglers and property owners' obviously leased a manual that should help property, sin do not know they're damaging streamside wegetation needed by rearing king and coho • The City of Soldoma is revegetating mains salmon. They do not know that their onc,

Habitat Protection Program, is actively or the bado not know that a donkey can only stand helping property owners to both use and its, its so many bricks being loaded on its back be-But are we gaining against the loss of an At least I hope they don't know. I'd hate to think they didn't care, they didn't care,

Page 7

City of Soldotna

# 177 North Birch Soldotna, Alaska 99669 Phone: 262-9107

March 8, 1993

Dave Gibbons Interim Administrative Director Exxon Valdez Oil Spill Trustee Council 645 G Street Anchorage, Alaska 99501

Re: Expenditure of Oil Spill Settlement Money

Dear Mr. Gibbons:

Please consider a \$550,000 grant to the City of Soldotna for Kenai River erosion control and habitat restoration projects as you consider how to spend Exxon Valdez oil spill restoration funds.

<u>Relation to Oil Spill</u>. Commercial fishing for sockeye salmon was curtailed in Cook Inlet in 1987 and again in 1989 due to oil spills. As a result, thousands of sport anglers descended upon the Kenai River to fish for salmon normally caught by the commercial fishery.

<u>Problem</u>. Intense sport fishing along the Kenai River is causing bank erosion and loss of fish habitat. If bank fishing is allowed to continue unrestrained, there will be further loss of valuable river front property, degradation of water quality and loss of more riparian habitat.

<u>Potential Solution</u>. In the past, eroding stream banks have been stabilized with hardened structures (such as retaining walls or rip rap). While inert structures can control erosion quite effectively, they generally adversely affect fish habitat. Bioengineering technology may offer techniques for stabilizing river banks in a manner which may be more acceptable than conventional erosion control methods. Bioengineered stream bank protection systems utilize both structural and vegetative elements for erosion control in a complimentary and integrated manner. Planting of vegetation plays important functional roles by: binding and restraining soil particles; filtering soil particles out of runoff; retarding the velocity of runoff; and, providing shade for habitat enhancement.

<u>Project Status</u>. On March 3, the Soldotna City Council authorized design contracts valued at \$105,920 to test bioengineering technology on projects at Soldotna Creek Park and Centennial Park. These projects are intended to demonstrate more desirable means of river bank erosion control and fish habitat enhancement; and, whether soil bioengineering technology can be transferred to Alaska.

Your assistance is requested to assist with the financing for construction of the demonstration projects during the 1994 construction season.

If you have questions or require additional information pertaining to these habitat restoration and enhancement projects, please contact City Manager Richard Underkofler at 262 9107. Thanks for your consideration.

Sincerely,

William S. Reeder Mayor of Soldotna

Enclosure (1)

#### Name:\_\_\_\_ Phone:\_\_\_

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	5	(e)[s)	EST.	EST)	1	1	1 1	1	2 2	8
	or SERVICE			P W S	K K E O N D	COST/YR	DURATION ;	9 9 5	9 9 6	999 999 78	9 9 9	0 0 0 0 0 1	Not Fund
	Multiple Resources	Habitat Protection and River Bank Stablization	Bioengineering Technology at Soldotna Creek & Centennial Parks; Demonstrate Desirable Means of River Bank Erosion Control; Fish Habitat Enhancement and Enhanced Bank		<b>X</b> .	550	1						
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93=Funded in 1993 M=Multi-year Project

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EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501

D)ECEIVE M OCT 0 2 1995

EXXON VALUEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD



EXXUM VALUEZ OIL SPILL TRUSTEE COUNCIL



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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	hi zia	RE		e izerie Colstrari	CHEST NURATION	1 9 9	1 1 9 9 9 9	1 1 9 9 9 9 6 7	1 9 9	1 2 9 .0 9 0	2 0 0	De Not Fi
F.	Archaeology	SUBOPTION SUBOPTION		<u></u>	5			(YEAHS)		-		Ļļ	_	_	<u> </u>
	Alonacology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum		X	XX	\$41	M							
		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design		X		\$300	1		•	.	<b>.</b>		-	
3		Habitat Protection and Acquisition	Archaeological Site Acquisition		X	XX	\$200	M							
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency		X	XX	(\$525	M		.					
5	· · · ·	Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	•	X	XX	(\$400	M			1				
6		Option Not Identified	Restoration of Chenega Village Site	· -	X		\$75	1							
17		Option Not Identified	Site-specific Archaeological Restoration - Interagency		X	XX	\$300	93 - M							
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS		X		\$230	M							
9		Public Information	Heritage Information Replacement		X	X X	\$200	M							
10		Public Information	PWS Landmarks-Evaluation and Interpretation		X		\$400	M		ļ		.			
11		Public Information	Public Education and Interpretation of Archaeological Resource		X	XX	(\$400	М							
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites		Х	x x	(\$225	M						1	
_13	· · ·	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	·	X	x x	\$150	M		ļ					<u>e</u>
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency		X	xx	(\$210	М			.   .				
15		Site Stewardship Program	Archaeological Site Stewardship Program		X	хх	\$114	М				ŀ-ľ			
-16	÷.	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design		X		\$1,200	1							
		· · · · · · · · · ·							. [	1		.			
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitate	· ·· · •·	x	XX	\$262	M							
18	, in the second s	Recovery Monitoring	Bald Fagle Productivity Survey and Catalog	• ··· ·	Ŷ	x x	\$10	M			1				
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Fagles		Ŷ	Ŷ	\$200		-			ŀ			
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	··	······································							-+-					· · ·	
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities		x	xx	\$108	93 - M	i i						
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS		X		\$125	м				T T	1	ľ	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name:_	VANCY SPEEL	
Phone:	424 3/29	

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	RESOURCE		POTENTIAL PROJECTS		EG		EST ( COST/VR	ESTRA DURATION	1 9 9	1 9 9 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9 9	2 0 0 0	2 0 0 1
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22	Diack Oystercalchei	Restoration Monitoring		-	1	+					· · •		<b></b>		5. <b> </b>
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								· ·		•		{			
27	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition		dΫ	x	\$1,100	M							
23	Commercial Fields	Intensity Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources		k x	X	\$385	М				t			•
25		Intensity Management	Eisherv Industrial Technology Center		k x	x	\$3,500	1				-			·
26		Intensity Management	Model for Capacity of Salmon Production for the Susitna Drainage		x		\$150	м			İ				
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X		\$300	M							
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment		k x	x	\$200	м			1		••••••••••••••••••••••••••••••••••••••		
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association		<b>k</b>		\$5,000	1				Ì			
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Reco	very	ĸ	1	\$868	M	×	X	X	XX	X	×	X
31		Recovery Monitoring	Wild Fish Stock Information Assessment		k x	x	\$50	М							
32		Replace Harvest Opportunities	Mitigation Fishery at Kitol Bay Hatchery on Alognak Island			X	\$45						-		
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration		K		\$80	М							
34	Ì	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program	T	X		\$50	М							
35	-	Replace Harvest Opportunities	Red Lake Mitigation			X	\$191	м							
									i						
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity		x x	( X	\$280	М				Į.			
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement		x x	( X	\$51	93 - M							
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study		x x	X	\$73	_M							
39		Recovery Monitoring	Common Murre Population Monitoring OU	<b>T</b> []	K X	X	\$191	M							
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill		x   x	X	\$40	М							ľ
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OL	л			\$460	м							

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KQD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name:\_\_\_\_\_

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	P v s	EGIC R E N	N EST COST/ D SK	YR D	EST URATIO (YEARS)	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fund	
42	Common Murre	Restoration Monitoring						М			l					
		•														
							-	<b>.</b> .								
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200						-				
44	· · ·	Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Vardon		.     .	\$285		M			ł					
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory Evaluation, and Restoration	Ŷ		\$35		M	ŀ		·	1				
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	Ŷ	ŀ	\$950	• • 1	M	+	.	·					
47		Restoration Monitoring						M								
				-							1		ŀ			
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	X	X \$600		1								
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200		M			ļ					
50	2	Option Not Identified	Hazardous Material Collection Facility	X	X	X \$100		1								
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	X	X \$488		M			I					•
52			Public Broadcasting System Program on Oil Spill	X	X	X \$70		M								
53		Public Information	Publish and Distribute Brochures on Injured Species	X	X	X \$90		М								
54 55			PWS Brochures	X		\$65		M		.		4.				
55		Public Information	PWS Implementation of Interpretive Plan		ļ .	\$150			-							
57	• •• •	Public Information	PWS Large Format Photographic Book	X	┟╴╺┼	\$100		M								
58	• •	Public Information	PWS Scenc Byway Nomination and Interpretive Plan			\$10		M								
59	•• •••••	Public Information	Science of the Sound, Education Program	÷		\$100 ¢52		IVI								
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTIONS	POTENTIAL PROJECTS	RI P W S	GION E C N D	(491) (40)51/1/1		1 1	1 1 9 9 9 6	1 9 9 7	1 9 9	1 ; 9 ; 9 ;	2 2 0 0 0 0 1	Do Not Fun
60	Harbor Seal	Cooperative Program-Fishermen					1. Saland address 1.2	-	-	<b></b>				
61	· · · · ·	Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		\$39	M ·	·				(* 		
62		Option Not Identified	Subsistence Harvest Assistance	x		\$23	м			•		i I.		
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M		ţ.			I I		
64		Becovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	xx	\$230	м					1		
						· · · · · ·		.  -						
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									•					
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65	Harlequin Duck	Eliminate Oil from Mussel Beds						ľ		· ·				
66		Monitorina	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	хx	\$700	93 - M	- [						
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	хx	\$53	M .							
								•					1.	
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	x	xx	\$20	м						Ì	
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	xx	\$70	м						Į	
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	xx	\$300	M							
71	1	Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	хx	\$50	м							
72	2	Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	М							
73	3	Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	хx	\$800	м							
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	xx		M							
75	5	Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	хx	\$620	м							
76	3	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	M							
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	xx	\$500	м							
78	3	Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		xx	\$200	M					1		
79	9	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	хx	\$275	M							
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	хx	\$50	м							
81	1	Monitoring	Monitoring for Recruitment of Littleneck Clams	X	xx	\$186	м							

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RE P W S		COST/YR SK	EST DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 9 9 7	1 9 9 8	12 90 90 90	2 0 0 1	Do Net Find
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	x	x	\$500	М					ļ		
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	x	\$600	М							
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	x	\$195	M					1		
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	x   >	\$500	93 - M							
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X		\$495	93 - M					[		1
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	x)	\$860	м					1		
88		Option Not Identified	Clam Enhancement	X	x	\$120	м					l		
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	x	\$500	м	÷						
90		Option Not Identified	Restoration of Mussel Beds	X	x >	\$500	м					1		
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	x	\$237	м							
	• • • • • • • • • • • • •		n 1992 <u>- Anna an ann an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an A</u> nna an Anna an Anna Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an											
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer-Whales	X		\$120	93 - M							
93		Monitoring	Recovery Monitoring	X		\$125	М					l		
94	5.' 	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X		\$180	М					1		
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X		1	М		1					
														,
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	   x	x	\$240	93 - M							
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	x	x	\$180	93 - M					ł		
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	x	x	\$250	M				-			
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	x	x	\$509	м	*						
100	<u> </u>	Minimize Incidental Take				· · · · · · · · · · · · · · · · · · ·			1					
101	· · · · · ·	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks	† †	xx	\$200	M	-	1					- 1 × .

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION 2	POTENTIAL PROJECTS				EST. COST///R	EST. DURATION	1 9 9	1 9 9 5	1 1 9 5 9 6	1 1 9 9 9 9 7 8		1 2 9 0 9 0	2 0 0 1	Do Not Fu	
10		SUBORTION					\$250	MITEANS			_ <b>_</b>	<b>I</b>	1		1	Ă	
102	Marbied Murrelet	Restoration Monitoring	Survey to Monitor Hecovery of Marbied Murrelets		<u>^</u>  ^	<b>`</b>  ^	\$250	IV1									
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			·····			-											
														ł			
103	Multiple Resources	Habitat Protection	Habitat Modelling	.	xb	d x	\$150	M									
103		Habitat Protection	Binarian Habitat Assessment	·	xlx	dx	\$110	м								1	
105	5	Habitat Protection	Stream Channel Capability Modeling	ţ	x	< X	\$110	M									
106		Habitat Protection	Stream Habitat Assessment		x	dx	\$361	93 - M		·		Ì		·			
107		Habitat Protection	Valdez Hazardous Waste Collection	]	x		\$200	1		Ì							
108	3	Habitat Protection	Vegetation and Stream Classification and Mapping		x	dx	\$276	93 - M							ľ		
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment		x	(x	\$100	м					1				
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species		x>	< X	\$750	M									
411		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge			( x	\$111	1		• İ							
112	2	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X		1 1									
113	3	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge	. 1		X		1	ľ	- [							
114		Habitat Protection and Acquisition	Valdez Duck Flats		X			1							1		
115	5	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge			<	\$20	1 .									
116	5	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1									
117	7	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition	· -		X	\$250	1									
118	3	Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		X .		\$3,500	1									
119	9	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X	\$200	1									
,120	D	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1		ł							
121	1	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		2	<	\$90	1									
122	2	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay			<b>د</b>	\$60	1									
123	3	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay	. ]	2	<	\$400	1									
124	4	Habitat Protection and Acquisition	Conservation Easement-Port Chatham			<u>(</u>	\$80	1						ĺ			•
125	5	Habitat Protection and Acquisition	Conservation Easement-Rock Bay		<u> </u>	<u>(</u>	\$740	1									
126	6	Habitat Protection and Acquisition	Habitat Acquisition		x >	(X	\$25,000	93 - 1	<b> </b>			1.		_  -	ļ		
127	7	Habitat Protection and Acquisition	Habitat Acquisition, Alognak			X	\$112,500	1									

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## 1994 POTENHAL PROJECT TITLES

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No. of Concession, Name	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	<b>R</b> P W S	GIO K E N	N K O D	EST. COST/YR	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 9 9	2 2 0 0 0 1	Do Not Fund
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island			x	\$20,000	1		i					
129	· ·	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			x	\$4,000	1		1					
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			x	\$1,000	1		i			ţ		
131		Increase Natural Food Supply					·			:					
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	x	x	x	\$50	М		İ			·	1	
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	x	x	x	\$408	M		•				Ť	
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	x			\$200	м							
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	x			\$40	M	.	:		.			
136		Intensify Management	Seabird Colony Restoration	x	x	x	\$250	М		:					
137		Intensity Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	x		1	\$250	м	k	xX	×	×	$\mathbf{x} \mathbf{x} $	×	
138		Monitoring	Shoreline Worm Life Monitoring	X	X	x	\$388	M				a			
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	x	x	x	\$416	M		•				1	
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	x	x	one billion	M						1	
141		Option Not_Identified	Field Study of Bioremediation Enhancement Treatment Methods	x	x	x	\$280	M					· · • ] ·	1	1.1
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	x	x	\$7	M		n fan Maria					
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	x	x	x	\$650	1							
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	x	x	x	\$48	M					Ţ.		
145		Option Not Identified	Shoreline Assessment	x	X	x	\$250	93 - M		;			l		
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study	1.		x	\$28	M		: :			İ	1.	
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	x	\$500	93 - M		!	1.			·   `	
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x		\$800	М			1.		- T-	Î	
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x	x	\$2,300	1		İ					11
150		Recovery Monitoring	Injured Resource Food Supply	X	X	X	\$850	М		i					
151	· .	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	x	\$500	M		1			1	·   ·	
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay	1	X	-	\$600	M					l		
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	M							
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X	x	\$150	M		İ	1		1		
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X	x	\$100	M							
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	x	X	x	\$200	М		• •			·		
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staning Shore Birds	x		1-	\$35	М	1.						

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#### 1994 POTENTIAL PROJECT TITLES

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Stani 15 .		RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO × E	N ×	EST. :OST/YR	EST. DURATION	1 9 9	1 9 9	)     9   9 9   9		1 1 9 9 9 9 9	2 0 0	2 0 NCC 74	]
E		SERVICE	SUBOPTION		S	N		SK I	(YEARS)	Ľ	_	Ļ		Ļ	Ļ	2	ļ
1	58	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	M							1	
1	59		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X	X	\$275	93 - M						.  )	11	
1	60 j	· · · ·	Reduce Disturbance by Field Presence		-		ľ		• • • •								ŀ
1	61	i	Reduce Disturbance Through Public Info	Public Information and Education	X	×	<b>X</b> ].	\$316	М	.					1 1		
þ	62		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	×	X	\$50	. <u>M</u>								
1	63		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	x	X	\$500	M						!		
1	64		Restoration Monitoring	Ecosystem Study	X	×	X	\$6,000	M							11	
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	· ]					-										1	
1	65   I	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		•	\$205	M	X	$\mathbf{X}$	x   x	$\langle \rangle$	v ×	X	$\times$	
	66		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X	-	·	\$400	M M	X	X	X   /	$\langle \rangle$	<   ·	1 1	i Th	
1	67	•	Intensify Management	PWS Herring Tagging Feasibility Study	X		·	\$112	M								
1	68		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X	1		\$189	М							1.1	
1	69.		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X		-	\$60	M								
1	70		Option Not Identified	Enhancement of Pacific Herring	X	x	x	\$120	М	j						i İ	
1	71		Restoration Monitoring													1	1
						·											Į
																- I	
1	72	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	x	x	x	\$40	93 - M								
1	73		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	x	x	\$180	M							i	
1	74		Restoration Monitoring														
1	75		Temporary Predator Control				Ĩ					1		j			
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12.4.4	or	or SUBOPTION		P W S		X C D	COST/VA \$K	DURATI (YEAR:
176	Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x :	x	\$25	м
177		Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1
178		Fish Passes and Access	Otter Creek Fish Pass	x			\$130	1
179		Fish Passes and Access	Pink Creek Pink Salmon Restoration			x	\$11	1
180		Fish Passes and Access	Sockeye Creek Fish Pass	x			\$60	1
181		Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			x	\$55	1
182		Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	x	x)	x	\$727	м
183		Intensity Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X	-		\$495	M
184		Intensify Maragement	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	м
185		Intensify Mar.agement	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	x			\$500	м
-186		Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	. <b>X</b> .			\$253	M
187		Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	x	X	x	\$152	м
188		Intensify Management	Pink Salmon Escapement Enumeration	X	x	x	\$705	M
189		Intensify Management	PWS Salmon Stock Genetics	X		·	\$150	M
190		Intensity Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	M
191		Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	М
192		Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	x	X		\$899	м
193		Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	M
194		Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	x			\$385	93 - M
195		Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	x			\$50·	м
196		Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	x	×	\$300	М
				-			-	
197	Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		<b>x</b> )	x	\$1,250	M
198		Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	x	x	x	\$6,000	1
199		Establish Marine Environmental Institute	Seward Sea Life Center	x	x	x	\$40,000	1
200		Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	x	x	x	\$500	M
201		Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	x	x	x	\$500	M

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	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P H S	GIO K K E O N D	EST COST/YI	ESTN DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	2 0 0 1	De Not Fund
202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			\$500	1							- 1 A A
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			\$70	1							
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	м							
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	x	\$100	м							
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X		\$58	М							
207		Monitoring	Recreation Field Management and Monitoring	X	x)	\$700	M							
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		\$150	1							
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1		.					
210		New Backcountry Recreation Facilities	Improve Marine Parks	X	x	\$100	М							
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1							
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1					.		
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	x	\$150							,	
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1							
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X		\$250	1							
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	\$140	1	ļ						
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M					_		
218		Option Not Identified	Sustainable Tourism in PWS	X		\$240	м		ľ					
219		Option Not Identified	Watchable Wildlife	X	XX	\$65	М							
220		Option Not Identified	Increased Access PWS	X		\$100	м							
221		Plan Commercial Recreation Facilities	Recreation Development	X	x >	\$200	М							
222		Restoration Monitoring												
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	x x	\$77	М			1				
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1							
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	XX	\$310	м		ſ					
226	· · · · · · · · · · · · · · · · · · ·	Visitor Center	Cordova Environmental Education Center	X		\$15	1							
227		Visitor Center	Cordova Mini-Imaginarium	X		\$63	1							
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	x	\$155	м							
229	· · · · · · · ·	Visitor Center	Environmental Education Center in PWS	X		\$90	1		1					
230		Visitor Center	Environmental Learning Resource Center	X	XX	\$90	1		1		·			
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X		\$450	1							

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC	M	EST,	EST.	Ι,	Ι.]			, ,	Τ,	Ÿ
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	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	5	6	'	в	' °	1	5. a
232	Recreation	Visitor Center	Information Center	X	x	X	\$600	1							
233		Visitor Center	Interpretation of PWS	x			\$10	м						1	1
234		Visitor Center	Maritime Wing Valdez Museum	x		1	\$150	1							
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	x			\$150	1	1						
236		Visitor Center	Valdez Visitor Center	x			\$850	1	1						
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												ł			
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	м							
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	М						:	
239		Restoration Monitoring													
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	x	\$99	1 -							
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	**	· · ·													
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	м							
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	M				-			
243		Monitoring			•										
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		· · · · · ·													
	···· · · · ·	· · · · · · · ·						·							
244	Sea Otter	Cooporative Prgm-Subsistence Users	· · · · · · · · · · · · · · · · · · ·			.		-							
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	X	\$83	M							
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	x	x	\$337	M							
247	• ··· · · · · · ·	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	x	X	\$450	M							
248		Monitoring	Sea Otter Population Dynamics	X	x	x	\$291	93 - M						1.	
249		Restoration Monitoring									. I		f.		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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Name: Nancy Spag\_ Phone: 424-3179

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RI P	GIOI	EST. COST/YR	EST.	1 1 9 9 9 9	1 9	1 1	1	2 0	2 De No:	
	SERVICE	SUBOPTION		N S	E O N D	SK	(YEARS)	4 5	6	7 8	9	0	1 Und	
250	Sea Otter	Study: Eliminate Oil from Mussel Beds							ĪĪ	T				
											1			
														•
251	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	x		\$120	м							
252		Intensity Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		x	\$333	M							1
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon	1	x	\$275	м						.	
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye		x	\$500	93 - M		[ ]	Į.	ľ			
255	; ·	Intensify Management	Kenai River Sockeye Salmon Restoration		x	\$1,000	93 - M							
256		Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		x	\$143	М							
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		×	\$6	М		ŀ					
258		Monitoring	Sockeye Salmon Overescapement		XX	\$641	93 - M			-				i. L
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M	XX	X	κİx	(X)	X	<b>x</b>	
260	-	Option Not Identified	Red Lake Salmon Restoration		×	\$72	м					ľ [		
														<u> </u>
1														<b>.</b>
261	Sport Fishing	Recovery Monitoring	e e e e e e e e e e e e e e e e e e e		.					1				
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X	\$4,200	1 							
263	B	Restoration Monitoring	· · · · · · · · · · · · · · · · · · ·		.						<u> </u>			i
		· · · · · · · · · · · · · · · ·	······································											
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264	Subsistence	Access to Traditional Foods						ł						
265		Bivalve Shellfish Hatchery			-						1			
266	<b>3</b>	Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)			\$200	M					ŀ		
267	7	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design		X   X	(j \$300	1		1					

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGI	ÓŅ	EST.	EST.	1	1	1	1	1	2	2 2	7
	Or			P	ĸ	K O	COST/YI		9	9 6	9	9 8	9	0		
260	8 Subsistence	Option Not Identified	Mariculture Technical Center			∎  x	\$2 200	1				-			Ĩ	4
269	9	Option Not Identified	Seward Shellfish Hatchery	x	x	x	\$1.300	1								
270	pi	Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	x	x	x	\$700	м			1					
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	x			\$50	м					i			
272	2	Replace Harvest Opportunities	Chenega Chinook and Coho Belease Program	x			\$55	м					1			
273	3	Replace Harvest Opportunities	Port Graham Salmon Halchery		x		\$2,500	1			1					ı
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	x			\$1,000	1								
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	x	x	x	\$55	M						-		
276		Restoration Monitoring			ł	ł										
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	x	x	x	\$589	м								
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	x	x	\$300	M								
279		Test Subsistence Foods	Subsistence Food Safety Testing	· x	x	x	\$308	93 - M								
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280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	x	x	ľ	\$110	м					1			
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	x			\$715	м		Į						
282		Monitoring	PWS Spot Shrimp Survey	x			\$90	м								
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	x	X	X	\$275	м	·		ľ					· ·
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X		-	\$265	93 - M								
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	X	\$390	м								
286		Monitoring	Subtidal Recovery Monitoring	x	X	X	\$400	M			1					
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	M								1
				-		ľ										
						1										
					1		1									
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	X	X	\$450	м								
289	•	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	x		ľ	\$75	м								

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## 1994 POTENTIAL PROJECT TITLES

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RESOURCE	RESTORATION OPTION		RE	GIO	N EST.	EST2.	1 1	1	1	1	2	2 2
or SERVICE	or SUBOPTION		P W S	K I	COST/YR	DURATION (YEARS)	999 45	9 6	9 9 7 8	9	0	ot Fund
Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	<b>(</b> \$105	93 - M				1		
	Administration	Toxicological Profile of PWS	X		\$150	м						
	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X 3	<b>〈 \$</b> 8	М						
	Public Information	Database Integration	X	x	<b>(</b> \$148	M						
	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X)	< 1	M						
	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x	<b>(</b> \$120	M						
	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	x	< \$100	M						
	Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	\$72	M		T		ľ		
				·	•				-			,

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Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

Exron Valde: 645 "O" Stre Anchorage, J 99501	Trustoos et

Attach Correct Postage

Name: PAVID L. Spencer Phone: 345-0459

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	201		<b>3</b> (3)(	। संदर्भा	1 1	1	Γ,	,	1 2		8
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	SERVICE	SUBOPTION SUBOPTION	and the second second second second second second second second second second second second second second second	s	Ň	D		(VI-2-11)	4 5	5 6	7	8 9	9 0	1	rund
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	М		_					
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X			\$300	1.							4
з		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	М		4					
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	M		-					
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	X	X	\$400	М							
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1				-			4
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	X	\$300	93 - M							4
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М							2
9		Public Information	Heritage Information Replacement	X	X	X	\$200	M							2
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	M							2-
11	·	Public Information	Public Education and Interpretation of Archaeological Resource	<u> </u>	X	X	\$400	M							<u> </u>
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	.M							4
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	M		-					
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	M			-				
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	М						,	
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1		·					4
			•												
	-														
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	M	-+-	_	<u> </u>				
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	М		1.			_		4
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М			_		_		4
	•														
		•													
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	X	\$108	93 - M							4
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X	:		\$125	м							4

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93=Funded in 1993 M=Multi-year Project

Page 1

Name: DAVID LiSpencer Phone: 345-0453

#### Page 2

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	P W	G G K E	N EST	ESTE: R DURATIO	1 9 9	1 9 9	1 1 9 9 9 9	1 9 9	1 9 9	2 2 0 0 0 0	Do Not F	
	SERVICE	SUBOPTION		s	N	<sup>b</sup> SK	(YEARS)		<u>`</u>	Ľ		Ľ		und	1
22	Black Oystercatcher	Restoration Monitoring												1	
	-														
					_							<u> </u>			
														1	
23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	X	X \$1,10	) M							4	-
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	Х	X	X \$385	M			•					1
25		Intensify Management	Fishery Industrial Technology Center	X	X	X \$3,50	) 1							2	$\vdash$
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	М						-	-	
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X	\$300	M							Ĺ	F
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X	X \$200	M							- 2-	ŀ
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5,00	) 1							1º-	
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	х	·	\$868	М							1-	╞
31	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Wild Fish Stock Information Assessment	X	X	X \$50	М				_			2	
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island			X \$45	М							2	
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		\$80	M	-+		-					
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X	\$50	M							2	<u> </u>
35		Replace Harvest Opportunities	Red Lake Mitigation			X \$191	M	TT						2	F
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	Х	X	X \$280	М							1	1
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	X	X \$51	93 - M		-					TT	l
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	X	X \$73	M							$\prod$	
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	X	X \$191	М							5	l
40	· · ·	Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	X	X \$40	М				1				l
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$460	М				1				1

Name: DArib L. Spencer Phone: 345-0459

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	P W	GIO K E	N к о	est. Costar	EST. DURATIO	1 9 9	. 1 9 9	1 9 9	1 9 9 7	1 1 9 5 9 5	L 2 9 0 9 0		1
	SERVICE	SUBOPTION :		s	N			<u> Maria</u>						┸		-
42	Common Murre	Restoration Monitoring			$\left  \right $			м								T
			•													
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X			\$200	М		4-	-					
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X			\$285	- M	-		7					
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X			\$35	М								4
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X			\$950	М					·		1	4
47		Restoration Monitoring						М								
		· · · · · · · · · · · · · · · · · · ·														
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	X	x	\$600	1								1
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X			\$200	М								
50		Option Not Identified	Hazardous Material Collection Facility	X	X	X	\$100	. 1								
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	X	X	\$488	М								
52		Public Information	Public Broadcasting System Program on Oil Spill	Х	X	x	\$70	М								
53		Public Information	Publish and Distribute Brochures on Injured Species	X	X	X	\$90	м								
54		Public Information	PWS Brochures	X			\$65	М								
55		Public Information	PWS Implementation of Interpretive Plan	X			\$150	М								
56		Public Information	PWS Large Format Photographic Book	X			\$100	M							!	
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X			\$70	М		_						
58		Public Information	PWS Video Programs	X			\$100	М								1
59		Public Information	Science of the Sound- Education Program	X			\$53	м	-		+					

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Name: DAVIO L. Spencer Phone:

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	RESOURCE	RESTORATION OPTIONS	POTENTIAL PROJECTS	P W S	G G K I E N	N CO	ist. St/XII SK	EST DURATION (VEAGS)	1 1 9 9 9 9 4 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	2 0 Not Fund 1
60 H	arbor Seal	Cooperative Program-Fishermen												
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X			\$39	М						4
62		Option Not Identified	Subsistence Harvest Assistance	X			\$23	М						2
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	X		\$	165	93 - M						4
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	<b>X</b> 2	X \$	230	М						2-
65 H	arlequin Duck	Eliminate Oil from Mussel Beds					·						+-+	
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	X	X \$	700	93 - M						e
67		Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	X	X S	\$53	М						4
		······································												
		· · · · · · · · · · · · · · · · · · ·												
68 In	tertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	x	X	x :	620	м						4
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	X	x :	\$70	M					+-+	2
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	X	x \$	300	M						2
71	· .	Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	X	X S	\$50	м					+++	2
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$	500	M		1.				L
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	x	X	x \$	800	м						4
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	X	x	•	M					1	4
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	X	X \$	620	М						4
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$	600	М		_				e
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	X	X \$	500	м				-		
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		X	X \$	200	М		1				4
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	X	X \$	275	M						4
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	X	X :	\$50	м		1				#
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	·X	X	X \$	186	M					T	6

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Name: DBrib L. Spencer Phone: 345-045-9

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	ଜାତ	R	(243)75	EST.	1 9	1	1	1 1	1	222 000	Do No
	or SERVICE			P W S	K E N	к О О	sk.	(YEARS)	9 4	9 5	9	9 9 7 8	9	0 0 0	c Fund
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	x	\$500	М	-	+-1					
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	x	\$600	М							4
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	x	\$195	М							2
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	x	\$500	93 - M							
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M							2
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	x	\$860	м							2
88		Option Not Identified	Clam Enhancement	X	X	X	\$120	М							4
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	М							-
.90		Option Not Identified	Restoration of Mussel Beds	X	X	x	\$500	М	-						
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	x	\$237	М				•			2
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														-	
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M							
93		Monitoring	Recovery Monitoring	X		_	\$125	М	T						1-
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М							2
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				М		Γ.Ι					4
						-†-									
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	x	x	x	\$240	93 - M			-	-	11		Ы
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	x	\$180	93 - M	1-	$\uparrow \uparrow$					1
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	x	\$250	м	+-	†-†					2
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	x	\$509	М	1-	$\uparrow \uparrow$			++		4
100		Minimize Incidental Take							1	1.					2
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks	1	X	x	\$200	м	1			-			2

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: DAVID L. Spencer Phone: 345-0459

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	RESOURCE	RESTORATION.OPTION	POTENTIAL PROJECTS	P B	GIO K I	N EST. COST/VA	EST. DURATION	.1 1 9 9 9 9	1 9 9	1 9 9	1 9 9	1 2 9 0 9 0	2 0 Not 7	
	SERVICE	SUEOPTION.	Construction of the second second second second second second second second second second second second second	s	NI	) (SK	WEARS)	4 5	6	<u>'</u>	A A	0	1 f	
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	<b>x</b> :	<b>\$250</b>	м					_	1	+
										1				
1							 							
												}	} }	
										_				
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	X	<b>〈</b> \$150	м							
104		Habitat Protection	Riparian Habitat Assessment	X	X	<b>〈</b> \$110	M							
105		Habitat Protection	Stream Channel Capability Modeling	X	X	<\$110	М					_		
106		Habitat Protection	Stream Habitat Assessment	X	X X	(\$361	93 - M		7					
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1							
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	X	\$276	93 - M		-					
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	X	\$100	M.							
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	X	<b>(</b> \$750	М							
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		X	<b>(</b> \$111	1							
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		)	(	1							1
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			<b>(</b>						-		j
114		Habitat Protection and Acquisition	Valdez Duck Flats	X			1							
115		Habitat Protection and Acquisition	Inholdings In Kenai Fjords National Wildlife Refuge	Τ	X	\$20	1	L	1					
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			<	1	Ι,						
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			<b>\$</b> 250	1							1
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1						•	1
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			<b>\$200</b>	1							1
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		]	\$77,000	1	-						1
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	\$90	1			T				1
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	\$60	1		T					1
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay	T	X	\$400	1		1					1
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	\$80	1							1
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X	\$740	1							1
126		Habitat Protection and Acquisition	Habitat Acquisition	X	X	\$25,000	93 - 1		+-					1
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak		3	(\$112,500	1		$\top$	1				1

<sup>•</sup>PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: DAVID LiSpencer Phone: 345-04/59

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	132	ejor	EST.	EST 1	i	1	1	1	1	2 2	8	
	or	or		P	K K E O	(COSTATE)	DURATION ;	9	9 9	9 9	9	9	0 0	Not 7	1
	SERVICE	SUBORTION		s	ND	\$K .	(YEAES)	5	6	2	8		0 1	н Б	i
128 Mu	Itiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1	<u> </u>	┝,						l
129		Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		X	\$4,000	1								1
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		X	\$1,000	1	+							l l
131		Increase Natural Food Supply			· [				i .						1
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	x x	\$50	ML	12	4						ĺ
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x x	\$408	M.		-					1-	ł
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	м							2	$\vdash$
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	м							2	F
136		Intensify Management	Seabird Colony Restoration	X	хх	\$250	м		ĺ					2	$\vdash$
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	м							2	$\vdash$
138		Monitoring	Shoreline Worm Life Monitoring	X	хx	\$388	м		1					e	t.
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	x x	\$416	М		1					1	1-
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	хx	one billion	М								Ś
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	хх	\$280	М		i					c	$f^{*}$
142		Option Not_Identified	Oil Spill Injured Resources Literature Research and Review	X	xx	\$7	M		1					4	F
143	-,	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	хx	\$650	- 1		1					6	
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	хX	\$48	MZ	Ł						1	
145		Option Not Identified	Shoreline Assessment	X	хx	\$250	93 - M								
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	М							4	F
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x x	\$500	93 - M						•	6	F
148	. ·	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	M							4	r
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	хx	\$2,300	ſ							4	F
150		Recovery Monitoring	Injured Resource Food Supply	X	x x	\$850	М							2	F
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x x	\$500	м							2	t
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		x	\$600	M							4	$\vdash$
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М							4	+
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	хx	\$150	м							6	F
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	хx	\$100	M							L	F
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	хx	\$200	М							i	F
157	!	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	M	1					T	4	ł

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Name: DAVID L. Spencer Phone:\_\_\_\_

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RESOURCE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	P W S	K E N	DN K D	EST. COST/YR SK	EST. DURATIO	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 1 9 9 9 9 8 9	1 2 0 0 0 0	2 Do Not Fund	
158 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	м				▋		2	
159	Recovery Monitoring .	Surveys to Monitor Marine Bird and Sea-Otter Populations	x	x	x	\$275	93 - M							
160	Reduce Disturbance by Field Presence		-	11							1			
161	Reduce Disturbance Through Public Info	Public Information and Education	X	X	X	\$316	М		1-1				4	
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	X	X	\$50	М						i	-
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	X	X	\$500	М						4	
164	Restoration Monitoring	Ecosystem Study	X	X	х	\$6,000	М			-			-	•
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	x			\$205	M	-			+ +		4	
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	x	╞┈╴┤		\$400	M	+	$\uparrow \uparrow \uparrow$		┨╌╌┨╶╴		d	*
167	Intensify Management	PWS Herring Tagging Feasibility Study	x	[	†-	\$112	М	-+	†		$\uparrow \uparrow$		4	
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	x			\$189	М	1					2	
169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	М	1					2	/
170	Option Not Identified	Enhancement of Pacific Herring	X	X	x	\$120	M	0			1			
171	Restoration Monitoring		-											
172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	X	X	\$40	93 - M						2	•
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X	x	\$180	M						2	
174	Restoration Monitoring													
175	Temporary Predator Control		·											

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1994 POTENTIAL PROJECT TITLES

#### RESOURCE RESTORATION OPTION POTENTIAL PROJECTS RE(C)(0) 350 -63 no CONTAX: 2));7:81 or SUBOPTION (YEARS SERVICE 970 176 Pink Salmon Fish Passes and Access X X X \$25 М Feasibility of Fish Passes as Oil Spill Restoration х 177 Fish Passes and Access Horse Marine Creek Pink Salmon Restoration \$28 1 x Fish Passes and Access \$130 1 178 Otter Creek Fish Pass 179 х 1 Fish Passes and Access Pink Creek Pink Salmon Restoration \$11 1 180 Fish Passes and Access Sockeye Creek Fish Pass \$60 х 181 Fish Passes and Access Waterfall Creek Pink Salmon Restoration-Fish Improvement \$55 1 V 182 xxx \$727 М Improve Survival Rates Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks V 183 X \$495 М Intensify Management Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon V 184 X М \$855 Intensify Management Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries X м 185 Intensify Management Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification \$500 x М 186 Intensify Management Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population \$253 XXX 187 М Intensify Management \$152 Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation XXX 188 \$705 M Intensify Management Pink Salmon Escapement Enumeration x 189 м Intensify Management PWS Salmon Stock Genetics \$150 X 190 Quality Assurance for PWS Coded Wire Tagging and Fish Production Records \$66 м Intensify Management x x 191 \$686 Μ Monitoring Investigating and Monitoring Oil Related Egg and Alevin Mortalities x x 192 Monitoring Restoration Monitoring and Preservation of Wild Populations of Pink Salmon \$899 М X 193 М Monitoring \$141 Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification X 194 93 - M Monitoring Pink Salmon Egg to Pre-Emergent Fry Survival in PWS \$385 x 195 М Monitoring \$50 Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound Option Not Identified x|x|x М 196 Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak \$300 197 Recreation |x|x Establish Marine Environmental Institute Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak \$1,250 М L xxx 198 Establish Marine Environmental Institute Oiled Wildlife Rehabilitation Center \$6,000 1 x x x 199 \$40,000 Establish Marine Environmental Institute Seward Sea Life Center 1 200 x x x Habitat Protection and Acquisition 17(b) Easement Identification-Public Access \$500 М 201 xxxx \$500 м Habitat Protection and Acquisition Acquisition of Important Recreation Lands

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Name:_	DAVID	L. Spencer
Phone:_	345-	0459

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	6		ON)	EST.	EST.	1	1 1	1	1	2	2	7
	or	And States of States and States		P	K E	к о	CERTA	<b>A DURATION</b>	9 9	999	9 9	999	0 0	0	
	SERVICE	SUEORTION		s	N	D	<u>. 98</u>	(YEARS)	4	5 6	7	8 9	0	1	
202 F	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System			X	\$500	1					Ì		Ĺ
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		T	X	\$70	1							
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		$\square$	\$50	м						7	
205	-	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	×	X	X	\$100	M							
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	×	:		\$58	м							
207		Monitoring	Recreation Field Management and Monitoring	X	X	X	\$700	м							
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X	:	T	\$150	1							
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	×	:		\$20	1							
210		New Backcountry Recreation Facilities	Improve Marine Parks	×	X	X	\$100	м							
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X			\$100	1			T				Ĩ.
212		New Backcountry Recreation Facilities	Prince William Sound Campground	×			\$70	1							
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	X	X	\$150	M							
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X			\$100								
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X	:		\$250	1							
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	X	\$140	1							
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X			\$400	M			1			1	Ē
218		Option Not Identified	Sustainable Tourism in PWS	X	:		\$240	М			1				
219		Option Not Identified	Watchable Wildlife	X	X	X	\$65	м				·			
220		Option Not Identified	Increased Access PWS	×			\$100	M							T
221		Plan Commercial Recreation Facilities	Recreation Development	×	X	X	\$200	м			1				
222		Restoration Monitoring													1
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	×	X	X	\$77	м							Ī
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X				1			T				[]
225	_	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	×	X	X	\$310	M			Ţ				Π.
226		Visitor Center	Cordova Environmental Education Center	X	:		\$15	1			T				]
227		Visitor Center	Cordova Mini-Imaginarium	X			\$63	1			Τ				Π.
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	X	X	\$155	м						-17	77
229		Visitor Center	Environmental Education Center in PWS	×	:		\$90	1							1
230		Visitor Center	Environmental Learning Resource Center	X	X	X	\$90	1							1
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X			\$450	1		-				-17	

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N	EST,	EST.	1	1 1	1 1	1	1 2	2	8	
	or	or	the second second second second second second second second second second second second second second second s	P W	K E	к o	:Ost/ya	DURATION	9 9	9 9	999 99	9 9	9 0 9 0	0	Not	
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	Ľ	5 6	5 7	ľ	9 0	1	E.	
232	Recreation	Visitor Center	Information Center	X	x	x	\$600	1							4	
233		Visitor Center	Interpretation of PWS	X			\$10	М							4	, ,
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1							2	
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1		4						
236		Visitor Center	Valdez Visitor Center	X			\$850	- 1							1	
		· · · · · · · · · · · · · · · · · · ·										T				
			$E_{\rm eff} = 10^{-10} M_{\odot}^{-1}$													
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	М							4	1
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	М		2	-					
239		Restoration Monitoring													4	
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	x	\$99	1							4	
	· · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·					· · · · · · ·									
					-				-						1	
	· · · ·															
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	М			-					
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М	4							
243		Monitoring														
																Ì
		•	· · ·													
244	Sea Otter	Cooporative Prgm-Subsistence Users														
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	х	x	\$83	М		4						
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	х	x	\$337	М							4	-
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	х	x	\$450	M							2	-
248		Monitoring	Sea Otter Population Dynamics	X	X	x	\$291	93 - M								
249		Restoration Monitoring				T							T			

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# 1994 POTENTIAL PROJECT TITLES

# Page 12

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W		EST. Cost/yr	EST. DURATION	1 9 9	1 1 9 9 9 9	1 9 9 7	1. 1 9 9 9 9	2 0 0	2	
<u> </u>	SERVICE	SUBORTION		s	D	<u>sk</u>	<u> Marien</u>						<u> </u>	4
250	Sea Utter	Study: Eliminate Oil from Mussel Beds		·										
251	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	x		\$120	м				/{		2	-
252		Intensity Management	Develop and Deploy In-Biver Hydroacoustic Counters for Sockeye Salmon in the Kenai Biver	+	x	\$333	M					++		_
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon	┼╌┼	Tx	\$275	M					-++		エ
254	······································	Intensify Management	Genetic Stock Identification of Kenai Biver Sockeye		x	\$500	93 - M			+		+	+=	-
255	· · · · · · · · · · · · · · · · · · ·	Intensify Management	Kenai River Sockeve Salmon Restoration	+	x	\$1,000	93 - M				;			
256		Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		x	\$143	М				·	+++		チ
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		X	\$6	M		1-		<u> </u>			
258		Monitoring	Sockeye Salmon Overescapement		xx	\$641	93 - M							-
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M		-1			1-1		
260		Option Not Identified	Red Lake Salmon Restoration	1-1	X	\$72	М							
	· · · · · · · · · · · · · · · · · · ·												:	
									_					
261	Sport Fishing	Recovery Monitoring		+								-+		
262	<u> </u>	Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		x	\$4,200	1					+-+		1
263		Restoration Monitoring		$\uparrow \uparrow$		1						++		
	· · ·			1-1								+++		-1
											1.1.			
													-	-
264	Subsistence	Access to Traditional Foods				1								1
265		Bivalve Shellfish Hatchery									1.			
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X		\$200	M					1.1	18	4
267		Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	хx	\$300	1	-					. 3	다

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RESOURCE **POTENTIAL PROJECTS** REGION EST. **RESTORATION OPTION** -81 COST/YR DURATIC or . SERVICE SUBOPTION MEARS 268 Subsistence xx \$2,200 Option Not Identified Mariculture Technical Center 1 хx 269 **Option Not Identified** Seward Shellfish Hatchery ¥ \$1,300 1 X X 270 Survey of Impacted Native Communities-Subsistence Х \$700 М **Recovery Monitoring** x М 271 **Replace Harvest Opportunities** Chenega Bay Replacement Subsistence Resource Project \$50 Х М **Replace Harvest Opportunities** \$55 272 Chenega Chinook and Coho Release Program х 273 **Replace Harvest Opportunities** Port Graham Salmon Hatchery \$2,500 1 X 274 \$1,000 1 **Replace Harvest Opportunities** Silver Lake Fish Hatchery XX 275 **Replace Harvest Opportunities** Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas Х \$55 Μ 276 **Restoration Monitoring** XX \$58<del>9</del> М 277 Subsistence Mariculture Sites Village Mariculture Project - Oyster Farming Х x x М Х \$300 278 **Test Subsistence Foods** Assessment and Quality Assurance of Shellfish Resources xxx \$308 93 - M 279 **Test Subsistence Foods** Subsistence Food Safety Testing 280 Subtidal Habitat Protection XX M Juvenile Spot Shrimp Habitat Identification \$110 x 281 Intensify Management PWS Spot Shrimp Recovery Management Plan \$715 М X \$90 М 282 Monitoring PWS Spot Shrimp Survey XXX M Injury and Recovery of Deep-Benthic Macrofaunal Communities \$275 283 Monitoring x 284 Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS \$265 93 - M Monitoring XXX 4 \$390 М Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources 285 Monitoring 4 xxx 286 Subtidal Recovery Monitoring \$400 М Monitoring XXX 287 **Restoration Monitoring** Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates \$90 М XXX 288 Technical Services Administration Electronic Archiving of Exxon Valdez Records \$450 Μ 289 Administration x М 1 Geographic Information System Mapping of Natural Resources in Western PWS \$75

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	(e)(	2N	EST.	EST.	1	1	i	1	1 2	2	ß
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	SERVICE	SUBOPTION	and the second second second second second second second second second second second second second second second	s	N	D	<u>\$K</u>	(YEARS)	5	ſ,	1	8	, ,	1	5 ·
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	X	\$105	93 - M							4
291		Administration	Toxicological Profile of PWS	х			\$150	М			Ľ				4
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	Х	X	X	\$8	. • • • • • • • • • • • • • • • • • • •			-				4
293		Public Information	Database Integration	X	X	X	\$148	. M .	<u> </u>						2
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	х	X	X		М							9
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	х	x	х	\$120	М	Ţ.						2
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	<sup>м</sup> н. М. н							-
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	х	\$72	M	_						_d
							-								
			,												<u>.</u>

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE RESTORATION OPTION or of SERVICE SUBOPTION	POTENTIAL PROJECTS.     REGION     EST.     EST.     I <thi< th="">     I     <thi< th="">     I     <thi< th="">     I&lt;</thi<></thi<></thi<>

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet,
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93=Funded in 1993 M=Multi-year Project

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#### Name:\_\_ Phone:\_\_

RESOURCE or SERVICE	RESTORATION OPTION ob SUBORTION	POTENTIAL PROJECTS	P K W E S N	DN EST. <sup>K</sup> COST/YR <sup>D</sup> SK	EST. DURATION <sup>9</sup> (YEARS) <sup>4</sup>	1 9 9 5	1 1 9 9 9 9 6 7	1 1 9 9 9 9 8 9	2 2 0 0 0 0 1	Do Not Fund
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 						•				
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD



EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL



Please Stack Your Comment Sheets On Top Of This Page....



Then Staple or Tape Sheets Together....



Fold This Page Over Your Comment Sheets....

Erron Vald 645 "O" 8tr Anchorage, 99501	E Trustees es Trustees est AX

Attach Correct Postage

Name: Phone:

# Page 1

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P	G C	к	951) (4.0)537/3/(1)	etsu Miranola	1 9 9	1 9 9	1 1 9 9 9 9	1 9 9	-1 9 9	2 0 1 0	Do Not
	SERVICE	SUEDETION		s	N N	פ	ЭX.	WEARE)	4	5	6 7	. 8	9	0 1	Fund
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	Х	\$41	М	-	1	V	1			
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X			\$300	1							V
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	M				V			5
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	Х	\$525	М							V
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	X	X	\$400	M							V
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1							V
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	x	\$300	93 - M		•					V
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М				<u> </u>			V
9		Public Information	Heritage Information Replacement	X	X	x	\$200	М							1.1
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М							N
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	М		~	Vi	1		Vi	1
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	М						T	
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	x	\$150	М				<u> </u>		1	it
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М							V
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	М							V
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1							V
								-							
						_		·							
															•
	Bald Eagle	Habitat Protoction	Identification and Protection of Important Pold Early Habitate	v		$\overline{\mathbf{v}}$	¢262	м				1			
18		Recovery Monitoring	Pold Eaclo Productivity Survey and Catalog	Ŷ	$\hat{\mathbf{v}}$	$\frac{1}{\sqrt{2}}$	\$202 \$10	M	Y	X	Y Y	1	-	-X	
19		Recovery Monitoring	Long Term Depulation Monitoring for Pold English	Ŷ	$\hat{\mathbf{v}}$	$\hat{\mathbf{v}}$	\$200	M	V	<u>v</u>		$\frac{v}{v}$		<u>~ </u> 3	4
				<u> </u>	<b>^</b>	4	φ200	IVI							
	-	•	•										-		
		· · · · · · · · · · · · · · · · · · ·		$\square$		+	·····					+			
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	х	\$108	93 - M							
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Ovstercatchers in PWS	X			\$125	M			Λ	1	r l		

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Name: 5958 Phone:

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	RESOURCE or SERVICE	RESIDER TION OPTION	POTENTIAL PROJECTS	P W S		N E CO	ST. ST/YR SK	EST DURATIO (YEARS)	1 9 9 4	1 1 9 9 9 9	1 1 9 9 9 9 6 7	1 9 9 8	1 2 9 0 9 0 9 0	2 0 0 1	Do Not Fund
22	Black Oystercatcher	Restoration Monitoring	· ·		Ī						Ī				1
									•						
23	<b>Commercial Fishing</b>	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	x	x)	X \$1	,100	М				V			
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	x >	X \$	385	М						1	1
25		Intensify Management	Fishery Industrial Technology Center	x	X X	X \$3	,500	1				-			1
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$	150	М							ト
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		x	\$	300	М						ŀ	v
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	x >	X \$	200	м							7
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X		\$5	,000	<b>1</b>							J
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	X		\$	868	M							1
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	x x	X S	50	М							L
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island		)	X S	45	М							4
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X		1	80	М							4
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X	1	50	М							5
35	-	Replace Harvest Opportunities	Red Lake Mitigation		)	X \$	191	M							J
								-							
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	x	x	x s	280	м				12		$\vdash$	ī
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	x	xb	x s	51	93 - M			-	++			
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	x	x)	x s	573	М				11			7
39		Recovery Monitoring	Common Murre Population Monitoring	x	x)	X \$	191	М	1.	1	Χ.	ŤЛ	•	1-1	-
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	x	x)	x s	40	M	Ť					ţ-j	J
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$	460	М	V	J.	1	101	$\sqrt{\sqrt{1}}$	1	-

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	v][2)	AN	EST.	EST	1	1 1	1 1	1	1 2	2 8
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	SERVICE	SUBOPTION		s	N	D	<u>- 5K</u>	(ricate)	4	5 6	6 7	B	9 0	
42	Common Murre	Restoration Monitoring						м						
				_										
														1
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X			\$200	M						
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X			\$285	M						
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X			\$35	м	`					L
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X			\$950	M						-
47	· ·	Restoration Monitoring						M					_	V
	-													
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	х	X	\$600	1						V
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X			\$200	M			$\checkmark$	11		
50		Option Not Identified	Hazardous Material Collection Facility	X	х	X	\$100	1						V
51	495. -	Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	х	X	\$488	М						
52		Public Information	Public Broadcasting System Program on Oil Spill	X	X	X	\$70	М		i				1
53		Public Information	Publish and Distribute Brochures on Injured Species	X	X	X	\$90	М						~
54		Public Information	PWS Brochures	X			\$65	М						V
55		Public Information	PWS Implementation of Interpretive Plan	X			\$150	м						V
56		Public Information	PWS Large Format Photographic Book	X			\$100	М						V
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X			\$70	М						V
58		Public Information	PWS Video Programs	X			\$100	М						V
59		Public Information	Science of the Sound- Education Program	X			\$53	М					•	V
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PWS=Prince William Soundy KEN-Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE or SERVICE	RESTORATION OPTION SUBJECTION	POTENTIAL PROJECTS	P P W S	G Ø E N	N K D	est. Ostvyr Sk	EST. DUHATION YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 2 9 0 9 0 9 0	2 0 0 1	Do Not Fund
60	Harbor Seal	Cooperative Program-Fishermen									T	ĪĪ			
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x		-	\$39	М	V	1.1.	1.	17	•	V	F.
62		Option Not Identified	Subsistence Harvest Assistance	x			\$23	М	ľ						X
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x			\$165	93 - M				V	1		ř:
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	X	x	x	\$230	М							N
															N.
													•		
65	Harlequin Duck	Eliminate Oil from Mussel Beds					-								È.
66		Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	x	x	\$700	93 - M							X
67	· · · · · · · · ·	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	X	X	\$53	М	V	V		•			
		· · · · · · · · · · · · · · · · · · ·	n manana ana ana ana ana ana ana ana ana												
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	X	X	\$20	М							Y,
69		Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	X	X	\$70	М							1
70		Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	X	X	x	\$300	М			,   _				X
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	X	x	\$50	М	V	V					
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X			\$500	М							V.
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	X	x	\$800	М							1
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	X	X		М							X
75		Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	X	X	x	\$620	М							4
76	· · · · · · · · · · · · · · · · · · ·	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X			\$600	M					·		Y
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	X	x	\$500	М						T	1
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		X	X	\$200	М							1
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	x	x	\$275	М			T				4
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	X	x	\$50	М		$\checkmark$	1	M			
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	X	X	X	\$186	M							小

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	HESOUHCE	HESTORATION OPTION	POTENTIAL PROJECTS	R				EST.	1 -9	1 9	1 9	·1 9	1 9	1 2	2 2 0	Do No	I
	SERVICE	SUBORTION		w S	EN	0 D	SUSTAN SX	VEADS)	.9 4	9 5	9 6	9 7	9 8	9 ( 9 (	) 0 ) 1	c Fun	
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	X	\$500	м				<b>.</b>			-		ł
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	x	x	x	\$600	M	<u></u>			†				V	ł
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	x	x	x	\$195	M .			t	<u> </u>	+			1	ł
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	x	x	\$500	93 - M	1.	17	1						1
86		Monitoring	Herring Bay Experimental and Monitoring Studies	x		-	\$495	93 - M		†÷-		1				V	ł
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	x	x	x	\$860	м		†		-				V	Ł
88		Option Not Identified	Clam Enhancement	x	x	x	\$120	М	1	-	1	1				Ti	X
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	x	\$500	M	†			 	•			V	X
90		Option Not Identified	Restoration of Mussel Beds	X	X	x	\$500	М	†	†	1	1				V	Ł
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	x	\$237	М	1		1		+-			N	Y
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92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M	V	$\overline{\mathbf{V}}$		1/	$\overline{\mathcal{N}}$		XV	X	
93		Monitoring	Recovery Monitoring	X		1	\$125	М		ŀ	T					T	
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М		E.							
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				М	V	1	11	V	V				
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						1			Ľ								
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		·								.							
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X	\$240	93 - M	V	V	V	1					
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	X	\$180	93 - M								v	X
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	X	\$250	м								v	1
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	X	\$509	М		1		1				V	1
100		Minimize Incidental Take					•		V	1	V	1					
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	X	\$200	M				V	ΥT		1		

PWS=Prince William Sound, KEN=Kepai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Keminsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	c (c) (	<u>on</u>	EST.	EST	1	1	1	1 1	1	2	2 N
	or	Shipoharion		P W S	K E N	к О D	COSTAR	DURATION	9 4	9 5	9 6	9 9 7 8	9 9	0	
10	2 Marbled Murrelet	Postoration Monitoring	Survey to Menitor Recovery of Mathled Murrelets	y s		Y	\$250	M	5						-
10/		nestration womening		<u> </u> ^	<u> </u> ^−			141	V				+		
				ļ											
														• • •	
103	3 Multiple Resources	Habitat Protection	Habitat Modelling	x	x	x	\$150	м		7			-+		
104	4	Habitat Protection	Riparian Habitat Assessment	X	X	X	\$110	М	4	1					
105	5	Habitat Protection	Stream Channel Capability Modeling	X	X	X	\$110	М	V	$\overline{\mathbf{V}}$	{				
106	6	Habitat Protection	Stream Habitat Assessment	X	X	x	\$361	93 - M	V				-		
107	7	Habitat Protection	Valdez Hazardous Waste Collection	X			\$200	1	·			V	1		
108	8	Habitat Protection	Vegetation and Stream Classification and Mapping	X	X	X	\$276	93 - M		V					
109	9	Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	X	<b>X</b>	\$100	M	V		<u>.    </u> [.		_		
110	0	Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	×	X	X	\$750	М	•						1
.111	1	Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		X	X	\$111	1	$\checkmark$	$\mathcal{V}$	1	VL	10	V	V
112	2	Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X		1	V	2	V	VV	V	V	1
11:	3	Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			X		1	V	V	V	VI	L	11	V
114	4	Habitat Protection and Acquisition	Valdez Duck Flats	X				1	$\checkmark$	$\mathcal{N}$		N	v	1	$\checkmark$
115	5	Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X		\$20	1	$\checkmark$		1-	$\sqrt{1}$	/v	$\mathbf{\Lambda}$	V
116	6	Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1		$\checkmark$		$\sqrt{1}$	$\sqrt{\sqrt{1}}$	$\mathbf{N}$	
117	7	Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X	\$250	1			, .	$\checkmark$			
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X			\$3,500	1	V	V	V	νľι	$\sqrt{1}$		
119	9	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X	\$200	1	$\checkmark$	$\checkmark$	$\mathcal{N}$	$\sqrt{}$	$\langle \gamma$	1	
120	0	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1	$\mathbf{V}_{\mathbf{r}}$	$\mathbf{N}$			/~		$\checkmark$
12	1	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	•	\$90	1	$\checkmark$	$\checkmark$		Ń.			
122	2	Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X		\$60	1	$\checkmark$	V					
123	3	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X		\$400	1	$\checkmark$	V.	$\mathcal{N}$	$\Lambda_{-}$			
124	4	Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X		\$80	1	$\vee$			V.			
125	5	Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X		\$740	1	V	$\mathcal{N}$	$\mathbf{V}$				
126	6	Habitat Protection and Acquisition	Habitat Acquisition	X	X	X	\$25,000	93 - 1	V	V.	V	V			
127	7	Habitat Protection and Acquisition	Habitat Acquisition, Afognak			X	\$112,500	1	$\mathbf{N}$	5	$\mathcal{N}$	1			

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R P 3 C	GIO K E	N K O D	EST. COST/VR	EST. DURATION	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fu
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island			x	\$20,000	1			$\mathbf{\lambda}$				ā.
129	Habitat Protection and Acquisition	Habitat Acquisition, North Aformak Island	+		x	\$4,000	 1		Ż	1	1.	·/	17	r-1
130	Habitat Protection and Acquisition	Kodiak Bear Befuge Stream Mouth Inholdings Acquisition			x	\$1.000	1	$\mathbf{\dot{\mathbf{v}}}$	X		1.		JA/	
131	Increase Natural Food Supply		1	┝──┼							Y		- <b>VV</b>	$\mathbf{N}$
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	x	x	x	\$50	М							
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x	x	\$408	М							V
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	М							r
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	М	V	$\overline{\mathbf{V}}$					
136	Intensify Management	Seabird Colony Restoration	X	X	x	\$250	M							V
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	М		İ				V	
138	Monitoring	Shoreline Worm Life Monitoring	X	X	X	\$388	М		į					1
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X	X	\$416	М							V
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	Х	Xd	one billion	м							1
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X	<b>X</b> .	\$280	M		i					X
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	x	\$7	М		i					V
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	-X	X	\$650	- 1							
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X	X	\$48	М							et
145	Option Not Identified	Shoreline Assessment	X	X	X	\$250	93 - M							N
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			x	\$28	М							
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	X	\$500	93 - M							
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		х		\$800	М							1
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	х	X	\$2,300	1							V
150	Recovery Monitoring	Injured Resource Food Supply	X	X	X	\$850	M							V
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	X	\$500	M							M
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	М							
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	М				~		1	
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X	X	\$150	M							
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X	Х	\$100	М	•	ŀ	$\sqrt{1}$	/~	$\square$	$\checkmark$	
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	х	\$200	М							$\mathbf{\Lambda}$
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X			\$35	М			$\sqrt{1}$	$\Lambda$			

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipetago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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	RESOURCE or	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	P P W S		EST. COST/1 SK	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0'~ 0	2 Do Not Fund
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X	1	\$91	м				V	$ \cdot $	
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	хx	\$275	93 - M	•				V	
160		Reduce Disturbance by Field Presence											
161		Reduce Disturbance Through Public Info	Public Information and Education	X	хx	\$316	M						V
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	x x	\$50	м						V
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	х х	\$500	М				V		•
164		Restoration Monitoring	Ecosystem Study	X	х х	\$6,000	м						i
					-		· · ·					-	*
165	Pacific Herring	Intensify Management	Constinue Stock Identification for Horring in DWS	Y		\$205	M			-{·			-1
165		Intensity Management	Herring Snawn Denosition For Loss and Penroductive Impairment			\$400	M						-1.
167	· · · · · · · · · · · · · · · · · · ·	Intensity Management	DWS Horring Tagging Egacibility Study			\$112	M					+++	-FJ
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	Ŷ		\$189						-+	
160		Monitoring		X	·	\$60	M						1
170	· · · · · · · · · · · · · · · · · · ·	Option Not Identified	Enhancement of Pacific Herring	X	xx	\$120	M		-1-	+ - +		171	
171		Bestoration Monitoring		+						┼┈┼		+-+	
				┼╌┼	-+-					╋		++	
													1
	······												·
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	x x	\$40	93 - M	1	1	1			•
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	x x	\$180	М		1				V
174		Restoration Monitoring						/	`				
175		Temporary Predato: Control						, ·					
	· ·												

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	512	<u>e</u> lo	N	EST,	EST.	1	1	1 1	1	1 2	2 2	8
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SERVICE	SUBOPTION		s	Ч	D	SK	(NEALES)	4	<u> </u>	6 7	8	9 0		5d
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	x z	x	\$25	M							N
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		2	x	\$28	11							
178	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1							iv
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration		2	x	\$11	1							
180	Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1							
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			x	\$55	1		ŀ					V
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	X 3	X	\$727	M							i.
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	М							ñ/
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	М							
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М	V	~	1				5
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М	$\checkmark$	1	1	1			1
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	X	\$152	M	-						3
188	Intensify Management	Pink Salmon Escapement Enumeration	X	X	X	\$705	М							M
189	Intensify Management	PWS Salmon Stock Genetics	X			\$150	м					1		N
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М			1	f			$\checkmark$
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X	ŀ	\$686	M			-	-			1
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	x		\$899	М							2
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X		T	\$141	М							V
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M							V
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М							$\mathbf{\mathcal{I}}$
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	X	X	\$300	M							v
				·				T	·			•		Ň
	· · · · ·													
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak		X	X	\$1,250	М			7.				2
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	x	\$6,000	1							M
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	X	X	\$40,000	1							
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	X	\$500	М			VI	11			
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	x	\$500	M	V		NV	IV	VI	11	

PWS=Prince William Spund - COS

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	5	3)2	10X	e ES		EST	1	1	1	1 1	1	2 2	8
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SERVICE	SUBORTION		s	<u>м</u>	P			PARS	<u> </u>		Ļ		ĻĽ		5
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		_	X	\$50	)	1		<b></b>			<u> </u>		<u>.</u>
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		_	X	\$70		1	_				·		
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	>	<		\$50		М	V	1/1		$\lambda$			
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	>	$\langle \rangle$	( X	\$10	)	M					<u>'</u>	_	V
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	>	<		\$58		М							
207	Monitoring	Recreation Field Management and Monitoring	>	$\langle \rangle$	( X	\$70		М							M
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	>	(		\$15	)	1				$\checkmark$			
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	>	<		\$20		1			1				
210	New Backcountry Recreation Facilities	Improve Marine Parks	>	$\langle \rangle$	(X	\$10	)	М					í I.		V
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	>	<		\$10	)	1	Ţ				V		
212	New Backcountry Recreation Facilities	Prince William Sound Campground	>	<		\$70		1							V
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	>	()	(X	\$15	)	M		•		11			
214	New Backcountry Recreation Facilities	PWS Kayak Trail	)	(		\$10	)	. 1					V		1.
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	)	<		\$25	)	1							V
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		>	( X	\$14	)	1							1
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	)	(		\$40	)	M							V
218	Option Not Identified	Sustainable Tourism in PWS	>	<		\$24	)	М	:			-			M
219	Option Not Identified	Watchable Wildlife	)	<b>(</b> )	( X	\$65		М			ŀ				
220	Option Not Identified	Increased Access PWS	>	(		\$10	)	М							V
221	Plan Commercial Recreation Facilities	Recreation Development	>	$\langle \rangle$	$(\mathbf{x})$	\$20	)	М							V
222	Restoration Monitoring														1.
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	)	$\langle \rangle$	( X	\$77		М	V	V					
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	)	<				1							V
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	>	$\langle \rangle$	(X	\$31	)	М							V
226	Visitor Center	Cordova Environmental Education Center	>	<		\$15		1							V
227	Visitor Center	Cordova Mini-Imaginarium	)	<		\$63		1							V
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	>	$\langle \rangle$	( X	\$15	5	М	1	[	-	11		1	V
229	Visitor Center	Environmental Education Center in PWS	)	(		\$90		1		t		11			17
230	Visitor Center	Environmental Learning Resource Center	>	()	$(\mathbf{x})$	\$90		1		<b>├</b> ─-					V
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	>	(		\$45	5	1	-						V

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Name:\_ Phone:\_ 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	CIC	DN	EST,	EST.	1	1	1	1 1	1	2	2 8	I
	or.			P W	K E	х о	Costma	DURATIO	9 9 4	9 9 5	9 9	999 999	9 9 9	0 0	i i i	l
000	Becreation	SUBOPTION		s	N	D	SK	(YEAES)							<u>a</u>	
232		Visitor Center	Information Center	X	X	X	\$600	1				_			. V.	
233		Visitor Center	Interpretation of PWS	X			\$10	. M						<u> </u>	Y	/
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1							V	
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1								
236		Visitor Center	Valdez Visitor Center	X		<u> </u>	\$850	1								1
		· · ·													$\sim$	1
	· ·····															
237	River Otter	Monitorina	Piver Ottor Passaver Mentarian				\$180	м							-	/
238		Monitoring	Synthesis of Information on Ecology and Injuny to Diver Ottors in DWS	$+\hat{\mathbf{v}}$			\$40	M	-	<u>∤</u>  -						
239		Restoration Monitoring					Ψ <del>τυ</del>		•						-	,
240	· · · · · · · · · · · · · · · · · · ·	Sport/tran Harvest Guidelines	Develop Hanvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Soaducks	Y	Y	x		1		┢──╎					+	
	· · · · · · · · · · · · · · · · · · ·			+^	$ \hat{-} $	-			<b>V</b> .							
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241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	x	x		\$175		+					_		,
242		Monitoring	Monitoring Injury to Bockfish in PWS	x			\$117	M							Ť	i
243		Monitoring														
		<u> </u>		+					+-							•
244	Sea Otter	Cooporative Prgm-Subsistence Users							_							
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	x	x	\$83	М			1	1.	††			
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	x	\$337	М					††	· · - † ·	r	
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	x	X	x	\$450	М		† -					V	
248	· · · · · · · · · · · · · · · · · · ·	Monitoring	Sea Otter Population Dynamics	X	x	x	\$291	93 - M	-					1	T.	-
249	· · · ·	Bestoration Monitoring											1	-		1

PWS=Prince William Sound, KEN-Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

a Name: 5958 Phone:

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE		EST. COST/VR	EST. DURĂTION	1 1 9 9 9 9	1 9 9	1 1 9 9 9 9	1 9 ( 9 (	? 2 ) 0 ] 0	Do Not Fu
SERVICE	SUBOPTION STATE		s	<b>р</b>	SK	(YEARS)				Ĺ		ind i
250 Sea Offer	Study: Eliminate Oil from Mussel Beds											
		· · · · · · · · · · · · · · · · · · ·										
251 Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	x		\$120	м		$\left\{ -\right\}$				1
252	Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeve Salmon in the Kenai River	†	x	\$333	М					· •	1
253	Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon	††	X	\$275	м						11
254	Intensify Management	Genetic Stock Identification of Kenai River Sockeye		x	\$500	93 - M		+-+				1
255	Intensify Management	Kenai River Sockeye Salmon Restoration	+-+	x	\$1,000	93 - M			-1			5
256	Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement	11	x	\$143	M	-					F
257	Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		X	\$6	• • M • •			21			
258	Monitoring	Sockeye Salmon Overescapement		хx	\$641	93 - M						A
259	Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M					-	N
260	Option Not Identified	Red Lake Salmon Restoration		X	\$72	М	<u></u>					V
						· ·			-			
												7
261 Sport Fishing	Recovery Monitoring		+-+				$\top$				-	Π.
262	Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		x	\$4,200	1						V
263	Restoration Monitoring		TT									
	· ·		·									
												1
264 Subsistence	Access to Traditional Foods		$\top$	•	1							
265	Bivalve Shellfish Hatchery	·									1	
266	Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X		\$200	M					-	V
267	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	xx	\$300	1						X

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Name:\_\_ Phone:\_\_ 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R P W S	GIC K E N	р к о	EST. COST/YR	EST. DURATION	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Pun
268	Subsistence	Option Not Identified	Mariculture Technical Center		X	- x	\$2,200	1							
269	· · · · · · · · · · · · · · · · · · ·	Option Not Identified	Seward Shellfish Hatchery	x	x	x	\$1,300	<u>i</u>				-		-	V
270	· · · · · · · · · · · · · · · · · · ·	Becovery Monitoring	Survey of Impacted Native Communities-Subsistence	x	x	x	\$700	M			·				V
271		Replace Harvest Opportunities	Chenega Bay Beplacement Subsistence Resource Project	X			\$50	M							V
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	x		+	\$55	М				-			V
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		x	$\uparrow$	\$2,500	1							V
274		Replace Harvest Opportunities	Silver Lake Fish Hatcherv	x			\$1,000	1				1-1		-	Ŵ
275	· · · · · · · · · · · · · · · · · · ·	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	x	x	x	\$55	М							V
276	· · · · · · · · · · · · · · · · · · ·	Restoration Monitoring		-+		+									1-
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	x	x	\$589	M						-	V
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	x	x	\$300	M							V
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M	V						
															1
-								-							l è
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	x		\$110	M			V		-	-	-
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	x		Ť	\$715	М			·			-	V
282	71 14	Monitoring	PWS Spot Shrimp Survey	X			\$90	М			- <b>-</b>				V
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	x	Х	\$275	М						1	V
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M							V
285	-	Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	x	X	\$390	М							V
286		Monitoring	Subtidal Recovery Monitoring	X	X	X	\$400	М					T		V
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	М							V
						_									
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	x	x	x	\$450	М							V
289	· · · · · · · · · · · · · · · · · · ·	Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X			\$75	M							V

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SUBORTION		P W S	K E N	к 0 D	COST/YR	DURATION	9 9 4	9 9 5	9 9 9 9 6 7	9 9 8	9 9 9	0 0 0 0 0 1	iot Func
Administration	Hydrocarbon Data Analysis and Interpretation	X	X	X	\$105	93 - M		└┩					
Administration	Toxicological Profile of PWS	X			\$150	M		7					V
Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8								V
Public Information	Database Integration	X	X	X	\$148	М							V
Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		М							V
Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x	x	\$120	М							V
Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100		<u>^_</u>					-	- V
Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	x	\$72	М	1						V
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	Administration     Administration     Public Information     Public Information     Public Information     Public Information     Public Information     Public Information     Public Information     Public Information     Public Information     Public Information	Subor flow       Administration     Hydrocarbon Data Analysis and Interpretation       Administration     Toxicological Profile of PWS       Public Information     CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities       Public Information     Database Integration       Public Information     Develop User Friendly Synopsis of Oil Spill Information       Public Information     Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment       Public Information     Public Access Repository for Oil Spill Geographic Information System (GIS)       Public Information     User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	Administration   Hydrocarbon Data Analysis and Interpretation   X     Administration   Toxicological Profile of PWS   X     Public Information   CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities   X     Public Information   Database Integration   X     Public Information   Develop User Friendly Synopsis of Oil Spill Information   X     Public Information   Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment   X     Public Information   Public Access Repository for Oil Spill Geographic Information System (GIS)   X     Public Information   User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities   X	Administration   Hydrocarbon Data Analysis and Interpretation   X   X     Administration   Toxicological Profile of PWS   X     Public Information   CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities   X   X     Public Information   Database Integration   X   X     Public Information   Develop User Friendly Synopsis of Oil Spill Information   X   X     Public Information   Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment   X   X     Public Information   Public Access Repository for Oil Spill Geographic Information System (GIS)   X   X     Public Information   User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities   X   X	Administration   Hydrocarbon Data Analysis and Interpretation   X   X   X     Administration   Toxicological Profile of PWS   X   X   X     Public Information   CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities   X   X   X   X   X     Public Information   Database Integration   X <td>AdministrationHydrocarbon Data Analysis and InterpretationXXXX\$ \$ \$105AdministrationToxicological Profile of PWSXXX\$ \$150Public InformationCD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping ActivitiesXXX\$ \$8Public InformationDatabase IntegrationXXX\$ \$148Public InformationDevelop User Friendly Synopsis of Oil Spill InformationXXX\$ \$120Public InformationProviding Public Access to Oilspill GIS Databases Using Arcview in PC Windows EnvironmentXX\$ \$120Public InformationPublic Access Repository for Oil Spill Geographic Information System (GIS)XX\$ \$120Public InformationUser-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 CommunitiesXX\$ \$72</td> <td>AdministrationHydrocarbon Data Analysis and InterpretationXXXX\$10593 - 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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

POTENTIAL PROJECTS

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelatio and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

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			Study of inchedo for removal from	coestal isla	onds Vi	V 50	3	~~	-	
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RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	R P W S	GO KKK EO ND	EST. COST/YA	EST. DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fund
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area





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Name: C.T. STACK Phone: 424 32/2

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### Page 1

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	<b>R</b> P <b>v</b> 5	EG K E N	<b>ON</b> × 0 D	este Contrat: Elco	ARE NOTANIO REALEM	1 9 9	1 9 9 5	1 1 9 9 9 9	1 9 9	1 9 9	2 .0 0 0	2 0 0 1	De Not Find
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	м			T	T	T		T	=
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X			\$300	· 1 ·	·	- 1-	1					
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	М								
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	М	1			1				
5		Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	X	X	X	\$400	М				T				
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1								
7	, <b>,</b>	Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	X	\$300	93 - M								
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М						·		
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М								
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М							1. je	·
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	М								
12	· · · · · · · · · · · ·	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	×	( <b>X</b>	X	\$225	• • <b>M</b> • • •					×,			; 🖂
13	· · · · · ·	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	М	_ ]·			- A.				
14		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	: x	X	\$210	М					1			
15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	М				1	-			
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	×			\$1,200	- · · · <b>1</b> · · ·			-	1:	·			x
		2		•			•									
														ŀ	·-  ·	
17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	x	x	\$262	М								
18	-	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	x	x	\$10	М		1						
19	•	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М				1				
	·····	· · · · · ·														
20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X		x	\$108	93 - M								
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X	:		\$125	М	ľ				ľ			

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Name:\_\_\_\_\_ Phone:\_\_\_\_\_

	RESOURCE			inangi Tarih	RE P W S		N EST & COST/YR \$K	EST DURATION (YEARS)	1994	1 9 9 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2	De Not Fund
2	2 Black Oystercatcher	Restoration Monitoring													
								1							
					-										
2:	3 Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition		X	X	\$1,100	M							
24	4	Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources		$ \mathbf{x} $	<u>×</u> ]2	K \$385	M	X	X	$\mathcal{X}$	M	XXX	(   X	- X
2	5	Intensify Management	Fishery Industrial Technology Center		X	x	<b>(</b> \$3,500	1							
26	6	Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage			X	\$150	M							
- 27	7	Intensity Management	Susitna River Sockeye Salmon Production Evaluation	· - · · · · · · · · · · · · · · · · · ·		X	\$300	M							1
28	B	Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment		X	X	<b>〈 \$</b> 200	M			<b>!</b>		<b>-</b>		
29	9	Option Not Identified	Payoff Debt of Valdez Fisheries Development Association		X		\$5,000	1							
30	b	Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Re	covery	x		\$868	Μ.	1	$ \chi $	X	X	XX	×	$\mathbf{x}$
31	1. to a set	Recovery Monitoring	Wild Fish Stock Information Assessment		X	x :	< \$50		×	X	X.	X	XX	٢X	.X
32	2	Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island	••••••		)	<b>〈</b> \$45	М							
33	3	Replace Harvest Opportunities	Montague Island Chum Salmon Restoration		X	- I.	\$80	M	X	X	X	XZ	x x	د م	
34	4	Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program			X	\$50	M						ľ	
3	5	Replace Harvest Opportunities	Red Lake Mitigation	· ·		2	K \$191	М							
											1				
											1				
36	6 Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity		X	X	<b>× \$</b> 280	М						1	
-37	7	Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement		X	X	K \$51	93 - M							
36	3	Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study		X	x	<b>K</b> \$73	M							
3	9	Recovery Monitoring	Common Murre Population Monitoring	OUT	X	X	K \$191	M					ľ		
4	D	Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill		X	x	K \$40	M					· • • •		
4	1	Remove Introduced Species	Removal of Introduced Predators from Bird Colonies	OUT			\$460	M			i I.			1.	

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PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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	RESOURCE or SERVICE	OF	POTENTIAL PROJECTS	RE P V S	GION K K E O N D	EST COSTAT	EST DURATION (YEARS)	1 9 9	,1 1 ,9 1 9 9 5 0	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	- 1 9 9 8	1 9 9	2 2 0 0 0 0 0 1	Do Not Fund
42	Common Murre	Restoration Monitoring					М							11
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			• • • • •											
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·									-		
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	Μ							
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$285	M	]. ]	.					
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	М.,	X	XZ	xX	X	X	x	d 1
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	M				<b>[</b>		ľ	
47		Restoration Monitoring					M							
			<b>`</b>											•
			n en en en en en en en en en en en en en											
						ļ								
48	General		Oil Spill Restoration Support Service and Facilities	X	XX	\$600	1	н.			έ <b>μ</b>			
49	· · · · ·		Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	М			1				
50	- the -	Option Not Identified	Hazardous Material Collection Facility	X	XX	\$100	1							
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	XX	\$488	M							
52		Public Information	Public Broadcasting System Program on Oil Spill	X	XX	\$70	M							
53		Public Information	Publish and Distribute Brochures on Injured Species	X	XX	\$90	м							
54		Public Information	PWS Brochures	X		\$65	M							
55		Public Information	PWS Implementation of Interpretive Plan	X		\$150	M							
56		Public Information	PWS Large Format Photographic Book	X		\$100	М						.	
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	М							
58		Public Information	PWS Video Programs	X		\$100	М							
59	• •·· •· •·	Public Information	Science of the Sound- Education Program	X		\$53	М	X	XZ	xX	X	x	xx	
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#### Name:\_\_\_ Phone:\_\_\_

	RESOURCE or SERVICE	RESTORATION OPTIONS	POTENTIAL PROJECTS	RE P v s	GO K K E O N D	EST. Gost/yr Sk	ÉST DURATION (VIEARS))	1 1 9 9 9 9 4 5	1 9 9 6	1 9 9 7	1 1 9 9 9 9 8 9	2 0 0 0	2 Do Not 0 Not 1 Fund
60	Harbor Seal	Cooperative Program-Fishermen											
61		Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	X		\$39	М	XX	X	x	×		
62		Option Not Identified	Subsistence Harvest Assistance	x		\$23	М	Ţ					
63		Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x		\$165	93 - M						
64		Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	xx	\$230	м	I					
65	Harlequin Duck	Eliminate Oil from Mussel Beds						Ì					
	- 	Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	X	xx	\$700	93 - M	·					
67	•	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	x	xx	\$53	м	XX	×	×			
		- Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna - Anna -										-	
68	Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	xx	\$20	М						X
69	•	Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	XX	\$70	М						X
70	_	Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	x	XX	\$300	M						×
71		Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	XX	\$50	М	-	11			1	X
72		Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	М						$ \times $
73		Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	x	xx	\$800	М						X
74		Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	x	XX		М						X
75		Monitoring	Coastal Habitat Injury Assessment - Intertidat Algae	X	XX	\$620	м						
76		Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	X		\$600	M						
77		Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	xx	\$500	м						
78		Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait	-	xx	\$200	M						X
79		Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	x	xx	\$275	M						
80		Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	xx	\$50	M	xx	x	хI	· .		
81		Monitoring	Monitoring for Recruitment of Littleneck Clams	x	xx	\$186	М	XX	1x	×	X		

KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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Name: C.T. 57ACK Phone: <u>424</u> 3212

#### Page 5

		RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	F F	REG K E N		COSTAR	EST DURATION	1. 9 9 4	1 9 9 5	1 1 9 9 9 5 6 7	1 1 9 9 9 9	1 9 9 9	2 0 0 0	2 0 0 1	De Not Fin
ł	82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	2	x   >		\$500	M		-		ľ				<u> </u>
	83	•	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring		x)	( x	\$600	М						1		
	84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing		x	d x	\$195	M								x
	85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds		xb	d x	\$500	93 - M								
	86	•	Monitoring	Herring Bay Experimental and Monitoring Studies		x	·	\$495	93 - M	·							CL.
I	87		Option Not Identified	Bivalve Shellfish Rehabilitation Project		x >	dx	\$860	M								3
	88	and and a second second second second second second second second second second second second second second se	Option Not Identified	Clam Enhancement		$\langle \rangle$	( x	\$120	м								×.
1	89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels		x >	( x	\$500	м		ŀ					ĺľ	X
	90		Option Not Identified	Restoration of Mussel Beds		x)>	( x	\$500	М					1			x
	91		Option Not Identified	Characterization of Near-Shore Bottom Habitat		x  >	dx	\$237	М							ΙĪ	
I						•											
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ŀ	92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales		×	1.	\$120	93 - M	X	×	XX	<	X			
	93	· · · · · · · · · · · · · · · · · · ·	Monitoring	Recovery Monitoring		<b>X</b>		\$125	M	$\times$	X	X X	< 7	x   x	X	X	1
	94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS		X		\$180	M						ſ		
	95		Reduce Fishery Interactions	Change Black Cod Fishery Gear		X			M								
		1									.  .						
							-			4			-				
																	,
	96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet		k li	$d\bar{\mathbf{x}}$	\$240	93 - M		·					·	
	97		Habitat Protection	Survey to Identify Upland Use by Murrelets		x b	dx	\$180	93 - M				ł			il	
	98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season		$\mathbf{x}$	d x	\$250	M				-				
	99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment		x )	c x	\$509	M								
1	00		Minimize Incidental Take			-	1		· · · · -		ł						
1	01		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks			ίx	\$200	M		.		t	-	Į į		

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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#### 1994 POTENTIAL PROJECT TITLES

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- 2 . S	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	4	REG	ON	EST.	EST,	1	1		1	1	2	2
8	SERVICE	SUBORTION			P K N E S N	K O D	COSTAR	DURATIO	9	9 S	,	9 8	, , ,	0	0
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets		x x	X	\$250	M							
		- · · · ·												ľ	
								1							
103	Multiple Resources	Habitat Protection	Habitat Modelling		x	.   <b>x</b>	\$150	M							
104		Habitat Protection	Rinarian Habitat Assessment		xx	x	\$110	M	×-	$\mathbf{x}$	xx				
105		Habitat Protection	Stream Channel Capability Modeling		x x	x	\$110	M							
106		Habitat Protection	Stream Habitat Assessment		xx	x	\$361	93 - M				1			
107		Habitat Protection	Valdez Hazardous Waste Collection		x		\$200	1		j	-	}			
108		Habitat Protection	Vegetation and Stream Classification and Mapping		x x	x	\$276	93 - M							:
09		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment		x x	X	\$100	м	x7	<  -	xx	x			
10		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species		x x	X	\$750	М	(		·	ľ			
11		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		×	x	\$111	1			Ì				
12		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X		1				•			
13		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			X		1				ļ			
14		Habitat Protection and Acquisition	Valdez Duck Flats		x			1							
15		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X		\$20	1				1			
16		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1							
17		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X	\$250	1				ľ			
18		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed		X _		\$3,500	1	<b>.</b>				<u> </u>		
19	· · · ·	Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park	].		X	\$200	1							
20	· · · · · · ·	Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1	<b>.</b>						
21	· · · · · · · ·	Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X		\$90	1						.	
22		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X	<b>_</b>	\$60	1							
23	·	Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X	<b> </b>	\$400	1							
24		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X	<u> </u>	\$80	1		ļ.					
25		Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X	<b> </b>	\$740	1	<b>.............</b>		-	1			
126		Habitat Protection and Acquisition	Habitat Acquisition		<u>x x</u>	X	\$25,000	93 - 1				L· .		.  _	
127		Habitat Protection and Acquisition	Habitat Acquisition. Afognak			1x1	\$112,500	1 1							

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC		EST: COST/YR	EST. DURATIO	1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	2 7	Do Not 7	]
	SUBOPTION		5 1		\$K	(YEARS)	Ľ	Ľ	Ľ	Ľ	Ľ	Ľ	ĽĽ		ł
128 Multiple Resource	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		X	\$20,000	1		-	:			r I.			
129	Habitat Protection and Acquisition	Habitat Acquisition, North Alognak Island		X	\$4,000	1	1	4 .							
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		<b>X</b>	\$1,000	1			:						
131	Increase Natural Food Supply				-				† <sup> </sup>			-			
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	XX	\$50	M			!			i [			ł
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	x x	\$408	М	1		•			1			
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X	]	\$200	м			:			1			
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	М	X	$ \kappa $	X	X	*	XX	τþ	2	
136	Intensify Management	Seabird Colony Restoration		XX	\$250	M	1		:	[]				-	
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	M	X		<u>. X</u>	X	X	12	×₽	4-'	•
138	Monitoring	Shoreline Worm Life Monitoring		x x	\$388	M		1							i
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish		XX	\$416	M	ļ		·			-	· . [		
140	Option Not_Identified	Alaska Land and Wildlife Conservation Fund		XX	one billion	M			•		11	[`			
141	Option Not Identified	Field Study of Bigremediation Enhancement Treatment Methods	X	X X	\$280	M			1		-	-		1	
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X :	x X	\$7	M			•		· ·	t - 1-	· · -		- 11
-143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	x x	\$650	1						į			
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	x x	\$48	м									
145	Option Not Identified	Shoreline Assessment	X	X X	\$250	93 - M			i			11			
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	, M			ł			i.			
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	x x	\$500	93 - M			1			1.  .			
148	Recovery Monitoring	Cook Intet Comprehensive Monitoring Program		×	\$800	M						1			
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x x	\$2,300	1			}			1.1		X	6
150	Recovery Monitoring	Injured Resource Food Supply	X	x x	\$850	м			į						Ì
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites		x x	\$500	м									ļ
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		×	\$600	М			!						
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intentidal Habitats of PWS	X		\$80	M			[						
154	Recovery Monitoring	Migratory Waterfowt and Shorebird Monitoring	X	x x	\$150	м			ļ			1			
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x x	\$100	М	1		1						
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	x x	\$200	м	-								
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М	1.								

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## Name:\_\_\_\_\_ Phone:\_\_\_\_\_

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RESOURCE	RESTORATION OPTION		RE	GION	EST.	EST.	1	1 1	19	1 9	1290	2
SERVICE	SUBOPTION		និ ម ្ល	E O N D	SK SK	(YEARS)	9	99 56	9 7	9 8	90	ů
158 Multiple Resource	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		\$91	M		1				Ī
159	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	x	хx	\$275	93 - M						
160	Reduce Disturbance by Field Presence											
161	Reduce Disturbance Through Public Info	Public Information and Education	x	хx	\$316	M						
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	x	хx	\$50	м				Í		
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	xx	\$500	M						
164	Restoration Monitoring	Ecosystem Study	x	xx	\$6,000	M						
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X		\$205	M	$ \times $	×				X
166	Intensify Management *	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment			\$400	M	×1	XXX		X ?	٩x	X
167	intensity Management 🛛 🕺	PWS Herring Tagging Feasibility Study	X	-	\$112	M	X	xX	X	X		
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X		\$189	M						
169	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	x		\$60	М	X	<   X				
170	Option Not Identified	Enhancement of Pacific Herring	x	xx	\$120	M		2	1			
171	Restoration Monitoring											
							1.1		1		1.	
	· · ·											
172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	x	xx	\$40	93 - M				11		
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	x	xx	\$180	M			1	11		
174	Restoration Monitoring				1							
175	Temporary Predator Control								1			
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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Name: <u>C.T. STACK</u> Phone: <u>424 3212</u>

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#### 1994 POTENTIAL PROJECT TITLES

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	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GION	EST.	EST.	1	1	1	1		1 2	2	р z
or	or and second		P W	K K E O	COSTAR	DURATION	9	9 5	9 6	9	9		0	2
SERVICE	SUBOPTION SUBOPTION		s	ND	SK	(YEARS)			Ļ					2
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	XX	\$25	M								
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration		X	\$28	1								
178	Fish Passes and Access	Otter Creek Fish Pass	X		\$130	1				ļ				
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration		X	\$11	1								
180	Fish Passes and Access	Sockeye Creek Fish Pass	X		\$60	1								
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement		X	\$55	1								
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	xx	\$727	м								
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X		\$495	м	×	*	X					
184	Intensify Mar agement	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X		\$855	M					-			
185	Intensify Mar.agement	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X		\$500	м	X	ĸ	×	×				
186	Intensity Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X		\$253	м	X	X	X	$\times$				
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	xx	\$152	м	X	X	×	×				
188	Intensify Management	Pink Salmon Escapement Enumeration	X	XX	\$705	м	$\checkmark$	X	$\mathbf{x}$	$\boldsymbol{\varkappa}$				
189	Intensify Management	PWS Salmon Stock Genetics	X		\$150	M	Ж	×						
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	. <b>X</b>		\$66	м.	×	lpha	×	×	X	XŽ	×	1.
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	x	\$686	M								
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X	\$899	м								
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X	÷1	\$141	М								
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X		\$385	93 - M	∗	×	×					
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X	I	\$50	м	X	×	Ŷ	×1	$\mathbf{x}$	x x	cا¥	
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	xx	\$300	м			$\sim$				Ì	×
1					1									
		· · · · · ·	1-1		1									1
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		xx	\$1,250	м								
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	x	xx	\$6,000	1								X
199	Establish Marine Environmental Institute	Seward Sea Life Center	x	xx	\$40,000	1						İ		X
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	x	xx	\$500	M						İ		
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	x	xx	\$500	Ń							ŀ	·

PWS=Prince William Sound, KEN=Kenai Feninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Penirisula, OUT=Outside Oil Spill Area

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#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	E F	EG	QN	EST.	ES	tin ,	1	1 1			2	, V
1.2	de la corte de la corte de la corte de la corte de la corte de la corte de la corte de la corte de la corte de			P.	K E	K O	COST/YR	DURA		9	999	2 9 9	9	0 0	) 5.7
199	Becreation	SUBORTION		S S		P	SK SK	YEA	<u>RS)</u>	Ļļ	ĻĽĻ				12
202	necreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System				\$500	1							
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			X	\$70	1					1 1		
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project				\$50	M							
205		Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	)	< X	X	\$100	M							
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS				\$58	M							
207		Monitoring	Recreation Field Management and Monitoring		( X	X	\$700	M							X
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails		<hr/>		\$150	1							11
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement				\$20	1			ſ.				
210	· ·	New Backcountry Recreation Facilities	Improve Marine Parks	)	$\langle x \rangle$	X	\$100	М							
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	)			\$100	1			í ľ				
212		New Backcountry Recreation Facilities	Prince William Sound Campground		(		\$70	1			i th	`		11	
213	na a cara an ann an an an an ann an an ann an an	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	)	$\mathbf{x}$	X	\$150	M	·				-		
214		New Backcountry Recreation Facilities	PWS Kayak Trail	)			\$100	1	•		Ê Ľ	· •		· •	
215		New Backcountry Recreation Facilities	PWS Recreation Facilities				\$250	1	1-	1	1.				jļ
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		X	X	\$140	1			ĊÈ				
217	الحاجين المراجعين الراري	Option Not Identified	Implement Prince William Sound Area Recreation Plan		d		\$400	м			Ê l			1	
218		Option Not Identified	Sustainable Tourism in PWS	)	d '	11	\$240	M		xx	×				
219		Option Not Identified	Watchable Wildlife	5	d x	x	\$65	M					11		
220		Option Not Identified	Increased Access PWS		d	† †	\$100	M				1.	† †		X
221		Plan Commercial Recreation Facilities	Recreation Development		đχ	x	\$200	M	· ľ		Í I				
222		Restoration Monitoring			1	f- t						1	1 -1		
223	•	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	· .	dx	x	\$77	м	1		i İ	ł			
224		Visitor Center	Center for PWS Oil Soill and Natural Resource Education		d ::	t T	·····i ·· ··	1	ţ			· [·	-		
225		Visitor Center	Coastal Habitat Specimens. University of Alaska Museum		( x	x	\$310	м			i l'	1	t t		
226		Visitor Center	Cordova Environmental Education Center	· -			\$15	1			1		· ·		
227		Visitor Center	Cordova Mini-Imaginagium			1	\$63		P	<b>`</b>		· ] ·	}}		· ]- ]
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts		, X	x	\$155	M	·		i 1				
229	· · · ·	Visitor Center	Environmental Education Center in PWS		1	f 1	\$90	1			1				
230	···· · ···	Visitor Center	Environmental Learning Resource Center	(;	, y	t <sub>x</sub> l	\$90	· · · ·	····   ,	$\mathbf{x}$		-   · .	1	·	
221		Visitor Contar	Establish Natural Desource Library and Computer Support Technical Control in Conduct		2	+^+	\$30 \$450		4				1	-	

11. States

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name: <u>C.T. STACK</u> Phone: <u>424 32(3</u>

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RE P W S	GIO K K E G N D	N EST COST/Y	EST. DURATION (YEARS)	1 9 9 4	1 1 9 9 9 9 5 6	1 9 9 7	1 9 9 8	1 2 9 0 9 9 9 0	2 0 0 1	De Not Fund
232	Recreation	Visitor Center	Information Center	X	x)	K \$600	1		1					
233	3	Visitor Center	Interpretation of PWS	X		\$10	M							
234	1	Visitor Center	Maritime Wing Valdez Museum	X		\$150	1	X						
235	5	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X		\$150	1		Ι.					
236	3	Visitor Center	Valdez Visitor Center	X		\$850	1							X
237	River Otter	Monitoring	River Otter Recovery Monitoring	x		\$180	м		ľ					
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	x		\$40	м		l ·					
239		Restoration Monitoring												
240	la ann an an an an georre	Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	x	x \$99	1	2	j.	1.				
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 							· · · · · · · · · · · · ·							
241	Rockfish	Intensify Management	Develop a Rocklish Management Plan	X	x	\$175	м	X	x X	X	X	×X	dX	- 1
242		Monitoring	Monitoring Injury to Rockfish in PWS	x		\$117	M	12	$\langle \rangle$		x	xlx	:x	
243		Monitoring												•
		, <b></b>												-
244	Sea Otter	Cooporative Prom-Subsistence Users		· • • •								•		
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	· <b>x</b>	xb	x \$83	м	X						
246	· · · · · · · ·	Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	xb	x \$337	M	X	1					<b>†</b>
247	· · ·	Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	x	x>	X \$450	м	X						
248		Monitoring	Sea Otter Population Dynamics	x	x	K \$291	93 - M		1					X
249		Restoration Monitoring				. · · ·		11	1				14	-1

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Name:\_\_ Phone:\_\_\_\_\_

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State of	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P V S		EST. COST/VR	EST: DURATION (YEARS)	1 1 9 9 9 9 4 5	1 1 9 9 9 9 6 7	1 9 9 8	1 2 9 0 9 0 9 0	2 0 0 1	7 
25	Sea Otter	Study: Eliminate Oil from Mussel Beds		<u>للا _ ان</u>	<b>#</b>			·					<b>N</b>
	-						1					ľ	
}								l					
		- ·											1 I
25	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	x		\$120	м						
252	2	Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		x	\$333	м						Ì
253	3	Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon		x	\$275	M						
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye		x	\$500	93 - M	ं <u>।</u>			A C		
255	5	Intensify Management	Kenai River Sockeye Salmon Restoration		X	\$1,000	93 - M						
256	5	Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		X	\$143	м						
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		X	\$6	М						
258		Monitoring	Sockeye Salmon Overescapement		XX	\$641	93 - M						
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X		\$165	93 - M	XX	XX				
260		Option Not Identified	Red Lake Salmon Restoration		X	\$72	М						
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261	Sport Fishing	Recovery Monitoring	· · · · · · · · · · · · · · · · · · ·									11	+
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X	\$4,200	1			1		( )	<b>( )</b>
263		Restoration Monitoring	· · · · · · · · · · · · · · · · · · ·										
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	Subeletanco		······································		.  .		· · · · · · · · · · · · · · · · · · ·			-			
204	Canalactica	Access to Trautional Foods			.	· · · · · · ·			$\left\{ \cdot \right\}$				
205		Option Not Identified	Changes Bay Subsistance Destantion Project (Derrow Off)		+	6200							1
200		Online Not Identified	Unenega bay Subsistence Restoration Project (Remove Uil)	-131		\$200	1	· • •				ŀ	
20/	· · · · · · · · · · · · · · · · · · ·	Chaou wor idennied	Manculture matchery and Research Center Feasibility Study and Design	1	<u>^ </u> ^	2300		1_	1. L				

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

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Name: <u>C.T. STRCK</u> Phone: <u>424-3212</u>

#### Page 13

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REG	IÓN	EST.	EST.	<b>[</b> , ]			1	1 2	2	Ϋ́
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	SERVICE	SUBOPTION		5 N	P	SK-	(YEARS)			Ľ	Ľ	ĽĽ		۲ <u>۵</u>
268	Subsistence	Option Not Identified	Mariculture Technical Center	x )	< X	\$2,200	1						.	X
269		Option Not Identified	Seward Shellfish Hatchery	x )	< X	\$1,300	1					,		
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	x )	< X	\$700	М					,		
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		\$50	м							
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X		\$55	M							
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery	)	<	\$2,500	1					, .).		
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,000	1							
275	•	Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	x )	٩x	\$55	м							
276		Restoration Monitoring												
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	$ \mathbf{x} $	< X	\$589	М					.  .		. [
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	x )	K X	\$300	М							
279		Test Subsistence Foods	Subsistence Food Safety Testing	X   )	< X	\$308	93 - M							
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280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X )	K	\$110	M							
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X		\$715	M	X	X   Y	<				
282		Monitoring	PWS Spot Shrimp Survey	X		\$90	M	X	KX	$\langle X \rangle$	X			
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities		K X	\$275	M		1.			·		1
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X		\$265	93 - M							.
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources		XX	\$390	М							ł
286	4	Monitoring	Subtidal Recovery Monitoring		×IX	\$400	M							
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X )	K X	\$90	M							
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200	Technical Services	Administration	Flashania Asabisian of Funce Valdas, Depende			£450						i   -		
288	recinical services	Administration	Electronic Archiving of Exxon Valdez, Records	$\left  \uparrow \right $	<b>\</b> ^	\$45U								
289			Geographic Information System Mapping of Natural Resources in Western PWS	스		\$15	M	$  \mathcal{O}  $	$\leq 1/$	<u> </u>				

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

## Name:\_\_\_\_\_\_Phone:\_\_\_\_\_

	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	RE P s		N k D	EST. COST/YA \$K	EST. DURATIC (YEÀRS	1 N 9 9	1 9 9 5.	1 9 9 6	1 1 9 9 9 9 7 / 8	1 9 9 9	2 0 0 0	2 00 Not Fund
290 Tecl	hnical Services	Administration	Hydrocarbon Data Analysis and Interpretation	x	xþ	×	\$105	93 - M		1				11	
291		Administration	Toxicological Profile of PWS	x			\$150	М						.	
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	xb	x	\$8	М						i I.	
293		Public Information	Database Integration	X	xb	X	\$148	М	X	s X	X	XX	: X		X
294 :		Public Information	Develop User Friendly Synopsis of Oil Spill Information	x	x	x	•	M						ł I	
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	x	x	x	\$120	м		1.1					
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	x >	X	\$100	М							
297		Public Information	User Friendly G/S and Remote-Sensing Demonstration Center for Public-5 Communities	x	xb	x	\$72	М		1.1			T		
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ame: Stacy St hone: 486 646 7 Archaeology Acquire Archae 1 Archaeology Acquire Archae 2 Acquire Archae 3 Habitat Protect 4 Intensified Mart 5 Intensified Mart 6 Option Not Ide 7 Option Not Ide 8 Public Informa 9 Public Informa 10 Public Informa 11 Restoration Mart 13 Site Patrol and 14 Site Patrol and 15 Site Stewards 16 Visitor Center	ATION OPTION BATION OPTION UBOLTION UBO	1994 POTENTIAL PROJECT TI Provide Protein Provide Patrol Monitoring-Interagency pological Steeping Collection, University of Alaska Museum k Heritage Interpretive Center, Design pological Site Acquisition al Archaeological Inventory and Evaluation of Archaeological Site Acquisition al Archaeological Inventory and Evaluation of Archaeological Site Acquisition al Archaeological Inventory and Evaluation of Archaeological Site provide Archaeological Restoration - Interagency provide and Interpretation - Interagency provide and Interpretation of Archaeological Resource of Petroleum Hydrocarbon Spectra at Selected Sites pological Site Protection-Site Patrol Monitoring-Interagency pological Site Protection-Site Patrol Monitoring-Interagency	TLES		IOXX IV IV IV IV IV IV IV IV IV IV IV IV IV	V VAL USTE 57741-85 57741-85 575-1 3000 2200 525 4000 2300 2300 2000 4000 4000 4000	DEZ E CO MANDA M 1 M M 1 93-M M M M M M					Page 1	1
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16 Visitor Center	Chugad	eological Site Stewardship Program		XX	X S	114	м						
		ch National Forest Heritage Interpretive Center, Design		X	\$1	,200	1					- 1	
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B Bergyan Mon	iloring Bald E	anle Productivity Survey and Catalon				\$10			•	••••	<b> </b>		
9 Recovery Mon		Ferm Population Monitoring for Bald Facles		XX	X - S	200 -				· +	·•		i.
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Black Oystercatcher Recovery Mon	iloring Black (	Oystercatcher Interaction with Intertidal Communities		XX	XPS	108	9314	_40	2)				
21 Recovery Mor	itoring Feedin	ig Ecology and Reproductive Success of Black Oystercatcher	s in PWS	<u>Ixi</u>	<u>s</u>		 ∧	Î				<b>I</b>	

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Name: Stary	Studebaker
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102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	X	X	\$250	M				1	- <b>I</b>		
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103	Multiple Resources	Habitat Protection	Habitat Modelling	X	х	X	\$150	M.	_			1	-1-		
104		Habitat Protection	Riparian Habitat Assessment	X	X	X	\$110	м						1	
105		Habitat Protection	Stream Channel Capability Modeling	X	X	X	\$110	м							
106		Habitat Protection	Stream Habitat Assessment	Tx	х	X	\$361	93 · M				·			
107		Habitat Protection	Valdez Hazardous Waste Collection	X			\$200	1				"			
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	Х	х	\$276	93 · M							
109		Habitat Protection	Welland Habital Classification, Mapping and Assessment	X	X	X	\$100	м		ſ				14	
110		Habitat Protection	Characterization and Identification of Habital Important to Upland Species	X	Х	X	\$750	м			1			1	
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlile Refuge		x	X	\$111	1		Ì			1		1.1
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge	]		X		1			(	ľ	1.	'	
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge	Ι.		X		1				- [	7-	1-1	-1.1
114		Habitat Protection and Acquisition	Valdez Duck Flats	X				1	Ï		1				
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Fletuge		X		\$20	1				7			-1-
11		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1		- 1	1		-1.		
117		Habitat Protection and Acquisition	Kitol Bay Hatchery Watershed Habitat Acquisition			X	\$250	1						1	
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X			\$3,500	1						T	<b>-</b>
115		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park	1	(	$(\mathbf{x})$	\$200	1	V	N		1	_		
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1				· [			
121		Habitat Protection and Acquisition	Conservation Easement-Alalik Bay		X	ŀ	\$90	1							
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay	Τ	X		\$60	1	_						
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X		\$400	1							
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X		\$80	1							
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay	<u> </u>	X		\$740	1						$\Box$	
126	3	Habitat Protection and Acquisition	Habitat Acquisition	X	X	X	\$25,000	93 • 1							
127	·	Habitat Protection and Acquisition	Habitat Acquisition, Afognak			X	\$112,500	t				_			-1-1

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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12	8 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		(	X	\$20,000	1	V	$\overline{\mathbf{N}}$					
12	9	Habitat Protection and Acquisition	Habitat Acquisition, North Alognak Island			X	\$4,000	1					T		
130	0	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			X	\$1,000	1		T			1		
13	1	Increase Natural Food Supply		Π			•			i		-1	1	7-	-
13	2	Intensity Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X	X	\$50	м				-			
13	3	Intensity Management	Genetic Risk Assessment of Injured Salmonids	X	X	X	\$408	м	1	$\overline{\mathcal{N}}$	X	-		Γ	
13	4	Intensity Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	м						T	
13	5	Intensity Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	м		1					
13	6	Intensity Management	Seabird Colony Restoration	X	X	x	\$250	м				-			
13	7	Intensity Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	м	Γ	I					
13	8	Monitoring	Shoreline Worm Life Monitoring	X	X	X	\$388	м	1					] [	
13	9	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	Τx	Х	X	\$416	м	<u> </u>					T	
14	0	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	x	X	one billion	м			-			[ ] ]	
14	1	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X	X	\$280	м							
14	2	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	X	\$7	M				1			1
14	3	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	X	\$650	1						Γ	i l'
14	4	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X	X	\$48	M							i L
14	5	Option Not Identified	Shoreline Assessment	X	X	X	\$250	93 · M						1	
14	6	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			X	\$28	м	[						ίT.
14	7	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	X	\$500	93 - M		i					i T
14	8	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X		\$800	М							
14	9	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	X	Х	\$2,300	1				Τ			
15	0	Recovery Monitoring	Injured Resource Food Supply	X	X	X	\$850	м							
15	1	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	х	X	\$500	м						Γ.	
15	2	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	м						L	
15	3	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	м				[	E		LT
15	4	Recovery Monitoring	Migratory Waterlow and Shorebird Monitoring	X	X	X	\$150	М					T		$\Box$
15	5	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	K	X	X	\$100	м	V	V					$\Box$
15	6	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Reanng Anadromous Salmonids	X	X	X	\$200	м							
1.5	7	Beenvery Meniloring	Supravite Determine Abundance Distribution, Habitat and Food Habits of Staning Shore Birds	Y			\$35	м	<b></b>						

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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93=Funded in 1993 M=Multi-year Project

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202	Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System	ĪĪ	X	\$500	1	VI	1	T	Ī	T	ĪĪ	
203		Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System	ΠT	X	\$70	1	$\mathbf{V}$	1	T	1		TI	
204		Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	M		Т			T	$\Box$	
205		Monitoring	Assessment of Economic Injuries to Wildemess-Based Tourism	X	x x	\$100	м				1	Т		
206		Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X	Τ	\$58	M		Т	T				
207		Monitoring	Recreation Field Management and Monitoring	X	хx	\$700	м						$\Box$	
208		New Backcountry Recreation Facilities	Enhanced Trail Opportunities, including Columbia and Blackstone Glacier Trails	X	Τ	\$150	1		Τ	T				
209		New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1							
210		New Backcountry Recreation Facilities	Improve Marine Parks	X	x x	\$100	м		Т				<u>[ ]</u>	
211		New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1			T	Τ		$\Box$	
212		New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1			1			$\Box$	
213		New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	x x	\$150	M			Ι		T		
214		New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1.			Τ	Τ.	Ι		
215		New Backcountry Recreation Facilities	PWS Recreation Facilities	X	Ŀ	\$250	1		]		Ξ.			
216		Option Not Identified	Development of Gulf of Alaska Recreation Plan		хx	\$140	1			Ţ	ŀ	·E	$\mathbf{I}$	
217		Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M			[	·T·			
218		Option Not Identified	Sustainable Tourism in PWS	X		\$240	м		T					
219		Option Not Identified	Watchable Wildlife	X	x x	\$65	м				Τ	<u> </u>		<u> </u>
220		Option Not Identified	Increased Access PWS	X		\$100	м							$\square$
221		Plan Commercial Recreation Facilities	Recreation Development	X	хx	\$200	м							
222		Restoration Monitoring					L							
223		Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	X X	\$77	M							
224		Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1							
225		Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	<u>x x</u>	\$310	М							
226		Visitor Center	Cordova Environmental Education Center	X		\$15	1							
227		Visitor Center	Cordova Mini-Imaginarium	X		\$63	1					Г		
228		Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	хx	\$155	м					Τ	$\prod$	
229		Visitor Center	Environmental Education Center in PWS	X		\$90	1				Τ	T	1-1	
230		Visitor Center	Environmental Learning Resource Center	X	хx	\$90	1					Т	T	
231		Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X	T	\$450	1		T	1		T	T	

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PWS⊭Prince William Sound, KEN⊭Kenai Peninsula and Cook Inlet, KOD⊨Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Name

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EXXON VALDEZ OIL SPILL



TRUSTEE COUNCIL

EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501



EXXON VALUEL OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD

# Name: John Sturgeon PAG Phone: 562 - 3335

#### 1994 POTENTIAL PROJECT TITLES

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	sion	EST.	EST.	1	1	1	1	1	2	2 8
or	or		P	K K	COST/YR	DURATION	9 9	9 9	9 9	9 9 9 9	9	0 0	e o Not j
SERVICE	SUBOPTION		s	D	SK	(YEARS)	4	5	6	7 8	9	٥	1 Pund
1 Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	x x	\$41	М	8		T				
2	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X		\$300	1							X
3	Habitat Protection and Acquisition	Archaeological Site Acquisition	X	x x	\$200	М							X
4	Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	х х	\$525	М	X						
5	Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	x x	\$400	М	X						
6	Option Not Identified	Restoration of Chenega Village Site	X		\$75	1							
7	Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	x x	\$300	93 - M							
8	Public Information	Passports in Time-Cultural Resource Patterns in PWS	X		\$230	М							
9	Public Information	Heritage Information Replacement	X	хx	\$200	М							
10	Public Information	PWS Landmarks-Evaluation and Interpretation	X		\$400	М							
. 11	Public Information	Public Education and Interpretation of Archaeological Resource	<b>X</b>	X X	\$400	M							
12	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	x x	\$225	М							X
13	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	хх	\$150	М							2
14	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	хX	\$210	М							
15	Site Stewardship Program	Archaeological Site Stewardship Program	X	x x	\$114	M							
16	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X		\$1,200	1							2
		· · · · · · · · · · · · · · · · · · ·											
17 Baid Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	x x	\$262	М							X
18	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	x х	\$10	М							Y
19	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	хх	\$200	М							X
		``````````````````````````````````````											
· · · · ·													
20 Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	x x	\$108	93 - M							X
21	Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Oystercatchers in PWS	X		\$125	М							X

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### Name: <u>Mr. John L. Sturgeon</u> Phone: (907)562-3335

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GI	DN	EST.	EST.	1	1	1	1	1 1	2	2
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	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	ſ	Ĩ	° I	ĹĽ	<u> </u>	Ľ	1 Ind
22	Black Oystercatcher	Restoration Monitoring													ĽX
															1
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	x	x	x	\$1,100	М			-				X
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	х	х	\$385	М							X
25		Intensify Management	Fishery Industrial Technology Center	X	X	Х	\$3,500	1			•		-		Y
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage	$\square$	x		\$150	М							X
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		x		\$300	М							*
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	X	X	\$200	• • M-•••							
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	X			\$5,000	1					1		<b>S</b>
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recover	yХ			\$868	Μ.	Х						
31		Recovery Monitoring	Wild Fish Stock Information Assessment	X	Х	X	\$50	M	X						
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island			X	\$45	M							<b>X</b>
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	X			\$80	М	Х	Х					
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X		\$50	М	X	X					
35		Replace Harvest Opportunities	Red Lake Mitigation			X	\$191	М	X	X					
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36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	X	X	X	\$280	М							
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	X	Х	\$51	93 - M							
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	X	X	Х	\$73	М							
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	X	X	\$191	M							
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	X	X	X	\$40	M							2
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT	1 !			\$460	М							

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### Mr. John L. Sturgeon (907)562-3335 Name:\_\_\_

#### 1994 POTENTIAL PROJECT TITLES

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Phone:\_

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIOI	EST.	EST.	1	1	1	1 1	1	2	2
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SERVICE	SUBOPTION		s		\$K	(YEARS)		2	Ľ	Ĺ	Ľ	Ľ	1 5
Common Murre	Restoration Monitoring					м	<u> </u>				_		
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		1°	<u> </u>			<u> </u>	<u> </u>	ļ			<u> </u>		
Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X		\$200	м							X
	Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X		\$285	М	-	ļ					<u> </u>
	Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X		\$35	M							X
	Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X		\$950	М							⊀
	Restoration Monitoring	· · · · · · · · · · · · · · · · · · ·				M							
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General	Administration	Oil Spill Restoration Support Service and Facilities	X	x >	\$600	1	X	×	X				
	Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X		\$200	M							×
	Option Not Identified	Hazardous Material Collection Facility	X	x >	\$100	1							X
	Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	x >	\$488	м			$\square$				X
	Public Information	Public Broadcasting System Program on Oil Spill	X	x >	\$70	М			· 1				X
	Public Information	Publish and Distribute Brochures on Injured Species	X	x >	\$90	М							X
	Public Information	PWS Brochures	X		\$65	М	χ		$\square$		-		
	Public Information	PWS Implementation of Interpretive Plan	X		\$150	м							X
	Public Information	PWS Large Format Photographic Book	X		\$100	М						$\square$	
	Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X		\$70	м			$\square$		-		X
	Public Information	PWS Video Programs	X		\$100	М						$\square$	X
	Public Information	Science of the Sound- Education Program	X		\$53	М	X	X	$\square$				
							1						
1			$\uparrow \uparrow$									$\square$	
	RESOURCE         Or         SERVICE         Common Murre         Cutthroat/Dolly         General         General         General         General	RESOURCE       RESTORATION OPTION or SERVICE         Common Murre       Restoration Monitoring         Cutthroat/Dolly       Intensify Management         Intensify Management       Option Not Identified         Option Not Identified       Option Not Identified         Restoration Monitoring       Option Not Identified         Restoration Monitoring       Monitoring         General       Administration         Monitoring       Option Not Identified         Public Information       Public Information         Public Information       Public Information         Public Information       Public Information         Public Information       Public Information         Public Information       Public Information         Public Information       Public Information	RESOURCE         RESTORATION OPTION         POTENTIAL PROJECTS           or         or         Service         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice         Subservice  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Stratestore         Stratestore         Stratestore         Stratestore         Stratestore	RESOURCE         RESTORATION (OPTION)         POTENTIAL PROJECTE         EST mail of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the standard of the 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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

#### Name: Mr. John L. Sturgeon Phone: (907)562-3335

#### 1994 POTENTIAL PROJECT TITLES

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RESOURCE RESTORATION OPTION POTENTIAL PROJECTS REGION EST. EST PK COST/YR DURATIO 01 OF SERVICE SK (YEARS) SUBOPTION 60 Harbor Seal Cooperative Program-Fishermen X 61 \$39 Μ XX Monitoring Monitoring Trends in Abundance of Harbor Seals in PWS 62 x Μ XXXXX Option Not Identified \$23 Subsistence Harvest Assistance x 63 \$165 93 - M Option Not Identified Habitat Use and Behavior of Harbor Seals in PWS 64 x x x \$230 X М Recovery Monitoring Habitat Use, Monitoring, Population Modelling, and Information Synthesis 65 Harlequin Duck Eliminate Oil from Mussel Beds 66 xxx 93 - M Monitoring Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis \$700 x x x 67 Μ Option Not Identified Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data \$53 68 intertidai xxx Accelerate Recovery of Intertidal Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study \$20 М ) 69 xxx M \$70 Accelerate Recovery of Intertidal Fucus Restoration Feasibility Study 70 x x x Accelerate Recovery of Intertidal **Restoration of High-Intertidal Fucus** \$300 М X 71 x x x М XX \$50 Accelerate Recovery of Intertidal Beach Subsurface Oil Recovery х 72 Accelerate Recovery of Intertidal Hydrodynamic Purging of Oil from Contaminated Beaches, PWS \$500 М X 73 x x x Х Μ Accelerate Recovery of Intertidal \$800 Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material XXX 74 Х М Accelerate Recovery of Intertidal Restore Shorelines Injured by Beach Berm Relocation 75 XXX Х \$620 М Monitoring Coastal Habitat Injury Assessment - Intertidal Algae х X 76 М Monitoring Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS \$600 xxx 77 X \$500 Μ Monitoring Coastal Habitat Comprehensive Intertidal Monitoring Program 78 X x x Monitoring Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait \$200 М 79 Monitoring xxx \$275 Μ X Intertidal/Shallow Subtidal Crustacean (Decapod) Composition x x x X 80 Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams \$50 Μ Monitoring x x x 81 \$186 М Monitoring Monitoring for Recruitment of Littleneck Clams

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#### 1994 POTENTIAL PROJECT TITLES

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	B	EGI	() )	EST.	EST.		T	Π,		ΓT	1		8
or	OT STATE		Р	к	к	COSTAR	DURATIO	DN	999	) 9 9 9	9	9	9 0		Not
SERVICE	SUBOPTION		s	E N	D	\$K	(YEARS	5)	4 5	\$ 6	7	8	9 (	0 1	Fund
82 Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	X	\$500	М		X						
83	Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	X	\$600	м								X
84	Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	X	\$195	M								X
85	Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	: . X	X	\$500	93 - M					$\square$			X
86	Monitoring	Herring Bay Experimental and Monitoring Studies	X	:		\$495	93 - M								X
87	Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	X	\$860	М								X
88	Option Not Identified	Clam Enhancement	X	X	X	\$120	М						-	1×	X
89	Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	М			_					X
90	Option Not Identified	Restoration of Mussel Beds	X	X	X	\$500	М					$\square$			X
91	Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X	\$237	М								X
				ľ											
				Τ		•								_	
92- Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		-	\$120	93 - M		· ·						X
93	Monitoring	Recovery Monitoring	X			\$125	М								X
94	Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	M		T.						X
95	Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				M								X
,	·														
96 Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X	\$240	93 - M	>	<u> </u>						
97	Habitat Protection	Survey to Identify Upland Use by Murrelets	X	:   X	X	\$180	93 - M	)	<u> </u>						
98	Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	X	\$250	М								X
99	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	X	\$509	М								X
100	Minimize Incidental Take														X
101	Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	X	\$200	М								X

93=Funded in 1993 M=Multi-year Project

### Mr. John L. Sturgeon (907)562-3335 Name:\_

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Phone:\_

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION or	POTENTIAL PROJECTS	P	EG	ON ĸ	EST. COST/YR	EST. DURATION	1 9 9	1 9 9	1 9 9	1 9 9	1 1 9 9 9 9	2 0 0	2 0 0	Do Not 1
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	4	5	6	7	89	0	1	Fund
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	(   X	X	\$250	М	X	メ						
												$\square$		_		
103	Multiple Resources	Habitat Protection	Habitat Modelling	×	X	X	\$150	М				i				X
104		Habitat Protection	Riparian Habitat Assessment	X	X	X	\$110	М				$\square$				X
105		Habitat Protection	Stream Channel Capability Modeling	×	x	X	\$110	М				I		_		Х
106	· · · · · · · · · · · · · · · · · · ·	Habitat Protection	Stream Habitat Assessment	×	X	X	\$361	93 - M								X
107		Habitat Protection	Valdez Hazardous Waste Collection	>	(		\$200	1								X
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	(   X	X	\$276	93 - M								Х
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	>	X	X	\$100	M			· .					X
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	>	x	X	\$750	М	X							
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		X	X	\$111	1								X
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X		1								X
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			X		1								X
114		Habitat Protection and Acquisition	Valdez Duck Flats	X				1.				i I				Х
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X		\$20	1								X
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1								X
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X	\$250	1								X
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	>			\$3,500	1								Х
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X	\$200	1								X
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		Τ	X	\$77,000	1								X
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		X	:	\$90	1								Х
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X		\$60	1				$\square$				X
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X		\$400	1								X
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham		X		\$80	1				$\square$				X
125	· · · · · · · · · · · · · · · · · · ·	Habitat Protection and Acquisition	Conservation Easement-Rock Bay		X		\$740	1				$\square$	T			X
126		Habitat Protection and Acquisition	Habitat Acquisition	>		X	\$25,000	93 - 1								Х
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak	· [	1	X	\$112,500	1						-		$\overline{X}$

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## Name: <u>Mr. John L. Sturgeon</u> Phone: (907)562-3335

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	EST.	EST.	1	1	1	1	1	L 2	2	1
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128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island		   X	\$20,000	1				-		-	×	
129	· · · · · · · · · · · · · · · · · · ·	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island		X	\$4,000	1							×	Ì
130	· ·	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition		x	\$1,000	1							ΓÍ,	Ĉ
131		Increase Natural Food Supply													÷
132	· .	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	хx	\$50	М	X	X			-			
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	хx	\$408	М							Х	$\overline{\langle}$
134		Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X		\$200	М							>	Ż
135	111 1 C	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X		\$40	м	X	X	X	X	X :	4 x	X	
136		Intensify Management	Seabird Colony Restoration	X	хx	\$250	м							)	$\bar{\zeta}$
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X		\$250	М							X	$\overline{\langle}$
138		Monitoring	Shoreline Worm Life Monitoring	X	XX	\$388	М							X	$\overline{\langle}$
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	XX	\$416	М				·			)	$\langle$
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	XX	one billion	M							X	Ĵ
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	хx	\$280	М	X	X	*	X				
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	Х	ХХ	\$7	М		Í					7	1
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	XX	\$650	1							X	$\overline{(}$
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	хx	\$48	М				T			>	<
145		Option Not Identified	Shoreline Assessment	X	хx	\$250	93 - M							X	Ś
146		Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study		X	\$28	M							X	J
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	ХX	\$500	93 - M							X	J
148		Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		x	\$800	М							)	Ś
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	XX	\$2,300	1`						·	X	$\langle  $
150		Recovery Monitoring	Injured Resource Food Supply	X	XX	\$850	М	X							
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	x x	\$500	М	メ	X	X					·
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		Х	\$600	М							X	
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X		\$80	М							X	$\overline{(}$
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	ХX	\$150	М							1	1
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	XX	\$100	М							X	$\langle 1 \rangle$
156		Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	хx	\$200	М							7	7
157		Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X		\$35	М							X	1

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### Mr. John L. Sturgeon (907)562-3335 Name:

#### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	EGIO	ON	EST.	EST. 1	1	1	1 1	1	2	2
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	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	5	6	7 8	9	0	1 H
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	М						X
159		Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X	X	\$275	93 - M						X
160		Reduce Disturbance by Field Presence												
161		Reduce Disturbance Through Public Info	Public Information and Education	X	X	X	\$316	· M						X
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	X	X	\$50	M						X
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	X	X	\$500	М						X
164		Restoration Monitoring	Ecosystem Study	X	X	X	\$6,000	М						X
												-		
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X			\$205	M	_					<u> </u>
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X			\$400	M			$\square$	_		
167	· · · · · · · · · · · · · · · · · · ·	Intensify Management	PWS Herring Tagging Feasibility Study	X.			\$112	M						<u> </u>
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X			\$189	M						<u> </u>
169		Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	M						<u> </u>
170		Option Not Identified	Enhancement of Pacific Herring	X	X	X	\$120	M						1
171		Restoration Monitoring												
												. ·		
												-		
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	Х	Х	\$40	93 - M						X
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X	X	\$180	м						X
174		Restoration Monitoring												
175		Temporary Predator Control									T			
<u> </u>				+		┝─┤					+	+		

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Mr. John L. Sturgeon (907)562-3335 Name:

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGI	ON	EST.	EST.	1	1	1	1	1	1	2 2	Å
or	or		P W	ĸ	к	COST/YR	DURATION	9 9	9 9	9 9	9 9	9 9	9 ( 9 (	0 0 0 0	Not I
SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	4	5	6	7	8	9	0 1	und
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	X	\$25	м	X	$ \mathbf{X} $						
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			X	\$28	1								X
178	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1	X	¥		÷				
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration	Τ		X	\$11	1	Х							
180	Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1	X			•				
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			Х	\$55	1	X							
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	Х	X	\$727	М								X
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	М								X
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	М	Х							
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М	X							
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	м	X					•		
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	Χ	\$152	M				· · ·				X
188	Intensify Management	Pink Salmon Escapement Enumeration	X	X	Х	\$705									X
189	Intensify Management	PWS Salmon Stock Genetics	X			\$150	м							•	X
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М						ľ	1	X
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	м.								X
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	X		\$899	М								K
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М								X
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M								X
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М								X
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	X	Х	\$300	М		,						X
															,
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodiak		X	X	\$1,250	М								X
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	X	\$6,000	1								TX
199	Establish Marine Environmental Institute	Seward Sea Life Center	X	X	X	\$40,000	1	Х							
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	X	\$500	M	X							
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	X	\$500	М								X

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RES	SOURCE RESTORATION OPTION or or	POTENTIAL PROJECTS	P 1		EST. COST/YR	EST. DURATION	1 9 9	1 1 9 9 9 9	1 9 9	L 1 9 9 9 9	2 0 0	Do Not 1
SE	ERVICE SUBOPTION		s I	D	\$K	(YEARS)	4	56	7	3 9	0	1 Pund
202 Recreati	ion Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		X	\$500	1						$\times$
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70	1						$\times$
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	М						
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	x x	\$100	М						
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X		\$58	м						X
207	Monitoring	Recreation Field Management and Monitoring	X	x x	\$700	М						X
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X		\$150	1	X					
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X		\$20	1	X					
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	x x	\$100	М	X					
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1						X
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1	X					
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X.	хх	\$150	M	Х					
214	New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1	X					
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	X		\$250	1	X					
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		XX	\$140	1 .						X
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	<b>. X</b>		\$400	M						X
218	Option Not Identified	Sustainable Tourism in PWS	X		\$240	М						X
219	Option Not Identified	Watchable Wildlife	X	хх	\$65	М						
220	Option Not Identified	Increased Access PWS	X		\$100	м	X					
221	Plan Commercial Recreation Facilities	Recreation Development	X	хх	\$200	M						X
222	Restoration Monitoring											
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	x x	\$77	М	-					X
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1						X
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	x x	\$310	м						X
226	Visitor Center	Cordova Environmental Education Center	X		\$15	1						X
227	Visitor Center	Cordova Mini-Imaginarium	X		\$63	1	X					
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	x x	\$155	М						X
229	Visitor Center	Environmental Education Center in PWS	X		\$90	1						X
230	Visitor Center	Environmental Learning Resource Center	X	хx	\$90	1						X
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x		\$450	1						X

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GI	ON	EST.	EST.	1	1	1 1	1	1 2	2	Do 1
	or	or		P W	K E	к о	COST/YR	DURATION	9 9	9 9	9 9 9 9 6 7	9	9090	0	Not 1
	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)			Ľ	<u> </u>	<u> </u>		ind
232	Recreation	Visitor Center	Information Center	X	X	X	\$600	1	X						· ·
233		Visitor Center	Interpretation of PWS	X			\$10	M					_		X
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1							X
235		Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1							X
236		Visitor Center	Valdez Visitor Center	X			\$850	1							X
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	M							X
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X			\$40	М							X
239		Restoration Monitoring													
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	х	X	\$99	··· 1· ·	·' ·						X
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	М							X
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	M							X
243		Monitoring									_				$\square$
244	Sea Otter	Cooporative Prgm-Subsistence Users	· · ·					<u> </u>							
245	· · · · · · · · · · · · · · · · · · ·	Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	X	x	\$83	М	X		1				
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	x	\$337	м						+	X
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	x	\$450	м						+	X
248		Monitoring	Sea Otter Population Dynamics	X	х	x	\$291	93 - M						1-1	X
249		Restoration Monitoring										11			$\square$

93=Funded in 1993 M=Multi-year Project

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Name: Mr. John L. Sturgeon Phone: (907)562-3335

**RESTORATION OPTION** 

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POTENTIAL PROJECTS

#### рк COST/YR DURATION or OF SUBOPTION sк (YEARS) SERVICE 250 Sea Otter Study: Eliminate Oil from Mussel Beds 251 Sockeye Salmon X М Х Fish Passes and Access Solf Lake Fish Pass \$120 X X М 252 \$333 Intensify Management Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River 253 \$275 М Intensify Management lχ Genetic Monitoring of Kodiak Island Sockeye Salmon x 254 93 - M \$500 Intensify Management Genetic Stock Identification of Kenai River Sockeye х 255 \$1.000 93 - M Intensify Management Kenai River Sockeye Salmon Restoration X 256 М Intensify Management Lower Cook Inlet Sockeye Salmon Restoration and Enhancement \$143 257 X \$6 м Monitoring Ayakulik River Sockeye Salmon Escapement Evaluation 258 | x | x | \$641 93 - M Sockeye Salmon Overescapement Monitoring 259 Restoration of the Coghill Lake Sockeye Salmon Stock X \$165 93 - M X Option Not Identified 260 M × X \$72 Red Lake Salmon Restoration Option Not Identified 261 Sport Fishing **Recovery Monitoring** ·X \$4,200 χ 262 Replace Harvest Opportunities 1 Fort Richardson Hatchery Improvement 263 **Restoration Monitoring** 264 Subsistence Access to Traditional Foods

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

Bivalve Shellfish Hatchery

Option Not Identified

**Option Not Identified** 

93=Funded in 1993 M=Multi-year Project

Chenega Bay Subsistence Restoration Project (Remove Oil)

Mariculture Hatchery and Research Center Feasibility Study and Design

Page 12

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### Mr. John L. Sturgeon (907)562-3335 Name:

### 1994 POTENTIAL PROJECT TITLES

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGI	ON	EST.	EST.	1	1	1	1	1 1	2	28
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	SERVICE	SUBOPTION		s	Ň	D	\$K	(YEARS)	4	5	6	7	в 9	0	1 5
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	X	X	\$2,200	1							X
269		Option Not Identified	Seward Shellfish Hatchery	X	X	X	\$1,300	1							
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	X	\$700	м	X						
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X			\$50	м	X						
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М	X						
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery .		Х		\$2,500	1	X						
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X			\$1,000	1	X						
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	Х	X	\$55	М	X						
276		Restoration Monitoring													
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	X	X	\$589	M	X						
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	X	X	\$300	М	X						
279	· · · · ·	Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M	X						
									-						
						1									
280	Subtidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	X	X		\$110	M							X
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	X			\$715	М	_						X
282		Monitoring	PWS Spot Shrimp Survey	- <b>X</b>			\$90	M							
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	X	X	X	\$275	M							X
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	X			\$265	93 - M	ļ						X
285		Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X	X	\$390	М							X
286		Monitoring	Subtidal Recovery Monitoring	X	X	X	\$400	М	<u> </u>						$\mathbf{X}$
287		Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X	X	\$90	М							
			•				-								
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288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	X	X	\$450	M							$\square X$
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X			\$75	M							

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Name:	Mr. John L. Sturgeon	
Phone:	(907)562-3335	

	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	SION	EST.	EST.	1	1 1	1 1	1 1	1	2	2
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	SERVICE	SUBOPTION		S I	N D	\$K	(YEARS)	4	5 1	6 7	7 8	9	0	Fund
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	x   x	\$105	93 - M							X
291		Administration	Toxicological Profile of PWS	X		\$150	М	X	X					X
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities		x x	\$8								
293		Public Information	Database Integration	X	x x	\$148	М							X
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	x x		М							X
295	e nere jere	Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	x x	\$120	М							TX
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	x x	\$100	М							
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	x x	\$72	М							K
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Name:<u>Mr. John L. Sturgeon</u> Phone: (907)562-3335

1994 POTENTIAL PROJECT TITLES

Page 15

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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	P W S	GION ES	T. EST. I/YR DURATIO (YEARS)	1 9 9 4	1 9 9 5	1 1 9 9 9 9 6 7	1 9 9 8	1 2 9 0 9 0 9 0	2 0 0 1	Do Not Fund
	Resource	Ristantion	Work w/ private londowners to inhonce on improve hobitat through proactive monogenent.	X	* *		×	$\left  \right\rangle$	× ×	·	× ×		
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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#### Mr. John L. Sturgeon (907)562-3335 Name:\_\_\_ Phone:\_\_\_

#### 1994 POTENTIAL PROJECT TITLES

#### Page 16

		RESOURCE or SERVICE	RESTORATION OPTION or SUEOPTION	POTENTIAL PROJECTS	P     K     K     COST/YF       W     E     O     \$K	EST.       1       1       1       1       1       1       1       2       2       8         DURATION       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       9       0       0       7       7       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 <th1< th="">       1       <th1< th="">       1       <th< th=""></th<></th1<></th1<>
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

15:2.4 1320 ll d'a U.S. POSTAGE PAID UNIT CITY.ST 00000 MAY 20.93 AMOUNT \$0.52 0000 EXXON VALDEZ TRUSTEE COUNCIL 1994 Work Plan Work Group 645 "G" Street Anchorage, Alaska 99501 0132940521 DECEIVE FREST CLASS MAY 2 1 1993 1. H. Mar EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL D)ECEIVE OCT 0 2 1995 EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL ADMINISTRATIVE RECORD



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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R P W	G C	к о	EST.	EST. DURATION	1 9 9	1	1 1 9 9 9 9	1 1 9 9	2 0	2 Do Nor 0 P	
SERVICE	SUBOPTION		s	N	D	-51X	(MEATERS)	4	5	6 7	8 9	0	1 5	]
1 Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	x	\$41	М	X						
2	Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X			\$300	. 1							:
3	Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	x	\$200	М							
4	Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	x	X	x	\$525	M						×	1
5	Intensified Management	Vandalized Cultural Resources-Inventory, Evaluation, Interpretation	. X	X	x	\$400	M						×	(
6	Option Not Identified	Restoration of Chenega Village Site	x			\$75	1						×	1
7	Option Not Identified	Site-specific Archaeological Restoration - Interagency	x	X	x	\$300	93 - M						X	
8	Public Information	Passports in Time-Cultural Resource Patterns in PWS	X			\$230	М						×	1
9	Public Information	Heritage Information Replacement	x	X	x	\$200	М						×	
10	Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М						X	
11	Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400							×	1
12	Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	x	\$225	М						×	
13	Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	x	\$150	М						X	
. 14	Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	М		ŀ				×	1
15	Site Stewardship Program	Archaeological Site Stewardship Program	X	X	x	\$114	M						X	
16	Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	x			\$1,200	1						X	1
					-		• •							
17 Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	x	x	x	\$262	М						×	7
18	Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	x	x	x	\$10	М	X	X	XX	X)	< X	X	-
19	Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	x	x	x	\$200	М					- +	X	
		<u> </u>												
20 Black Oystercatcher	Recovery Monitoring	Black Overtorestable Interaction, with Intertidal Communities		$ _{\mathbf{v}} $	x	\$108	93 - M			-+			╂╌╌┠╾╴	
21	Becovery Monitoring	Eaching Ecology and Baproductive Success of Black Overareatchare in DWS		<b> ^</b>	-	\$125	50 - W		マホ	+	$\vdash$		++	-

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	AE P y	GIC K E	р к о	EST. COST/VR	EST	1 9 9	1 9 9	1 9 9	1 9 9	1 1 9 9	.2	2 0 0	Do Not FV
	SERVICE	SUBOPTION		s	N	D	<u>\$K</u>	(YEARS)		1	Ľ	Ц				End.
22	Black Oystercatcher	Restoration Monitoring													- <b> </b>	ļ
						+	· · · · · · · · · · · · · · · · · · ·									
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	x	x	x	\$1,100	M				+				X
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	x	X	x	\$385	M	X	X	X	XI	7			
25		Intensify Management	Fishery Industrial Technology Center	X	X	X	\$3,500	1			<u>``</u>		~			X
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		x		\$150	М						-		X
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X		\$300	М							-	X
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	х	X	X	\$200	M	X	X	X				-	
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	- <b>X</b>			\$5,000	- 1		-						X
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	х			\$868	М	X	X	X	X	X		1	
31		Recovery Monitoring	Wild Fish Stock Information Assessment	х	X	X	\$50	М	X	X	X					
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island	÷ .		X	\$45	M								X
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	х			\$80	М	X	$\boldsymbol{\lambda}$	X					
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		X		\$50	M								X
35		Replace Harvest Opportunities	Red Lake Mitigation			X	\$191	M								X
36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	x	x	x	\$280	м				+	+			X
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	X	x	X	\$51	93 - M	X			-			-	
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	х	х	Х	\$73	М					T		1	$\boldsymbol{\lambda}$
39		Recovery Monitoring	Common Murre Population Monitoring OUT	х	X	X	\$191	М	X	×	X	XI	()	UX	1	
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	х	Х	Х	\$40	м	X	X	X					
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT				\$460	М						1	1	×

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93=Funded in 1993 M=Multi-year Project

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RESOURCE **RESTORATION OPTION** POTENTIAL PROJECTS. REGION 2657. 1263 3)01:7.86 OF or SUBOPTION (N) = / N: SERVICE 42 Common Murre Μ Restoration Monitoring Cutthroat/Dolly x 43 М Intensify Management Cutthroat Trout and Dolly Varden Habitat Restoration \$200 X  $\mathbf{X} \mathbf{X} \mathbf{X}$ М Intensify Management \$285 44 Enhanced Management of Cutthroat Trout and Dolly Varden Option Not Identified X \$35 М 45 Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration Option Not Identified X \$950 М 46 Cutthroat Trout and Dolly Varden Hatchery М 47 Restoration Monitoring Administration x x x General \$600 48 Oil Spill Restoration Support Service and Facilities 1 Х X Monitoring Monitoring of Small Cetaceans (Dall Porpoises) in PWS \$200 Μ. 49 x x x X **Option Not Identified** \$100 1 50 Hazardous Material Collection Facility XXX Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model X XX 51 Option Not Identified \$488 М XX x x x Public Information \$70 М 52 Public Broadcasting System Program on Oil Spill x x x Public Information 53 Publish and Distribute Brochures on Injured Species \$90 м X Public Information \$65 М PWS Brochures 54 x Public Information **PWS Implementation of Interpretive Plan** \$150 М 55 X Public Information М PWS Large Format Photographic Book \$100 56 X Public Information Μ 57 PWS Scenic Byway-- Nomination and Interpretive Plan \$70 X Public Information 58 PWS Video Programs \$100 М х Public Information Science of the Sound- Education Program 59 \$53 М

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1994 POTENTIAL PR	ROJECT TITLES
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RESOURCE RESTORATION OPTION POTENTIAL PROJECTS RECION EST. -01 3 8 5 2 SUBORTON SERVICE **R** 2 (2 11217 60 Harbor Seal XXX 50 Cooperative Program-Fishermen Μ 61 XXXXXXXXX Monitoring x \$39 м Monitoring Trends in Abundance of Harbor Seals in PWS Х 62 \$23 М Option Not Identified Subsistence Harvest Assistance Х XX X 63 Option Not Identified Habitat Use and Behavior of Harbor Seals in PWS \$165 93 - M XXXXX x x x 64 \$230 М **Recovery Monitoring** Habitat Use, Monitoring, Population Modelling, and Information Synthesis recovery kessid No 150 not onit NEED GOOD POPULATION SURVEYS FIRST 65 Harlequin Duck Eliminate Oil from Mussel Beds xxx \$700 Harlequin Duck Recovery Monitoring Population Modelling and Habitat Information Synthesis  $X \times X \times X \times$ 66 Monitoring 93 - M XX X at lower XXX XX 67 Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data \$53 М Option Not Identified lever Intertidal 68 x x x Accelerate Recovery of Intertidal Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study \$20 М xxx 69 Accelerate Recovery of Intertidal \$70 м Fucus Restoration Feasibility Study XXX XXX 70 \$300 М Accelerate Recovery of Intertidal **Restoration of High-Intertidal Fucus** XXX 71 \$50 Accelerate Recovery of Intertidal Beach Subsurface Oil Recovery М Х 72 Accelerate Recovery of Intertidal Hydrodynamic Purging of Oil from Contaminated Beaches, PWS \$500 М HOW x x x 73 Accelerate Recovery of Intertidal \$800 м Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material x x x 74 м Accelerate Recovery of Intertidal Restore Shorelines Injured by Beach Berm Relocation XXX 75 М Monitoring Coastal Habitat Injury Assessment - Intertidal Algae \$620 x XXX 76 Monitoring bin Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS \$600 М xxx XXXXXXXX 77 Monitoring \$500 Μ Coastal Habitat Comprehensive Intertidal Monitoring Program x x78 Monitoring Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait \$200 М  $\overline{V}$ 79 x x x Monitoring Intertidal/Shallow Subtidal Crustacean (Decapod) Composition \$275 М x x x 80 Monitoring Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams \$50 М 81  $\mathbf{x} \mathbf{x} \mathbf{x}$ \$186 М Monitoring Monitoring for Recruitment of Littleneck Clams

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	SERVICE	SUBOPTION V		W S	E N	о D	SK	(YEARS		•	5 6	6	7 8	9	0	1 751	
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	x	x	x	\$500	М	Ī	T	T	Ī	1	1		X	1
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	x	x	\$600	М	>	$\overline{\langle}$	XV	X					ł
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	X	\$195	М	)	X )	X						ŀ
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	X	\$500	93 - M		X	XV	X					
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X			\$495	93 - M		X D	X)	X					1
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	x	X	\$860	М								X	1
88		Option Not Identified	Clam Enhancement	X	X	X	\$120	м								X	
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	М								×	
90		Option Not Identified	Restoration of Mussel Beds	X	X	X	\$500	Ņ								X	
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X	\$237	М		$\mathbf{X}$	XV	X	XV	2			
					-												_
							•										
92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X		·	\$120	93 - M	1	X		X		6	X		
93	-	Monitoring	Recovery Monitoring -	X			\$125	М								X	
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	М	2	K)	K Y	x >	×γ	<			
95	Market and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				М	``	X	XX	< >	XX	<			
													• -   •••	-+			
	L																
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	x	\$240	93 - M		XĽ	X						
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	x	x	\$180	93 - M								X	
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	<b>X</b>	X	x	\$250	м	_	-+						X	1
99	·	Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	<b>X</b>	X	x	\$509	м		XZ	<u>&lt;  </u>	X	$\times \times$	<			
100		Minimize Incidental Take					h:8"	• 		$ \rightarrow $					ļ,		
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	X	\$200	M									

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	(e) [6	R	EST.	EST	,		1		1	2	Γ,	8
	or	all managements		Р	ĸ	ĸ	XOST/A/R	DURATION	9	9	9	9 9	9 9		0	Not
	SERVICE	SUBOPTION		s	N	D	SK	(MEARS)	4	5	6	7	8 9	0	1	Fund
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	X	x	x	\$250	М	X							
[																
			· · ·													
								-								
103	Multiple Resources	Habitat Protection	Habitat Modelling	X	X	X	\$150	M								X
104		Habitat Protection	Riparian Habitat Assessment	X	X	Х	\$110	М				X	XX	XX	X	
105		Habitat Protection	Stream Channel Capability Modeling	X	Х	X	\$110	М								X
106		Habitat Protection	Stream Habitat Assessment	X	X	X	\$361	93 - M	X	X	X					
107	N	Habitat Protection	Valdez Hazardous Waste Collection	X			\$200	.1			X					
108		Habitat Protection	Vegetation and Stream Classification and Mapping	X	X	X	\$276	93 - M	X	X	X					
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X	x	X	\$100	M								X
110	· ···· · · · · · · · · · · · · ·	Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	X	X	X	\$750	М								X
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge		$\overline{\mathbf{x}}$	X	\$111	1		X	Ī					
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge			X		1	•.	X			··			
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge			X		1		· .		Ţ				X
114		Habitat Protection and Acquisition	Valdez Duck Flats	X				1							1	X
115		Habitat Protection and Acquisition	Inholdings in Kenai Fjords National Wildlife Refuge		X		\$20	1	X			T				
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve			X		1	X		1			1	1-1	
117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition			X	\$250	1							1-1	X
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X			\$3,500	1	X		-	-				
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park			X	\$200	1								X
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge			X	\$77,000	1	X							
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay		x		\$90	1	X							
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay		X		\$60	1			-					
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay		X		\$400	1							1	
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham	•	X		\$80	1	1					-		
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay Most in Portant		x		\$740	1							1	
126		Habitat Protection and Acquisition	Habitat Acquisition	X	X	X s	\$25,000	93 - 1	X		_					
127	,	Habitat Protection and Acquisition	Habitat Acquisition, Afognak	M	1	X \$	112,500	1	X							

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HABitat Acquisition especially important in PWS.

Name:\_ Phone:\_

RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	B	EGIC	N	EST.	EST.	1	1			, <b>1</b> ,	2	2	8	]		•		
or	10		Р	ĸ	к	COSTAR	DURATION	9	9	9 9	9 9	9 9	0	0	Not 1					
SERVICE	SUBOPTION		s	N	D	\$K -	(VEARS)	4	5	6	7	89	0	1	Pund					
128 Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island			X	\$20,000	1								X					
129	Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			X	\$4,000	1								X	1				
130	Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition			Х	\$1,000	1		X		_									
131	Increase Natural Food Supply																	1		
132	Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X	Х	\$50	М	$\lambda$		X	$\boldsymbol{\chi}$	×						~	$\mathcal{I}$	
133	Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	X	Х	\$408	М					X	$\frac{1}{x}$	4	4					
134	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	М	$  \times$		X							•			
135	Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	М	X	X	X										
136	Intensify Management	Seabird Colony Restoration	X	X	X	-\$250	М		<u> </u>					_	X					
137	Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	М	_	X	X	X			_	]	1.				
138	Monitoring	Shoreline Worm Life Monitoring	X	. <b>X</b>	X	\$388	М			-					X	1				
139	Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	Χ-	x	\$416	M			::					X					• •
140	Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X	X	one billion	М									6		5R. 1	باد	رهنا
141	Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X	X	\$280	М			i		X)	< X	X						
142	Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	X	\$7	М	ŀ		İ.					X					
143	Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	X	\$650	- 1	X		T										
144	Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X	X	\$48	М	X	X	X										
145	Option Not Identified	Shoreline Assessment	X	X	Х	\$250	93 - M	X												
146	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			X	\$28	М								X	1		.1	$\sim$	١.
147	Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	Х	\$500	93 - M								X	1		ţ	$\bigcirc$	/
148	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program		X		\$800	М								X					
149	Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	X	X	\$2,300	ſ							X						
150	Recovery Monitoring	Injured Resource Food Supply	X	X	Х	\$850	М								X					
151	Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	X	\$500	М	X	$ \chi $	X										
152	Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay		X		\$600	М								$\left  \right\rangle$	1				·
153	Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	М								X					
154	Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X	X	\$150	М	$\lambda$	X	X	X	X	K X		<					
155	Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	X	X	\$100	М	X	X	X	X	XX	XX	$\langle   \rangle$	<					•
156	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	X	\$200	М			X	X	XX	۲							
157	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X			\$35	М	X	X	X										

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	RI 🗌	EST.	EST.	, ·	Ι,	<b>, , ,</b>	,	T	2	,	8	
	Or	or	and the second second second second second second second second second second second second second second secon	Р	ĸ	K C	OST/YR	DURATION	9	9	9	9	999	0	0	Not	
	SERVICE	SUBOPTION		s	NE	D	\$K	(YEARS)	4	5	6	7 1	89	0	1	Fund	-
158	Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X		1	\$91	M	X	X	X						
159	· · · · · · · · · · · · · · · · · · ·	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X)	x	\$275	93 - M	-						11	X	
160	•	Reduce Disturbance by Field Presence							-			•				X	·
161		Reduce Disturbance Through Public Info	Public Information and Education	X	x)	X	\$316	м								X	
162		Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	<b>X</b> )	X	\$50	М						T		X	
163		Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	<b>X</b> )	X	\$500	M	X	X	X						
164		Restoration Monitoring	Ecosystem Study	X	XX	X /1	\$6,000	М	T			XX	XX	X	X		- dep-de
		HABITAT Acquisition	HABITAT Acquisition in PWS	X		7	fooh	sh	X	X	×	XI	x x	x	X		a what yr of ecosystem
			(Acquisition OF inholdings in Chunch Net Torest)														study
			No clearcutting														0
165	Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X	-18 <b>7</b> 1.8		\$205	M		+			-			X	
166		Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X			\$400	M	X	X	X		-		11		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
167		Intensify Management	PWS Herring Tagging Feasibility Study	X			\$112	М	X	1						1	
168		Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X			\$189	М	X	X	X						
169	· · · · · · · · · · · · · · · · · · ·	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	М	$\boldsymbol{\lambda}$	X	X						
170		Option Not Identified	Enhancement of Pacific Herring	X	x)	x	\$120	M								X	1
171		Restoration Monitoring															
										·		ľ					
172	Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	X)	x	\$40	93 - M	X	X	$\mathbf{X}$	X>	$\langle \Box$	1			
173		Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	x >	x	\$180	М						1		X	
174		Restoration Monitoring		1													
175		Temporary Predator Control				1			1							X	
1		•															

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RESOURCE	RESTORATION OPTION.	POTENTIAL PROJECTS	RE		R	EST.	EST.	1	1	1	1	1 1	. 2	2 8	3
or	or		P W	K E	к О	Cost/YR	DURATIO	9 9	9 9	9 9	9 9	9 9 9 9	0	0	,
SERVICE	SUBOPTION	and the second second second second second second second second second second second second second second second	s	И	D	\$K	(YEARS)	4	5	Ĺ	7	8 9	Ů	1	1
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	X	x	\$25	M	X	X	X					
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1					_		3	<
178	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1		I						XI-
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration			X	\$11	1							)	$\mathbf{X}$
180	Fish Passes and Access	Sockeye Creek Fish Pass	X	·		\$60	1							>	K
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			X	\$55	1							>	
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	X	X	\$727	М							>	
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X			\$495	М							X	
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	М	X							
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М								×
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М	X	X	X					
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	X	\$152	М								2
188	Intensify Management	Pink Salmon Escapement Enumeration	X	X	X	\$705	М								
189	Intensify Management	PWS Salmon Stock Genetics	X			\$150	М								
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М								
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	M							-	
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	х		\$899	М	X	X	X					
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М	X							
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M	X	$\mathbf{X}$	X					
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	м	X	X	X					
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	X	x	\$300	М								
							· . ·								
					_					Ĺ					
	DO NOT FUN	D RECREATION BASED PROJECTS											_		
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Inlet, Kodlak		X	×	\$1,250	M	_					-		X
198	Establish Marine Environmental Institute	Oiled Wildlife Rehabilitation Center	X	X	×	\$6,000	1		L		I				<u>K</u>
199 🐁	Establish Marine Environmental Institute	Seward Sea Life Center	X	X	x	\$40,000	1	ļ							$\times$
200	Habitat Protection and Acquisition	17(b) Easement Identification-Public Access	X	X	X	\$500	М								$\mathbf{X}$
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	X	X	x	\$500	M			1					$\langle  $

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RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P W S	GION K K E O N D	EST. COST/YR	EST. DURATION (YEARS)	1 1 9 9 9 9 4 5	1 9 9 6	1 1 9 9 9 9 7 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fund	
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		X	\$500	1				╶╇╌╴╇		X	
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System		X	\$70	1		-				X	1
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X		\$50	М						X	
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	x	x x	\$100	М						X	1
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X		\$58	M						X	
207	Monitoring	Recreation Field Management and Monitoring	x	XX	\$700	М						X	
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	x	_	\$150	1	_					X	No
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X	_	\$20	1						X	i
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	x x	\$100	М		· · · ·				X	Í
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X		\$100	1						X	NO
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X		\$70	1						X	N
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	XX	\$150	M						X	1
214	New Backcountry Recreation Facilities	PWS Kayak Trail	X		\$100	1						X	
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	X		\$250	1					-	X	
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		x x	\$140	1		T				X	
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	X		\$400	M						X	
218	Option Not Identified	Sustainable Tourism in PWS	X		\$240	М	1					X	1
219	Option Not Identified	Watchable Wildlife	X	хx	\$65	M						X	l l
220	Option Not Identified	Increased Access PWS	X		\$100	- • M •				TT		X	l
221	Plan Commercial Recreation Facilities	Recreation Development	X	XX	\$200	М						X	1
222	Restoration Monitoring												
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	XX	\$77	М						X	ĺ
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X			1						X	1
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	XX	\$310	M		ŀ				X	
226	Visitor Center	Cordova Environmental Education Center	X		\$15	1		X					
227	Visitor Center	Cordova Mini-Imaginarium	x		\$63	1						X	ł
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	xx	\$155	М						X	i
229	Visitor Center	Environmental Education Center in PWS	X		\$90	1		-				X	
230	Visitor Center	Environmental Learning Resource Center	X	x x	\$90	1				TI		X	l
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	x		\$450	1					X		ł

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE P	GI	ON x	EST, COST/VR	EST. DURATION	1 9 9	1 9 9	1 9 9	1 9 9	1 1 •9 9 9 9	2 0 0	2 0 0
2.94	SERVICE	SUBOPTION		w S	E N	O D	\$K	(YEARS)	4	5	6	7	8 9	0	1 Pund
232	Recreation	Visitor Center	Information Center	ĪΧ	X	X	\$600	1					1		$\Box X$
233		Visitor Center	Interpretation of PWS	X			\$10	м		1					X
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1						-	
235	· · · · · · · · · · · · · · · · · · ·	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1			1				XI
236	•	Visitor Center	Valdez Visitor Center	X			\$850	1							X
	· · · · · · · · · · · · · · · · · · ·														
237	River Otter	Monitoring	River Otter Recovery Monitoring	X	¦		\$180	М	X	X	X	X	X	-	
238	· · · · · · · · · · · · · · · · · · ·	Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	X		-+	\$40	М	1	1					X
239	······	Restoration Monitoring													
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	X	X	\$99	1	X						
		· · · · · · · · · · · · · · · · · · ·													
241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	X		\$175	M							
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М	X	X	X	X	X		
243	· · · · · · · · · · · · · · · · · · ·	Monitoring													<u> </u> [
							-								×
				Ţ											
244	Sea Otter	Cooporative Prgm-Subsistence Users								1			-		
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	Х	X	\$83	М				X	XX	$\langle X \rangle$	X
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	М	X	X	X	X	<u>x</u> 2	$\langle \times$	X
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	X	X	\$450	М	X	X		$\times$	X		
248		Monitoring	Sea Otter Population Dynamics	X	X	X	\$291	93 - M	X	X	. 🗙	$ \mathbf{X} $	X		
249	•	Restoration Monitoring				1		•		1	1	ΙÍ		- 1 <sup>-</sup>	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	REC	SION	EST.	EST.	Γ.		T	Π.	Ι.		, k
or	OL STREAM STREAM		P	K K	COST/YF	DURATION	9	9	9 9	999	9	0	Not
SERVICE	SUBOPTION		W E S N		\$K	(YEARS)	4	5	6 7	78	9	Ō	Pund
250 Sea Otter	Study: Eliminate Oil from Mussel Beds								-	1	Î		N
							1			-			
											_		
251 Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X		\$120	M	1						X
252	Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		x	\$333	М							X
253	Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon		<u> </u>	\$275	м						:	$\boldsymbol{\times}$
254	Intensify Management	Genetic Stock Identification of Kenai River Sockeye		×	\$500	93 - M	X	X	X	_	_	]	
255	Intensify Management	Kenai River Sockeye Salmon Restoration		x	\$1,000	93 - M	X	X	X			ļ	
256	Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement		×	\$143	М					_	.	
257	Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation		X	\$6	M			-		_		
258	Monitoring	Sockeye Salmon Overescapement		x x	\$641	93 - M	ļ						
259	Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X	_	\$165	93 - M	_						
260	Option Not Identified	Red Lake Salmon Restoration		X	\$72	М	X	X			-		
						a a star or e			-				
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	·····				·		<u> </u>	ļ			-		
261 Sport Fishing	Recovery Monitoring			_	ļ		]	<u> </u>					
262	Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		<b>x</b>	\$4,200	1							
263	Restoration Monitoring						<u> </u>						_
				Ì						<b>)</b> .			
<u>.                                    </u>				_	l		<u> </u>						
so i Subsistence			-+-+		·								
	Access to Fraditional Foods					+							
265	Bivalve Shellfish Hatchery												
266		Chenega Bay Subsistence Restoration Project (Remove Oil)	X		\$200	M					4		X
267	Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design		X   X	\$300	1			1		1		X

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	<b>[</b> ]	ON	EST.	EST.	1	,		Π,	Γ, Ι	2 2	8
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	SERVICE	SUBOPTION		s	N	D	\$K	(YEARS)	4	5	6 7	/ 8	9	0 1	hu
268	Subsistence	Option Not Identified	Mariculture Technical Center	X	х	x	\$2,200	1							X
269		Option Not Identified	Seward Shellfish Hatchery	X	Х	Х	\$1,300	1							X
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	X	х	\$700	М	Х	X					
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X			\$50	М							X
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X			\$55	М					T		X
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		Х		\$2,500	1							X
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X			\$1,000	1							X
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	Х	X	\$55	М			_				X
276		Restoration Monitoring								·					
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	Х	X	\$589	М							X
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	Х	x	\$300	М	X		-				
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	X	X	\$308	93 - M	X	X	$\boldsymbol{\lambda}$				
	· · · · · · · · · · · · ·		·	_											
		المراجع والمستري والمستري والمستري													
280	Subtidal	Habitat Protection	hugaila Saat Shrima Habitat Identification	V	Y		¢110	M	$\overline{\mathbf{v}}$	X	¥				
281		Intensify Management	DWC Shot Shrimp Program Management Plan		^		\$715	N		1			+		
282	· · · · · · · · · · · · · · · · · · ·	Monitoring	DWC Spot Shrimp Suprov	<b> </b> ↓		$\left  - \right $	\$00	M	$\overline{\mathbf{X}}$	$\overline{\mathbf{v}}$	いた	1	; <del>  </del>		
283		Monitoring	Injuny and Baseyony of Deep Benthia Magrafeunal Communities	Ŷ	Y		\$275		$\overline{\mathbf{\nabla}}$	$\mathbf{i}$	35	Ì€			+
284		Monitoring	Natural Bosovary Monitoring of Subtidal Folgrass Communities in DWS		^		\$265	03 . M			<u> Ek</u>	5			· <b>} [</b> -
285		Monitoring	Persyan Manitoring of Hudroenshan Contaminated Subtidal Marine Sediment Descurres	÷	Ý		\$200	M	$\mathbf{\hat{\mathbf{v}}}$	$\hat{\mathbf{v}}$	긠	3C		~ ^	4
286		Monitoring	Subtidal Recovery Monitoring	Ŷ	Ŷ	Ŷ	\$400	M		싁	<u> </u>		1		
287		Restoration Monitoring	Sublidar Necovery Wolniching	Ŷ	^ Y	Ŷ	00+0 (02)	M	$\overline{\mathbf{v}}$				+		$ \uparrow $
	· · · · · · · · · · · · · · · · · · ·	riestoration monitoring		$\uparrow$	^		<b>430</b>	141			4		╈╍┤		+
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					Ì										
288	Technical Services	Administration	Electronic Archiving of Exxon Valdez Records	X	X	X	\$450	М							X
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X			\$75	М	X	X	$\times$	xx		XX	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGIO	N	EST.	EST	1	1	1 1	1	1	2	2	1
	or SERVICE	or SUBOPTION		P W S	K E N	к 0 D	Cost/yr \$K	DURATION (YEARS)	9 9 4	9 5	999 99 67	9 8	9 9 9	0	0	
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	x	\$105	93 - M	$\times$	>	$\times \times$	<   X	1			
291		Administration	Toxicological Profile of PWS	X			\$150	М					X	$ \lambda $	$\boldsymbol{\mathbf{x}}$	
292		Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	X	X	\$8				X	$\langle \chi \rangle$	X	$\left  {\boldsymbol{\lambda}} \right $	$\times$	
293		Public Information	Database Integration	X	X	X	\$148	M			X	$\langle \chi$	ĮΧ	X	$\times$	
294		Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		М								>
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	X	X	\$120	М							2	4
296	· · · ·	Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100	<b>M</b>						{· · · }	i	ľ
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	X	x	\$72	M							)	2

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Name: Heilt Swenten Phone: (12) 479- 5599

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	R	EGI	ON	2812	1EST	1	1	1 :	1 1	1 2	2 2 7	į.
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	SERVICE	SUEDPTION		s	M	₽	-35	NIZAGE)				<u></u>	<u> </u>		l
1	Archaeology	Acquire Archaeological Artifacts	Archaeological Specimens Collection, University of Alaska Museum	X	X	X	\$41	M	X		i l				V
2		Acquire Archaeological Artifacts	Nuchek Heritage Interpretive Center, Design	X	<u> </u>		\$300	1						V	1
3		Habitat Protection and Acquisition	Archaeological Site Acquisition	X	X	X	\$200	М		· ·					ĺ
4		Intensified Management	Coastal Archaeological Inventory and Evaluation of Archaeological Sites-Interagency	X	X	X	\$525	м	V		$\nu$				l
5		Intensified Management	Vandalized Cultural ResourcesInventory, Evaluation, Interpretation	X	X	X	\$400	M							ĺ
6		Option Not Identified	Restoration of Chenega Village Site	X			\$75	1						V	
7		Option Not Identified	Site-specific Archaeological Restoration - Interagency	X	X	X	\$300	93 - M	V						
8		Public Information	Passports in Time-Cultural Resource Patterns in PWS	X	1		\$230	М							ſ
9		Public Information	Heritage Information Replacement	X	X	X	\$200	М							٢
10		Public Information	PWS Landmarks-Evaluation and Interpretation	X			\$400	М						V	F
11		Public Information	Public Education and Interpretation of Archaeological Resource	X	X	X	\$400	M		,				V	-
12		Restoration Monitoring	Study of Petroleum Hydrocarbon Spectra at Selected Sites	X	X	X	\$225	М	$\cup$		V			i i	
13		Site Patrol and Monitoring	Archaeological Site Protection-Public Education-Interagency	X	X	X	\$150	M						V	Ĺ
.14_		Site Patrol and Monitoring	Archaeological Site Protection-Site Patrol Monitoring-Interagency	X	X	X	\$210	M						1	ſ
. 15		Site Stewardship Program	Archaeological Site Stewardship Program	X	X	X	\$114	М	· .					U	Ĺ
16		Visitor Center	Chugach National Forest Heritage Interpretive Center, Design	X			\$1,200	1						-	ſ
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17	Bald Eagle	Habitat Protection	Identification and Protection of Important Bald Eagle Habitats	X	X	X	\$262	М						5	ſ
18		Recovery Monitoring	Bald Eagle Productivity Survey and Catalog	X	X	X	\$10	M	V		V	V	V		ŀ
19		Recovery Monitoring	Long-Term Population Monitoring for Bald Eagles	X	X	X	\$200	М	$\nu$		$\boldsymbol{\nu}$ .	V	V		
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20	Black Oystercatcher	Recovery Monitoring	Black Oystercatcher Interaction with Intertidal Communities	X	X	X	\$108	93 - M	V	V	1	V	V		Ĺ
21		Recovery Monitoring	Feeding Ecology and Reproductive Success of Black Ovstercatchers in PWS	x		П	\$125	M	V	V	V	V	V	$\Box$	Ĺ

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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	RESOURCE	RESTORATION OPTIONS	POTENTIAL PROJECTS	शद	e (er	EST	ESTO	1	1	1		1	2	2
	or	- Of		PW	кк	(COIST/MA	DURATION	9 9	9 9	9	9	9 9	0 0	
	SERVICE	SUEDETION		s	N D	SK	(YEABS)	4	5	6	8	Ľ	0 1	Бd
22	Black Oystercatcher	Restoration Monitoring												
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		· · · · · · · · · · · · · · · · · · ·							∠					·
23	Commercial Fishing	Habitat Protection and Acquisition	Weir And Conservation Land Acquisition	X	X X	\$1,100	<u>M</u>	V				<b> </b>		
24		Intensify Management	Establish an Ecological Basis for Restoring and Enhancing Mixed-stock Salmon Resources	X	x x	\$385	<u>M</u>					+ - +		
25		Intensify Management	Fishery Industrial Technology Center	X	x x	\$3,500	1	V				<b> </b>	<u>.</u>	
26		Intensify Management	Model for Capacity of Salmon Production for the Susitna Drainage		X	\$150	M					<u>     </u>		4
27		Intensify Management	Susitna River Sockeye Salmon Production Evaluation		X	\$300	M			_		<u> </u> _		V
28		Monitoring	Thirteen Commercial Species Hydrocarbon Contamination and Injury Assessment	X	ХХ	\$200	M	4	V	4	1	<b> </b>		
29		Option Not Identified	Payoff Debt of Valdez Fisheries Development Association	<b>X</b>		\$5,000	· · · 1							4
30		Recovery Monitoring	Recovery of Coded-Wire Tags from Pink Salmon in Commercial Catches, Hatchery Cost Recovery	Х		\$868	M	V	4	VI	4_			
31		Recovery Monitoring	Wild Fish Stock Information Assessment	х	x x	\$50	М	V	V	1	1			
32		Replace Harvest Opportunities	Mitigation Fishery at Kitoi Bay Hatchery on Afognak Island		X	\$45	М	~	4	V				
33		Replace Harvest Opportunities	Montague Island Chum Salmon Restoration	x		\$80	M	V						
34		Replace Harvest Opportunities	Paint River Fish Ladder Salmon Stocking Program		x	\$50	М	$\nu$	$\nu$					
35	v .	Replace Harvest Opportunities	Red Lake Mitigation		X	\$191	М	V	$\mathcal{V}$					
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36	Common Murre	Feasibility Study: Improve Nest Sites	Testing of the Feasibility of Enhancing Productivity	х	x x	\$280	М	V	J					
37		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Behavioral Attraction and Habitat Enhancement	х	x x	\$51	93 - M			~	レ			
38		Feasibility Study: Social Stimuli	Restoration of Murres by Way of Transplantation of Chicks-Feasibility Study	x	x x	\$73	М							4
39		Recovery Monitoring	Common Murre Population Monitoring OUT	X	x x	\$191	М	V	2	VL	1			
40		Reduce Disturbance	Reduce Disturbance Near Murre Colonies Injured by the Oil Spill	х	x x	\$40	М	V	V	/				
41		Remove Introduced Species	Removal of Introduced Predators from Bird Colonies OUT			\$460	М							V

93=Funded in 1993 M=Multi-year Project

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO	N	EST.	EST.	1	.1	1	1 1	1	2 2	Do 1
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	SERVICE	SUBOPTION AND		s	м	D	SK	(Years)	Ĺ	<u> </u>	<u> </u>	′ L°		<u> </u>	5
42	Common Murre	Restoration Monitoring	·		_	_		M			<u></u>				
		· · · · · · · · · · · · · · · · · · ·												-	
										,					
43	Cutthroat/Dolly	Intensify Management	Cutthroat Trout and Dolly Varden Habitat Restoration	X			\$200	M	レ	V	4	V .			
44		Intensify Management	Enhanced Management of Cutthroat Trout and Dolly Varden	X			\$285	М	$\cup$	· ·					
45		Option Not Identified	Anadromous Cutthroat and Dolly Varden Char Habitat Inventory, Evaluation, and Restoration	X			\$35	М	V	V	マ	7			
46		Option Not Identified	Cutthroat Trout and Dolly Varden Hatchery	X			\$950	М							4
47		Restoration Monitoring						М							
														1	
								· · ·						-	
48	General	Administration	Oil Spill Restoration Support Service and Facilities	X	x	X	\$600	1							2
49		Monitoring	Monitoring of Small Cetaceans (Dall Porpoises) in PWS	X			\$200	М	V						
50		Option Not Identified	Hazardous Material Collection Facility	X	x	x	\$100	1	V						
51		Option Not Identified	Testing of Patch-Response Patch Dependence Hypothesis-Testing of an Ecosystem Model	X	x	x	\$488	M	4				•		
52		Public Information	Public Broadcasting System Program on Oil Spill	X	x	x	\$70	М	$\mathcal{V}$						
53		Public Information	Publish and Distribute Brochures on Injured Species	X	x	X	\$90	М	$\mathcal{V}$						
54		Public Information	PWS Brochures	X			\$65	М							
55		Public Information	PWS Implementation of Interpretive Plan	X			\$150	М	V						
56		Public Information	PWS Large Format Photographic Book	X			\$100	М	V						
57		Public Information	PWS Scenic Byway Nomination and Interpretive Plan	X			\$70	м	~						
58		Public Information	PWS Video Programs	X			\$100	M	V						
59		Public Information	Science of the Sound- Education Program	X			\$53	М	V						
							-								
				+	+				<u>├</u>		-+				+-1
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	P P W		EST. COST/VI	EST	1 9 9 4	1 9 9 5	1 1 9 9 9 9	1 9 9 8	1 9 9	2 2 0 0 0 0 0 1	Do Not Fur
60 Harbor Seal	Cooperative Program-Fishermen					1284 march 22			. <u>.                                   </u>	┦			ă
61	Monitoring	Monitoring Trends in Abundance of Harbor Seals in PWS	x	-	\$39	M.	1	1	VV	7			
62	Option Not Identified	Subsistence Harvest Assistance	x	+-	\$23	M	V	V					
63	Option Not Identified	Habitat Use and Behavior of Harbor Seals in PWS	x	-+	\$165	93 - M	J						
64	Recovery Monitoring	Habitat Use, Monitoring, Population Modelling, and Information Synthesis	x	x x	\$230	М	$\overline{\mathcal{V}}$			-			
· · · · · · · · · · · · · · · · · · ·													
65 Harlequin Duck	Eliminate Oil from Mussel Beds												4
66	Monitoring	Harlequin Duck Recovery Monitoring, Population Modelling and Habitat Information Synthesis	x	x x	\$700	<sup>·</sup> 93 - M	V	~	VV	10			
67	Option Not Identified	Quantification of Stream Habitat for Harlequin Ducks from Remotely Sensed Data	X	x x	\$53	М	$\vee$	V	VV	1			
		·											
68 Intertidal	Accelerate Recovery of Intertidal	Deposit Sand on Cleaned Beaches, to Promote Clam Recruitment-Feasibility Study	X	хx	\$20	M							1
69	Accelerate Recovery of Intertidal	Fucus Restoration Feasibility Study	X	хх	\$70	М	V	~	0	10	~		
70	Accelerate Recovery of Intertidal	Restoration of High-Intertidal Fucus	x	хx	\$300	M	1	1	1	10	V		
71	Accelerate Recovery of Intertidal	Beach Subsurface Oil Recovery	X	x x	\$50	М		·		T			V
72	Accelerate Recovery of Intertidal	Hydrodynamic Purging of Oil from Contaminated Beaches, PWS	X		\$500	М	V	/	VI	10	~		
73	Accelerate Recovery of Intertidal	Rapid Restoration of Weathered Crude Contaminated Beach Subsurface Material	X	x x	\$800	М	V	$\checkmark$	Vu	10	$\mathbf{V}$		
74	Accelerate Recovery of Intertidal	Restore Shorelines Injured by Beach Berm Relocation	X	хх	(	М	V	1	1	10	N		
75	Monitoring	Coastal Habitat Injury Assessment - Intertidal Algae	x	x x	\$620	M	$ \nu $	$\mathbf{V}$	1	10			
76	Monitoring	Fate and Transport of Subsurface Hydrocarbons in Beach Deposits in PWS	x		\$600	M	$ \mathcal{I} $	V	1		1		
77	Monitoring	Coastal Habitat Comprehensive Intertidal Monitoring Program	X	x x	\$500	М	V	~	VV	10	V		
78	Monitoring	Hydrocarbons in Mussels from Coastal Gulf of Alaska, Cook Inlet and Shelikof Strait		x x	\$200	М	$ \mathcal{V} $	V	VV	10	4		
79	Monitoring	Intertidal/Shallow Subtidal Crustacean (Decapod) Composition	X	хх	\$275	М	1	V	VL	11	V		
80	Monitoring	Long-Term Monitoring -Acute and Chronic Toxicity of Residual Hydrocarbons to Littleneck Clams	X	x x	\$50	М	V	V	VV		1		
81	Monitoring	Monitoring for Recruitment of Littleneck Clams	X	x x	\$186	M	$\vee$	$\mathbf{V}$	1	11	1		

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	SERVICE	SUBOPTION		s	И	D	<u></u>	(YEARS)	4	5	6	7	.8 9	Ů	1 54	
82	Intertidal	Monitoring	Monitoring Sites - Collector Beaches and Lagoons	X	X	x	\$500	М	10	10	YV	0	10	1		l
83		Monitoring	Natural Recovery of Oiled and Treated Shorelines and Monitoring	X	X	X	\$600	М	1		14	V	1	1		
84		Monitoring	Quantification of Intertidal Algal Recovery Using Multispectral Digital Remote Sensing	X	X	X	\$195	М	V		V	0	VV			
85		Monitoring	Recovery Monitoring of Intertidal Oiled Mussel Beds	X	X	X	\$500	93 - M	1	10	1	V	1			
86		Monitoring	Herring Bay Experimental and Monitoring Studies	X		Ţ	\$495	93 - M	V	10	10	~	VV			
87		Option Not Identified	Bivalve Shellfish Rehabilitation Project	X	X	X	\$860	М	1	10	1	V	VA	1		
88		Option Not Identified	Clam Enhancement	X	X	X	\$120	М	V	1	1	1	//			
89		Option Not Identified	Replacement of Oiled Mussels with Commercially Produced Mussels	X	X	X	\$500	М	V	11	1	1	//	1		
90		Option Not Identified	Restoration of Mussel Beds	X	X	X	\$500	М	V	V	1	1.	1/			
91		Option Not Identified	Characterization of Near-Shore Bottom Habitat	X	X	X	\$237	М	V	V	7				·	
- 14 - 15	) 					:										-
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92	Killer Whale	Monitoring	Photo-Identification Studies of PWS Killer Whales	X			\$120	93 - M	V	1	V	1.1			محمود محد	Į.
93		Monitoring	Recovery-Monitoring	X			\$125	M	4	10	11	I['	1	_		Į
94		Monitoring	Use of Satellite Transmitters to Investigate Killer Whale Ecology in PWS	X			\$180	M	V		V	N				ľ
95		Reduce Fishery Interactions	Change Black Cod Fishery Gear	X				M		_						1
											ŀ					
96	Marbled Murrelet	Habitat Protection	Identification of Nesting Habitat Criteria and Reproductive Success for Marbled Murrelet	X	X	X	\$240	93 - M	V	1	V		<u>ر</u>	V		
97		Habitat Protection	Survey to Identify Upland Use by Murrelets	X	X	X	\$180	93 - M	V	レ	1		~			
98		Habitat Protection	Assessment of Marbled Murrelet Foraging Habitat Requirements During Breeding Season	X	X	x	\$250	М	V	1	1		V	V		
99		Habitat Protection	Marbled Murrelet Nesting and Feeding Site Characterization and Assessment	X	X	x	\$509	М	1	V	1		~	V		
100		Minimize Incidental Take							[							
101		Recovery Monitoring	Determine Status of Marbled Murrelet Populations In Kenai Fjords and Katmai National Parks		X	X	\$200	М	10	10	1	IT	1	Ţ	-	

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	1.1.1.5	IOR	E\$\$17.	EST	1 1	1	1	1	1 2	2 2	8
	or			PK	ĸ	COSTAN	DURANOR	999 99	9 9	9 9	9 9	90 90	, 0 , 0	Not 1
	SERVICE	SUEOPTION		S N	ū	SK .	(VEARS)	4 5	6	7	. 8	9 0	1	Ĕ
102	Marbled Murrelet	Restoration Monitoring	Survey to Monitor Recovery of Marbled Murrelets	XX		\$250	М	10	10	V	11			
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103	Multiple Resources	Habitat Protection	Habitat Modelling	X >	( X	\$150	М	41	1					
104		Habitat Protection	Riparian Habitat Assessment	X >	( <u>x</u>	\$110	М	JU	1					
105		Habitat Protection	Stream Channel Capability Modeling	x >		\$110	M	JL		<u></u>				
106		Habitat Protection	Stream Habitat Assessment	X)	( X	\$361	93 - M	レ	V					
107		Habitat Protection	Valdez Hazardous Waste Collection	X		\$200	1							
108		Habitat Protection	Vegetation and Stream Classification and Mapping	x >	( X	\$276	93 - M	~	V	1				
109		Habitat Protection	Wetland Habitat Classification, Mapping and Assessment	X >	( X	\$100	<u> </u>	ノレ	1	-				
110		Habitat Protection	Characterization and Identification of Habitat Important to Upland Species	x >	( X	\$750	М	VV						
111		Habitat Protection and Acquisition	Inholdings in Alaska Maritime National Wildlife Refuge	)	( X	\$111	1					_		~
112		Habitat Protection and Acquisition	Inholdings in Alaska Peninsula National Wildlife Refuge		X		1		1					4
113		Habitat Protection and Acquisition	Inholdings in Becharof National Wildlife Refuge		X		1	- -						1
114		Habitat Protection and Acquisition	Valdez Duck Flats	X			1							1
115		Habitat Protection and Acquisition	Inholdings In Kenai Fjords National Wildlife Refuge	>	(	\$20	1							V
116		Habitat Protection and Acquisition	Inholdings in Aniakchak National Monument and Preserve		X		1							V
.117		Habitat Protection and Acquisition	Kitoi Bay Hatchery Watershed Habitat Acquisition		X	\$250	1							V
118		Habitat Protection and Acquisition	Acquire Olsen Bay Watershed	X		\$3,500	1							$\checkmark$
119		Habitat Protection and Acquisition	Acquisition of Inholdings in Shuyak Island State Park		X	\$200	1							V
120		Habitat Protection and Acquisition	Acquisition of Koniag Corporation Inholdings within the Kodiak National Wildlife Refuge		X	\$77,000	1							1
121		Habitat Protection and Acquisition	Conservation Easement-Aialik Bay	>	(	\$90	1					-		1
122		Habitat Protection and Acquisition	Conservation Easement-Chugach Bay	)	(	\$60	1							1
123		Habitat Protection and Acquisition	Conservation Easement-Dogfish Bay	)	(	\$400	1							1
124		Habitat Protection and Acquisition	Conservation Easement-Port Chatham	)	(	\$80	1				-			-
125		Habitat Protection and Acquisition	Conservation Easement-Rock Bay	>	(	\$740	1							V
126		Habitat Protection and Acquisition	Habitat Acquisition	X >	( X	\$25,000	93 - 1							4
127		Habitat Protection and Acquisition	Habitat Acquisition, Afognak		X	\$112,500	1							6

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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# 1994 POTENTIAL PROJECT TITLES

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# Page 7

	RESOURCE or	RESTORATION OPTION	POTENTIAL PROJECTS	P W	GIC K E	DN ĸ	EST. COST/YR	EST. DURATION	1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	1 2 9 0 9 0	2 0 0	Do Not F
	SERVICE	SUBOPTION		s	N	D	\$K	(VEARS)	Ĺ	5	6	7	8	<u>°</u>		Ha I
128	Multiple Resources	Habitat Protection and Acquisition	Habitat Acquisition, Kodiak Island	1_		Х	\$20,000	1						_	_	4
129		Habitat Protection and Acquisition	Habitat Acquisition, North Afognak Island			х	\$4,000	1								И
130		Habitat Protection and Acquisition	Kodiak Bear Refuge Stream Mouth Inholdings Acquisition	Ĺ.		X	\$1,000	1 .	]							4
131		Increase Natural Food Supply							•	i						
132		Intensify Management	Develop Management Strategy for Enhancing Recovery Rate of Bird and Sea Otter Populations	X	X	х	\$50	М	u	1						
133		Intensify Management	Genetic Risk Assessment of Injured Salmonids	X	X	x	\$408	М	u							
134	•	Intensify Management	Restoration and Mitigation of Essential Wetland Habitats for PWS Fish and Wildlife	X			\$200	М	V	V						Ľ
135		Intensify Management	Restoration of Second Growth Habitat for Wildlife in PWS	X			\$40	М	$\overline{\nu}$	/						
136		Intensify Management	Seabird Colony Restoration	X	X	Х	\$250	М	$\overline{\nu}$	V	·					
137		Intensify Management	Stock Identification of Chum, Sockeye and Chinook Salmon in PWS	X			\$250	M	V	V					1	
138		Monitoring	Shoreline Worm Life Monitoring	X	X	X	\$388	М	V	V						
139		Option Not Identified	Instream Habitat and Stock Restoration Techniques for Anadromous Fish	X	X	X	\$416	м	V	V					-	
140		Option Not Identified	Alaska Land and Wildlife Conservation Fund	X	X	X	one billion	M	9							1
141		Option Not Identified	Field Study of Bioremediation Enhancement Treatment Methods	X	X	X	\$280	М	U				·	T		
142		Option Not Identified	Oil Spill Injured Resources Literature Research and Review	X	X	X	\$7	М	V	V						
143		Option Not Identified	Analyze Natural Resource Damage Assessment Samples Left Un-Analyzed	X	X	X	\$650	······	V					· .		-
144		Option Not Identified	Identification of Seabird Feeding Areas from Remotely Sensed Data and Impact on Restoration	X	X	X	\$48	М	V	V						
145		Option Not Identified	Shoreline Assessment	X	X	X	\$250	93 - M	V	V						
146	-	Option Not Identified	Uganik River Fish Counting Weir - Brown Bear and Other Wildlife Food Study			X	\$28	М	V	1					1	T
147		Recovery Monitoring	Comprehensive Monitoring Program, Plan and Administer	X	X	X	\$500	93 - M	V	V	Ţ					
148	· ·	Recovery Monitoring	Cook Inlet Comprehensive Monitoring Program	<b>—</b>	X		\$800	М	V	V		2	4			
149		Recovery Monitoring	Full Funding for Oil Spill Recovery Institute	X	x	x	\$2,300	1`	V							
150		Recovery Monitoring	Injured Resource Food Supply	X	X	X	\$850	М	V	V						
151		Recovery Monitoring	Inventory, Monitor, Protect Permanent Study Sites	X	X	X	\$500	М	V	V						
152		Recovery Monitoring	Long-Term Monitoring of Marine Environment of Resurrection Bay	Τ	x		\$600	М	V	1	V	1	0		T	
153		Recovery Monitoring	Migratory Shore Birds Staging in Rocky Intertidal Habitats of PWS	X			\$80	М	V	V				_		
154		Recovery Monitoring	Migratory Waterfowl and Shorebird Monitoring	X	X	X	\$150	М	V	V	-					
155		Recovery Monitoring	Monitor Population Status of Seabird Nesting Colonies in the Spill Zone	X	x	X	\$100	М	V	V					1	
156	······································	Recovery Monitoring	Restoration Recovery Monitoring of Stream-Rearing Anadromous Salmonids	X	X	x	\$200	М	V	1				-	T	$\square$
157	1	Recovery Monitoring	Survey to Determine Abundance Distribution, Habitat, and Food Habits of Staging Shore Birds	X			\$35	М	V	V	_			_	1	

PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area

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SERVICE	SUBOPTION	and the second second second second second second second second second second second second second second second	s	N	D	\$K	NPARS)	4	5	6	7	89	0	1 m
158 Multiple Resources	Recovery Monitoring	Survey to Determine Distribution, Abundance, and Food Habits of Staging Migratory Waterfowl	X			\$91	<u>M</u>	10	V	1	V			
159	Recovery Monitoring	Surveys to Monitor Marine Bird and Sea-Otter Populations	X	X	X	\$275	93 - M	1	V	V	V	·		
160	Reduce Disturbance by Field Presence													
161	Reduce Disturbance Through Public Info	Public Information and Education	X	X	X	\$316	M	V	J	V	V			
162	Reduce Disturbance Through Public Info	Publish and Distribute Brochures on Injured Species	X	X	X	\$50	М	V	V	V	$\checkmark$			
163	Restoration Monitoring	Abundance and Distribution of Forage Fish and Their Influence on Recovery of Injured Species	X	X	X	\$500	М	1	$\checkmark$	V	V	-		
164	Restoration Monitoring	Ecosystem Study	X	X	X	\$6,000	M	V	/	$\checkmark$	~			
							<u></u>	<u> </u>						
165 Pacific Herring	Intensify Management	Genetic Stock Identification for Herring in PWS	X			\$205	М	V	1	V		/	V	
166	Intensify Management	Herring Spawn Deposition, Egg Loss, and Reproductive Impairment	X			\$400	М	V	V	V		-	V	
167	Intensify Management	PWS Herring Tagging Feasibility Study	X			\$112	M	V	V	~		1	1	. · · -
168	Monitoring	Herring Embryo Viability Evaluation - Natural and Catastrophic Effects	X			\$189	М	V	V	2		V	$\nu$	
	Monitoring	Larval Herring Age and Growth in PWS Using Otoliths	X			\$60	М	V	1	レ		V	V	
170	Option Not Identified	Enhancement of Pacific Herring	X	X	X	\$120	M	V	V	V		$\checkmark$	V	
171	Restoration Monitoring													
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172 Pigeon Guillemot	Monitoring	Pigeon Guillemot Colony Survey	X	X	X	\$40	93 - M	1	V	V			_	
173	Monitoring	Pigeon Guillemot Recovery Enhancement and Monitoring	X	X	X	\$180	M	r	4	V				┝┈┝╸
174	Restoration Monitoring			L.										
175	Temporary Predator Control							L					_	
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PWS=Prince William Sound, KEN=Kenai Peninsula and Cook Inlet, KOD=Kodiak Archipelago and Alaska Peninsula, OUT=Outside Oil Spill Area 93=Funded in 1993 M=Multi-year Project

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RESOURCE or SERVICE	RESTORATION OPTION: or SUBOPTION	POTENTIAL PROJECTS	P W S	GIO ĸ N	N C	est Ost/yr Sk	EST. DURATIO (YEARS)	1 9 9 4	1 9 9 5	1 9 9 6	1 9 9 7	1 9 9 8	1 2 9 0 9 0 9 0	2 0 0 1	Do Not Fund
176 Pink Salmon	Fish Passes and Access	Feasibility of Fish Passes as Oil Spill Restoration	X	<b>x</b>	×	\$25	м	1	4						
177	Fish Passes and Access	Horse Marine Creek Pink Salmon Restoration			x	\$28	1	$\nu$							
178	Fish Passes and Access	Otter Creek Fish Pass	X			\$130	1.	V							
179	Fish Passes and Access	Pink Creek Pink Salmon Restoration			x	\$11	1	V							
180	Fish Passes and Access	Sockeye Creek Fish Pass	X			\$60	1	V							
181	Fish Passes and Access	Waterfall Creek Pink Salmon Restoration-Fish Improvement			x	\$55	1	V							
182	Improve Survival Rates	Fry Rearing to Improve Survival and Restore Wild Pink and Chum Salmon Stocks	X	X	x	\$727	М	V	V						
183	Intensify Management	Adult Tagging to Determine Distribution, Migratory Timing and Rate of Movement of Pink Salmon	X	Τ		\$495	М	1	2						
184	Intensify Management	Coded Wire Tag Recoveries from Commercial Catches in PWS Salmon Fisheries	X			\$855	М	P	V						
185	Intensify Management	Coded Wire Tagging of Wild Stock Pink Salmon for Stock Identification	X			\$500	М	V	1						
186	Intensify Management	Inventory and Effect of Straying Hatchery Pink Salmon on Wild Pink Salmon Population	X			\$253	М	V	1						
187	Intensify Management	Otolith Marking - Inseason Stock Separation Tool to Reduce Wild Stock Salmon Exploitation	X	X	X	\$152	М	1	V						
188	Intensify Management	Pink Salmon Escapement Enumeration	X	X	X	\$705	м	V						T	
189	Intensify Management	PWS Salmon Stock Genetics	X			\$150	М	V							
190	Intensify Management	Quality Assurance for PWS Coded Wire Tagging and Fish Production Records	X			\$66	М	V							
191	Monitoring	Investigating and Monitoring Oil Related Egg and Alevin Mortalities	X	X		\$686	М	V	V		·				
192	Monitoring	Restoration Monitoring and Preservation of Wild Populations of Pink Salmon	X	х		\$899	М	V	V					1	
193	Monitoring	Injury to Salmon Eggs and Pre-emergent Fry in PWS, Laboratory Verification	X			\$141	М	V	1						
194	Monitoring	Pink Salmon Egg to Pre-Emergent Fry Survival in PWS	X			\$385	93 - M	0	V						
195	Monitoring	Monitoring Early Marine Growth of Juvenile Salmon in Prince William Sound	X			\$50	М	V	1					T	
196	Option Not Identified	Pink Salmon Stream Enhancement in Prince William Sound, Lower Cook Inlet and Kodiak	X	x	x	\$300	М	V	V						
197 Recreation	Establish Marine Environmental Institute	Build Research and Monitoring Facilities and Program/Cook Islat Kodlak		x	x	\$1.250	M		$\left  \begin{array}{c} \cdot \\ \cdot \end{array} \right $						N
198	Establish Marine Environmental Institute		x	x	$\frac{2}{x}$	\$6,000	<u></u>	+						!	1
100	Establish Marine Environmental Institute		Ŷ	Ŷ	$\frac{2}{x}$	\$40.000		+	$\left  - \right $					-	7
200		17(b) Engement Identification Dublic Academ	Ŷ	Ŷ	$\frac{2}{2}$	\$500	· M					-+		-+	<u> </u>
201	Habitat Protection and Acquisition	Acquisition of Important Recreation Lands	<b>x</b>	x	x	\$500	M						+	+	-1

93=Funded in 1993 M=Multi-year Project

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RESOURCE	RESTORATION	POTENTIAL PROJECTS	38	(6) [3]	3	EGT.	EST.	1	1	1 1	1	1 2	2 8	1
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SERVICE	SUBORTION		s	NC	۰ 🚺	SK	(YEARS)	4	5	6 7	8	9 0	1 5	
202 Recreation	Habitat Protection and Acquisition	Acquisition of Recreational Sites on Kodiak Road System		)	<	\$500	1						1	1
203	Habitat Protection and Acquisition	Land Exchange Shuyak for Kodiak Land on Road System			<	\$70	1						4	1
204	Habitat Protection and Acquisition	Shelter Cove, Cordova Restoration Project	X			\$50	М						L	1
205	Monitoring	Assessment of Economic Injuries to Wilderness-Based Tourism	X	X >	<b>K</b>	\$100	М	V						
206	Monitoring	Post-Oil Spill Recreation-Based User Survey for PWS	X			\$58	М	V		T				
207	Monitoring	Recreation Field Management and Monitoring	X	x >	<	\$700	М	V						
208	New Backcountry Recreation Facilities	Enhanced Trail Opportunities, Including Columbia and Blackstone Glacier Trails	X			\$150	1						L	1
209	New Backcountry Recreation Facilities	Green Island Cabin Replacement	X			\$20	1						L	ł
210	New Backcountry Recreation Facilities	Improve Marine Parks	X	X)	<b>K</b>	\$100	М						L	1
211	New Backcountry Recreation Facilities	Low Impact Recreation Development Nellie Juan, College Fiord Wilderness Study Area	X			\$100	1		T				1	Ł
212	New Backcountry Recreation Facilities	Prince William Sound Campground	X			\$70	1						V	1
213	New Backcountry Recreation Facilities	Public Use Cabins in State Marine Parks	X	XX	<	\$150	• • • M • • • • •						1	1
214	New Backcountry Recreation Facilities	PWS Kayak Trail	X			\$100	. 1						L	1
215	New Backcountry Recreation Facilities	PWS Recreation Facilities	X			\$250	1	·					V	1
216	Option Not Identified	Development of Gulf of Alaska Recreation Plan		X >	<	\$140	1					-	1	1
217	Option Not Identified	Implement Prince William Sound Area Recreation Plan	- X			\$400	M							1
218	Option Not Identified	Sustainable Tourism in PWS	X			\$240	М						U	1
219	Option Not Identified	Watchable Wildlife	X	x >	<	\$65	М						V	1
220	Option Not Identified	Increased Access PWS	X			\$100	М						14	1
221	Plan Commercial Recreation Facilities	Recreation Development	X	X)	(	\$200	м					-	V	1
222	Restoration Monitoring													1
223	Visitor Center	Bird and Mammal Specimens, University of Alaska Museum	X	X >	<	\$77	М	1	2			-		1
224	Visitor Center	Center for PWS Oil Spill and Natural Resource Education	X				1	1	1	~				
225	Visitor Center	Coastal Habitat Specimens, University of Alaska Museum	X	X >	<	\$310	М	V	V	~				1
226	Visitor Center	Cordova Environmental Education Center	X			\$15	1	V	V	v				
227	Visitor Center	Cordova Mini-Imaginarium	X			\$63	1	V	K	X	·			1
228	Visitor Center	Develop Video Library of Intertidal Habitat and Biota to Assess Impacts	X	X)	<	\$155	М	2	1	/				1
229	Visitor Center	Environmental Education Center in PWS	X			\$90	1	V	V	1				1
230	Visitor Center	Environmental Learning Resource Center	X	x)	<b>(</b>	\$90	1	1	V					
231	Visitor Center	Establish Natural Resource Library and Computer Support Technical Service in Cordova	X			\$450	1 .	V	VI			1		1

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIO ĸ	DN x	EST: COST/VA	EST. DURATION	1 9	1 `9 9'	1 1 9 9	1 9	1 9	2	2 Not
(3.34) 	SERVICE	SUBOPTION		W S	E N	O D	sк	(YEARS)	4	5	6 7	8	9	t 0	7 und
232	Recreation	Visitor Center	Information Center	X	X	X	\$600	1	1			T		Ī	
233		Visitor Center	Interpretation of PWS	X			\$10	М	1						
234		Visitor Center	Maritime Wing Valdez Museum	X			\$150	1	1						
235	· .	Visitor Center	Multi-agency Library on PWS and Copper River Delta	X			\$150	1	V						
236		Visitor Center	Valdez Visitor Center	X			\$850	1	V						
237	River Otter	Monitoring	River Otter Recovery Monitoring	X			\$180	М	V	4	1,1	1			
238		Monitoring	Synthesis of Information on Ecology and Injury to River Otters in PWS	x			\$40	М	V	V	VV	/			
239		Restoration Monitoring							- <del>-</del>						
240		Sport/trap Harvest Guidelines	Develop Harvest Guidelines to Aid Restoration of Injured Terrestrial Mammals and Seaducks	X	Х	X	\$99	1	V	V	VI	1			
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241	Rockfish	Intensify Management	Develop a Rockfish Management Plan	X	х		\$175	М	0		40				
242		Monitoring	Monitoring Injury to Rockfish in PWS	X			\$117	М	V	V	VL	1		_	
243		Monitoring					v								
244	Sea Otter	Cooporative Prgm-Subsistence Users													
245		Habitat Protection (Public Land)	Habitat Utilization by Sea Otters and Designation of Protected Areas	X	Х	Х	\$83	M	V		V				
246		Monitoring	Monitoring of Sea Otter Population Abundance, Distribution, Reproduction, and Mortality	X	X	X	\$337	М	4	V	1				
247		Monitoring	Radio-Telemetry Project to Monitor Recovery of Sea Otters	X	Х	X	\$450	М	V	~	V				
248		Monitoring	Sea Otter Population Dynamics	X	X	X	\$291	93 - M	V	1	1				
249		Restoration Monitoring													

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GIC		FST	FST						T	-	<b>v</b>
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	SERVICE	SUBOPTION		W S	E N	O D	\$K	(YEARS)	4	9 5	9 6	9 8	9 8	9	J 0 J 1	Pund
250	Sea Otter	Study: Eliminate Oil from Mussel Beds			- 8											
	-															
251	Sockeye Salmon	Fish Passes and Access	Solf Lake Fish Pass	X			\$120	М	V	K						
252		Intensify Management	Develop and Deploy In-River Hydroacoustic Counters for Sockeye Salmon in the Kenai River		X		\$333	М	L							
253		Intensify Management	Genetic Monitoring of Kodiak Island Sockeye Salmon			Х	\$275	М	V							
254		Intensify Management	Genetic Stock Identification of Kenai River Sockeye		X		\$500	93 - M	V	1						$\Box V$
255		Intensify Management	Kenai River Sockeye Salmon Restoration		X		\$1,000	93 - M								X
256		Intensify Management	Lower Cook Inlet Sockeye Salmon Restoration and Enhancement	T	X		\$143	М	V	$\left\{ \right\}$						
257		Monitoring	Ayakulik River Sockeye Salmon Escapement Evaluation			X	\$6	М	V			-		_	-	
258		Monitoring	Sockeye Salmon Overescapement		X	X	\$641	93 - M	V	7						
259		Option Not Identified	Restoration of the Coghill Lake Sockeye Salmon Stock	X			\$165	93 - M	L	$\left  \right $						
260		Option Not Identified	Red Lake Salmon Restoration		-	X	\$72	М	X							
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261	Sport Fishing	Recovery Monitoring			T				1							
262		Replace Harvest Opportunities	Fort Richardson Hatchery Improvement		X		\$4,200	1								V
263		Restoration Monitoring	·	Π												
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						}										
264	Subsistence	Access to Traditional Foods									-					
265	· · ·	Bivalve Shellfish Hatchery														
266		Option Not Identified	Chenega Bay Subsistence Restoration Project (Remove Oil)	X			\$200	М	V	X						
267		Option Not Identified	Mariculture Hatchery and Research Center Feasibility Study and Design	X	X	x	\$300	1	P						-	V

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## 1994 POTENTIAL PROJECT TITLES

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	RESOURCE or SERVICE	RESTORATION OPTION	POTENTIAL PROJECTS	P W S		N ES COST	T. EST. 7YR DURATI (YEAR)	) 1 9 9 9 9	1 9 9 5	1 9 9 6	1 9 9 7	1 9 9 8	1 9 9 9	2 2 0 0 0 0 0 1	Do Not Fund
268 Sub	sistence	Option Not Identified	Mariculture Technical Center	X	X)	< \$2,2	00 1		-		<b>.</b>				7
269		Option Not Identified	Seward Shellfish Hatchery	x	x)	(\$1,3	00 1			1	1				V
270		Recovery Monitoring	Survey of Impacted Native Communities-Subsistence	X	x )	(\$70	0 M	L	1	V	1				
271		Replace Harvest Opportunities	Chenega Bay Replacement Subsistence Resource Project	X		\$50	D M	L	tu	V	1			_	
272		Replace Harvest Opportunities	Chenega Chinook and Coho Release Program	X		\$5	5 M	1	V	V	1				
273		Replace Harvest Opportunities	Port Graham Salmon Hatchery		X	\$2,5	00 1			-					U
274		Replace Harvest Opportunities	Silver Lake Fish Hatchery	X		\$1,0	00 1			-					V
275		Replace Harvest Opportunities	Subsistence Harvest Replacement-Transport Subsistence Users to Unoiled Areas	X	x x	( \$5	5 M	L	L	10	1			_	
276		Restoration Monitoring								1					
277		Subsistence Mariculture Sites	Village Mariculture Project - Oyster Farming	X	X X	(\$58	9 M	1	1	IV	1				
278		Test Subsistence Foods	Assessment and Quality Assurance of Shellfish Resources	X	<b>x</b> )	(\$30	0 M		tu	10	1				
279		Test Subsistence Foods	Subsistence Food Safety Testing	X	XX	\$30	8 93 - N		1	<i>\</i> \	1			12	-
		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·			- -						
280 Sub	tidal	Habitat Protection	Juvenile Spot Shrimp Habitat Identification	x	x	\$11	0 M		大	V	TV	17	, <del> </del> -		
281		Intensify Management	PWS Spot Shrimp Recovery Management Plan	x		\$71	5 M	l	ti	V	ĪV	V			
282	···· ··· · · · · · · · · · · · · · · ·	Monitoring	PWS Spot Shrimp Survey	x		\$9	M C		1.	10	1L	V	/	_	1
283		Monitoring	Injury and Recovery of Deep-Benthic Macrofaunal Communities	x	x :	( \$27	5 M	ι	1	10	ĪV	1		_	$\square$
284		Monitoring	Natural Recovery Monitoring of Subtidal Eelgrass Communities in PWS	x		\$26	5 93 - N	L	L	1	V	V			
285	· · · · · · · · · · · · · · · · · · ·	Monitoring	Recovery Monitoring of Hydrocarbon-Contaminated Subtidal Marine Sediment Resources	X	X :	K \$39	0 M	1	12	V	V	11			
286		Monitoring	Subtidal Recovery Monitoring	X	X	K \$40	0 M	L	11	V	V	V			
287	······································	Restoration Monitoring	Experimental Studies of Interaction Between Subtidal Epifaunal Invertebrates	X	X X	K \$9	M C	,	11	V	V	V			
288 <b>Tec</b> ł	hnical Services	Administration	Electronic Archiving of Exxon Valdez Records	x	x :	x \$45	0 M	1	L	10	1-	1-1		-+	+1
289		Administration	Geographic Information System Mapping of Natural Resources in Western PWS	X		\$7	5 M	L	-1-		1			-	

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	RESOURCE	RESTORATION OPTION	POTENTIAL PROJECTS	RE	GI	ØN	EST.	ESTA	1	1	1	1 1	1 1	2	2	00
	or SERVICE	or SUBOPTION		P W S	K E N	K O D	COST/YR \$K	DURATION (YEARS)	9 9 4	9 9 5	9 9 6	999 999 78	) 9 ) 9 3 9	0	0 0 1	loc Fund
290	Technical Services	Administration	Hydrocarbon Data Analysis and Interpretation	X	X	x	\$105	93 - M	4	$\mathcal{V}$		VV	1			
291	i	Administration	Toxicological Profile of PWS	Х			\$150	М		1	V		T			
292	•	Public Information	CD-ROM Publication of Digital Spatial Data from Exxon Valdez Oil Spill Mapping Activities	X	Х	X	\$8	м	V	V	V		1.		-	
293		Public Information	Database Integration	X	X	X	\$148	. М	N		V					
294	· · · · · · · · · · · · · · · · · · ·	Public Information	Develop User Friendly Synopsis of Oil Spill Information	X	X	X		М	V	V	1					
295		Public Information	Providing Public Access to Oilspill GIS Databases Using Arcview in PC Windows Environment	X	Х	X	\$120	М	V	V	V		T			
296		Public Information	Public Access Repository for Oil Spill Geographic Information System (GIS)	X	X	X	\$100		V	V	V	·				
297		Public Information	User-Friendly GIS and Remote-Sensing Demonstration Center for Public-5 Communities	X	Х	X	\$72	м	V	V	V			T		
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	RESOURCE or SERVICE	RESTORATION OPTION or SUBOPTION	POTENTIAL PROJECTS	REGION EST. EST. P K K COST/YR DURATION S N D SK C(EARS)	1 1 1 1 1 2 2   9 9 9 9 0 0 No   9 9 9 9 0 0 1   9 9 9 9 0 0 1   9 9 9 9 0 1 1
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