



**Opportunities
for
Habitat Protection/Acquisition**

**Prepared by:
Exxon Valdez Oil Spill Restoration Team
Habitat Protection Work Group
February 16, 1993**

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Opportunities for Habitat Protection / Acquisition

February 16, 1993

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SECTION 1

SUMMARY OF PUBLIC COMMENTS ON RESTORATION FRAMEWORK SUPPLEMENT: HABITAT PROTECTION AND ACQUISITION PROCESS

COMMENTER	PREFERRED HABITAT PROTECTION STRATEGY		PREFERRED THRESHOLD CRITERIA			OTHER COMMENTS
	CONCUR.	HIER.	A	B	C	
Natural Resources Defense Council	X		X			Evaluation process too long and cumbersome. Step #2, natural recovery could be used as an excuse to avoid protecting habitat. Step #5 puts Trustees in awkward position of ruling that regulations are inadequate. Step #14 needs to list other criteria that will be used. Step #20, non-acquisition tools seem ineffective. Broaden imminent threat process to include opportunities to purchase habitat in addition to imminently threatened lands. Drop recreation from step # 7, threat analysis.
Nancy Hillstrand	No comment	No comment	No comment	No comment	No comment	Acquisition should be priority, particularly Afognak Island. Revitalize Forest Practices Regulations to minimize ecosystem injury and fragmentation. Resource agency mismanagement can be more destructive than oil spill. Renovate resource agency mandates. Monitoring should encompass widespread health of ecosystem.
Sierra Club / Alaska Center for the Environment	X		X			Hierarchical approach is completely unacceptable and unjustifiable. Proposed process is too complex and cumbersome. Step #2 should be deleted. Step #5 puts an unnecessary hurdle in path of restoration. Step #6 should provide for permanent protection, not just until resource recovers. Step #9 delete, "that are not adequately recovering". Asking price should be considered at time of applying threshold criteria; ranking acquisitions during step #s 14 & 15 will drive up asking price. Support imminent threat process but delete step #2.
The Nature Conservancy of Alaska	X		X			"Best professional judgement" must be a key component of the decision making process. Land owner should not have to create "imminent threat" in order to have their property seriously considered; strategically important, but unthreatened parcels should be given full consideration.

SUMMARY OF PUBLIC COMMENTS ON RESTORATION FRAMEWORK SUPPLEMENT: HABITAT PROTECTION AND ACQUISITION PROCESS

COMMENTER	PREFERRED HABITAT PROTECTION STRATEGY		PREFERRED THRESHOLD CRITERIA			OTHER COMMENTS
	CONCUR.	DIFFER.	A	B	C	
The Wilderness Society	X		X			Support imminent threat protection process. Habitat acquisition is the most meaningful form of restoration. "Adequate" rate and degree of recovery and "no further action" decisions on flow charts should incorporate provision for change if monitoring detects latent injury. Set C, criteria #4 (inadequate protection afforded by existing laws and regulations) is unrealistic and is a political rather than biological determination. Contingent Valuation studies should be made available and considered in Sets A and B. Add additional criteria: The degree to which the proposed action minimizes further impact on an injured resource and service.
National Parks (on behalf of National Parks and Conservation Association)	X		X			Scientific information inadequate to draw precise conclusions about effectiveness of management strategies; habitat protection is best means of protecting natural and cultural resources. Process described in Supplement document is confusing. Cost effectiveness is an inappropriate criteria for assessing habitat and ecosystem values; cost benefit analysis may be better. Document should be rewritten for clarity; all studies should be released to public; same stringent process and standards for habitat acquisition should be applied to other restoration options.
Knik Canoeers and Kayakers	No comment	No comment		X		Set A is too broad, allowing for indirect linkage and no physical limits on spill affected area. Set C are too narrow, not enough room for Trustee Council to judge selections, too time consuming. Set B limits number of actions but allows for flexibility and timely decisions.
Homer Society of Natural History	No comment	No comment	No comment	No comment	No comment	Supports state purchase of Seldovia Native Association lands, timber, and mineral rights in Kachemak Bay State Park.
Wayne Ash	No comment	No comment			X	Federal Exchange Process on page 41 should include a step for preparing an Environmental Assessment; opposes Set A.
Alaska Survival	No comment	No comment	No comment	No comment	No comment	Supplement document is too complex for general public to understand. Acquisition process taking too much time; no more talk - start using funds to buy land. Settlement monies are being wasted on bureaucrats, consultants, and scientists.

See figures 1, 2, 6 & 7 in Restoration Framework Supplement

SUMMARY OF PUBLIC COMMENTS ON RESTORATION FRAMEWORK SUPPLEMENT: HABITAT PROTECTION AND ACQUISITION PROCESS

COMMENTER		PREFERRED HABITAT PROTECTION STRATEGY		PREFERRED THRESHOLD CRITERIA			OTHER COMMENTS
		CONCUR.	DIFFER.	A	B	C	
John Grimes		No comment	No comment	No comment	No comment	No comment	Should include an alternative for public taking; imminent domain for unwilling sellers. An advantage of this method is that land owner doesn't have to pay taxes on imminent domain sales. Recommends that Kachemak Bay State Park inholdings be acquired by this method.
Kodiak Island Borough		X		X			The proposed process is complex and bureaucratic with a clear bias against land acquisition; substitute a simpler process. Process favors staff input over public input; example, public nominations (step #10) does not occur until well into the process.
Kodiak Environmental Network		X		X			
Kodiak Audubon		X		X			
Eric Meyers		No comment	No comment	X			Opposes Set C; too burdensome, would frustrate restoration goals.
Kristin Stall-Johnson		X		No comment	No comment	No comment	Supports use of Figure #7.
TOTALS	16	9	0	9	1	1	

Interim Threshold Criteria *

1. There is a willing seller of the parcel or property right.
2. The parcel contains key habitats that are linked to, replace, provide the equivalent of, or substitute for injured resources or services based on scientific data or other relevant information.
3. The seller acknowledges that the government cannot purchase the parcel or property rights in excess of fair market value.
4. Recovery of the injured resource or service would benefit from protection in addition to that provided by the owner and applicable laws and regulations.
5. The acquired property rights can reasonably be incorporated into public land management systems.

*Approved by the Trustee Council at their January 19, 1993 meeting.

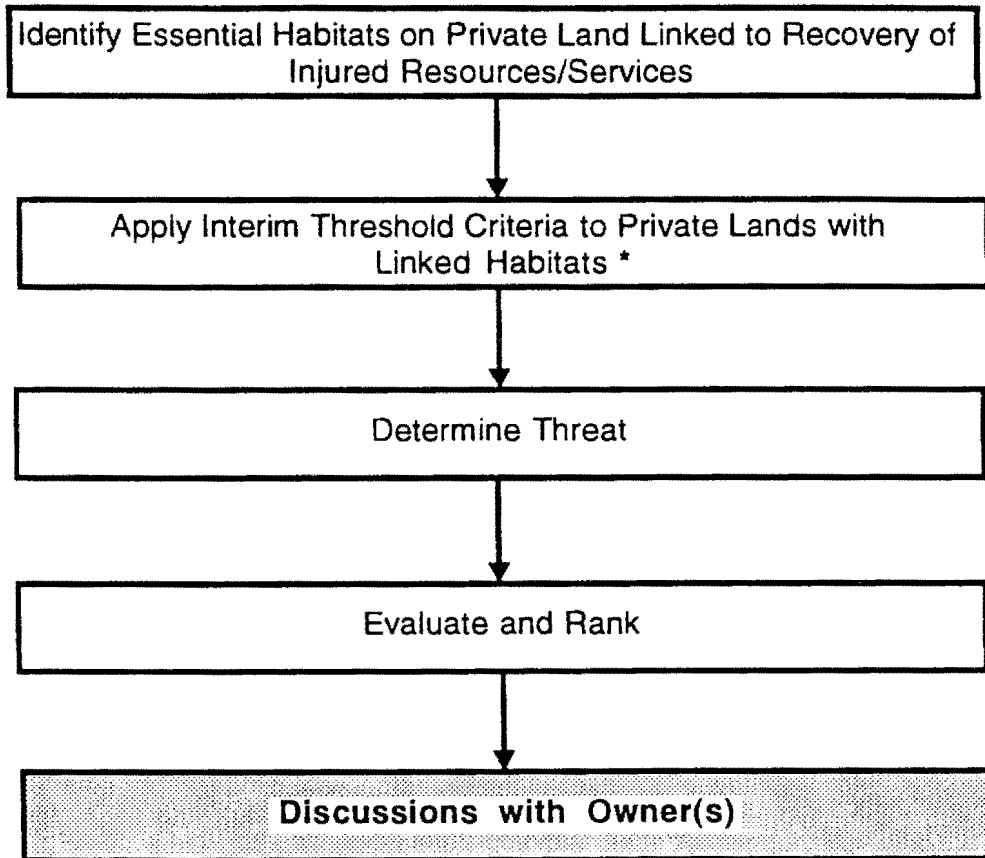
	Alternative 1 Natural Recovery	Alternative 2 Protection	Alternative 3 Limited Restoration	Alternative 4 Moderate Restoration	Alternative 5 Comprehensive Restoration
THEME	No action other than monitoring and normal agency management.	Protect injured resources and services from further degradation or disturbance.	Take the most effective actions to protect and restore injured services and resources whose population has declined. Maintain the existing character of the affected area.	Take the most effective actions to protect and restore all injured resources and services. Increase, to a limited extent, opportunities for human use in the affected area.	Take all reasonable actions to protect, restore, and enhance all injured resources and services. Increase opportunities for human use in the affected area.
VARIABLES					
Injury	N/A	All injured resources.	Injured resources whose populations declined.	All injured resources.	All injured resources.
Status of Recovery	N/A	All stages of recovery.	Resources not yet recovered.	Resources not yet recovered.	All stages of recovery.
Effectiveness of Restoration Actions	N/A	All beneficial actions.	Most effective actions.	Most effective actions.	All beneficial actions.
Opportunities for Human Use	N/A	N/A	Protect existing uses.	Protect or increase existing uses.	Protect or increase existing uses; or encourage appropriate new uses.

Monitoring and information programs are included in all alternatives.
Restoration actions may be undertaken for injured resources, services, or their equivalents.

Table 2. Summary of Draft Restoration Plan Alternatives

DRAFT - 01/26/93

SUMMARY OF INTERIM PROTECTION PROCESS



Abstracted from Figures 1 & 2 of the Framework Supplement.

- * Criteria #1 and #3 cannot be applied until approval is received from the Trustee Council to obtain this information from landowners.

SECTION 2

Interim Evaluation/Ranking Criteria *

1. The parcel contains essential habitat(s)/sites for injured species or services. Essential habitats include feeding, reproductive, molting, roosting, and migration concentrations; essential sites include known or presumed high public use areas. Key factors for determining essential habitat/sites are:
 - a. population or number of animals or number of public users.
 - b. number of essential habitats/sites on parcel, and
 - c. quality of essential habitats/sites.
2. The parcel can function as an intact ecological unit or essential habitats on the parcel are linked to other elements/habitats in the greater ecosystem.
3. Adjacent land uses will not significantly degrade the ecological function of the essential habitat(s) intended for protection.
4. Protection of the habitats on parcel would benefit more than one injured species/service (unless protection of a single species/service would provide a high recovery benefit).
5. The parcel contains critical habitat for a depleted, rare, threatened, or endangered species.
6. Essential habitat/sites on parcel are vulnerable or potentially threatened by human activity.
7. Management of adjacent lands is, or could easily be made compatible with protection of essential habitats on parcel.
8. The parcel is located within the oil spill affected area.

*Approved by the Trustee Council at their January 19, 1993 meeting.

CRITERIA FOR RATING BENEFIT OF PARCEL TO INJURED RESOURCES / SERVICES

INJURED RESOURCE / SERVICE	HIGH	MODERATE	LOW
Anadromous Fish	High density of anadromous streams per parcel; multiple injured species; and/or system known to have exceptional productivity.	Average density of anadromous streams for area; two or more injured species present.	Few or no streams on parcel; one or less injured species.
Bald Eagle	High density of nests on parcel; and/or known critical feeding area.	Average density of nests on or immediately adjacent to parcel (at least one); important feeding area.	Few or no nests on parcel; may be used for perching and/or feeding.
Black Oystercatcher	Area known to support nesting or concentration area for feeding.	Possible nesting; known feeding area.	Probable feeding.
Common Murre	Known nesting on or immediately adjacent to parcel.	Nesting in vicinity of parcel; known feeding concentration adjacent to parcel.	Possible feeding in area adjacent to parcel.
Harbor Seal	Known haul out on or immediately adjacent to parcel.	Probable haul outs in vicinity of parcel; probable feeding in nearshore waters adjacent to parcel.	Probable feeding in nearshore waters.
Harlequin Duck	Known nesting or molting on parcel; feeding concentration area.	Probable nesting on or adjacent to parcel; probable feeding in stream, estuary, or intertidal adjacent to parcel.	Probable feeding and loafing in area adjacent to parcel.

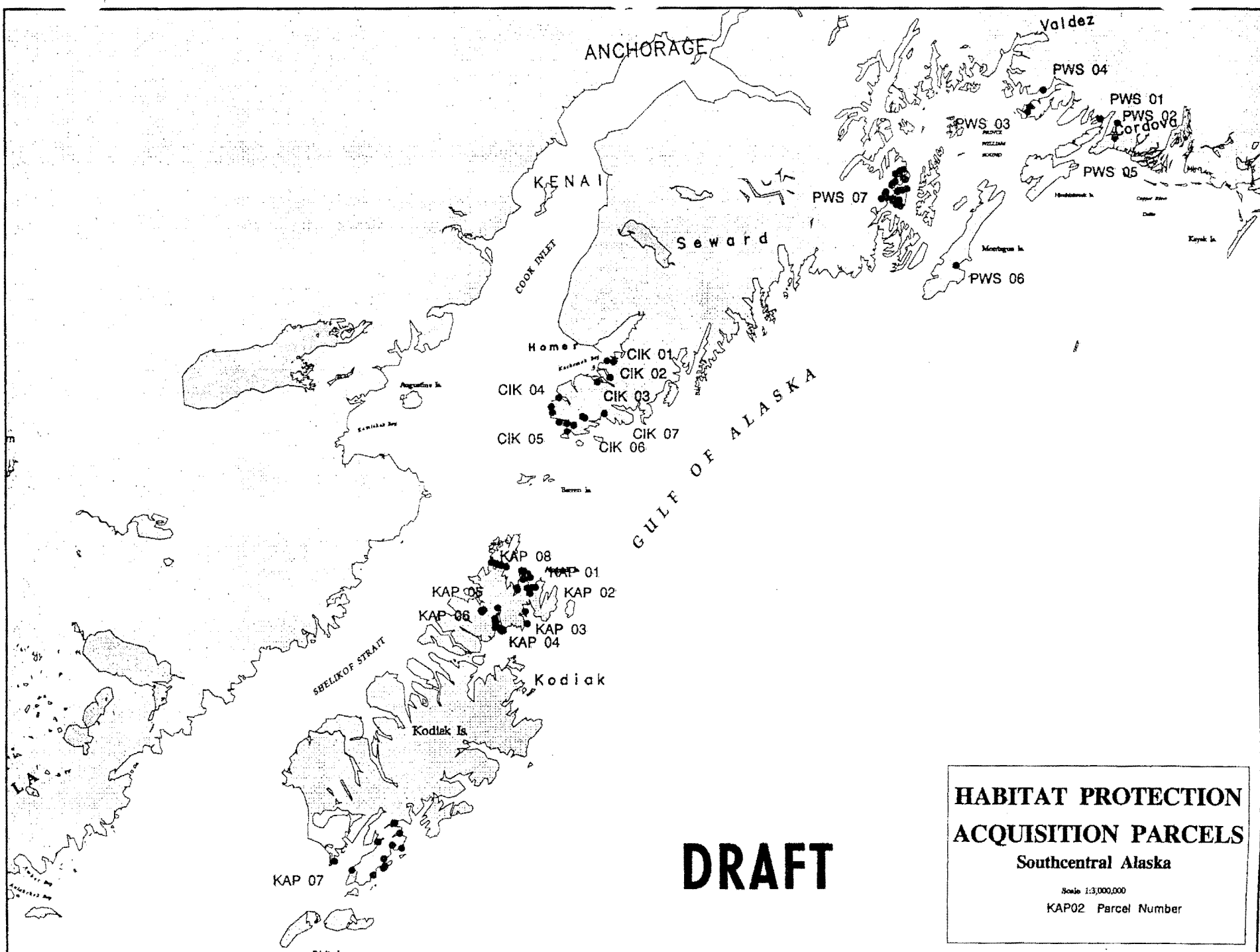
CRITERIA FOR RATING BENEFIT OF PARCEL TO INJURED RESOURCES / SERVICES

INJURED RESOURCE / SERVICE	HIGH	MODERATE	LOW
Intertidal/subtidal Biota	Known high productivity/species richness. Oiled or adjacent to oiled area where recruitment may be important.	High productivity/species richness; not oiled or near oiled area.	Average productivity/species richness; no documented shoreline oiling.
Marbled Murrelet	Known nesting or high confidence that nesting occurs; concentrated feeding in nearshore waters.	Good nesting habitat characteristics; known feeding in nearshore waters adjacent to parcel.	Low likelihood of nesting; possible feeding in nearshore waters.
Pigeon Guillemot	Known nesting on or immediately adjacent to parcel; feeding concentrations in nearshore waters.	Good nesting habitat characteristic; known feeding in nearshore waters adjacent to parcel.	Low likelihood of nesting; possible feeding in nearshore waters.
River Otter	Known high use of parcel for denning/latrine sites.	Known or probable latrine and/or denning sites; known feeding in adjacent intertidal/streams/nearshore area.	Probable feeding in adjacent intertidal/streams.
Sea Otter	Known haulout or pupping concentrations.	Concentration area for feeding and/or shelter; potential pupping.	Feeding in adjacent waters.

CRITERIA FOR RATING BENEFIT OF PARCEL TO INJURED RESOURCES / SERVICES

INJURED RESOURCE / SERVICE	HIGH	MODERATE	LOW
Recreation/Tourism	Receives high public use; highly visible to a large number of recreationists/tourists; area nominated for special recreational designation.	Accessible by road, boat, or plane; adjacent area used for recreational boating; adjacent area receives high public use.	Occasional recreational use; access may be difficult.
Wilderness	Area remote; little or no evidence of human development.	Area remote; evidence of human development.	Area accessible; high/moderate evidence of human development (roads, clearcuts, cabins).
Cultural Resources	Documented concentration or significant cultural resources/sites on parcel.	Evidence of cultural resources/sites on or adjacent to parcel.	Possible cultural resources/sites on parcel.
Subsistence	Known resource harvest area; multiple resource use.	Known harvest area for at least one resource.	Possible harvest area.

SECTION 3



PARCEL RANKING ANALYSIS

PARCEL		RANKING CRITERIA								SCORE ²
#	NAME	1	2	3	4	5	6	7	8	
PWS 01	Orca Narrows	0-H, 6-M	Y	N	Y	N	Y	N	Y	12
PWS 02	Power Creek	4-H, 0-M	Y	Y	Y	N	Y	Y	Y	24
PWS 03	Two Moon Bay	1-H, 5-M	Y	N	Y	N	Y	N	Y	14
PWS 04	Fish Bay	1-H, 7-M	Y	Y	Y	N	Y	Y	Y	27
PWS 05	Eyak River	1-H, 3-M	N	N	N	N	Y	N	Y	5
PWS 06	Patton Bay	1-H, 4-M	Y	Y	Y	N	Y	Y	Y	18
PWS 07*	Chenega	6-H, 8-M	Y	Y	Y	N	Y	Y	Y	60
CIK 01	China Poot	4-H, 7-M	Y	Y	Y	N	Y	Y	Y	45
CIK 02	Sadie Cove	0-H, 3-M	Y	N	Y	N	Y	Y	Y	7.5
CIK 03	Jakalof Bay	0-H, 3-M	Y	N	Y	N	Y	N	Y	6
CIK 04	Port Graham	1-H, 2-M	Y	N	Y	N	Y	N	Y	8
CIK 05	Lower Kenai Peninsula	0-H, 9-M	Y	Y	Y	N	Y	N	Y	22.5
CIK 06	Windy Bay	0-H, 0-M	N	N	N	N	Y	N	Y	0
CIK 07	Rocky Bay	0-H, 2-M	N	N	Y	N	Y	N	Y	3
KAP 01	Seal Bay	2-H, 11-M	Y	N	Y	N	Y	N	Y	30
KAP 02	Pauls Lake	0-H, 4-M	N	N	Y	N	Y	N	Y	6

PARCEL RANKING ANALYSIS

PARCEL		RANKING CRITERIA								SCORE ²
#	NAME	1	2	3	4	5	6	7	8	
KAP 03	Izhut Bay	1-H, 3-M	Y	N	Y	N	Y	N	Y	10
KAP 04	Kazakof Bay	0-H, 5-M	Y	N	Y	N	Y	N	Y	10
KAP 05	Danger Creek	0-H, 1-M	N	N	N	N	Y	N	Y	1
KAP 06	Paramanof Creek	0-H, 1-M	N	N	N	N	Y	N	Y	1
KAP 07*	Alitak Bay	3-H, 4-M	Y	Y	Y	N	Y	Y	Y	30
KAP 08*	Shuyak Strait	3-H, 10-M	Y	Y	Y	N	Y	Y	Y	48

* = Opportunity Parcel

1. Refer to Interim Evaluation and Ranking Criteria.

Criteria 2 - 8

N = No (does not meet criteria)

Y = Yes (does meet criteria)

Criteria 1 from table: "Criteria for Rating Benefit of Parcel to Injured Resources/Services"

H = High Benefit

M = Moderate Benefit

L = Low Benefit (not included in this analysis)

2. Scoring Formula: Parcel Score = (Sum of H + (0.5 x Sum of M)) x Sum of Y

Example: KAP 08 Score = (3 + (0.5 x 10)) x 6 = (3 + 5) x 6 = 48

Note: Formula emphasizes degree of linkage to injured resource/service.

PARCEL RANKING AND ACREAGE SUMMARY

RANK	PARCEL #	NAME	ACREAGE	SCORE
<i>Imminent Threat Parcels</i>				
1	CIK 01	China Poot, Kachemak Bay	7,500	45
2	KAP 01	Seal Bay, Afognak I.	15,000	30
3	PWS 04	Fish Bay, Port Fidalgo	1,700	27
4	PWS 02	Power Creek, Cordova	1,300	24
5	CIK 05	Lower Kenai Peninsula	3,000	22.5
6	PWS 06	Patton Bay, Montague I.	3,300	18
7	PWS 03	Two Moon Bay, Port Fidalgo	2,100	14
8	PWS 01	Orca Narrows / Nelson Bay	3,500	12
9	KAP 03	Izhut Bay, Afognak I.	1,000	10
9	KAP 04	Kazakof Bay, Afognak I.	1,500	10
10	CIK 04	Port Graham Allotments	200	8
11	CIK 02	Sadie Cove, Kachemak Bay	400	7.5
12	CIK 03	Jakalof Bay, Kachemak Bay	600	6
12	KAP 02	Pauls Lake, Afognak I.	500	6
13	PWS 05	Eyak River, Cordova	100	5
14	CIK 07	Rocky Bay	100	3
15	KAP 05	Danger Creek, Afognak I.	120	1
15	KAP 06	Paramanof Cr., Afognak I.	500	1
16	CIK 06	Windy Bay	400	0
TOTAL IMMINENT THREAT ACRES			42,320	
<i>Opportunity Parcels</i>				
1	PWS 07	Chenega I./Eshamy/Jackpot	57,000	60
2	KAP 08	Shuyak Strait, Afognak I.	51,000	48
3	KAP 07	Alitak Bay, Kodiak I.	230,000	30
TOTAL OPPORTUNITY ACRES			338,000	
TOTAL ACRES ANALYZED			380,320	

Prince William Sound (PWS)

PWS 01, 02, 05

HABITAT PROTECTION ACQUISITION PARCELS

Cordova Vicinity, Alaska

Scale 1:125,000

Albers Equal Area Projection

LEGEND

- | | |
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| | |
| | |
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| | |
| | PWS02 Parcel Number |
| | |

Date printed: January 26, 1993

SOURCES:

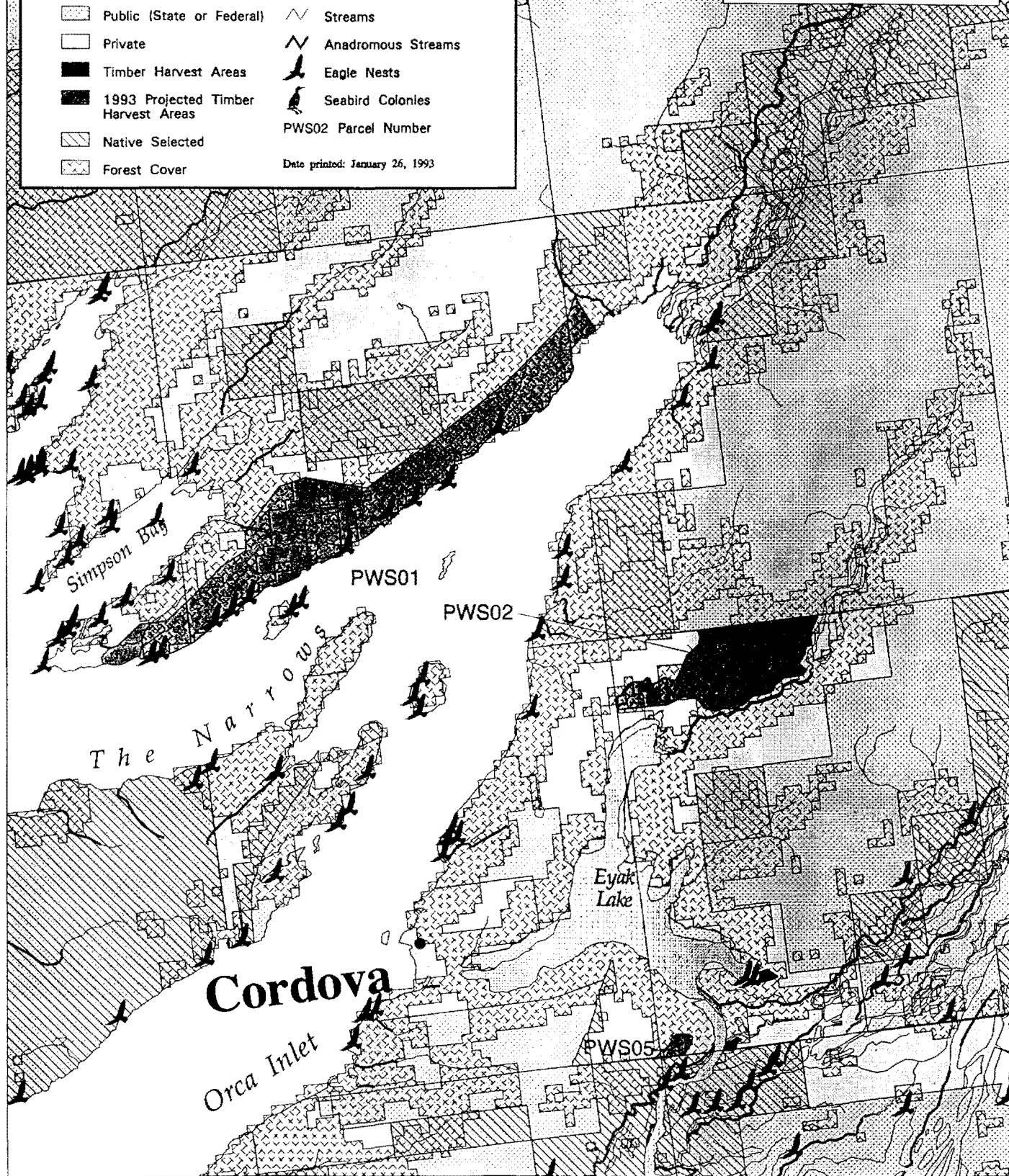
Current and planned timber harvest information provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources, Division of Forestry, 1992.

Land status provided by the US Forest Service, 1992, and the ADNR, Land Records Information Section (LRIS), 1991.

Forest Cover data provided by US Geological Survey (USGS)/EROS Alaska Field Office, using LANDSAT MSS imagery resampled to a 200 meter grid.

Streams were digitized by ADNR-LRIS from the USGS topographic maps (1:50,000). Anadromous stream classification was determined by the ADF&G, 1991.

Eagle and Seabird information collected and provided by US Fish and Wildlife.



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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 01		PARCEL NAME: Orca Narrows / Nelson Bay	
¹ LANDOWNER: Eyak Corporation		² PARCEL ACREAGE: 3,500	³ TOTAL ACREAGE: 66,000 ⁴ AFFECTED ACREAGE: 3,500
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Moderate	Two documented anadromous streams; pink, coho, cutthroat.	
Bald Eagle	Moderate	Ten documented nest sites.	
Black Oystercatcher	Low	Probable feeding in intertidal.	
Common Murre	None		
Harbor Seal	Low	Probable feeding in nearshore waters.	
Harlequin Duck	Unknown	Possible nesting on anadromous streams, feeding and loafing in intertidal area.	
Intertidal/subtidal biota	Low	Shoreline not oiled; potential for impact from log transfer, storage and sedimentation.	
Marbled Murrelet	Moderate	Habitat characteristics appear favorable for nesting. Feeding in adjacent marine waters.	
Pigeon Guillemot	Low	Possible nesting along shoreline. Feeding in adjacent marine waters.	
River Otter	Moderate	Probable feeding and latrine sites along shoreline; possible denning.	
Sea Otter	Low	Feeding along shoreline.	
Recreation/Tourism	Moderate	Milton Lake corridor and Hole-in-Wall nominated public recreation sites. Most recreation use out of Cordova. Highly visible along main ferry and boat route to Cordova.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 01	PARCEL NAME: Orca Narrows / Nelson Bay	
Wilderness	Moderate	Little visible evidence of human use.
Cultural Resources	Low	One archeological site documented on parcel.
Subsistence	Low	Use appears low.
<p>ECOLOGICAL SIGNIFICANCE: The Milton Lake corridor and the Hole-in-the-Wall area have been nominated for acquisition as public recreation sites. This parcel is highly visible along the main ferry and boat route.</p>		
<p>ADJACENT LAND MANAGEMENT: Eyak Corporation.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Forest practices notifications to initiate timber harvest on 700 acres have been filed by Sherstone. Additional timber harvest is proposed on Eyak lands adjacent to this area in subsequent years.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitats for anadromous fish; 2) maintain nesting habitat for marbled murrelet; 3) maintain nesting and perching opportunities for bald eagle; 4) minimize visual impacts of timber harvest to marine corridor; 5) enhance recreational opportunities for the Milton Lake corridor.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.</p>		
<p>RECOMMENDED ACTION: Request Eyak Corporation to provide interim protection; discuss options for long term protection.</p>		

1. Parties other than landowner may own partial rights (e.g., timber, minerals)
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 02		PARCEL NAME: Power Creek	
1LANDOWNER: Eyak Corporation		2PARCEL ACREAGE: 1,300	3TOTAL ACREAGE: 66,400
		4AFFECTED ACREAGE: 1,300	
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	High	Power Creek is designated anadromous stream; coho, sockeye, pink, cutthroat, Dolly Varden; supports significant recreational and commercial fishery.	
Bald Eagle	High	No documented nest sites. Highly important fall feeding for eagles along Power Creek and Eyak Lake shore (estimated up to one-third of PWS eagle population).	
Black Oystercatcher	None		
Common Murre	None		
Harbor Seal	None		
Harlequin Duck	Unknown	Potential nesting in upper Power Creek riparian zone.	
Intertidal/subtidal biota	None		
Marbled Murrelet	High	Habitat characteristics appear favorable; high confidence that nesting occurs on parcel.	
Pigeon Guillemot	None		
River Otter	Unknown	Probable feeding, possible denning in upper Power Creek.	
Sea Otter	None		

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 02	PARCEL NAME: Power Creek	
Recreation/Tourism	High	Receives high recreational use (hiking, fishing, berry picking); established trail easement through parcel; road accessible.
Wilderness	Low	High evidence of human use (road, houses) in lower area.
Cultural Resources	Low	One archeological site documented on parcel.
Subsistence	Unknown	Probable hunting, fishing, plant gathering, berry picking.
<p>ECOLOGICAL SIGNIFICANCE: Power Creek supports a large, late run of sockeye and coho salmon and is a fall and winter feeding area for bald eagles. Eyak Lake is the northernmost winter concentration area for trumpeter swan. Area receives high recreational and visitor use.</p>		
<p>ADJACENT LAND MANAGEMENT: Eyak Corporation: U.S. Forest Service.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Forest Practices Notifications have been filed for timber harvest on this parcel.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitat for anadromous fish; minimize disturbance to bald eagles; and 3) maintain and enhance recreational opportunities.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; fee title; conservation easement; cooperative management agreement.</p>		
<p>RECOMMENDED ACTION: Request Eyak Corporation to provide interim protection; discuss options for long term protection.</p>		

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 05		PARCEL NAME: Eyak River	
¹ LANDOWNER: Eyak Corporation		² PARCEL ACREAGE: 100	³ TOTAL ACREAGE: 66,400
			⁴ AFFECTED ACREAGE: 100
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Moderate	Adjacent to Eyak River which is a highly productive anadromous stream; coho, sockeye, pinks, cutthroat, Dolly Varden.	
Bald Eagle	Moderate	No documented nesting sites on parcel. Eight nest sites adjacent. High use area for eagles; feeding and roosting.	
Black Oystercatcher	None		
Common Murre	None		
Harbor Seal	Low	Harbor seals may use Eyak River for feeding.	
Harlequin Duck	None		
Intertidal/subtidal biota	None		
Marbled Murrelet	Moderate	High confidence that nesting occurs on parcel; good nesting habitat characteristics.	
Pigeon Guillemot	None		
River Otter	Low	Probable feeding, possible den sites.	
Sea Otter	None		
Recreation/Tourism	High	Eyak River trail receives high recreational use. Site highly visible from Copper River Highway.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 05	PARCEL NAME: Eyak River	
Wilderness	None	High evidence of human use in area; road, houses.
Cultural Resources	Low	No evidence of archeological sites on parcel; two sites adjacent.
Subsistence	Low	Salmon, bears, plants, berry picking.
ECOLOGICAL SIGNIFICANCE: The Eyak River is a highly productive anadromous fish stream; area receives intensive use by bald eagles for feeding and perching; Eyak River trail receives high recreational use; site is visible from the Copper River Highway.		
ADJACENT LAND MANAGEMENT: Eyak Corporation; Chugach National Forest;		
IMMINENT THREAT/OPPORTUNITY: Forest Practices Notification filed for timber harvest in 1993.		
PROTECTION OBJECTIVE: 1) Minimize visual impacts to high use recreation/tourist areas; 2) maintain nesting opportunities for marbled murrelets; 3) maintain water quality and riparian habitat in Eyak River.		
USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.		
RECOMMENDED ACTION: Request Eyak Corporation to provide interim protection; discuss options for long term protection.		

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Port Fidalgo, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

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| | |
| | PWS03 Parcel Number |
| | Date printed: January 26, 1993 |

SOURCES:
Current and planned timber harvest information provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources, Division of Forestry, 1992.
Land status provided by the US Forest Service, 1992, and the ADNR, Land Records Information Section (LRIS), 1991.
Forest Cover data provided by US Geological Survey (USGS)/EROS Alaska Field Office, using LANDSAT MSS Imagery resampled to a 200 meter grid.
Streams were automated by ADNR-LRIS from the USGS topographic maps (1:50,000). Anadromous streams classification was determined by the ADF&G, 1991.
Eagle and Seabird information collected and provided by US Fish and Wildlife.

Tatitlek

LANDLOCKED BAY

Fish Bay

PWS04

Port Fidalgo

Irish Cove

PWS03

TWO MOON BAY

Snug Corner Cove

St. Matthews Bay

KNOWLES BAY

Port Gravina

DRAFT

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 03		PARCEL NAME: Two Moon Bay	
1LANDOWNER: Tatitlek Corporation		2PARCEL ACREAGE: 2,100	3TOTAL ACREAGE: 72,800
		4AFFECTED ACREAGE: 2,100	
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Moderate	Eight documented anadromous streams; pink, coho, cutthroat, Dolly Varden.	
Bald Eagle	Moderate	Five documented nest sites on parcel and two nest sites immediately adjacent. Area important for feeding.	
Black Oystercatcher	Unknown	Probable feeding in intertidal.	
Common Murre	None		
Harbor Seal	Low	Feeding in nearshore waters, probable hauling out on nearshore rocks.	
Harlequin Duck	Unknown	Possible nesting in upper riparian zones on anadromous streams; feeding and loafing in intertidal.	
Intertidal/subtidal biota	Moderate	Herring spawning on algae, productive intertidal zone, shoreline not oiled.	
Marbled Murrelet	High	High confidence that nesting occurs on parcel; good nesting habitat characteristics; high use of adjacent marine waters for feeding.	
Pigeon Guillemot	Low	Possible nesting along shoreline, feeding in nearshore marine waters.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 03	PARCEL NAME: Two Moon Bay	
River Otter	Moderate	River otter latrine and denning sites documented. Feeding along shoreline.
Sea Otter	Low	Sea otter concentrations in area.
Recreation/Tourism	Moderate	Snug Corner Cove and Two Moon Bay are important recreational boating anchorages; Hell's Hole is important recreational fishing site; visible from tour boat and ferry routes.
Wilderness	None	Extensive recent clearcuts in area; roads and logging camp in Two Moon Bay.
Cultural Resources	Low	One archeological site documented on parcel; one site adjacent.
Subsistence	Low	Herring, waterfowl, marine mammals, black bears.
<p>ECOLOGICAL SIGNIFICANCE: Snug Corner Cove has been nominated as a state recreation area; the surrounding waters provide important feeding habitat for marbled murrelet, high probability of marbled murrelet nesting on the parcel; sea otters concentrate in the surrounding waters; herring spawn in Two Moon Bay; important coho salmon sport fishery in adjacent Hell's Hole; river otter latrine and denning sites documented on parcel; high density of black bears.</p>		
<p>ADJACENT LAND MANAGEMENT: Tatitlek Corporation, Chugach National Forest</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Forest Practices Notifications have been filed for timber harvest on the is parcel; extension of ongoing timber harvest operations in this area.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain marbled murrelet nesting habitat; 2) maintain water quality and riparian habitat for anadromous fish; 3) minimize disturbance to bald eagles nesting and feeding; 4) maintain recreational values; 5) minimize disturbance to river otters; 6) minimize visual impacts to ferry route and other high use recreational/tourist areas.</p>		

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 03	PARCEL NAME: Two Moon Bay
USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.	
RECOMMENDED ACTION: Request Tatitlek Corporation to provide interim protection; discuss options for long term protection.	

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

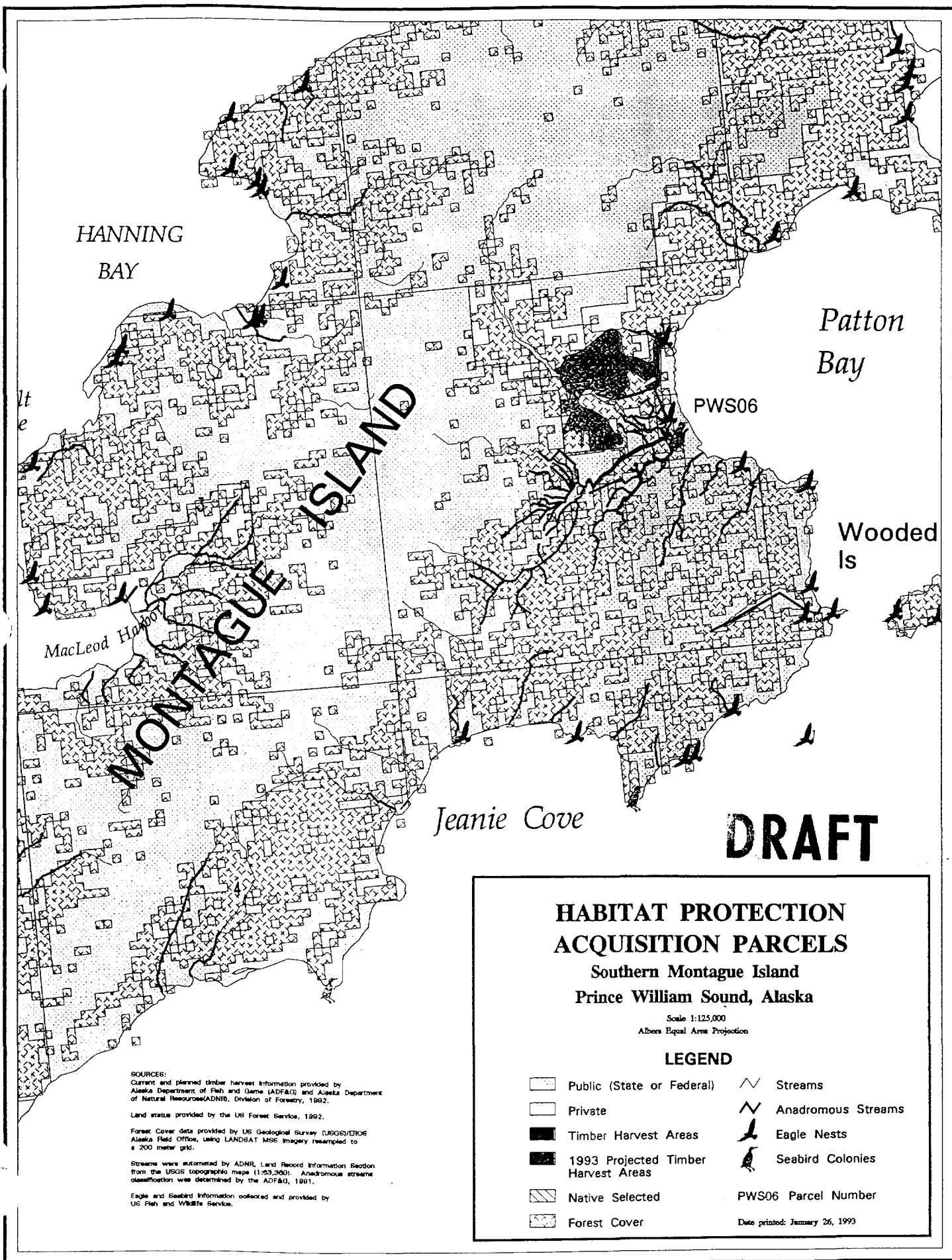
HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 04		PARCEL NAME: Fish Bay	
¹ LANDOWNER: Chugach Alaska Corporation		² PARCEL ACREAGE: 1,700	³ TOTAL ACREAGE: 51,200
		⁴ AFFECTED ACREAGE: 1,700	
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		Low	No documented anadromous on parcel, adjacent to important anadromous stream at head of Fish Bay.
Bald Eagle		Moderate	Eight documented nest sites.
Black Oystercatcher		Low	Probable feeding along intertidal.
Common Murre		None	
Harbor Seal		Moderate	Historic harbor seal haul out concentration area.
Harlequin Duck		Moderate	Probable feeding, loafing, and molting in intertidal.
Intertidal/subtidal biota		Moderate	Highly productive rocky intertidal. Herring spawning on algae.
Marbled Murrelet		High	High confidence that nesting occurs on parcel; good nesting habitat characteristics; high use of adjacent marine waters for feeding.
Pigeon Guillemot		Low	Possible nesting along shoreline; probable feeding in nearshore marine waters.
River Otter		Low	Probable feeding and latrine sites along shoreline.
Sea Otter		Low	Feeding along shoreline.
Recreation/Tourism		Low	Occasional recreational boating, hunting for bear and goats, visible from Port Fidalgo.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 04	PARCEL NAME: Fish Bay	
Wilderness	Moderate	Remote, minimal evidence of human use.
Cultural Resources	Moderate	Two archeological sites documented on parcel.
Subsistence	Moderate	Herring, marine mammals, salmon, bears, goats, invertebrates.
ECOLOGICAL SIGNIFICANCE: The parcel is a relatively steep, south facing timbered slope on Port Fidalgo; high potential use for marbled murrelet nesting; timber stands support overwintering mountain goats; highly visible to adjacent marine waters.		
ADJACENT LAND MANAGEMENT: Tatitlek Corporation; Chugach Alaska Corporation; Chugach National Forest		
IMMINENT THREAT/OPPORTUNITY: Forest Practices Notifications have been filed for timber harvest; timber volume pledged to operate Seward lumber mill.		
PROTECTION OBJECTIVE: 1) Minimize visual impacts to high use recreation/tourist areas; 2) maintain nesting opportunities for marbled murrelets; 3) maintain water quality and riparian habitat for anadromous fish; and 4) minimize disturbance to nesting bald eagles.		
USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.		
RECOMMENDED ACTION: Request Chugach Alaska Corporation to provide interim protection; discuss options for long term protection.		

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.



HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 06		PARCEL NAME: Patton Bay	
LANDOWNER: Chugach Alaska Corporation		² PARCEL ACREAGE: 3,300	³ TOTAL ACREAGE: 51,200
		⁴ AFFECTED ACREAGE: 3,300	
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	High	Approximately 45 documented anadromous streams; pink, coho, Dolly Varden	
Bald Eagle	Moderate	Two documented nest sites. High use for feeding on salmon and scavenging along beaches.	
Black Oystercatcher	Low	Feeding in intertidal.	
Common Murre	None		
Harbor Seal	Low	Feeding in Patton Bay and mouth of Nellie Martin River.	
Harlequin Duck	Unknown	Possible nesting in upper riparian zone on anadromous streams. Feeding and loafing in intertidal and along beaches.	
Intertidal/subtidal biota	Low	Sand beach, no documented oiling.	
Marbled Murrelet	Unknown	High energy coast probably limits feeding; characteristics appear suitable for nesting.	
Pigeon Guillemot	Low	High energy coast probably limits feeding; shoreline area adjacent to parcel does not appear to be suitable for nesting.	
River Otter	Moderate	Feeding and latrine sites throughout area; possible denning.	
Sea Otter	Low	Low use area.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 06	PARCEL NAME: Patton Bay	
Recreation/Tourism	Moderate	Popular recreational public use cabin on Nellie Martin River. Recreational hunting (deer, bear) and fishing (coho, Dolly Varden). One of the few remote recreational areas in PWS accessible to wheel planes.
Wilderness	Moderate	Three public use cabins; evidence of previous timber harvest; road access from MacLeod Harbor imminent.
Cultural Resources	Low	One archeological site documented on parcel.
Subsistence	Low	Access difficult.
<p>ECOLOGICAL SIGNIFICANCE: This parcel contains some of the most productive timber stands in Prince William Sound. Anadromous fish values are high, however remoteness of area limits recreational and commercial uses. Arctic tern colony (approx 200 birds) in Patton Bay adjacent to parcel.</p>		
<p>ADJACENT LAND MANAGEMENT: Chugach Alaska Corporation; Chugach National Forest; timber owned and managed by Koncor Forest Products.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Forest Practices Notifications have been filed for timber harvest on this parcel; Koncor plans to harvest all merchantable timber in this area over the next decade; timber haul road currently under construction from MacLeod Harbor to Patton Bay.</p>		
<p>PROTECTION OBJECTIVE: Maintain anadromous fish habitat including water quality and riparian values; maintain bald eagle nesting and perching habitat adjacent to streams and shore; maintain opportunities for marbled murrelet and harlequin duck nesting if found to be important; enhance recreational opportunities.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.</p>		
<p>RECOMMENDED ACTION: Request Chugach Alaska Corporation and Koncor to provide interim protection; evaluate parcel for marbled murrelet and harlequin duck habitat; discuss options for long term protection.</p>		

HABITAT PROTECTION PARCEL ANALYSIS

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Chenega Island, Alaska

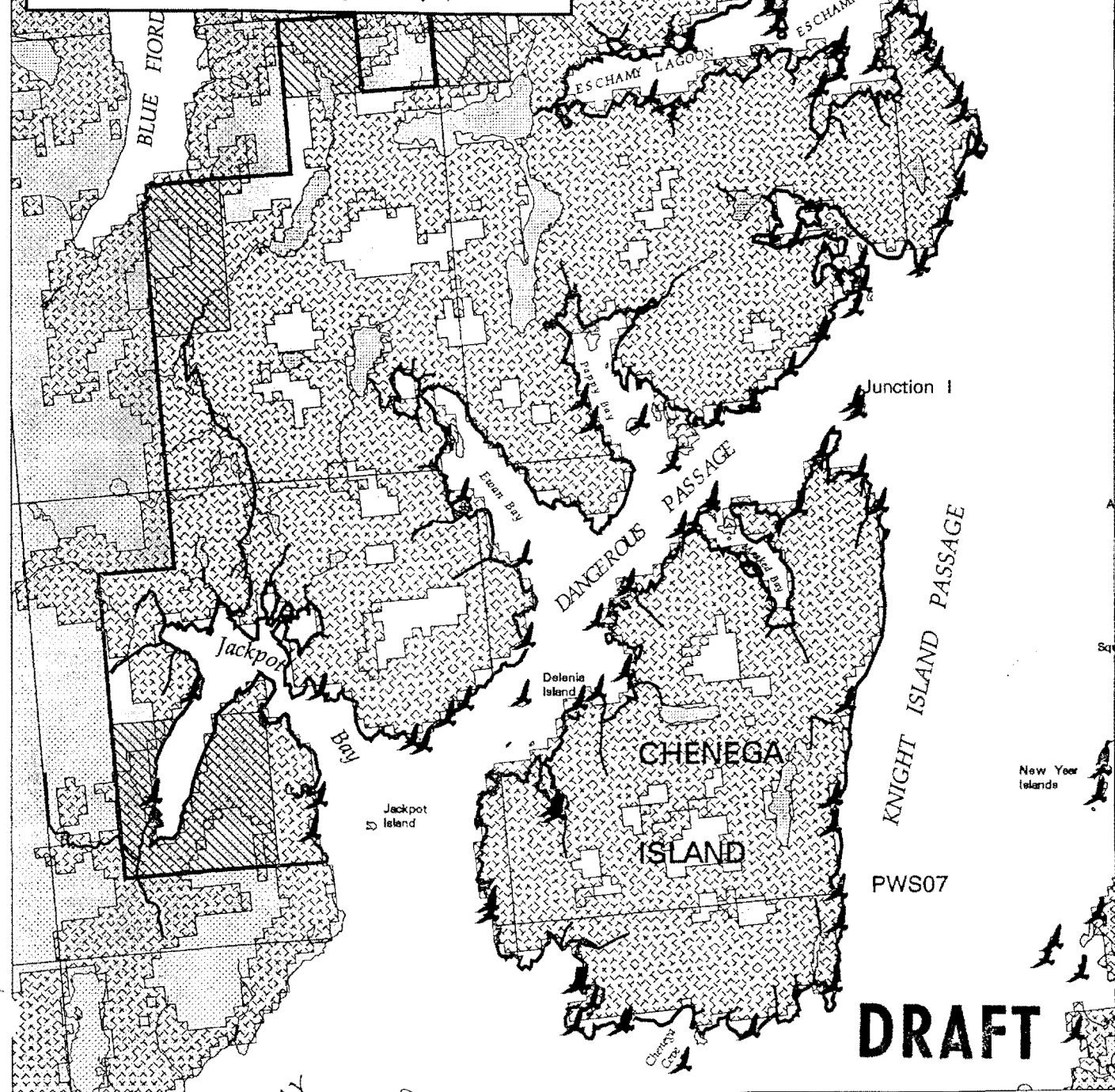
Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | |
|--|---------------------|------------------|
| | | Eagle Nests |
| | | Seabird Colonies |
| | | Parcel Boundary |
| | | |
| | PWS07 Parcel Number | |
| | | |

Date printed: January 28, 1993

SOURCES:
Land status provided by the US Forest Service, 1982, and the ADNR, Land Records Information Section (LRIS), 1991.
Forest Cover data provided by US Geological Survey (USGS/EROS Alaska Field Office, using LANDSAT MSS imagery resampled to a 200 meter grid.
Streams were automated by ADNR-LRS from the USGS topographic maps (1:63,300). Anadromous streams classification was determined by the ADF&C, 1981.
Eagle and Seabird information collected and provided by US Fish and Wildlife.



HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 07		PARCEL NAME: Chenega I./Eshamy/Jackpot	
¹ LANDOWNER: Chenega Corporation		² PARCEL ACREAGE: 57,000	³ TOTAL ACREAGE: 77,800
			⁴ AFFECTED ACREAGE: Unknown
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		High	Fifty eight documented anadromous streams; sockeye, pink, chum, coho, Dolly Varden, cutthroat. Eshamy and Jackpot lake systems have historically supported important commercial and recreational fisheries.
Bald Eagle		High	Seventy three documented nest sites. Feeding concentrations in Ewan and Paddy bays.
Black Oystercatcher		Moderate	Probable nesting and feeding concentrations along shoreline and nearshore rocks in Dangerous Passage.
Common Murre		None	
Harbor Seal		Moderate	Probable feeding in nearshore waters, probable haul outs on rocks in Dangerous Passage.
Harlequin Duck		Moderate	Probable nesting in upper riparian zone on anadromous streams; feeding, molting, and loafing in intertidal.
Intertidal/subtidal biota		Moderate	Productive sheltered rocky intertidal, particularly on Chenega Island and along Dangerous Passage; portions of Eshamy and Chenega Island were oiled.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 07	PARCEL NAME: Chenega I./Eshamy/Jackpot	
Marbled Murrelet	Moderate	Feeding concentrations in adjacent marine waters, habitat characteristics appear favorable for nesting.
Pigeon Guillemot	Moderate	Feeding in adjacent marine waters; habitat characteristics appear favorable for nesting.
River Otter	High	Feeding along intertidal and adjacent nearshore waters; probable latrine and denning sites.
Sea Otter	Moderate	Concentration areas in Dangerous Passage, Granite, Ewan, and Paddy bays for feeding and shelter; probable pupping.
Recreation/Tourism	High	High value wilderness-based recreation area for sailing, kayaking, boating, fly-in fishing, hunting; Dangerous Passage and Knight Island Passage along ferry route; visible from tour boat routes along Knight Island passage.
Wilderness	High	Area mostly remote with minimal evidence of human disturbance.
Cultural Resources	Moderate	Twenty sites documented on parcel.
Subsistence	High	Known resource harvest area; salmon, black bear, harbor seals, waterfowl, other marine mammals, deer, marine invertebrates, plants.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: PWS 07	PARCEL NAME: Chenega I./Eshamy/Jackpot
ECOLOGICAL SIGNIFICANCE: This parcel encompasses a relatively sheltered rocky shore containing numerous bays, coves, islets, and estuaries. Numerous anadromous streams occur throughout the area: high use by sea otters and bald eagles; Eshamy and Jackpot lakes systems are the focus of recreational fishing; Eshamy, Jackpot, Ewan, Paddy bays have been nominated as potential state recreation areas.	
ADJACENT LAND MANAGEMENT: Chugach National Forest, several private recreational cabin sites in Eshamy Bay	
IMMINENT THREAT/OPPORTUNITY: No known imminent threats; Chenega Corporation has expressed interest in habitat protection/acquisition.	
PROTECTION OBJECTIVE: Maintain anadromous fish habitat including water quality and riparian values; maintain bald eagle nesting and perching habitat; maintain opportunities for marbled murrelet and harlequin duck nesting; maintain or enhance wilderness-based recreational opportunities.	
USEFUL PROTECTION TOOL(S): Timber acquisition; fee title acquisition; cooperative management agreement; conservation easement.	
RECOMMENDED ACTION: Request Chenega Corporation to provide interim protection; discuss options for long term protection.	

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

- summaries. Technical paper no. 150. 690 p. Alaska Department of Fish and Game, Division of Subsistence, Juneau, Alaska.
- Sowls, A.L.; Hatch, S.A.; Lensing, C.J. 1978. Catalog of Alaskan seabird colonies. FWS/OBS-78/78. U.S. Fish and Wildlife Service, Office of Biological Services, Coastal Ecosystems Project, Anchorage, Alaska.
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Cook Inlet, Kenai (CIK)

CIK 01, 02, 03

HABITAT PROTECTION ACQUISITION PARCELS

Kachemak Bay, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | | |
|--|-------------------------------------|---------------------|--------------------|
| | Public (State or Federal) | | Streams |
| | Private | | Anadromous Streams |
| | Timber Harvest Areas | | Eagle Nests |
| | 1993 Projected Timber Harvest Areas | | Seabird Colonies |
| | Native Selected | CIK02 Parcel Number | |
| | Forest Cover | | |

Date printed: January 27, 1993

SOURCES:

Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources, Division of Forestry, 1992.

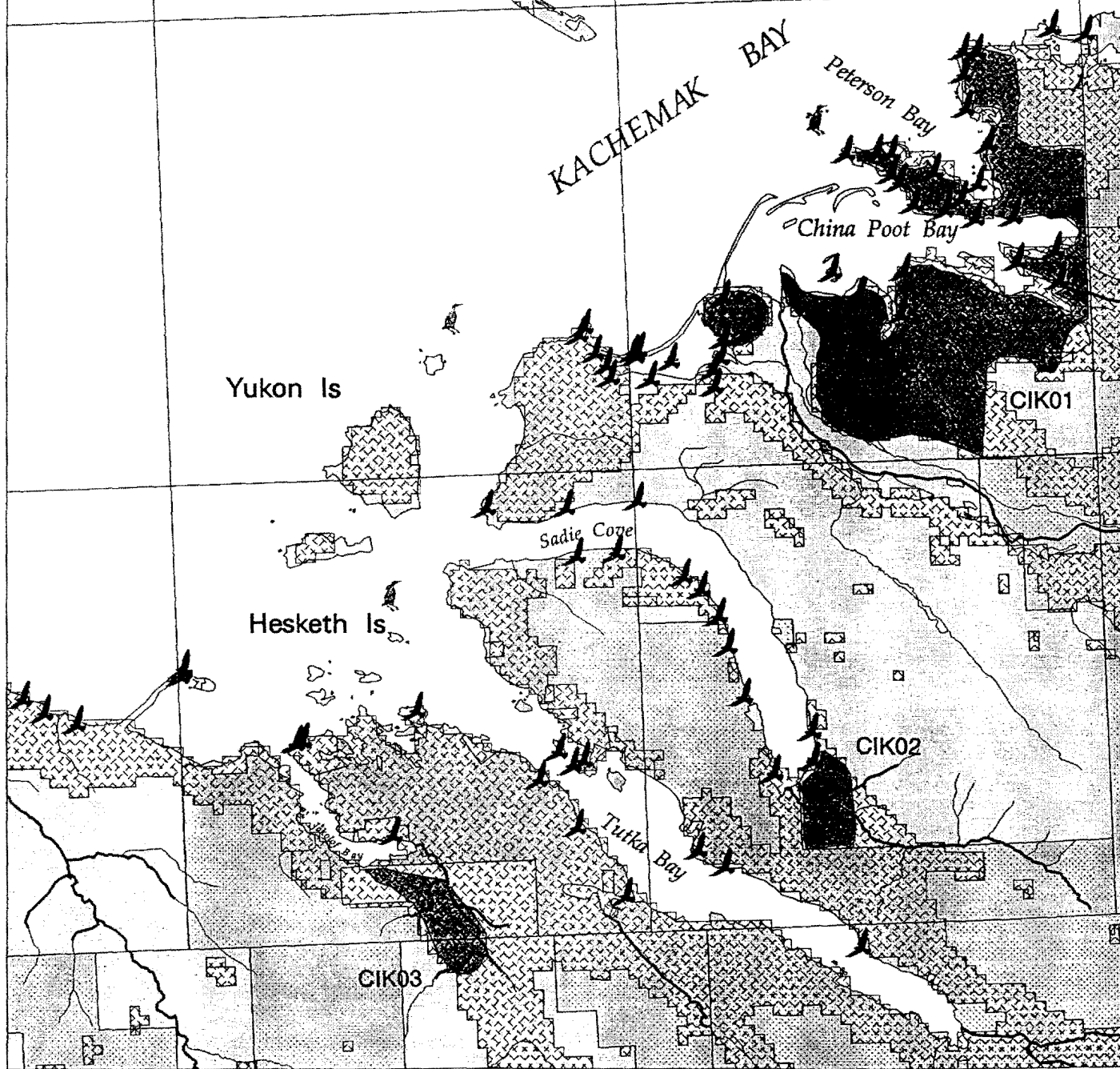
Land status was provided by ADNR, Land Records Information Section (LRIS), 1992.

Forest Cover data provided by US Geological Survey (USGS/EROS Alaska Field Office, using LANDSAT MSS imagery resampled to a 200 meter grid.

Eagle and Seabird information collected and provided by US Fish and Wildlife.

Streams were automated by ADNR-LRS from the USGS topographic maps (1:63,300). Anadromous streams classification was determined by the ADF&G, 1990.

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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 01		PARCEL NAME: China Poot, Kachemak Bay	
¹ LANDOWNER: Seldovia Native Association		² PARCEL ACREAGE: 7,500	³ TOTAL ACREAGE: 106,000
			⁴ AFFECTED ACREAGE: 5,300
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		Moderate	Five cataloged anadromous streams on parcel. Coho, chum, sockeye, and pink salmon and Dolly Varden spawning and rearing habitat; enhanced sockeye salmon runs in Leisure Lake and Hazel Lake.
Bald Eagle		High	Intertidal foraging and feeding on anadromous fish. Thirty seven documented nest sites on parcel.
Black Oystercatcher		Low	Likely that oystercatchers use gravel spits and intertidal for feeding and nesting.
Common Murre		Moderate	Murre colony (est. 5,075 birds) on Gull Rock may benefit from adjacent habitat protection.
Harbor Seal		Moderate	Harbor seals feed in area and frequently haul-out on nearshore rocks and bars.
Harlequin Duck		Moderate	Probable nesting in upper riparian areas; probable feeding in streams and estuaries.
Intertidal/subtidal biota		High	China Poot Bay is documented as one of the most productive shallow benthic habitats in Kachemak Bay.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 01	PARCEL NAME: China Poot, Kachemak Bay	
Marbled Murrelet	High	High confidence that nesting occurs on parcel. Large numbers of murrelets forage on Kachemak Bay.
Pigeon Guillemot	Low	Foraging occurs in adjacent marine waters.
River Otter	Moderate	High use area for feeding and latrine sites; possible denning inland.
Sea Otter	Low	Established population in area; feeding and possible pupping in adjacent marine waters.
Recreation/Tourism	High	Neptune, Peterson, and China Poot bays and Gull Rock receive high use. Highly visible from Homer and Kachemak Bay. Adjacent to Kachemak Bay State Park.
Wilderness	Low	Area is moderately developed, primarily recreational homesites. High human use area.
Cultural Resources	Moderate	Twenty eight documented archeological sites on parcel.
Subsistence	Moderate	Within resource use area of Port Graham and English Bay.
<p>ECOLOGICAL SIGNIFICANCE: China Poot, Neptune, and Peterson bays are highly productive estuaries that provide habitat for birds, anadromous fish, mammals, and intertidal marine life. This area receives very high recreational use, has significant archeological sites, and is highly visible from Homer and adjacent marine waters. The timbered lands are probably important to marbled murrelets. This area also provides access to a recreational dip-net fishery at the outlet of Leisure Lake.</p>		

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 01	PARCEL NAME: China Poot, Kachemak Bay
ADJACENT LAND MANAGEMENT: This parcel is adjacent to Kachemak Bay State Park; the park receives a significant amount of recreational use by residents of Anchorage and the Kenai Peninsula and is also an important tourist attraction. The parcel is also adjacent to other Seldovia Native Association lands.	
IMMINENT THREAT/OPPORTUNITY: This parcel is proposed for logging in 1993. Permit approvals are pending additional information, Corps of Engineers Public Notice, and ACMP review.	
PROTECTION OBJECTIVE: 1) Maintain water quality of the estuary and associated riparian habitats for anadromous fish; 2) maintain bald eagle, marbled murrelet, and harlequin nesting habitat; 3) maintain and enhance recreational opportunities and scenic values; and 4) maintain public access to Leisure Lake stream.	
USEFUL PROTECTION TOOL(S): Timber acquisition; fee simple purchase; conservation easement; cooperative management; public access acquisition.	
RECOMMENDED ACTION: The Trustee Council has approved a resolution to acquire fee title for Kachemak Park inholdings. Habitat and service values are among the highest for imminent threat lands evaluated. Request SNA to provide interim protection; begin negotiations to acquire long term protection; December 31, 1993 deadline.	

1. Parties other than landowner may own partial rights (eg. timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 02		PARCEL NAME: Sadie Cove	
¹ LANDOWNER: Seldovia Native Association		² PARCEL ACREAGE: 400	³ TOTAL ACREAGE: 106,000
			⁴ AFFECTED ACREAGE: 400
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		Moderate	Two cataloged anadromous streams. Pink and chum spawning.
Bald Eagle		Moderate	Three documented nest sites on parcel.
Black Oystercatcher		None	
Common Murre		None	
Harbor Seal		Low	Foraging in Sadie Cove estuary.
Harlequin Duck		Low	Possible nesting in upper reaches of riparian habitat (adjacent to parcel). Potential feeding in lower stream and estuary.
Intertidal/subtidal biota		Low	Species diversity and richness relatively low at head of Sadie Cove.
Marbled Murrelet		Low	No evidence of use of this parcel.
Pigeon Guillemot		None	
River Otter		Low	Probable feeding in adjacent marine habitat and stream.
Sea Otter		Low	Occasional use of Sadie Cove for feeding and shelter.
Recreation/Tourism		Moderate	Recreational cabins and boating. High scenic values.
Wilderness		Low	Area is moderately developed, primarily recreational homesites. Moderate evidence of human use.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 02	PARCEL NAME: Sadie Cove	
Cultural Resources	None	No evidence that archeological sites exist on parcel.
Subsistence	Low	Waterfowl, marine mammals
ECOLOGICAL SIGNIFICANCE: Sadie Cove is a deep fjord estuary that provides habitat for anadromous fish and overwintering waterfowl. It is a moderately used recreational area accessible by boat from Homer.		
ADJACENT LAND MANAGEMENT: Kachemak Bay State Park: Seldovia Native Association.		
IMMINENT THREAT/OPPORTUNITY: This parcel is proposed for logging in 1993.		
PROTECTION OBJECTIVE: 1) Maintain water quality of the estuary and associated riparian anadromous fish habitat: 2) protect bald eagle nesting and roosting habitat.		
USEFUL PROTECTION TOOL(S): Timber acquisition; fee simple purchase; conservation easement; cooperative management.		
RECOMMENDED ACTION: Request interim protection from SNA, partial interests (timber rights, easement) and/or cooperative management may provide adequate long-term protection.		

1. Rights other than title may be held by other parties.
2. Area evaluated.
3. Total acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 03		PARCEL NAME: Jakolof Bay	
¹ LANDOWNER: Seldovia Native Association		² PARCEL ACREAGE: 600	³ TOTAL ACREAGE: 106,000
			⁴ AFFECTED ACREAGE: 500
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		Moderate	One mainstem and four tributaries cataloged as anadromous. Pink, chum, sockeye. and coho salmon spawning and rearing, Dolly Varden.
Bald Eagle		Low	One nest site adjacent to parcel. Probable feeding in stream and estuary.
Black Oystercatcher		None	
Common Murre		None	
Harbor Seal		Low	Feeding in Jakolof Bay and estuary.
Harlequin Duck		Low	Possible nesting in upper reaches of riparian habitat. Potential feeding in lower stream and estuary.
Intertidal/subtidal biota		Moderate	Jakolof Bay known to be highly productive for shellfish and other marine invertebrates
Marbled Murrelet		Low	Possible feeding in Jakolof Bay.
Pigeon Guillemot		None	
River Otter		Low	Probable feeding in adjacent marine habitat and stream.
Sea Otter		Low	Use Jakolof Bay for feeding and shelter.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 03	PARCEL NAME: Jakolof Bay	
Recreation/Tourism	Moderate	Road accessible from Seldovia. Recreational use of Rocky Bay road. Public boat harbor in Jakolof Bay. Recreational boating and fishing.
Wilderness	None	High evidence of human use (road, sawmill, boat harbor, mariculture)
Cultural Resources	Low	One archeological site documented adjacent to parcel.
Subsistence	Low	Shellfish, waterfowl
<p>ECOLOGICAL SIGNIFICANCE: Jakolof Bay is a productive shallow estuary providing habitat for anadromous fish, shellfish, waterfowl, and mammals. It is a moderately used recreational area easily accessible by road from Seldovia.</p>		
<p>ADJACENT LAND MANAGEMENT: Kachemak Bay State Park; Seldovia Native Association.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: This area is proposed for logging in 1993. It has an existing road access, and an abandoned sawmill and log transfer facility.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain water quality of the estuary and associated riparian habitats for anadromous fish; 2) maintain recreational values and recreational access.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; fee simple purchase; conservation easement; cooperative management.</p>		
<p>RECOMMENDED ACTION: Request SNA to provide interim protection; long-term protection may be achieved through acquisition of partial interests (timber, easements) and cooperative management agreement.</p>		

1. Rights other than title may be held by other parties.
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Nanwalek, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | | |
|--|-------------------------------------|--|---------------------|
| | Public (State or Federal) | | Streams |
| | Private | | Anadromous Streams |
| | Timber Harvest Areas | | Eagle Nests |
| | 1993 Projected Timber Harvest Areas | | Seabird Colonies |
| | Native Selected | | CIK02 Parcel Number |
| | Forest Cover | | |

Date printed: January 27, 1993

SOURCES:
Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources, Division of Forestry, 1992.
Land status was provided by ADNRL Land Records Information Section (LRIS), 1992.
Forest cover data provided by US Geological Survey (USGS)/EROS Alaska Field Office, using LANDSAT MSS imagery resampled to a 200 meter grid.
Eagle and Seabird information collected and provided by US Fish and Wildlife.
Streams were automated by ADNRLRS from the USGS topographic maps (1:50,000). Anadromous stream classification was determined by the ADF&G, 1980.

Nanwalek
(English Bay)

COOK INLET

CIK04

Port
Graham

CIK05

Koyuktolik Bay
(Dogfish Bay)

CIK05

Port Chatham

DRAFT

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 04		PARCEL NAME: Port Graham BIA Parcels	
¹ LANDOWNER: Various Native Allotees		² PARCEL ACREAGE: 200	³ TOTAL ACREAGE: 200
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	None	No documented anadromous streams.	
Bald Eagle	Low	One documented nest site; probable feeding and roosting.	
Black Oystercatcher	Low	Feeding along intertidal zone.	
Common Murre	None		
Harbor Seal	Low	Feeding in adjacent marine waters.	
Harlequin Duck	Low	Probable feeding and loafing in nearshore zone.	
Intertidal/subtidal biota	Moderate	Rocky intertidal zone.	
Marbled Murrelet	Unknown	No available information.	
Pigeon Guillemot	Unknown	No available information.	
River Otter	Unknown	No available information.	
Sea Otter	Low	Feeding in adjacent marine waters.	
Recreation/Tourism	Moderate	Marine waters used for recreational halibut fishing. Visible from ferry route, recreational boaters and tour boats.	
Wilderness	Low	High evidence of human use. Adjacent to Port Graham and English Bay.	
Cultural Resources	Low	One archeological site documented adjacent to parcel.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 04	PARCEL NAME: Port Graham BIA Parcels	
Subsistence	High	Extensive subsistence use of adjacent marine and intertidal areas; salmon, marine mammals, invertebrates, plants, berries.
<p>ECOLOGICAL SIGNIFICANCE: This is a relatively steep, north-facing timbered slope adjacent to Port Graham. Habitat and service value characteristics on parcel appear to be relatively low; however, detailed habitat information for some species is lacking.</p> <p>ADJACENT LAND MANAGEMENT: Port Graham; Nanwalek village corporations.</p> <p>IMMINENT THREAT/OPPORTUNITY: Logging (under BIA management) is planned for 1993.</p> <p>PROTECTION OBJECTIVE: Maintain water quality in Port Graham.</p> <p>USEFUL PROTECTION TOOL(S): Cooperative management agreement.</p> <p>RECOMMENDED ACTION: Request interim protection from BIA and landowners; obtain additional information on habitat and service values.</p>		

1. Parties other than landowner may own partial rights (e.g., timber, minerals), BIA serves as trust manager.
2. Area evaluated.
3. Estimated acreage held by the owner(s) in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 05		PARCEL NAME: Lower Kenai Peninsula	
LANDOWNER: Nanwalek Corporation		PARCEL ACREAGE: 3,000	TOTAL ACREAGE: 46,000 AFFECTED ACREAGE: 1,800
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Low	Two cataloged anadromous streams; pink salmon spawning.	
Bald Eagle	Moderate	Ten documented nest sites.	
Black Oystercatcher	Moderate	Feeding along shoreline. Potential nesting habitat in Port Chatham.	
Common Murre	Low	Potential feeding in adjacent marine waters.	
Harbor Seal	Low	Hauling out on nearshore rocks; feeding in adjacent marine waters.	
Harlequin Duck	Low	Feeding and loafing along shoreline.	
Intertidal/subtidal biota	Moderate	Highly productive rocky intertidal and shallow subtidal habitat in Port Chatham area. Abundant Fucus and other seaweeds.	
Marbled Murrelet	Moderate	Habitat characteristics appear favorable for nesting; feeding in adjacent marine waters.	
Pigeon Guillemot	Low	Probable nesting; feeding nearshore.	
River Otter	Moderate	Probable feeding along shoreline, possible latrine and denning sites.	
Sea Otter	Moderate	Concentration area for feeding, shelter, potential pupping in Port Chatham.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 05	PARCEL NAME: Lower Kenai Peninsula	
Recreation/Tourism	Moderate	Marine waters used for recreational halibut fishing. Visible from ferry route, recreational boaters and tour boats.
Wilderness	Low	Abandoned sawmill and cannery; adjacent timber harvest and log transfer facility; frequent boat activity.
Cultural Resources	Moderate	Two archeological sites documented on parcel; three adjacent.
Subsistence	Moderate	Waterfowl, marine mammals
<p>ECOLOGICAL SIGNIFICANCE: These parcels are adjacent to productive rocky intertidal and subtidal areas. The offshore waters are highly productive marine bird and marine mammal feeding areas. Forest habitats near this area have recently been disturbed by logging activities.</p>		
<p>ADJACENT LAND MANAGEMENT: Nanwalek; Port Graham village corporations.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Forest Practices Notices have been filed to harvest timber in 1993.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain water quality in the nearshore area; 2) maintain bald eagle and marbled murrelet nesting habitat; and 3) minimize visual impacts to recreational users in adjacent marine waters.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; cooperative management; conservation easement.</p>		
<p>RECOMMENDED ACTION: Request Nanwalek Corporation to provide interim protection; discuss options with land owner to provide long-term protection.</p>		

1. Parties other than landowner may own partial rights (e.g. timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.

HABITAT PROTECTION PARCEL ANALYSIS











4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Windy Bay, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | |
|---|--|
|  Public (State or Federal) |  Streams |
|  Private |  Anadromous Streams |
|  Timber Harvest Areas |  Eagle Nests |
|  1993 Projected Timber Harvest Areas |  Seabird Colonies |
|  Native Selected | CIK02 Parcel Number |
|  Forest Cover | |

Date printed: January 27, 1993

SOURCES

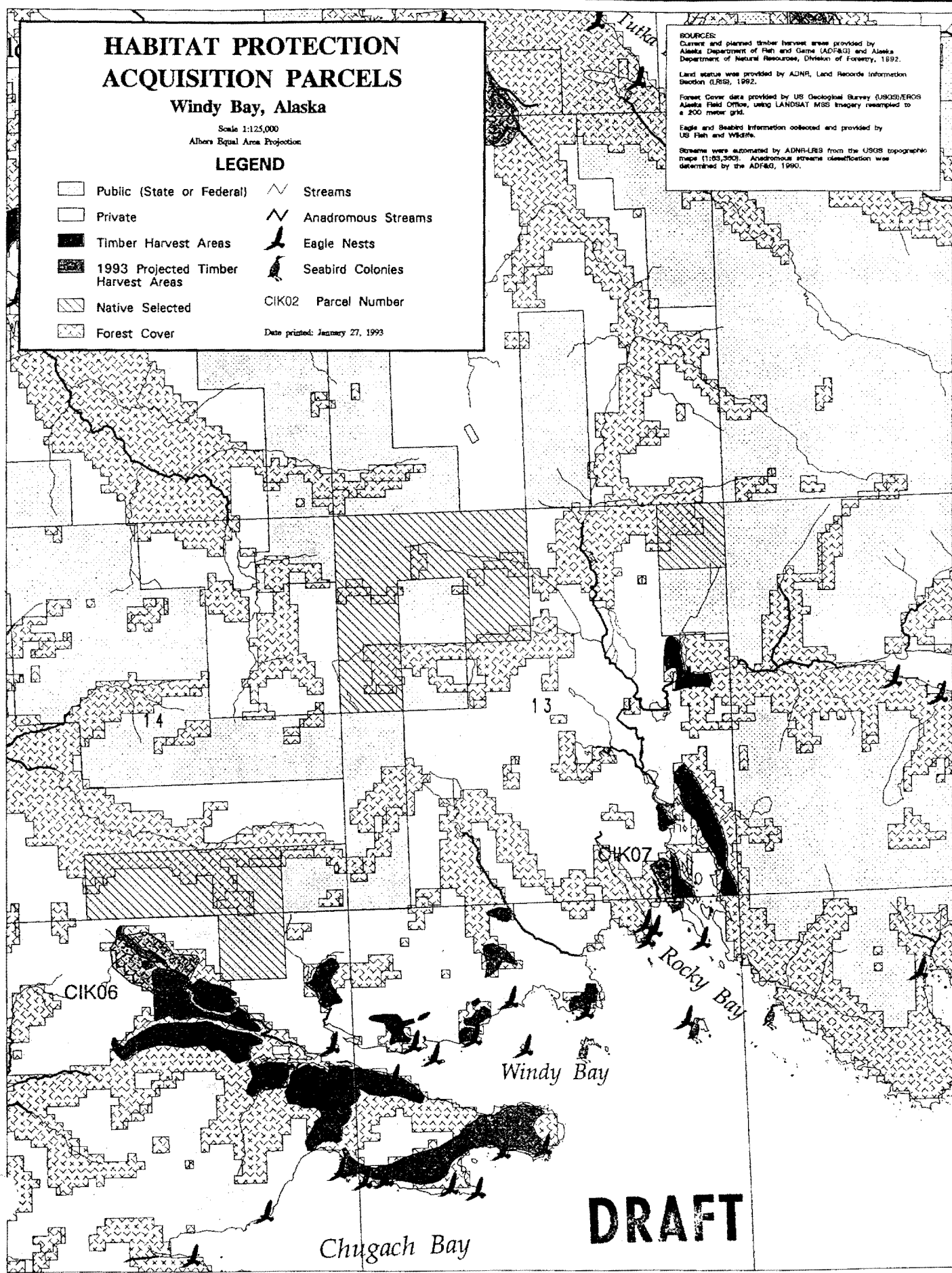
Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources, Division of Forestry, 1992.

Land status was provided by ADNR, Land Records Information Section (LRIS), 1992.

Forest Cover data provided by US Geological Survey (USGS)/EROS Alaska Field Office, using LANDSAT MSS imagery resampled to a 200 meter grid.

Eagle and Seabird information collected and provided by US Fish and Wildlife.

Streams were automated by ADNR-LRS from the USGS topographic maps (1:63,360). Anadromous streams classification was determined by the ADF&G, 1990.



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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 06		PARCEL NAME: Windy Bay	
1LANDOWNER: Port Graham		2PARCEL ACREAGE: 400	3TOTAL ACREAGE: 63,500
		4AFFECTED ACREAGE: 400	
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Low	One documented anadromous stream; pink, chum, coho.	
Bald Eagle	Low	No documented nesting; possible feeding and perching.	
Black Oystercatcher	None		
Common Murre	None		
Harbor Seal	None		
Harlequin Duck	Low	Possible nesting.	
Intertidal/subtidal biota	None		
Marbled Murrelet	Unknown	Habitat characteristics appear favorable for nesting.	
Pigeon Guillemot	None		
River Otter	Low	Possible denning.	
Sea Otter	None		
Recreation/Tourism	Low	Limited access, low use for bear and goat hunting.	
Wilderness	Low	Extensive recent clear cuts in area.	
Cultural Resources	None	No evidence of archeological sites on parcel.	
Subsistence	Low	Most use confined to marine area.	
ECOLOGICAL SIGNIFICANCE: The associated streams within this parcel support anadromous fish spawning and rearing habitat. This is one of the few remaining unharvested forest stands within the Windy Bay watershed.			

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 06	PARCEL NAME: Windy Bay
ADJACENT LAND MANAGEMENT: Nanwalek Corporation; Kachemak Bay State Wilderness Park.	
IMMINENT THREAT/OPPORTUNITY: Forest Practices Notice has been filed for clear-cutting this parcel in 1993.	
PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitat for anadromous fish; 2) maintain nesting opportunities for marbled murrelets and bald eagles.	
USEFUL PROTECTION TOOL(S): Cooperative management agreement.	
RECOMMENDED ACTION: Habitats on this parcel have relatively low value for recovery of injured species/services; request Nanwalek Corporation to provide interim protection; discuss options for long term protection.	

1. Parties other than landowner may own partial rights (e.g. timber, minerals).
2. Area evaluated.
3. Estimate acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 07		PARCEL NAME: Rocky Bay	
'LANDOWNER: Port Graham Corporation		² PARCEL ACREAGE: 100	⁴ AFFECTED ACREAGE: 100
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Low	One documented anadromous stream; pink.	
Bald Eagle	Low	No documented nest sites on parcel, three sites in Rocky Bay.	
Black Oystercatcher	Low	Probable feeding in intertidal.	
Common Murre	None		
Harbor Seal	Low	Probable feeding, hauling out in adjacent marine area; documented harbor seal haul out concentration area approx. one mile to the south.	
Harlequin Duck	Low	Probable feeding and loafing in intertidal.	
Intertidal/subtidal biota	Low	Shore was very lightly oiled.	
Marbled Murrelet	Low	Habitat characteristics appear favorable for nesting, probable feeding in nearshore waters.	
Pigeon Guillemot	Low	Possible nesting, probable feeding in nearshore waters.	
River Otter	Low	Possible feeding and latrine sites.	
Sea Otter	Moderate	Documented sea otter concentration area.	
Recreation/Tourism	Moderate	Road accessible from Seldovia, occasional boat use, recreational fishing for cohos.	
Wilderness	Low	Extensive recent clearcuts in area.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: CIK 07	PARCEL NAME: Rocky Bay	
Cultural Resources	None	No evidence of archeological sites on parcel.
Subsistence	Low	Waterfowl, marine mammals.
<p>ECOLOGICAL SIGNIFICANCE: Coho and pink salmon support recreational and commercial fisheries; accessible via old logging road (trail) from Seldovia; area has been extensively harvested for timber during the past twenty years.</p> <p>ADJACENT LAND MANAGEMENT: Port Graham Corporation; near Kachemak Bay State Wilderness Park.</p> <p>IMMINENT THREAT/OPPORTUNITY: This parcel is proposed for timber harvest in 1993.</p> <p>PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitats for anadromous fish; maintain recreational fishing opportunities; 3) maintain recreational access.</p> <p>USEFUL PROTECTION TOOL(S): Cooperative management agreement; acquire and enhance recreational access.</p> <p>RECOMMENDED ACTION: Request Port Graham Corporation to provide interim protection; discuss options for cooperative management and recreational access improvements.</p>		

1. Parties other than landowner may own partial rights (e.g. timber minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.













Kodiak, AK Peninsula (KAP)

HABITAT PROTECTION ACQUISITION PARCELS

Seal Bay, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | | |
|---|-------------------------------------|---|---------------------|
|  | Public (State or Federal) |  | Streams |
|  | Private |  | Anadromous Streams |
|  | Timber Harvest Areas |  | Eagle Nests |
|  | 1993 Projected Timber Harvest Areas |  | Seabird Colonies |
|  | Native Selected |  | Parcel Boundary |
|  | Forest Cover |  | KAP02 Parcel Number |

Date printed: January 29, 1993

SOURCE:
Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources (ADNR), Division of Forestry, 1992.

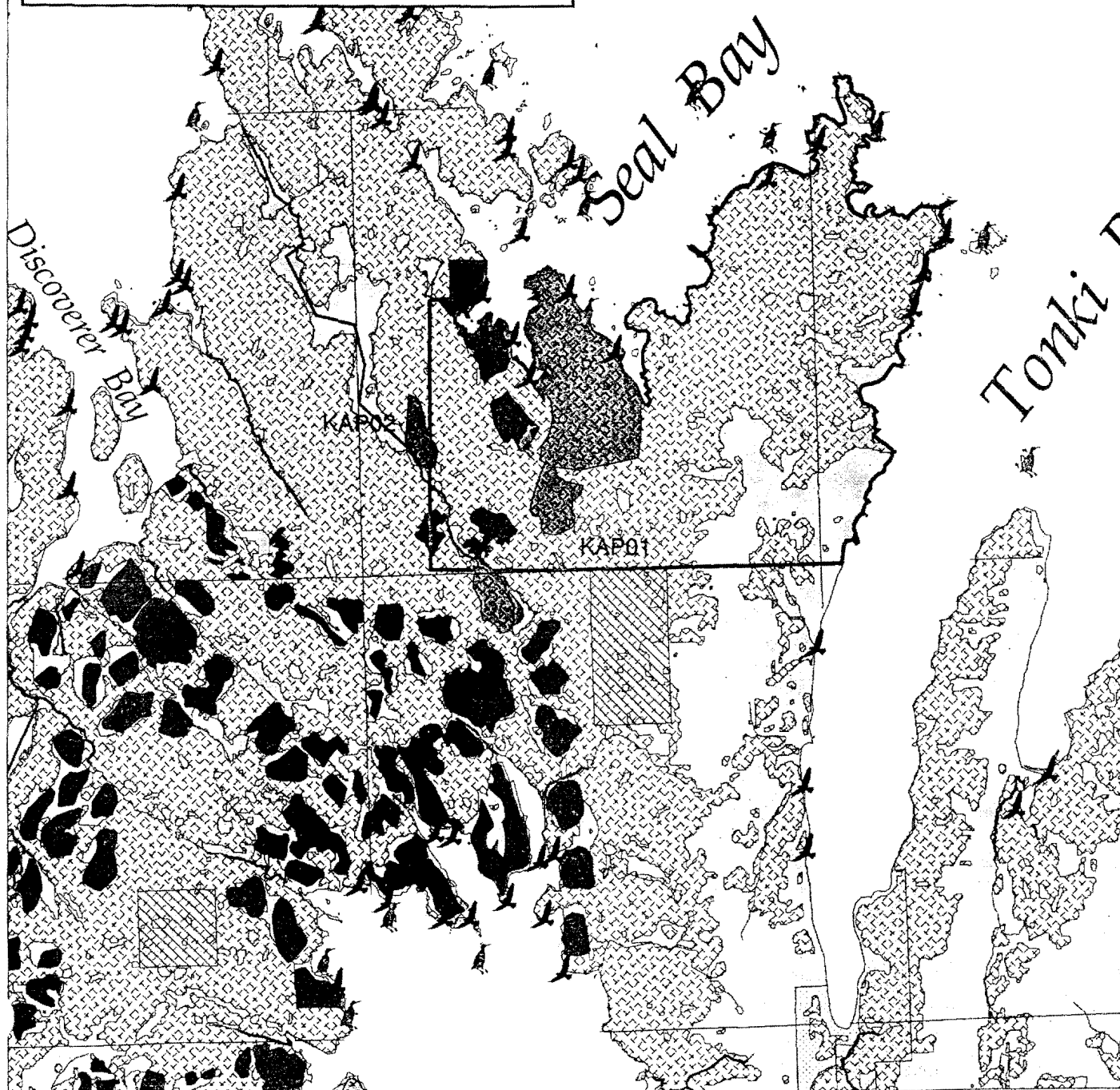
Land status provided by ADNR, Land Records Information Section, 1989.

Forest cover was determined from SPOT 1981 imagery by Padoletsky, 1993.

Eagle and Seabird information collected and provided by US Fish and Wildlife.

Streams were automated by ADNR-LRS from the USGS topographic maps (1:63,360). Anadromous streams classification was determined by the ADF&G, 1991.

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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 01		PARCEL NAME: Seal Bay	
¹ LANDOWNER: Akhiok Kaguyak/ Old Harbor		² PARCEL ACREAGE: 15,000	³ TOTAL ACREAGE: 253,000
			⁴ AFFECTED ACREAGE: 1,600
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Moderate	Six documented anadromous streams; pink, sockeye, coho, Dolly Varden, steelhead.	
Bald Eagle	High	Fourty two documented nest sites; feeding and roosting along shoreline.	
Black Oystercatcher	Moderate	Feeding in intertidal; probable nesting along shoreline and nearshore islets.	
Common Murre	None		
Harbor Seal	Moderate	Area historically supported large numbers of seals. Feeding in nearshore waters and haul-outs on nearshore rocks.	
Harlequin Duck	Moderate	Up to 64 birds observed in Seal Bay. Nearshore habitat appears good for feeding and molting. Potential for nesting appears low.	
Intertidal/subtidal biota	Moderate	Productive sheltered rocky intertidal and shallow subtidal habitat. Steep slopes adjacent to intertidal may become source of erosion sedimentation. No documented oiling of shoreline.	
Marbled Murrelet	High	High confidence that nesting occurs on parcel; good nesting habitat characteristics; high use of adjacent marine waters for feeding.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 01	PARCEL NAME: Seal Bay	
Pigeon Guillemot	Moderate	Documented nesting of up to 36 birds on or immediately adjacent to parcel; feeding in nearshore waters.
River Otter	Moderate	Probable feeding and latrine sites along shoreline. Possible denning. Habitat characteristics appear very favorable for river otters.
Sea Otter	Moderate	Known concentration area off Tolstoi Point. Feeding in nearshore waters.
Recreation/Tourism	Moderate	Area has historically supported high value wilderness-based recreation for boats and lodge. Access was previously difficult but is now road accessible.
Wilderness	Moderate	Wilderness characteristics are declining. Recent clearcuts and road are visible.
Cultural Resources	Moderate	Six archeological sites documented on parcel.
Subsistence	Low	Marine invertebrates, deer, elk, possibly marine mammals.
<p>ECOLOGICAL SIGNIFICANCE: This parcel contains old growth forest habitat adjacent to highly productive marine waters. Streams within the parcel support a diversity of anadromous fish. Forests on this parcel are suspected of providing high value marbled murrelet nesting habitat. Wilderness recreation values, particularly for fishing and hunting are high. Parcel supports non-injured species including deer, elk, and brown bear.</p>		
<p>ADJACENT LAND MANAGEMENT: Afognak Joint Venture; primarily for timber harvest and tree farming.</p>		

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 01	PARCEL NAME: Seal Bay
IMMINENT THREAT/OPPORTUNITY: A portion of this parcel is proposed for logging in 1993 as an extension of an ongoing timber management operation by Koncor Forest Products. Akhiok-Kaguyak has expressed an interest in discussing habitat protection for remainder of parcel.	
PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitat for anadromous fish; 2) maintain marbled murrelet and bald eagle nesting habitat; 3) maintain and enhance wilderness-based recreational opportunities.	
USEFUL PROTECTION TOOL(S): Timber acquisition; fee title acquisition; cooperative management agreement; conservation easement.	
RECOMMENDED ACTION: This is one of highest priority imminent threat parcels; request Akhiok/Kaguyak/Old Harbor joint venture to provide interim protection; discuss options for long-term protection.	











1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Seal Bay, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | | |
|---|-------------------------------------|---|--------------------|
|  | Public (State or Federal) |  | Streams |
|  | Private |  | Anadromous Streams |
|  | Timber Harvest Areas |  | Eagle Nests |
|  | 1993 Projected Timber Harvest Areas |  | Seabird Colonies |
|  | Native Selected | | |
|  | Forest Cover | | |

KAP02 Parcel Number

Date printed: January 29, 1993

SOURCES:
Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources (ADNR), Division of Forestry, 1992.

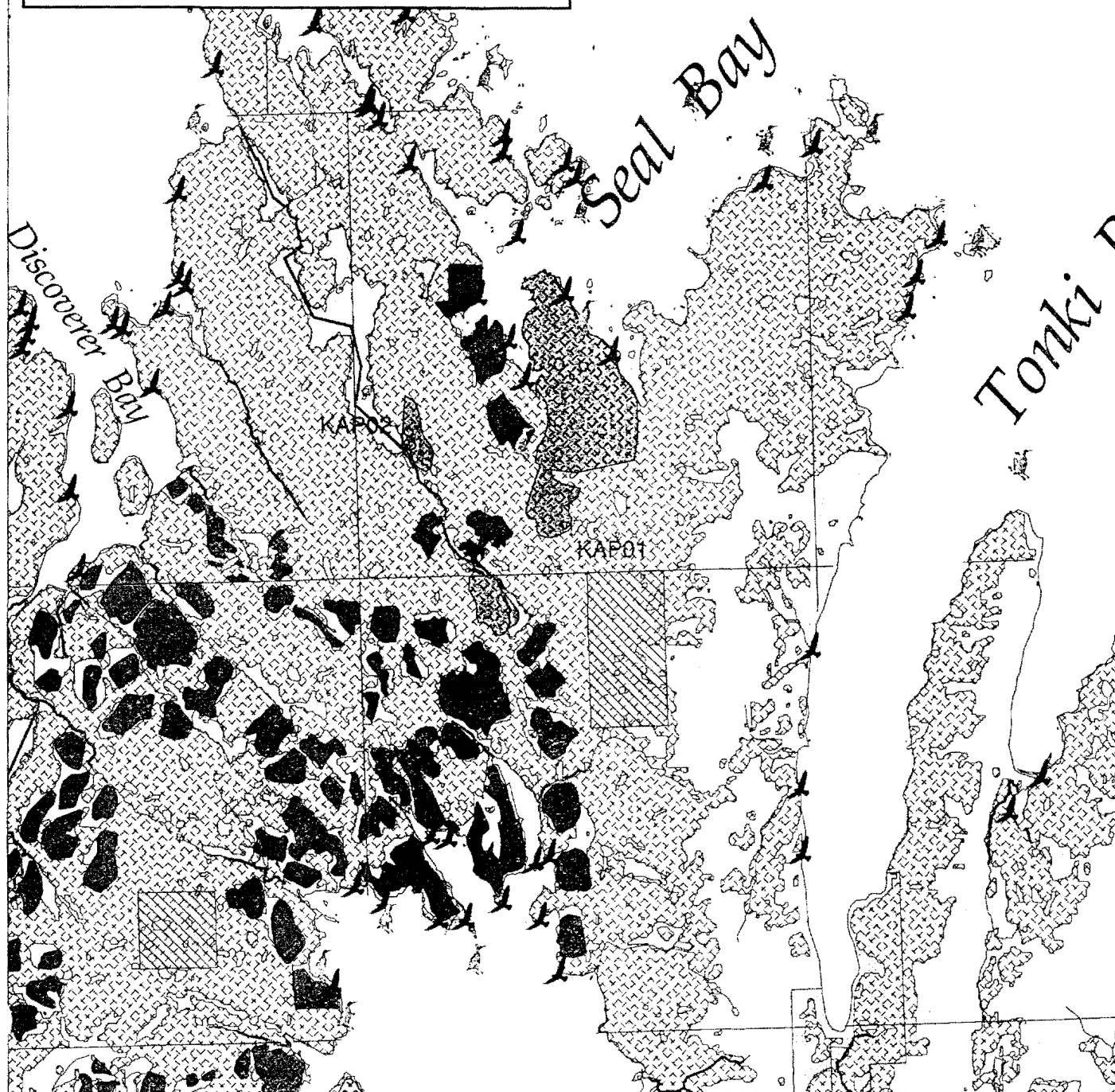
Land status provided by ADNR, Land Records Information Section, 1989.

Forest cover was determined from SPOT 1981 imagery by Podolsky, 1993.

Eagle and Seabird information collected and provided by US Fish and Wildlife.

Streams were automated by ADNR-LRS from the USGS topographic maps (1:50,000). Anadromous stream classification was determined by the ADF&G, 1991.

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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 02		PARCEL NAME: Pauls / Laura / Gretchen lakes	
¹ LANDOWNER: Afognak Joint Venture		² PARCEL ACREAGE: 500	³ TOTAL ACREAGE: 150,000
			⁴ AFFECTED ACREAGE: 370
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Moderate	One documented anadromous stream/lake system; coho, sockeye, steelhead, Dolly Varden.	
Bald Eagle	Low	No documented nest sites. Probable feeding on anadromous stream/lakes.	
Black Oystercatcher	None		
Common Murre	None		
Harbor Seal	None		
Harlequin Duck	Unknown	Possible nesting in riparian zone.	
Intertidal/subtidal biota	None		
Marbled Murrelet	Moderate	High confidence that nesting occurs on parcel; good nesting habitat characteristics	
Pigeon Guillemot	None		
River Otter	Moderate	Probable feeding, latrine sites; possible denning.	
Sea Otter	None		
Recreation/Tourism	Moderate	Pauls Lake used for recreational fishing; recently made road accessible.	
Wilderness	Low	Recent clearcuts and roads in area.	
Cultural Resources	None	No evidence of archeological sites on parcel.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 02	PARCEL NAME: Pauls / Laura / Gretchen lakes	
Subsistence	Unknown	
ECOLOGICAL SIGNIFICANCE: The stream and lake system on this parcel supports highly productive anadromous fish habitat including sockeye and coho salmon, Dolly Varden, and steelhead; supports recreational and commercial fishing.		
ADJACENT LAND MANAGEMENT: Timber harvest is actively occurring on this and adjacent lands. Surrounding lands are owned by Afognak Joint Venture and managed by Koncor Forest Products for timber production.		
IMMINENT THREAT/OPPORTUNITY: This parcel is proposed for logging in 1993; it is an extension of an ongoing timber harvest.		
PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitats for anadromous fish; 2) maintain nesting opportunities for marbled murrelets.		
USEFUL PROTECTION TOOL(S): Timber acquisition; cooperative management agreement; conservation easement.		
RECOMMENDED ACTION: Request Afognak Joint Venture to provide interim protection; discuss options for long term protection.		

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Izhut Bay, Alaska

Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | | |
|--|-------------------------------------|--|--------------------|
| | Public (State or Federal) | | Streams |
| | Private | | Anadromous Streams |
| | Timber Harvest Areas | | Eagle Nests |
| | 1993 Projected Timber Harvest Areas | | Seabird Colonies |
| | Native Selected | | |
| | Forest Cover | | |

KAP02 Parcel Number

Date printed: January 28, 1993

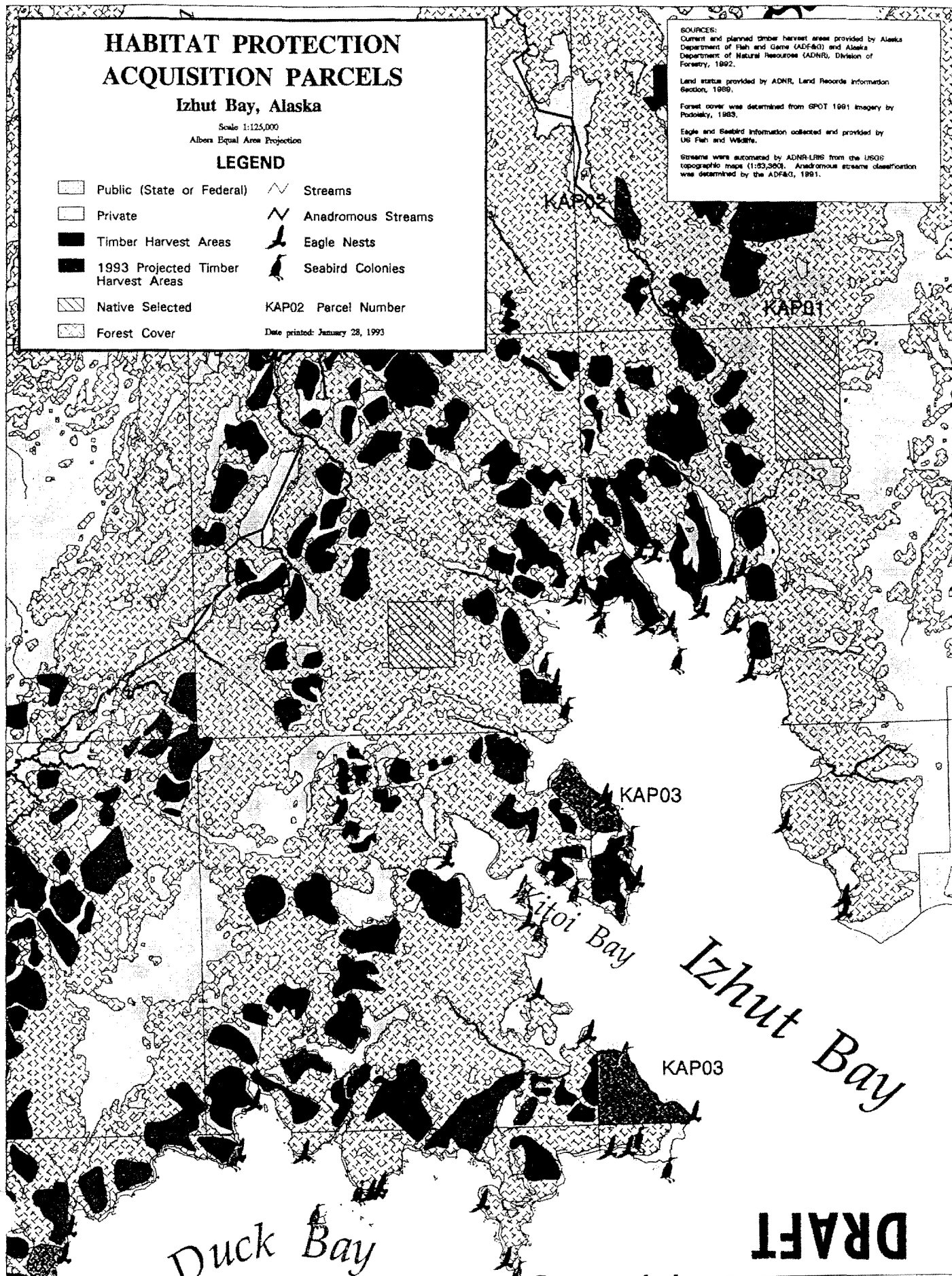
SOURCES:
Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources (ADNR), Division of Forestry, 1992.

Land status provided by ADNR, Land Records Information Section, 1989.

Forest cover was determined from SPOT 1991 imagery by US Fish and Wildlife.

Eagle and Seabird information collected and provided by US Fish and Wildlife.

Streams were automated by ADNR-LRS from the USGS topographic maps (1:50,000). Anadromous streams classification was determined by the ADF&G, 1991.



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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 03		PARCEL NAME: Izhut Bay	
¹ LANDOWNER: Afognak Joint Venture		² PARCEL ACREAGE: 1,000	³ TOTAL ACREAGE: 150,000
			⁴ AFFECTED ACREAGE: 960
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	None	No documented anadromous fish streams. Terrain appears to have low potential for supporting anadromous streams.	
Bald Eagle	Moderate	Four documented nest sites.	
Black Oystercatcher	Low	Fourteen birds documented in area. Probable feeding, possible nesting in intertidal adjacent to parcel.	
Common Murre	None		
Harbor Seal	Moderate	Known haul-out concentration area; probable feeding in nearshore waters.	
Harlequin Duck	Low	Possible feeding and loafing on intertidal adjacent to parcel.	
Intertidal/subtidal biota	Low	Steep rocky shoreline; lightly oiled in places.	
Marbled Murrelet	High	Documented nesting in vicinity of parcel; good nesting habitat characteristics; high use of adjacent marine waters for feeding.	
Pigeon Guillemot	Moderate	Twenty six birds documented in area; probable nesting and feeding along shoreline.	
River Otter	Low	Steep shoreline probably indicates low use by river otter.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 03	PARCEL NAME: Izhut Bay	
Sea Otter	Low	Feeding in nearshore waters. Habitat appears to have low capacity to support sea otters.
Recreation/Tourism	Low	Recreational fishing and hunting in area.
Wilderness	Low	Fish hatchery in vicinity, recent clearcuts and roads.
Cultural Resources	Low	One archeological site documented on parcel; four adjacent.
Subsistence	Low	Use of parcel appears low; uses adjacent to parcel include: crabs, marine fish, invertebrates, marine mammals, salmon, elk.
<p>ECOLOGICAL SIGNIFICANCE: This parcel contains relatively steeply sloping timbered lands bordering a protected rocky shore and productive marine area in Izhut Bay. The Izhut Bay area has been extensively modified by timber harvest during the past several years. A marbled murrelet nest was found in a felled tree in the vicinity of this parcel in 1992.</p>		
<p>ADJACENT LAND MANAGEMENT: Afognak Joint Venture; timber harvest and forest management are under direction of Koncor Forest Products.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Timber harvest is currently occurring on and adjacent to this parcel; timber harvest likely to be completed on this parcel in 1993.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain marbled murrelet nesting opportunities; 2) maintain forested shoreline fringe for bald eagles and protection of nearshore habitat.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.</p>		
<p>RECOMMENDED ACTION: Request AJV to provide interim protection; develop options for long term protection.</p>		

1. Parties other than landowner may own partial rights (e.g, timber, minerals).

HABITAT PROTECTION PARCEL ANALYSIS

2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.











KAP 04, 05, 06

HABITAT PROTECTION ACQUISITION PARCELS

Kazakof Bay, Alaska

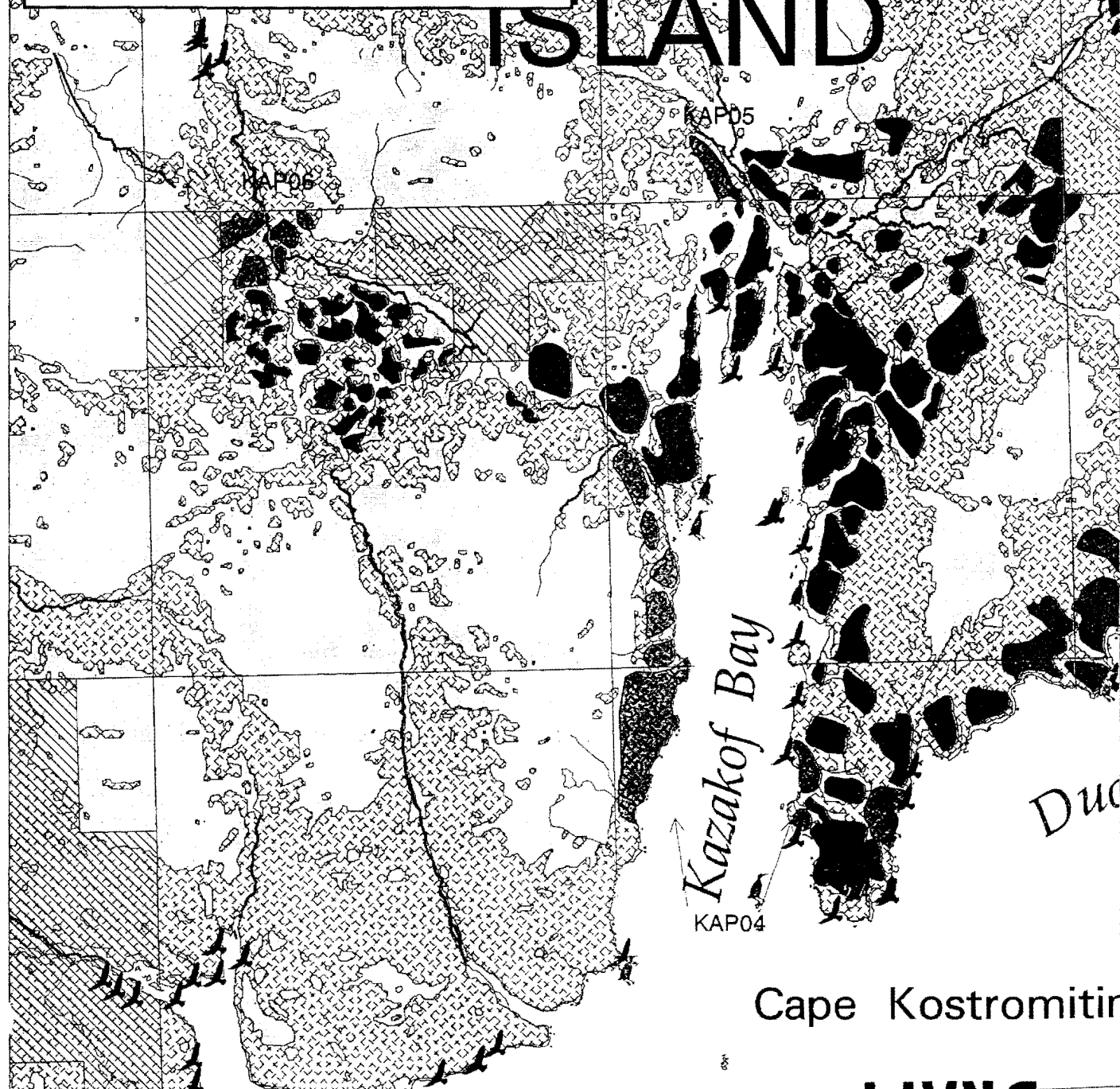
Scale 1:125,000
Albers Equal Area Projection

LEGEND

- | | | | |
|---|-------------------------------------|---|--------------------|
|  | Public (State or Federal) |  | Streams |
|  | Private |  | Anadromous Streams |
|  | Timber Harvest Areas |  | Eagle Nests |
|  | 1993 Projected Timber Harvest Areas |  | Seabird Colonies |
|  | Native Selected | KAP02 Parcel Number | |
|  | Forest Cover | Date printed: January 28, 1993 | |

SOURCES:
Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources (ADNR), Division of Forestry, 1992.
Land status provided by ADNR, Land Records Information Section, 1989.
Forest cover was determined from SPOT 1991 imagery by Podolsky, 1993.
Eagle and Seabird information collected and provided by US Fish and Wildlife.
Streams were automated by ADNR-LRB from the USGS topographic maps (1:62,500). Anadromous stream classification was determined by the ADF&G, 1991.

FOGNAK ISLAND



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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 04		PARCEL NAME: Kazakof Bay	
¹ LANDOWNER: Afognak Joint Venture; Afognak Native Corporation		² PARCEL ACREAGE: 1,500	³ TOTAL ACREAGE: 150,000
			⁴ AFFECTED ACREAGE: 1,400
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		Low	No documented anadromous streams on parcels; potential for additional streams being found.
Bald Eagle		Low	One documented nest site. Feeding and perching along shoreline.
Black Oystercatcher		Low	Possible feeding in intertidal.
Common Murre		None	
Harbor Seal		Moderate	Known haul-out concentration near parcel. Feeding in nearshore waters.
Harlequin Duck		Low	Thirteen birds documented in eastern Kazakof Bay. Potential for nesting on parcels appears low; probable feeding and loafing in intertidal.
Intertidal/subtidal biota		Moderate	Sheltered rocky intertidal areas, productive shallows, kelp beds.
Marbled Murrelet		Unknown	Habitat characteristics appear suitable for nesting; feeding in adjacent marine waters.
Pigeon Guillemot		Low	Thirty four birds documented on nearby Parrot Island. Possible nesting on or near parcels, probable feeding in nearshore area.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 04	PARCEL NAME: Kazakof Bay	
River Otter	Low	Possible feeding and latrine sites on or near parcels.
Sea Otter	Low	Established sea otter population in area; probable feeding in nearshore waters.
Recreation/Tourism	Moderate	Area receives local recreational use from logging camps, Afognak I. lodges/residences, Port Lions and Ouzinkie. Hunting and fishing from Kodiak-based guide operations.
Wilderness	Low	Established logging camps, transfer and storage facilities, roads, recent clearcuts.
Cultural Resources	Moderate	Two archeological sites documented on parcel.
Subsistence	Moderate	Uses include: crabs, marine fish, invertebrates, marine mammals, salmon, elk, trapping, deer.
<p>ECOLOGICAL SIGNIFICANCE: These parcels contain relatively steeply sloping timbered lands bordering a protected rocky shore and productive marine area in Kazakof Bay. The Kazakof Bay area has been extensively disturbed by timber harvest during the past decade.</p>		
<p>ADJACENT LAND MANAGEMENT: Afognak Native Corporation; Afognak Joint Venture; managed primarily for timber harvest and production.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: This parcel is proposed for timber harvest in 1993 as an extension of ongoing timber harvest operations in area.</p>		
<p>PROTECTION OBJECTIVE: 1) Maintain marbled murrelet nesting opportunities; 2) maintain forested shoreline fringe for bald eagles and protection of nearshore habitat.</p>		
<p>USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.</p>		

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 04	PARCEL NAME: Kazakof Bay
RECOMMENDED ACTION: Request ANC and AJV to provide interim protection; develop options for long term protection.	

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 05		PARCEL NAME: Big Danger Creek	
¹ LANDOWNER: Afognak Native Corporation		² PARCEL ACREAGE: 120	³ TOTAL ACREAGE: 112,000
			⁴ AFFECTED ACREAGE: 120
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Low	One documented pink salmon stream.	
Bald Eagle	Low	No documented nest sites; probable feeding and perching.	
Black Oystercatcher	None		
Common Murre	None		
Harbor Seal	None		
Harlequin Duck	Low	Habitat characteristics appear to have low suitability.	
Intertidal/subtidal biota	None		
Marbled Murrelet	Moderate	Habitat characteristics appear suitable for nesting; feeding in Kazakof Bay.	
Pigeon Guillemot	None		
River Otter	Unknown	Possible feeding and latrine sites.	
Sea Otter	None		
Recreation/Tourism	Low	Known elk winter concentration area.	
Wilderness	Low	Roads, recent clearcuts.	
Cultural Resources	Low	No evidence of archeological sites on parcel.	
Subsistence	Low	Deer, elk, trapping.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 05	PARCEL NAME: Big Danger Creek
ECOLOGICAL SIGNIFICANCE: This parcel contains a remanent forest surrounded by an extensively harvested areas. It is a known elk winter concentration area.	
ADJACENT LAND MANAGEMENT: Afognak Native Corporation; Afognak Joint Venture; area primarily managed for timber harvest and production.	
IMMINENT THREAT/OPPORTUNITY: This area may be harvested in 1993; a Forest Practices Notification has been filed.	
PROTECTION OBJECTIVE: Maintain riparian area and opportunities for marbled murrelet nesting.	
USEFUL PROTECTION TOOL(S): Timber acquisition; conservation easement; cooperative management agreement.	
RECOMMENDED ACTION: Discuss interim protection with ANC; discuss long term protection options; this parcel appears to have a low potential to benefit restoration.	

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

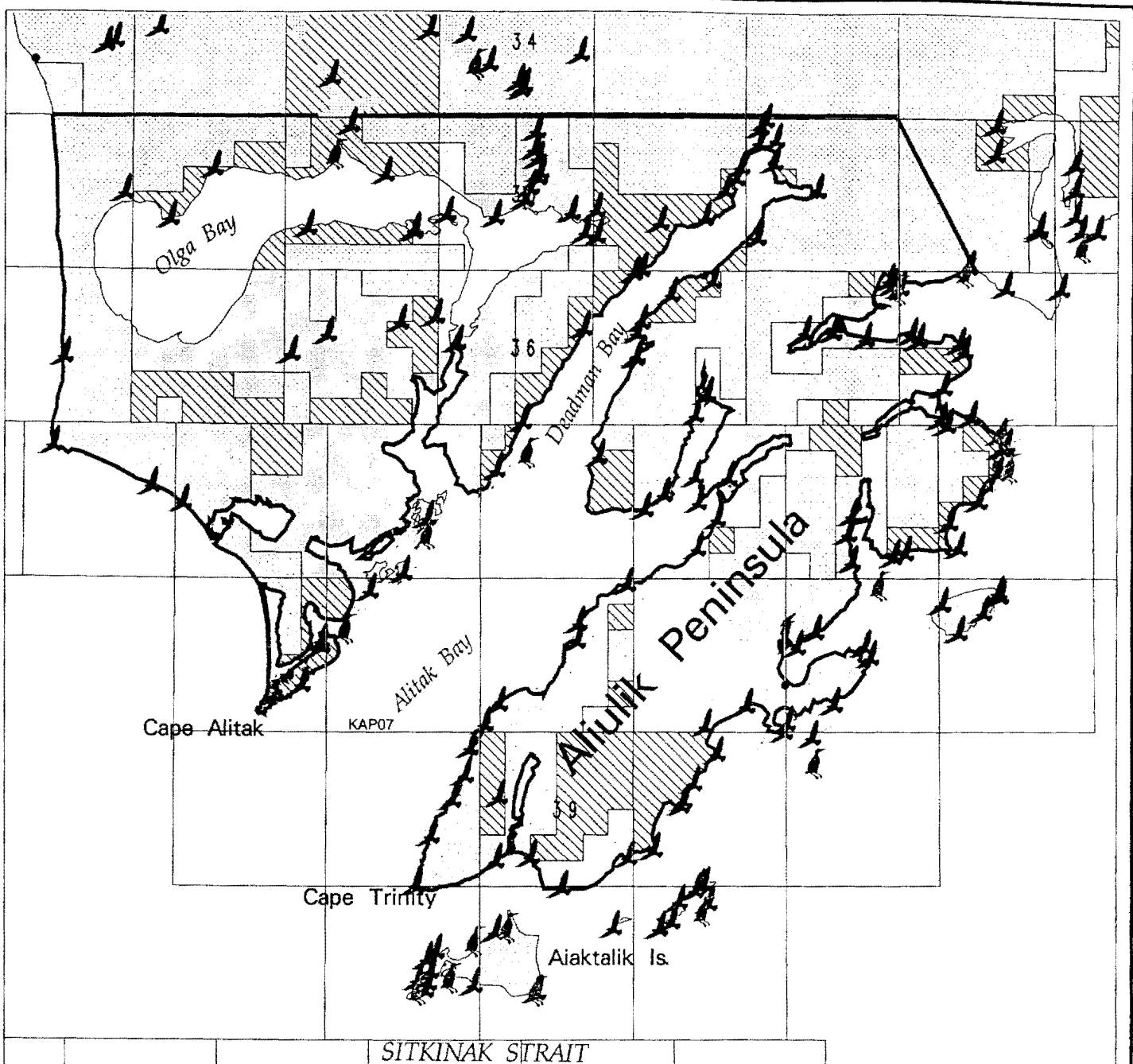
HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 06		PARCEL NAME: Paramanof Creek	
¹ LANDOWNER: Afognak Joint Venture		² PARCEL ACREAGE: 500	³ TOTAL ACREAGE: 150,000
			⁴ AFFECTED ACREAGE: 330
INJURED RESOURCE / SERVICE	POTENTIAL FOR BENEFIT	COMMENT	
Anadromous Fish	Moderate	Two documented anadromous streams; coho, sockeye, pink, Dolly Varden, steelhead.	
Bald Eagle	Low	No documented nest sites; possible nesting, probable feeding and perching.	
Black Oystercatcher	None		
Common Murre	None		
Harbor Seal	None		
Harlequin Duck	Unknown	Possible nesting in riparian zone.	
Intertidal/subtidal biota	None		
Marbled Murrelet	Unknown	Habitat characteristics appear suitable for nesting; feeding in nearby marine waters.	
Pigeon Guillemot	None		
River Otter	Low	Probable feeding and latrine sites; possible denning.	
Sea Otter	None		
Recreation/Tourism	Low	Recreational hunting and fishing; recent road access in vicinity of parcel.	
Wilderness	Low	Roads and recent clearcuts in vicinity.	
Cultural Resources	Low	No evidence of archeological sites on parcel; two sites adjacent.	

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 06	PARCEL NAME: Paramanof Creek	
Subsistence	Low	Recent road access may increase use.
ECOLOGICAL SIGNIFICANCE: Parcel supports important anadromous fish stream.		
ADJACENT LAND MANAGEMENT: Afognak Native Corporation; extensive recent timber harvest on adjacent lands.		
IMMINENT THREAT/OPPORTUNITY: Parcel is proposed for timber harvest in 1993; extension of current timber harvest operations.		
PROTECTION OBJECTIVE: Maintain anadromous fish habitat and water quality.		
USEFUL PROTECTION TOOL(S): Conservation easement; timber acquisition; cooperative management agreement.		
RECOMMENDED ACTION: Discuss interim protection with ANC; develop long term protection options; parcel appears to have a low potential to benefit restoration.		

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.



HABITAT PROTECTION ACQUISITION PARCELS

Alitak, Alaska

Scale 1:375,000
Albers Equal Area Projection

LEGEND

- | | | | |
|--|---------------------------|-------|------------------|
| | Public (State or Federal) | | Eagle Nests |
| | Private | | Seabird Colonies |
| | Native Selected | | Parcel Boundary |
| | Forest Cover | KAP07 | Parcel Number |

Date printed: January 29, 1993

DRAFT

SOURCES:
Land status provided by ADNIR, Land Records Information
Section, 1989.
Eagle and Seabird information collected and provided by
US Fish and Wildlife.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 07		PARCEL NAME: Alitak Bay	
¹ LANDOWNER: Akhiok-Kaguyak, Inc.		² PARCEL ACREAGE: 230,000	³ TOTAL ACREAGE: 139,000
			⁴ AFFECTED ACREAGE: Unknown
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		High	In excess of 100 documented anadromous streams; sockeye, coho, pink, chum, king, Dolly Varden. Olga Lakes ranked among top four sockeye salmon systems in Kodiak Archipelago.
Bald Eagle		High	Ninety two documented nest sites; concentrated feeding in Upper Station Lakes area.
Black Oystercatcher		Low	Probable feeding, possible nesting along shoreline; most nearshore rocks and islets in Refuge.
Common Murre		Low	Probable feeding in adjacent marine waters.
Harbor Seal		Moderate	Known haul-out concentration area that historically supported large numbers of seals. Feeding in nearshore waters and haul-outs on nearshore rocks.
Harlequin Duck		Unknown	Probable feeding and loafing along shoreline.
Intertidal/subtidal biota		Low	Rich intertidal and subtidal biota; recruitment value appears to be low because of distance to oiled shorelines.
Marbled Murrelet		Low	Possible feeding.

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 07	PARCEL NAME: Alitak Bay	
Pigeon Guillemot	Moderate	One-hundred four birds documented in area; nesting and feeding along shoreline.
River Otter	Unknown	Probable feeding, possible latrine sites and denning.
Sea Otter	Low	Probable feeding.
Recreation/Tourism	Moderate	Recreational fishing and hunting; moderately difficult access.
Wilderness	Low	Moderate evidence of human development; village, shore fishery cabins, lodges, recreational cabins.
Cultural Resources	Moderate	Seventeen archeological sites documented in the Alitak Bay area.
Subsistence	High	Resource harvest area; crab, marine fish, marine invertebrates, plants, marine mammals, salmon, waterfowl.
<p>ECOLOGICAL SIGNIFICANCE: This parcel contains high value anadromous fish, bald eagle and brown bear habitat adjacent to a highly productive estuary and marine ecosystem; very high brown bear densities around Olga Bay; shoreline was not significantly oiled.</p>		
<p>ADJACENT LAND MANAGEMENT: Kodiak National Wildlife Refuge</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Recreational development (lodges, cabins), fisheries development (year-round residences); Akhiok-Kaguyak has expressed interest in participating in habitat protection/acquisition.</p>		
<p>PROTECTION OBJECTIVE: Maintain anadromous fish habitat, bald eagle nesting opportunities, subsistence resources.</p>		
<p>USEFUL PROTECTION TOOL(S): Fee title acquisition; conservation easement; cooperative management agreement.</p>		

HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 07	PARCEL NAME: Alitak Bay
RECOMMENDED ACTION: Request Akhiok Kaguyak to provide interim protection; discuss long term protection options; appears to have relatively low potential to directly benefit restoration; higher potential for equivalent protection.	

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated (contains Akhiok-Kaguyak overselections).
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

HABITAT PROTECTION ACQUISITION PARCELS

Perenosa Bay, Alaska

Scale 1:175,000
Albers Equal Area Projection

LEGEND

- | | | | |
|--|---------------------------|---------------------|------------------|
| | Public (State or Federal) | | Eagle Nests |
| | Private | | Seabird Colonies |
| | Native Selected | | Parcel Boundary |
| | Forest Cover | KAP02 Parcel Number | |
| | Streams | | |
| | Anadromous Streams | | |

Date printed: January 29, 1993

SOURCES:

Current and planned timber harvest areas provided by Alaska Department of Fish and Game (ADF&G) and Alaska Department of Natural Resources (ADNR), Division of Forestry, 1992.

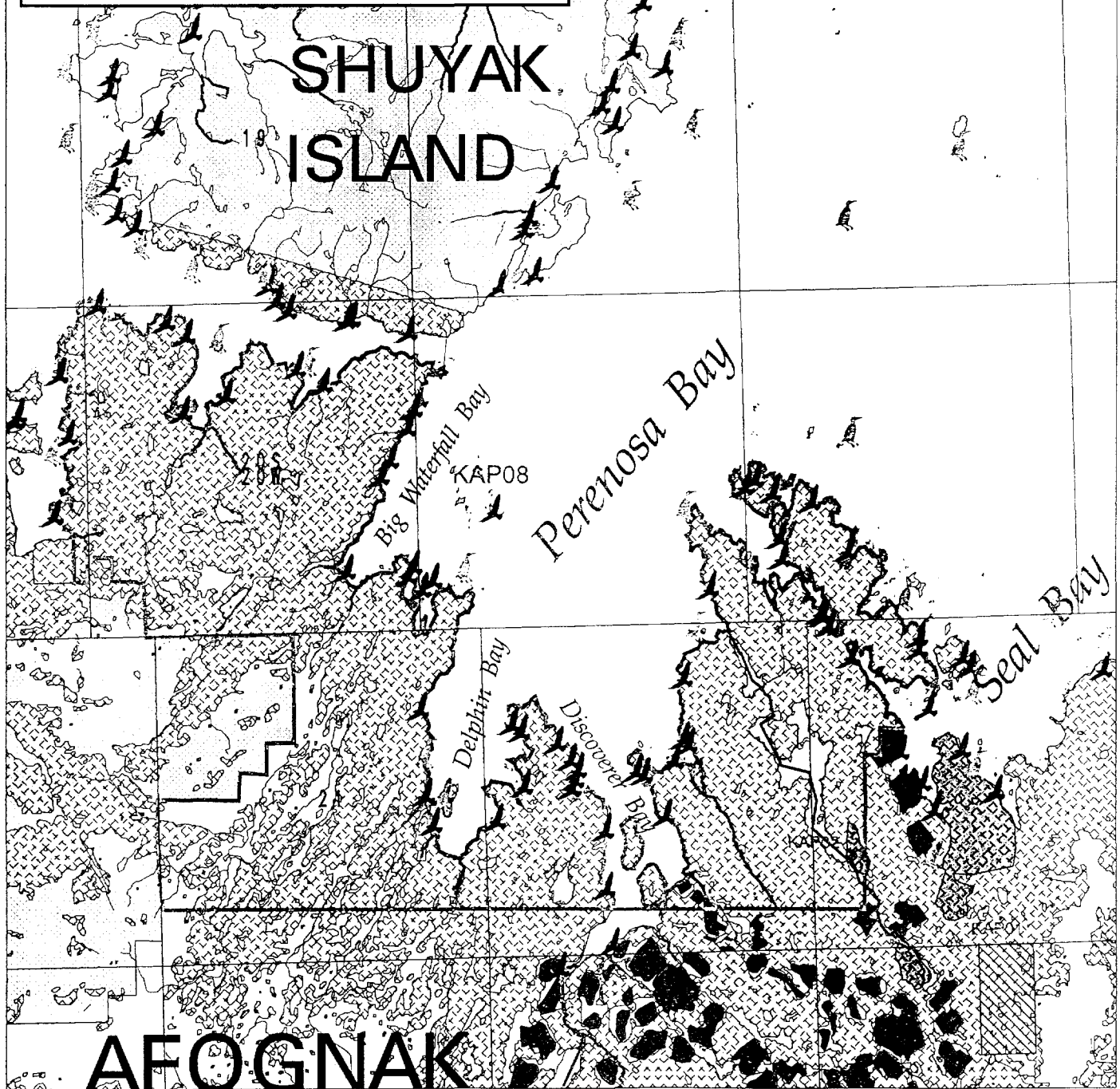
Land status provided by ADNR, Land Records Information Section, 1989.

Forest cover was determined from SPOT 1981 imagery by Podolsky, 1983.

Eagle and Seabird information collected and provided by US Fish and Wildlife.

Streams were automated by ADNR-LRS from the USGS topographic maps (1:63,300). Anadromous stream classification was determined by the ADF&G, 1991.

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HABITAT PROTECTION PARCEL ANALYSIS

PARCEL #: KAP 08		PARCEL NAME: Shuyak Strait / Perenosa Bay	
¹ LANDOWNER: Afognak Joint Venture		² PARCEL ACREAGE: 51,000	³ TOTAL ACREAGE: 150,000
			⁴ AFFECTED ACREAGE: Unknown
INJURED RESOURCE / SERVICE		POTENTIAL FOR BENEFIT	COMMENT
Anadromous Fish		Moderate	Twenty three documented anadromous streams; pink, coho, Dolly Varden, steelhead, sockeye.
Bald Eagle		High	Fifty eight documented nest sites; feeding and roosting along shoreline.
Black Oystercatcher		Moderate	Feeding in intertidal; probable nesting along shoreline and nearshore islets.
Common Murre		None	
Harbor Seal		Moderate	Historic seal concentration area; feeding in nearshore waters; hauling out on nearshore rocks.
Harlequin Duck		Moderate	Nearshore rocks and shoreline used for feeding, loafing, and molting; 143 birds documented in area; potential nesting in riparian habitat along anadromous streams.
Intertidal/subtidal biota		Moderate	Productive rocky intertidal and shallow subtidal habitat; important herring spawning area; some beaches were lightly oiled.
Marbled Murrelet		High	High confidence that nesting occurs on parcel; good nesting habitat characteristics; high use of adjacent marine waters for feeding.

HABITAT PROTECTION PARCEL ANALYSIS

Pigeon Guillemot	Moderate	Documented nesting of 214 birds on or immediately adjacent to parcel; feeding in nearshore waters.
River Otter	Moderate	Probable feeding and latrine sites along shoreline; possible denning; habitat characteristics appear highly favorable for river otter.
Sea Otter	Moderate	Documented concentration area; feeding along shoreline.
Recreation/Tourism	Moderate	Area supports high value wilderness-based recreation for boats and lodge; current use relatively low because of difficult access.
Wilderness	High	High wilderness characteristics for most of parcel; log transfer facility in southern Discoverer Bay near parcel; little other evidence of human use or disturbance.
Cultural Resources	Moderate	Twenty six documented sites.
Subsistence	Low	Salmon, deer, elk, marine invertebrates, trapping; difficult access.
<p>ECOLOGICAL SIGNIFICANCE: The parcel is primarily forested with sitka spruce with scattered small ponds, grass meadows, shrub thickets, and muskegs. Adjacent marine waters are highly productive. Shoreline is convoluted and semi-protected with numerous islets, rocks, reefs and kelp beds. In addition to injured species, elk, deer, and brown bear utilize area.</p>		
<p>ADJACENT LAND MANAGEMENT: Kodiak National Wildlife Refuge; Akhiok/Kaguyak/Old Harbor Joint Venture.</p>		
<p>IMMINENT THREAT/OPPORTUNITY: Afognak Native Corporation, a partner in Afognak Joint Venture has expressed interest in participating in habitat protection/acquisition; these lands were selected, in part, for their merchantable timber resources</p>		

HABITAT PROTECTION PARCEL ANALYSIS

PROTECTION OBJECTIVE: 1) Maintain water quality and riparian habitat for anadromous fish; 2) maintain marbled murrelet and bald eagle nesting habitat; 3) maintain and enhance wilderness-based recreational opportunities.

USEFUL PROTECTION TOOL(S): Timber acquisition; fee title acquisition; cooperative management agreement; conservation easement.

RECOMMENDED ACTION: Request AJV to provide interim protection; discuss options for long term protection.

1. Parties other than landowner may own partial rights (e.g., timber, minerals).
2. Area evaluated.
3. Estimated acreage held by the owner in the spill area.
4. Estimated area to be affected by imminent development activity.

SECTION 4

Table 3-1
Summary of Strengths, Limitations, and Requirements of Protection Tools

PROTECTION TOOL	STRENGTHS	LIMITATIONS	REQUIREMENTS
Landowner Contact and Education	<ul style="list-style-type: none"> • Low cost • Covers large area quickly • Prevents destruction through inadvertence • Builds relationship to negotiate stronger levels of protection in the future • Opportunity to gain information about site and owner • Encourages informed management 	<ul style="list-style-type: none"> • Very low level of protection, if any • Interim protection only, if any 	<ul style="list-style-type: none"> • Identification of strategic sites • Trained fieldworkers with expertise in habitat and recreation and excellent people skills • Stylish brochures, attractive information package • Newsletters • File or database system for reporting information from contacts
Voluntary Agreements: Registration and Cooperative Management Agreements	<ul style="list-style-type: none"> • All advantages of landowner contact and education, above • Flexible • Higher level of protection than landowner contact alone • Can function as holding action while funds for stronger protection level obtained 	<ul style="list-style-type: none"> • Low level of protection, depends entirely on voluntary commitment • Interim protection only • Ill suited for core areas 	<ul style="list-style-type: none"> • Same as above, plus: • Plaque, certificate, or other memorial • Well-drafted sets of voluntary landowner agreement forms • Word processing equipment • Trained negotiators with skills needed to customize forms and create specialized agreements
Rights of First Refusal	<ul style="list-style-type: none"> • Protects against changes in use if current owner decides to sell • Can buy time 	<ul style="list-style-type: none"> • Little warning or time to arrange financing for purchase price • Contingent entirely on owner deciding to sell and terms of actual offer 	<ul style="list-style-type: none"> • Same as fee acquisitions, below
Leases, Licenses, and Management Agreements	<ul style="list-style-type: none"> • Flexible • Allows for active management or restoration short of paying full purchase price • Does not require acquisition • Works well in buffer areas 	<ul style="list-style-type: none"> • Interim protection only • May be ill-suited for core areas 	<ul style="list-style-type: none"> • Experienced negotiators with knowledge and skills in finance, land use, real estate, and law • Experienced land managers with expertise in habitat and recreation • Detailed management plan developed by experts • Experienced attorneys with expertise in real estate law, tax law, estate and family planning law, and environmental/natural resources law • Well-drafted sets of form legal documents • Word processing equipment and other administrative capabilities (telecopying, photocopying, etc.) • Skilled administrative staff • Reliable information about market rents and fees • May need hazardous materials evaluation • Clear policies and procedures for decision making and management

Table 3-1 (Cont'd)
Summary of Strengths, Limitations, and Requirements of Protection Tools

PROTECTION TOOL	STRENGTHS	LIMITATIONS	REQUIREMENTS
Conservation Easements	<ul style="list-style-type: none"> • Flexible • Usually restricts land use permanently • Keeps property in private hands and on the tax rolls • Can be low cost because of tax incentives to donate • Works well in buffer areas, especially if historic uses are compatible 	<ul style="list-style-type: none"> • May be ill suited for active management or restoration of core areas, unless restrictions on landowner's use are very tight, and rights granted very broad • Possible management difficulties when there is a change in ownership • Requires high level of monitoring 	<ul style="list-style-type: none"> • Experienced negotiators with knowledge and skills in finance, land use, real estate and law • Experienced land stewards with expertise in habitat and recreation • Experienced attorneys with expertise in real estate law, tax law, estate and family planning law, and environmental and natural resources law • Well-drafted sets of form legal agreements • Word processing equipment and other administrative capabilities (teletyping, photocopying, etc.) • Skilled administrative staff • Appraisal • Title report and underlying documents • Survey, where needed • Thorough hazardous materials evaluation • Easement documentation report prepared by experts • Clear policies and procedures for decision making and management
Deed Restrictions and Reverters	<ul style="list-style-type: none"> • Permanent restrictions • Keeps property in private hands and on the tax rolls • May be able to recover costs on re-sale 	<ul style="list-style-type: none"> • May be difficult to resell to a buyer willing to take subject to the restrictions • May be difficult to enforce 	<ul style="list-style-type: none"> • Same as above
Acquisition of Undivided Interests	<ul style="list-style-type: none"> • Buys "seat at the table" in management decisions • Potential step to full fee ownership • Way to divide ownership among conservation partners making contributions of different value toward purchase 	<ul style="list-style-type: none"> • Can present serious management problems, especially in the absence of a well drafted co-tenancy agreement • Undesirable legal remedies in the event of deadlock 	<ul style="list-style-type: none"> • Same as fee acquisitions, below
Acquisition of Remainder Interests Subject to Restricted Life Estates	<ul style="list-style-type: none"> • Low cost way to gain possession and control in the future 	<ul style="list-style-type: none"> • Uncertain date of transfer of possession (depends on death of last tenant) • Management problems during occupancy of life tenant 	<ul style="list-style-type: none"> • Same as fee acquisitions, below

Table 3-1 (Cont'd)
Summary of Strengths, Limitations, and Requirements of Protection Tools

PROTECTION TOOL	STRENGTHS	LIMITATIONS	REQUIREMENTS
Acquisitions of Partial Interests: Water, Timber, Mineral, Grazing Rights and Access Rights	<ul style="list-style-type: none"> • Lower cost way to control resource than full fee acquisition • Keeps title to land in private hands and on the tax rolls 	<ul style="list-style-type: none"> • May not be permanent (e.g., other owners may be able to reapply for rights or rights acquired may be term rights only) • May not completely control use of the resource • Difficult to establish good title in seller 	<ul style="list-style-type: none"> • Same as fee acquisitions, below, plus: • Technical experts, (such as hydrologists and water rights attorneys in the case of water rights acquisitions)
Fee Acquisitions	<ul style="list-style-type: none"> • High level of protection, gives full ownership and control 	<ul style="list-style-type: none"> • Can be expensive if property is not donated • If government owned, public may perceive that property is withdrawn from the private domain and may reduce local tax revenues 	<ul style="list-style-type: none"> • Experienced negotiators with knowledge and skills in finance, land use, real estate and law • Experienced land stewards with expertise in habitat and recreation • Experienced attorneys with expertise in real estate law, tax law, estate and family planning law, and environmental and natural resources law • Well-drafted sets of form legal agreements • Word processing equipment and other administrative capabilities (telecopying, photocopying, etc.) • Skilled administrative staff • Professional specialists (land surveyors, geologists, water quality engineers, appraisers, hazardous waste inspectors, structural engineers, etc.) • Appraisal • Title report and underlying documents • Survey, where needed • Thorough hazardous materials evaluation • Clear policies and procedures for decision making and management
Dedications	<ul style="list-style-type: none"> • High level of protection, privately owned land, especially if title will be retained by a private conservation organization (protects against condemnation or conversion) • Can be flexible by allowing only specific interests to be dedicated 	<ul style="list-style-type: none"> • Uncertain incentives for private owners 	Same as fee acquisitions, above

SAMPLE

AGREEMENT
STATE OF ALASKA

THIS AGREEMENT OF RIGHT OF FIRST REFUSAL, is made this _____ day of _____, 1993, by and between _____, Grantor, and the United States of America (or State of Alaska), Grantee. In consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, the mutual covenants and assents of the parties hereto, and other good valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the following agreements are made:

1. GRANT OF RIGHT OF FIRST REFUSAL. The Grantor hereby grants to the Grantee the privilege or Right of First Refusal to purchase the Property (as described in Exhibit A hereto), or any portion thereof, or interests therein, according to the following conditions. If and when the Grantor shall receive an offer of purchase for said property, or any portion thereof, or interests therein, from a third party, which said offer the Grantor wishes to accept, Grantor shall notify the Grantee in writing of the terms of said offer. If the Grantee notifies the Grantor, in writing, within ninety (90) days of the receipt of said offer, that the Grantee agrees to purchase said Property upon the same terms and conditions as contained in said offer, the Grantee shall have the right to purchase said property for such terms and conditions. If the Grantor receives no reply to the notice given to the Grantee within ninety (90) days of the receipt thereof by the Grantee, the Grantor shall be free to sell said Property to the original offeror. If the Grantee elects to exercise such right of first refusal, the Grantor and the Grantee shall execute a sales contract within thirty (30) days for said property on the terms and conditions set forth in said written offer, or as otherwise mutually agreed.

2. STUDIES. The Grantee shall have the right to access and conduct non-destructive research on said property during the term of this grant of right of first refusal, in order to better determine the desirability of exercising this right of first refusal. The Grantee will notify the Grantor in writing at least thirty (30) days before conducting any such research on said property. The Grantee will provide Grantor with at least one copy of any final research report that results from such research.

3. RUNNING OF BENEFITS OF THIS AGREEMENT. The Benefits of this grant of right of first refusal are limited to the Grantee, and are not assignable or transferable.

4. CONSTRUCTION. The rule of strict construction does not apply to this grant. The interpretation of this grant shall be

given a reasonable construction so that the intention of parties hereto to grant and receive a privilege or right of first refusal is carried out.

5. TERMINATION OF RIGHT. The right of first refusal made by this Agreement shall automatically terminate in two (2) years from the date of this Agreement, unless otherwise extended by mutual agreement of the parties hereto.

6. NOTICES. All notices, requests, consents and other communications required or permitted by this Agreement shall be in writing, sent by registered or certified mail, and be addressed as follows:

To Grantor: ABLE Native Corporation
P.O. Box
 , Alaska

To Grantee: Fish, Forest and Park Service
P.O. Box
 , Alaska

Any changes of address of either Grantor or Grantee must be promptly submitted in writing to the other party.

7. BENEFIT. This right of first refusal is being acquired for the _____ (agency) _____.

WITNESS the following signatures and seals:

President
ABLE Native Corporation

Functionary
United States of America
(or State of Alaska)

EXHIBIT A--LEGAL DESCRIPTION
ACKNOWLEDGEMENT & NOTARY
RECORDING

SECTION 5

Challenge Cost-Share Agreement
between
The Nature Conservancy
and
USDA, Forest Service, Alaska Region
September 25, 1992

Task II Report
December 8, 1992

Cost-Share Agreement

A cost-share agreement provides an effective framework for cooperative efforts between organizations which have certain goals and objectives in common. The Nature Conservancy and the U.S. Forest Service (USFS) have a long history of working cooperatively on projects throughout the United States.

The purpose of the September 25, 1992 agreement was for the Conservancy to provide specific short-term information gathering assistance to the State/Federal Exxon Valdez Habitat Work Group, on which the USFS is represented. It was intended that information gathered about privately owned lands would be used to initiate interim protection discussions with willing land owners.

Task II Objectives

The purpose of Task II was to develop and conduct a workshop "designed to assess the rate of recovery of injured resources and services; identify specific tracts of privately-owned upland habitats that should be subjected to threshold criteria and threat/opportunity assessments; describe habitat characteristics associated with injured resources and services; and identify information needs that should be addressed" by Task 1(b) of the agreement.

The workshop was to be completed and information transferred to the Habitat Work Group by November 16, 1992, about eight weeks from the effective date of agreement. Due to the limited time available, it was necessary for the Conservancy to limit the scope of Task II information gathering activities.

Project Summary

A. Questionnaires

The Conservancy and Habitat Work Group developed a questionnaire designed to gather information necessary to accomplish Task II objectives. The questionnaire was sent to individuals identified as having significant knowledge about the injured resources and services. The Habitat Work Group identified most of the respondents. Of the 45 questionnaires sent out, 27 responses were received.

B. Interviews

Individuals identified as having significant site-specific knowledge about injured resources and services were invited to Anchorage to be interviewed. Twenty three interviews were conducted. Fourteen of the interview participants had also responded to the questionnaire.

Three teams interviewed the individuals. Each team was led by a senior Conservancy employee and supported by two technical assistants. A modified questionnaire was developed for the interviews. Interview information was recorded in the following manner:

1. A team transcriber took rough notes during the interview.
2. Each interview was taped.
3. All sites discussed during the interviews were mapped on mylar overlays using USGS base maps at a scale of 1:250,000.
4. Significant site information was entered into a Conservancy data base.

C. Site Identification

The interviews took three days to complete. Based upon an accelerated analysis of the interview information (two days), eleven areas were identified as areas meriting special attention during the interim protection phase of the restoration process. The analysis took numerous factors into consideration, such as the existence of multiple benefits to injured resources and services, existing threats, and confidence levels of the respondents.

The project succeeded in using existing information and expertise to identify areas meriting special attention. The process used to delineate the sites should be considered a "course filter" approach since it is primarily based upon the best professional judgement of project participants. In many cases more "fine filter" work is necessary to determine the site's specific relationship to injured services and resources.

Additionally, the eleven identified areas should not be

considered an exclusive list of important areas. The acquisition of additional information will undoubtedly result in the delineation of additional areas meriting special attention. Given information acquired as a result of Task II activities, additional efforts should be focused on the Kodiak, Montegue and Shuyak Island areas.

D. Cordova Workshop

In addition to information obtained from questionnaire responses and interviews, the project benefitted from information-sharing activities associated with workshops conducted by The Prince William Sound Science Center and the Copper River Delta Institute in Cordova during the week of November 1, 1992. Cordova workshop discussions included a specific focus on critical habitat areas within the Prince William Sound area. The Conservancy sent representatives to the workshop and contracted with Ecotrust, an Oregon based non-profit conservation organization and workshop participant, to assist in efforts to transfer Cordova mapped information to Task II maps.

More information can be obtained about the Cordova workshop by contacting the Science Center or Institute directly.

E. Considerations

When reviewing and using the report the following should be considered:

1. The information contained in this report represents a reporting of information obtained from the questionnaires and interviews, and should not be considered as an expression of the Conservancy's knowledge of or opinion about a particular site and activities associated with it.
2. Project participation was limited because of severe time constraints. Project participants and others identified additional sources of information that should be reviewed or contacted. Some of the additional sources are identified in this report.
3. Text contained in this report has not been reviewed by questionnaire respondents or interview participants.
4. Some project participants were concerned about inappropriate use of information. If there is

doubt about whether or not a specific use is appropriate, the information source should be contacted.

5. Many project participants were concerned about inappropriate use of the mylar overlays. A specific concern was that the mapped information should not be made to look more precise than originally intended.
6. Questionnaire and interview participants were not asked to limit their information to private lands. Accordingly, the results provide an indication of the relative importance of both private and public lands to injured resources and services.

Report Summary

A. Volume 1

1. *Summary Map.* The map provides the identification and approximate location of the eleven sites referenced above.
2. *Data Base Information.* Information is provided in the form of "Site Basic Records" and "Summary Element Occurrence Records." An "element occurrence" (as that term is used in this report) is an area that appears to benefit an injured resource or service. A "site" encompasses several element occurrences.

(a) *Site Basic Records.* All eleven sites have several associated element occurrences. The site basic records summarize the element occurrence information associated with the site, as well as other information from interview notes and questionnaire responses.

(b) *Summary Element Occurrence Records.* After an element occurrence was mapped, the respondent was asked specific questions about the mapped area. Some of the information was recorded in the element occurrence record. For reporting purposes, a summary of the element occurrence record was developed. One hundred thirty nine summary records are provided in this report for those occurrences that are associated with the eleven sites.

Ninety two element occurrences are not encompassed

within the eleven sites. A minimal amount of information was recorded in the element occurrence record for those areas. Summary tables about these element occurrences are found behind the "Additional EOR" tabs at the end of Volume 1. The term "survey site" on those tables refers to the geographic area where the element occurrence is located.

(c) Maps. This report contains minimal map information. The original mylar overlays upon which this report is based have been delivered to the Habitat Work Group. The Work Group should be contacted with specific requests for map information.

(d) Computer Disks. The WordPerfect tables are contained on a computer disk in the pocket of Volume 1 of the Task II report. The transfer of electronic data base information to the Habitat Working Group will occur once agreement is reached on appropriate software.

(E) Information Gaps. The level of detail associated with the summary element occurrence records and site basic records varies. Accordingly, the records can be effectively used to identify data gaps associated with the element occurrences and larger sites.

3. *Recovery/Habitat Characteristics.* This section contains a summary of responses to questions regarding rate of recovery and habitat characteristics associated with injured species.

B. Volume 2

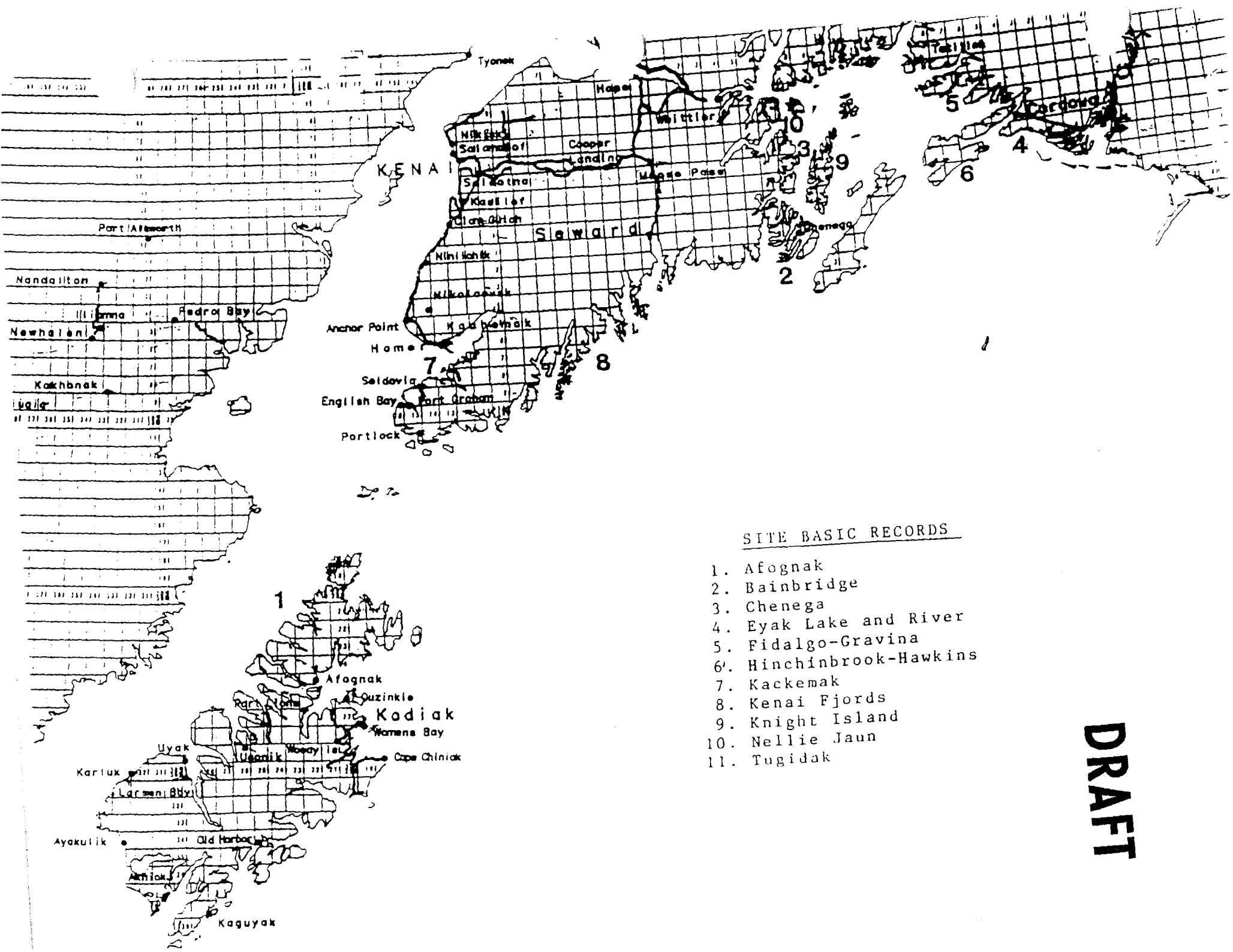
1. *Respondent Matrix.* Identifies questionnaire and interview participants as well as their species, service and geographic expertise.
2. *Additional Contacts Table.* Identifies other individuals who questionnaire and interview participants recommended contacting.
4. *Literature Sources Table.* Identifies reports recommended by questionnaire and interview participants for review.

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5. *Original Questionnaire, A-K.*
6. *Interview Questionnaire, A-K.*
7. *Cost-Share Agreement/Project 93059 Summary.*
8. *Questionnaire Responses/Interview Notes.*

C. Volume 3

Questionnaire Responses/Interview Notes, continued - L-Z.



SITE BASIC RECORDS

1. Afognak
2. Bainbridge
3. Chenega
4. Eyak Lake and River
5. Fidalgo-Gravina
6. Hinchinbrook-Hawkins
7. Kackemak
8. Kenai Fjords
9. Knight Island
10. Nellie Jaun
11. Tugidak

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APPLICABLE QUESTIONNAIRE/INTERVIEW RESPONSES

RESPONDENT NAME	SPECIES/ SERVICE	Q or I	EXPERTISE TYPE		
			General	EVOS Area	Site Specific
Albert, Steve ADF&G, Anchorage	Species - General	I	xx		Eyak Fidalgo/Gravina Afognak
Andres, Brad USFWS, Anchorage	Black Oystercatcher	Q and I			Montegue Island
Ballachey, Brenda USFWS, Anchorage	Sea otter	Q and I			Prince William Sound
Burger, Alan British Colombian Biologist	Marbled murrelet	Q	xx		
Bowman, Tim USFWS, Juneau	Bald eagle	I			Prince William Sound
Braund, Steve Anchorage Consultant	Subsistence	Q	xx		
Cody, Mary USFWS	Marbled murrelet	Q			Afognak
Dorhoff, Angie USFWS	Sea otter	I		xx	
Erikson, David Consultant, Homer	Common murre Harlequin duck	Q			Kachemak Bay
Faro, Jim ADF&G, Soldotna	River otter	Q and I			
Don Ford/Paul/Twardock National Outdoor Leadership School	Wilderness/Recreation	Q and I			Prince William Sound
Frost, Kathy ADF&G, Fairbanks	Pacific harbor seal	Q and I		xx	

RESPONDENT NAME	SPECIES/ SERVICE	Q or I	EXPERTISE TYPE		
			General	EVOS Area	Site Specific
Fry, Mike University of California, Davis	Marbled murrelet Harlequin duck Pigeon guillemot Bald eagle Common murre Black oystercatcher	Q and I			Kachemak Bay Kenai Fjords
Hamer, Thomas Consultant, Washington State	Marbled murrelet	Q	xx		
Hennig, Steve USFS, Anchorage	Wilderness/Recreation	Q and I			Prince William Sound
Hensel, Dick Consultant, Anchorage		I	xx		Afognak/Kodiak
Holbrook, Ken USFS, Anchorage	Black oystercatcher Cutthroat trout Marbled murrelet Sea otter	Q			Prince William Sound
Johannsen, Neil Division of Parks	Wilderness/Recreation	I		xx	
Juday, Glenn WOFA Fairbanks	Old growth	I			Prince William Sound
Knecht, Rick Kodiak Native Association	Subsistence	I			Afognak/Kodiak
Lemon, Moira British Colombian Biologist	Pigeon guillemot	Q	xx		
Lensik, Cal Consultant	Seabirds - general	I		xx	
Lethcoe, Nancy AWR & TA	Wilderness/Recreation	Q and I			Prince William Sound

RESPONDENT NAME	SPECIES/ SERVICE	Q or I	EXPERTISE TYPE		
			General	EVOS Area	Site Specific
McAllister, Mike Naturalist	Marbled murrelet	Q and I		xx	
McBride, Mike Naturalist		Q and I			Kachemak Bay
McCarron, Susan ADF&G, Anchorage	Cutthroat trout	Q			Prince William Sound
Meiners, Al Division of Parks	Wilderness/Recreation	I		xx	
Million, Marsha Naturalist, Homer	Sea otter	Q			Kachemak Bay
Miraglia, Rita ABF&G, Anchorage	Subsistence	Q and I		xx	
Muehlenhardt, Gary USFWS	U.S.F.W.S. Acquisition Priorities	I	xx		Kodiak
Oakley, Karen USFWS, Anchorage	Pigeon guillemot	Q			Naked Island
Olesiuk, Peter Department of Ocean Fisheries, British Columbia	Pacific harbor seals	Q			N/A
Podolsky, Richard Island Institute, New York	Harlequin duck Marbled murrelet	Q		xx	
Rice, Bud NPS, Anchorage	Wilderness/Recreation	Q and I			Kenai Fjords
Sharr, Sam ADF&G, Cordova	Pink salmon	Q and I			Prince William Sound
Sundberg, Kim ADF&G	Marbled murrelet	I			Prince William Sound

ADDITION RESOURCES

TITLE/DATE	AUTHOR	AREA/SITE
<i>Recreation, Scenic and Heritage Areas of Particular Concern: Kodiak Archipelago/August 1980</i>	Division of Parks, AKDNR Contact: Kathryn A. Troll	Afognak
<i>Recreation, Scenic, and Heritage Areas of Particular Concerns: Cape Pugen to Cape Suckling, Alaska/August 1977</i>	Division of Parks, AKDNR Contact: Al Meiners	Bainbridge Chenega Eyak Lake and River Fidalgo/Gravina Hinchinbrook/Hawkins Island Knight Island Nellie Juan
<i>Prince William Sound Diary</i>	Kelley Weaverling	
<i>Sea Otters of Prince William Sound, Alaska</i>	Ancel M. Johnson	
<i>Prince William Sound Sea Otter Distribution/April 1988</i>	USF&WS	
<i>Subsistence Harvests and Uses in Seven Gulf of Alaska Communities in the Second Year Following the Exxon Valdez Oil Spill/March 1992</i>	James A. Fall	
<i>Resource Use Pattern in Chenega, Western Prince William Sound: Chenega in the 1960's and Chenega Bay 1984-86/December 1986</i>	Lee Stratton and Evelyn B. Chisom	
<i>Cordova: A 1988 Update on Resource Harvests and Uses/June 1992</i>	Lee Stratton	Eyak Lake and River Fidalgo/Gravina Hinchinbrook/Hawkins Island
<i>Resource Use in Cordova, A Coastal Community of Southcentral Alaska/December 1989</i>	Lee Stratton	
<i>Resource Harvest and Use in Tatitlek, Alaska/1990</i>	Lee Stratton	Fidalgo/Gravina, Hinchinbrook/Hawkins Island and Knight Island
<i>Recreation, Scenic and Wilderness Areas of Particular Concern, Cook Inlet, Alaska/July 1978</i>	Division of Parks, AKDNR Contact: Al Meiners	Kachemak Bay
<i>The Role of Wild Resource Use in Communities of the Central Kenai Peninsula and Kachemak Bay/October 1985</i>	Division of Subsistence, ADF&G Contact: Al Meiners	
<i>Patterns of Wild Resource Use in English Bay and Port Graham, AK/1985</i>	Ronald T. Stanek	
<i>Breeding Seabirds at Gull Island and Sixty Foot Rock During 1990</i>	USF&WS, unpublished administrative report, Homer, AK	

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- Alaska Department of Fish & Game, Division of Habitat. 1985. Alaska habitat management guide. Southwest Region. vol. 1. Fish and wildlife life histories, habitat requirements, distribution, and abundance -- vol. 2. Human use of fish and wildlife. Alaska Department of Fish & Game, Juneau, Alaska.
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- The Nature Conservancy of Alaska. 1991. Options for identifying and protecting strategic fish and wildlife habitats and recreation sites : a general handbook / prepared for the Alaska Region, U.S. Department of Agriculture, Forest Service ; on behalf of The Exxon Valdez Oil Spill Restoration Planning Work Group. The Nature Conservancy of Alaska, Anchorage, Alaska.
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Stratton, Lee. 1990. Resource harvest and use in Tatitlek, Alaska. Technical paper no. 181. 163 p. Alaska Department of Fish and Game, Division of Subsistence, Anchorage, Alaska.

Stratton, Lee; Chisum, Evelyn B. 1986. Resource use patterns in Chenega, western Prince William Sound : Chenega in the 1960's and Chenega Bay 1984-1986. Technical paper no. 139. 161 p. Alaska Department of Fish and Game, Division of Subsistence, Juneau, Alaska.

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