

February 23, 1990

MEMORANDUM

SUBJECT: Restoration Planning Project proposal

FROM: The Trustee Council

TO: LaJuana S. Wilcher, EPA Restoration Framework Committee

We are pleased to provide you with a copy of our proposal for the Restoration Planning Project. The attached proposal is shown as it is being presented to the Trustees in the overall plan for the 1990 Exxon-Valdez Natural Resource Damage Assessment.

During 1990, the Restoration Planning Project will undertake several tasks toward the development of final Restoration Methodology/Restoration plans for the Exxon-Valdez oil spill. We believe these tasks are fully consistent with the revised draft Restoration Framework plan, and with the comments of the Federal policy level members of the Restoration Framework Committee as transmitted by your memo of January 26, 1990. In particular, the Project in 1990 will address the first three sections of the Restoration Framework, as described below. (Note, however, that the tasks for the Project in 1990 are arranged somewhat differently.)

I. <u>Review Results of the Damage Assessment Process</u>. This will be an ongoing effort as results from other Damage Assessment studies continue to become available. The Restoration Planning Work Group will review results directly, as well as conduct closed technical workshops that will include key Damage Assessment principle investigators (Project task C). This effort will help in the development of a matrix of species, habitats, and other ecosystem Components at risk from the oil spill, and to identify potential restoration options for each matrix category. Options will address direct recovery, replacement, and acquisition of equivalent value resources.

II. <u>Conduct Restoration Methodology Scoping.</u> This will be a major emphasis of the Project in 1990. The Restoration Symposium (Project task A), Public Scoping Meetings (Project task B), Literature Collection/Review (Project task D), and Feasibility Studies (Project task E) are all aspects of the scoping process. The Technical Expert Workshops (Project task C) will also benefit the scoping process, but will not be open to the public. Options will be identified to restore, replace, or acquire equivalent value resources or services generally as outlined in Section II(B) of the revised draft Framework. This, too, will be an ongoing process and work products will be dynamic in nature.

III. <u>Develop Restoration Methodology/Restoration Plans</u>. An initial report will be completed by the end of June, 1990, with an updated draft completed prior to February 28, 1991. These reports will include the results of public scoping and literature review tasks, as well as an initial matrix of species, habitats, and other ecosystem components potentially affected by the spill. The reports will also include any restoration options identified by that time under each category of the matrix. Plans for 1990 Feasibility Studies will be presented in the first report. Interim documents from the symposium, scoping meetings, and literature review will be prepared separately and distributed to the public, as appropriate.

In order to accomplish the proposed tasks during 1990, we have directed the Restoration Planning Work Group to initiate activities based on this proposal. At this time, the Work Group is actively preparing for the Restoration Symposium to be held in Anchorage March 26 and 27, 1990, as well as for local public meetings and a technical workshop (dates for the latter events have not yet been set). In addition, the literature collection/review task has been initiated. We look forward to being able to present the first draft report to you by the end of June.

Don W. Collinsworth Commissioner Department of Fish and Game State of Alaska Walter Stieglitz Director Alaska Region Fish & Wildlife Service Department of the Interior

Michael A. Barton Regional Forester Alaska Region Forest Service Department of Agriculture Steven Pennoyer Director Alaska Region National Marine Fisheries Service

STUDY		RECOMM	ENDATION:		OIL YEAL	REINGET
NO.	STUDY TITLE	CONTINUE	DISCONTINUE	LEAD AGENCY	1989 BUDGET*	1990 BUDGET
Restaration Planning						
1	Restoration Planning 1	х		ADFG/EPA	\$500,000	1.700.000

I. Introduction

COMMENTS

The ultimate purpose of this project, Restoration Planning 1, is to identify actions that may be taken to restore the ecological health of the areas affected by the Exxon Valdez oil spill. This will be done through development of Restoration Methodology/Restoration plans, which will address direct restoration of damaged resources, replacement of damaged resources, and acquisition of equivalent resources.

Although the 1989 Damage Assessment Plan had a budget of \$500,000 for Restoration Planning, activities were not initiated until late in the year; no substantial funds were expended. The Project, however, is expected to continue in 1991 and beyond, as needed. At any time during this process, the Trustees may implement restoration measures demonstrated to be ecologically sound and cost effective, subject to the availability of funding.

II. Study Plan

As described Below, six major tasks will be carried out in 1990: (1) conduct a Public Restoration Symposium; (2) conduct local Public Scoping Meetings; (3) conduct a series of Technical Expert Workshops; (4) conduct a comprehensive Literature Collection/Review; (5) develop and conduct Feasibility Studies; and (6) prepare draft Restoration Methodology/Restoration plans.

STUDY		RECOMMENDATION:			OIL YEAR BUDGET	
NO.	STUDY TITLE	CONTINUE	DISCONTINUE	LEAD AGENCY	1989 BUDGET*	1990 BUDGET
Restoration Planning 1]	estoration lanning 1					

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COMMENTS

Restoration Symposium: A two-day public symposium will be held in Anchorge, March 26-27, 1990 to begin the scoping process. This meeting will disseminate information about the restoration planning process and invite public comments about restoration needs and opportunities. Alask Natives, environmental groups, the fishing industry, and other interested constituencies will be invited to participate. Scientists and others who have experience with restoration of natural resources are being invited to make presentations. The meeting will be recorded, and a summary of comments and ideas presented at the symposium will be prepared for inclusion in the Restoration Methodology/Restoration plans. Budget: \$50,000.

Public Scoping Meetings: A series of six public meetings will be held in major communities directly affected by the spill: Cordova, Valdez, Whittier, Seward, Homer, and Kodiak. Persons directly affected by the spill will have the chance to express their opinions about restoration needs, methods, and priorities. The meetings will be recorded, and summarized for inclusion in the Restoration Methodology/Restoration plans. Budget: \$40,000.

Technical Expert Workshops: A series of closed meetings will be held to exchange ideas among damage assessment principal investigators, peer reviewers, and key scientists. The purpose of the workshops is to identify and evaluate the

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STUDY		RECOMMENDATION:			OIL YEAR BUDGET	
NO.	STUDY TITLE	CONTINUE	DISCONTINUE	LEAD AGENCY	1989 BUDGET*	1990 BUDGET
Restoration						
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COMMENTS

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feasibility and effectiveness of restoration projects, including those suggested by the Public. Because it will be necessary to discuss confidential Damage Assessment information, the workshops will be closed to the public. Budget: \$200,000.

Literature Collection/Review: Drawing on existing bibliographies nad new information, published and unpublished literature on the restoration of damaged natural resources will be collected and reviewed. Results of the literature review will serve as background for the Technical Expert Workshops and the entire restoration planning process. The results will be summarized in the Restoration Methodology/Restoration plans. Budget: \$90,000.

Feasibility Studies: Tasks 1-4 will identify a variety of restoration options. To determine whether or not some of these projects are technically feasible and cost effective, a series of carefully targeted studies may be necessary. These studies may include evaluations of both field restoration techniques and potential opportunities for replacement or acquisition of equivalant-value resources. In 1990 only limited feasibility studies will be undertaken, but in 1991 there will be increased emphasis on such studies. Budget: \$500,000.

STUDY		RECOMMENDATION:			OIL YEAR BUDGET	
NO.	STUDY TITLE	CONTINUE	DISCONTINUE	LEAD AGENCY	1989 BUDGET•	1990 BUDGET
Restoration						1
Planning						
	Restoration			J		
1	Planning 1					

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COMMENTS

Development of draft Restoration Methodology/Restoration Plans: Results from tasks 1-5, as well as well as other Damage Assessment studies, will be used in the development of the draft Restoration Methodology/Restoration plans. An initial report will be completed by July 1, 1990, and distributed to the public; a second report will be completed prior to February 28, 1991. Each report will include a matrix of species, habitats, and other ecosystem components potentially affected by the oil spill, and corresponding restoration options to the extent that such options have been identified at that time. Each report will also summarize results of the scoping tasks (i.e. tasks 1-5 above). These summaries will also be published and distributed as separate documents. Plans for any Feasibility Studies to be conducted in 1990, will be presented in the first report. Reports that directly involve confidential Damage Assessment data will not be distributed to the public. Budget: \$150,000.

III. Personnel and Organizations

The Restoration Planning Project is directed by the Trustee Council through the Restoration Planning Work Group, consiting of representatives from the Environmental Protection Agency, the Department of the Interior, the National Oceanic and Atmospheric Administration, the U.S. Forest Service, The U.S. Fish and Wildlife Service, and the Alaska Departments of Fish and Game, Natural Resources, and Environmental Conservation. Contract support will be necessary for conducting the symposiu, public scoping meetings, literature review, feasibility studies, and report preparation.

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STUDY		RECOMM	IENDATION:		OIL YEAR	R BUDGET
NQ.	STUDY TITLE	CONTINUE	DISCONTINUE	LEAD AGENCY	1989 BUDGET*	1990 BUDGE
anning	Restoration					
1	Planning l					
OMME	NTS					
IV.	Budget			•		
	*Estimated Costs:					
	Symposium:			\$50,000		
	Scoping Meeti Bochnical Nor	ngs: kshops:		\$40,000 \$200,000		
	Literature Co	llection/Re	view:	\$90,000		
	Feasibility S	tudies:		\$500,000		
	Restoration M	ethodology/	Restoration	6150 AAA		
	Plan Dev Salaries:	erobment:		\$150,000 \$600.000		
	Travel:			\$70,000		
	TOTAL:			\$1,700,000		

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MEMORANDUM

Subject: Detailed Proposal: Restoration Planning Project Initiation of Public Scoping Phase Activities Juncted Manual ADF & C Brian Ross EPA Fram: for Restoration Planning Work Group

To: Trustee Council

We are pleased to provide this proposal to initiate the Restoration Planning Project for your consideration. As you know, the Restoration Planning Work Group (RPWG) has held several preliminary meetings during the last two Weeks to prepare this package. Please find the following items attached to this memo:

- Proposed agenda for a two-day public symposium on restoration to be held in Anchorage, approximately coinciding with the anniversary date of the cil spill;
- Proposed agenda for restoration scoping meetings to be held following the Anchorage symposium in several Alaska communities directly affected by the oil spill;
- Detailed budget estimates for Restoration Planning Project activities during the 1990 "oil spill year."

1993 activities will focus on the public scoping phase of restoration planning. The attached budget cutlines several major tasks for the Project in 1990, including: conduct a major restoration symposium to "kick off" the public scoping process; conduct local public scoping meetings in affected communities; initiate a comprehensive literature review and synthesis effort; conduct a special technical workshop of invited scientists having experience and expertise relevant to restoration; and conduct limited-scale feasibility studies to test potentially beneficial restoration techniques in Alaskan conditions.

Note that the agenia for the public symposium has been arranged so that opening addresses can be given by any "VIPs" the Trustee Council may wish to invite. Given that the symposium is timed to coincide with the spill anxiversary date, it is assumed that appropriate speakers are likely to already be in Alaska at this time.

Several reports would be generated by the Project during 1990. These reports, listed in the attached budget, include: draft and final scoping meeting summaries (public comments would be summarized here); a report of the experts workshop on restoration; Phase 1 and Phase 2 literature review summary and synthesis reports; and initial and revised Restoration Planning Reports. Restoration Planning Report Number 1 is proposed for completion in June, 1990, and would be distributed for public review and comment. The scoping meeting and literature review reports would be reproduced as appendices to this report, and the report will also include an initial list of potential restoration options as well as any proposals for feasibility studies to be conducted during the summer Restoration Planning Report Number 2 would be distributed in winter of 1990. 1990/1991 (prior to February 28, 1991) incorporating responses to public comments, updates to the literature review reports, an updated list of potential restoration options, and proposals for 1991 Project activities.

In addition to the items described above, several other products remain under development by the RPWG. These include a flier and posters announcing the public symposium and the local scoping meetings, a list of invited speakers for both the symposium and the experts workshop, background materials for inclusion in the information packet that will be handed-out to all symposium and public meeting participants, and a restoration techniques slide show presentation. In addition, the RPWG recognizes that other tasks, not outlined in this package, will have to be performed in the near future. For example, we expect to be directed by the Trustee Council to provide specific dates for various milestones in the overall Restoration Planning process, as well as for 1990 deliverables.

<u>Action</u>:

The schedule for the Restoration Planning Project is ambitious. In order to meet this schedule, scoping phase activities will have to be initiated quickly. The RPWG requests that this proposal be discussed at the Trustee Council meeting February 13th and 14th, and recommends that approval be granted to conduct the symposium, public scoping meetings, experts workshop, and literature review. Specific details of this proposal can be modified as scoping preparations progress.

Please contact any of the RPWG members if there are any questions about this proposal.

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AGENDA FOR THE RESTORATION SYMPOSIUM

MONDAY, MARCH 26

- I. INTRODUCTION
- 8:30 a.m. Welcome and opening remarks
- 9:00 Introductory speaker(s)
- II. EXPLANATION OF THE RESTORATION SCOPING PROCESS
- 9:45 Speaker to describe the purpose of the symposium, to explain the restoration scoping process, and to provide a general overview of how restoration is described in CERCLA and CWA.
- 10:00 Break

III. RESTORATION OF NATURAL RESOURCES

10:15 Keynote speaker will discuss the options for restoring, replacing, and acquiring equivalent natural resources with emphasis on the ecosystem as a whole.

10:40

A. Aquatic Resources

This session will provide a forum to discuss both direct and indirect restoration opportunities and constraints including habitat rehabilitation, species reintroduction and breeding programs, changes in fish and game management policies, and the acquisition of equivalent resources.

Panel will consist of experts on the subject of restoration of intertidal zones, fisheries, marine mammals, seabirds and wetlands.

Question and answer period.

12:00

Lunch Break

1:15 B. Land Resources

This session will provide a forum to discuss both direct and indirect restoration opportunities and constraints including habitat rehabilitation, species reintroduction and breeding programs, changes in land management policies, and the acquisition of equivalent resources.

B. Land Resources (continued)

Panel will address restoration options from the perspectives of private, native, and public owners; including environmental groups and the timber industry.

Question and answer period.

- 3:00 Break
- 3:15 C. User Group Perspective

Panel will consist of spokespersons for the various resource user groups impacted by the oil spill including the native corporations, environmental groups, commercial fishing industry, mariculture and aquaculture interests, sportfishing and hunting interests, other recreational users, and the oil industry.

Question and answer period.

- 5:30-7:30 Reception Egan Center
- TUESDAY, MARCH 27
 - IV. RESTORATION OF SUBSISTENCE RESOURCES
- 9:00 Keynote speaker and panel will discuss the options for restoring, replacing and acquiring equivalent subsistence resources. The panel will include representatives from the native groups and experts on the health and biological considerations of restoration.

Question and answer period.

- 10:20 Break
 - V. RESTORATION OF CULTURAL RESOURCES
- 10:40 Keynote speaker and panel will discuss the options for restoring, replacing and acquiring equivalent archaeological and historical resources. The panel will include representatives from the native groups and experts on the legal and technical considerations of restorations.

Question and answer period.

12:00 Lunch

VI. LEGAL/REGULATORY PERSPECTIVE ON RESTORATION¹

1:30 This session will have a keynote speaker and a panel. The panel may include a representative from Exxon or a surrogate of its choice as well as a representative(s) for state and federal interests and/or non-aligned attorney.

Question and answer period.

2:45 Break

VII. ECONOMIC PERSPECTIVE ON RESTORATION²

3:00 This session will have a keynote speaker and a panel. The panel may include a representative from Exxon or a surrogate of its choice as well as a representative(s) for state and federal interests and/or a non-aligned economist.

Question and answer period.

- VII. OPEN MICROPHONE SESSION
- 4:00
- The purpose of this session is to provide a forum for the public to comment and/or suggest other restoration options which may not have been covered in the formal sessions.

² See footnote 1.

¹ Panel size and representation will be determined in discussions with Exxon Corporation.

AGENDA FOR PUBLIC SCOPING MEETINGS (CORDOVA, VALDEZ, WHITTIER, SEWARD, HOMER, AND KODIAK)

I <u>INTRODUCTION</u> (1/2 hour to 45 minutes max.)

- **Purpose** (input from directly-affected public on what should be considered for restoration)
- **Definition**: what restoration is and is not (incl. "fix", substitute, and acquire equivalent value)
- Franework/Regulations governing restoration (incl. when and how restoration work can be performed)
- **Planning**: what the agencies have done to initiate restoration planning (organization, process; describe public symposium)
- Current status of Damage Assessment studies: (Note that can't say yet what all the damages are. Reiterate purpose is to start identifying all possible restoration opportunities, to be as prepared as possible when restoration funds become available)
- State-of-the-Art in Restoration: note that in general, state of the art is not advanced. Describe some restoration techniques used elsewhere, including very brief slide show on restoration successes and failures

II PUBLIC QUESTION & COMMENT PERIOD: RESTORATION IDEAS

(1-1/2 to 2 hours, or more if necessary)

- (Note: importance of addressing <u>whole</u> ecosystem species and habitats)
- (Reiterate: not constrained only to "fixing" direct impacts)
- Opportunities for recovery from direct effects (views on what needs restoration; ideas for what can be done)
- Opportunities for substitution/acquisition of equivalent values (includes "compensation" where direct recovery not possible/practical)

III WHERE RESTORATION PLANNING WILL GO FROM HERE (15 min.)

- Nore public input opportunities to come
 - other public scoping meetings (dates, locations)
 - report(s) to be distributed for public comment (first, in June: will include consideration of ideas presented at public meetings)
- How to comment to agencies in addition to the above (ongoing opportunity; comment forms and addresses in meeting packet)

<u>NOTE</u>: All participants would receive a similar information packet as distributed at the public symposium in Anchorage (incl. background info, comment form, address card to get on mailing list, etc.).

RESTORATION PLANNING PROJECT: BUDGET FOR SCOPING PHASE ACTIVITIES IN ALASKA

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Summarized below are funding requirements for the Public Scoping Phase of the Restoration Planning Project, from February 15, 1990 through February 28, 1991 ("oil spill year" budget). (Task descriptions have been provided separately.) The budget is divided into seven distinct tasks which for planning purposes can be managed more or less independently. Note that the figures for task five, FEASIBILITY STUDIES, have been estimated based on the assumption that only limited small-scale pilot projects (both inside and outside Prince William Sound) can be fielded in the summer of 1990. The overall Restoration Planning budget is summarized by category following the task-by-task descriptions. Endnotes appear on the last page.

Note that the Restoration Planning Work Group has made no assumptions as to how the agencies should share responsibility for this budget. This is a decision that must be made by the Trustee Council and the Trustees.

I RESTORATION SYMPOSIUM (MARCH 26-27, 1990)

Facility:	\$ 5,000
RPWG Travel:	4,400
Speakers 1	
Honoraria:	30,000
Travel:	15,000
Per Diem:	3,600
Contractor support:2	15,000
(Facilitation, recording,	
logistics)	
TASK SUBTOTAL :	73,000

II PUBLIC SCOPING MEETINGS

4 100

(6 Spring, assume 4 Fall 90/Winter 91)

Facilities:	\$ 5,000
RPWG Travel:	25,000
Contractor support:2	30,000
(Recording, logistics)	
TASK SUBTOTAL :	60,000

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February 9, 1990 1990 Restoration Planning Budget, Alaska

III INVITED EXPERT WORKSHOP (up to 5 days, Spring, 1990)

Facility (Justice): ³ RPWG Travel:	\$	-N/C- 3,000
Invited experts ¹		
Honoraria:		75,000
Travel:		40,000
Per Diem:		32,000
Contractor support:2		20,000
(Recording/synthesis)		
TASK SUBTOTAL:	<u>1</u> 5	70,000

IV LITERATURE COLLECTION/REVIEW

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> PHASE 1: Initial collection/review ŝ 2008 Initial database search (worldwide): 10,000 Acquisition of selected references (hard copies): 5.000 ----Initial summary of pertinent references (June, 1990): 5,000 PHASE 2: Expanded literature collection/review -Expanded database and library search, incl. "grey" literature: 20,000 Acquisition of selected references: 10,000 6603 Detailed synthesis of pertinent references: 40,000 TASK SUBTOTAL: 90,000

Y FERSIBILITY STUDIES ⁴

TASK SUBTOTAL:

1,000,000

February 9, 1990 1990 Restoration Planning Budget, Alaska

VI <u>REPORT PREPARATION/PUBLICATION</u>

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<u>1990 public scoping meetings summary report ⁵</u>	
- Preparation (draft and final):	\$ 20,000
 Publication/distribution (draft and final): 	10,000
<u>Invited experts workshop report</u>	
- Preparation:	20,000
<u>Literature review summary/synthesis reports</u> ⁵	
<u>Phase 1</u>	
- Preparation:	5,000
 Publication/distribution: 	5,000
<u>Phase 2</u>	
- Preparation:	10,000
 Publication/distribution: 	5,000
<u>Draft Restoration Planning Reports</u> ⁵	
(Report No. 1: June 1990; Report No.2: winter 1991)	
- Preparation:	40,000
- Publication:	15,000
TASK SUBTOTAL:	130,000

VII WORK GROUP SUPPORT

Salaries, RPWG members: ⁶	\$ 525,000
Other RFWG travel (meetings, etc. not shown above):7	70,000
Office space, Anchorage: ⁸	35,000
Office supplies/equipment:	20,000
TASK SUBTOTAL:	<u>650,000</u>

GRAND	TOTAL,	<u>ALL</u>	TASES:		2	<u>. 173,</u>	000
GRAND	TOTAL,	₩/0	FEASIBILITY	<u>studies</u> :	1	<u>. 173 ,</u>	000

February 9, 1990

1990 Restoration Planning Budget, Alaska

1990 BUDGET SUMMARY BY TASK

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	Restoration Symposium:	\$	73,000
II.	Public Scoping Meetings:		60,000
III.	Invited Experts Workshop:		170,000
IV.	Literature Collection/Review:		90,000
Ϋ.	Feasibility Studies:	1,	000,000
VI.	Report Preparation/Publication:		130,000
VII.	Work Group Support (including salaries):		650,000
TOTA		<u>2,1</u>	173,000

1990 BUDGET SUMMARY BY CATEGORY

RPWG Salaries: ⁶	\$	525,000
RPWG Travel, Overall:		102,400
Meeting Facilities (workshops, symposia):		10,000
Speakers (honoraria, travel, etc.): ²		195,600
Contractor ³		
Support/Logistics:		65,000
Report Preparation/Publication: ⁵		130,000
Literature Review:		90,000
Feasibility Studies: ⁴	1	,000,000
Office: ⁸		35,000
Supplies and Equipment:		20,000

<u>GRAND TOTAL:</u>

2,173,000

February 9, 1990 1990 Restoration Planning Budget, Alaska

<u>ENDNOTES</u>

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1 Speaker/Expert Expenses

<u>Honoraria</u>: Honoraria assumed to average \$1,000 per day for contracted, non-agency speakers/experts (note that this is what the NDRA Peer Reviewers generally receive). Nowever, the lowest cost acceptable to the speakers will be negotiated. For planning purposes, a maximum of 10 speakers would be paid for two days each for the symposium, and a maximum of 15 speakers would be paid for up to five days each for the experts workshop. Actual costs are likely to be less as all speakers may not attend all days. <u>Travel</u>: Air fare will be provided for speakers and invited experts. Ten speakers are assumed for the symposium and 50 for the experts workshop (includes up to 25 NRDA PIs). <u>Fer Diem</u>: Expenses paid at an average per diem of \$125 (Anchorage) for both agency and non-agency speakers. A maximum of 10 speakers for three days each is assumed for the symposium and 50 for the experts workshop.

- 2 Contractor Support. Symposium will require four contractor support staff, while experts workshop and public meetings will each require two. Estimates based on average overall charge rate of \$60/hour. Figures include contractor travel and per diem, but do not include costs for report preparation or publication. These appear under Task 6.
- 3 Vorkshop Facility. Assumes use of Justice facility in Anchorage (Simpson Bldg.).
- 4 Feasibility Studies. Estimates for planning purposes only. Projects would be implemented throughout the impacted area (i.e., not just within Prince William Sound). However, specific feasibility studies cannot be designed, or precise estimates calculated, until preliminary results from the public scoping process, experts workshop, and literature review are available in late Spring. Estimates given here assume contractor implementation, with monitoring through Fall, 1990 and limited winter monitoring if necessary. Follow-up monitoring in Spring, 1991 will be included in the 1991 budget. Note that some of these funds may be proposed for use in cooperative agreements, etc., to support limited academic research projects (i.e., for graduate thesis work) directly related to restoration.
- 5 Reports. Reports would be prepared primarily by contract. Reports of public scoping meetings and the Phase 1 literature review will also be distributed to the public as appendices to the 1990 draft Restoration Planning Report (first draft due in June, 1990).
- ⁶ Salaries. Reflects salary and benefits of \$75,000 each for a total of seven immediate RPWG members. It is assumed that each agency will cover the salary for its RPWG member.
- 7 Other RPWG Travel. Routine RPWG travel for work group meetings, NRDA coordination, etc. Includes air fare and per diem of \$125, assuming an average of one work group meeting per month in either Juneau or Anchorage with half the RPWG members on travel for each meeting. Restoration-associated travel for other than immediate RPWG members is not reflected here.
- 8 Office. Shown for planning purposes only. EPA is providing office/meeting/library space and phones for work group members in Anchorage.

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February 23,1990

MEMORANDUM

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SURJECT: **Restoration Planning Project proposal**

FROM: The Trustee Council

TO: LaJuana S. Wilcher, EPA **Restoration Framework Committee**

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During 1990, the Restoration Planning Project will undertake several tasks toward the development of final Restoration Methodology/Restoration Plans for the Exxon-Valdez oil spill. We believe these tasks are fully consistent with the current revised draft Restoration Framework Plan, and with the comments of the Federal policy level members of the Restoration Framework Committee as transmitted by your memo of January 26, 1990. In particular, the Project in 1990 will address the first three sections of the Restoration Framework, as described below. (Note, however, that the tasks for the Project in 1990 are arranged somewhat differently.)

I. <u>Review...Results of the Damage Assessment Process</u>. This will be an ongoing effort as results from other Damage Assessment studies continue to become available. The Restoration Planning Work Group will review results directly, as well as conduct closed technical workshops that will include key Damage Assessment principle investigators (Project task 3). This effort will help in the development of a matrix of species, habitats, and other ecosystem components at risk from the oil spill, and to identify potential restoration options for each matrix category. Options will address direct recovery, replacement, and acquisition of equivalent value resources.

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III. <u>Develop Restoration Methodology/Restoration Plans</u>. We are committed to preparing Restoration Methodology/Restoration Plans as quickly as possible. An initial report will be completed by the end of June, 1990, with an updated draft completed prior to February 28, 1991 (Project task 6). These reports will include the results of public scoping and literature review tasks, as well as an initial matrix of species, habitats, and other ecosystem components potentially affected by the spill. The reports will also include any restoration options identified by that time under each category of the matrix. Plans for 1990 Feasibility Studies will be presented in the first report. Interim documents from the symposium, scoping meetings, and literature review will be prepared separately and distributed to the public, as appropriate.

In order to accomplish the proposed tasks during 1990, we have directed the Restoration Planning Work Group to initiate activities based on this proposal. At this time, the Work Group is actively preparing for the Restoration Symposium to be held in Anchorage March 26 and 27, 1990, as well as for local public meetings and a technical workshop (dates for the latter events have not yet been set). In addition, the literature collection/review task has been initiated. We look forward to being able to present an initial report to you by the end of June.

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MEMORANDUM

KRWG C alis Comments 2-9-90 2-90 12:00 pm

Subject: Detailed Proposal: Restoration Planning Project Initiation of Public Scoping Phase Activities

From: **Restoration Planning Work Group**

Trustee Council To:

We are pleased to provide this proposal to initiate the Restoration Planning Project for your consideration. As you know, the Restoration Planning Work Group (RPWG) has held several preliminary meetings during the last two weeks to prepare this package. Please find the following items attached to this memo:

February 9, 1990

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- 2. Proposed agenda for restoration scoping meetings to be held following the Anchorage symposium in several Alaska communities directly affected by the oil spill;
- 3. Detailed budget estimates for Restoration Planning Project activities during the 1990 "oil spill year."

1990 activities will focus on the public scoping and initial alternatives development phases of restoration planning. The attached budget outlines several major tasks for the Project in 1990, including: conduct a major restoration symposium to "kick off" the public scoping process; conduct local public scoping meetings in affected communities; initiate a comprehensive literature review and synthesis effort; conduct a special technical workshop of invited scientists having experience and expertise relevant to restoration; and conduct limited-scale feasibility studies to test potentially beneficial restoration techniques in Alaskan conditions.

Note that the agenda for the public symposium has been arranged so that opening addresses can be given by any "VIPs" the Trustee Council may wish to invite. Given that the symposium is timed to coincide with the spill anniversary date, it is assumed that appropriate speakers are likely to already be in Alaska at this time.

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February 9, 1990 Restoration Planning Project Proposal

Several reports would be generated by the Project during 1990. These reports, listed in the attached budget, include: draft and final scoping meeting summaries (initial consideration of public comments will appear here); report of the experts workshop on restoration (this would not be a public report); Phase 1 and Phase 2 literature review summary and synthesis reports; and initial and revised draft Restoration Planning Reports. The initial draft Restoration Planning Report will be completed in June, 1990, and distributed for public review and comment. The scoping meeting and literature review reports would be reproduced as appendices to this report, and the report will also include an initial list of potential restoration options as well as any proposals for feasibility studies to be conducted during the summer of 1990. A revised draft Restoration Planning Report would be distributed in winter 1990/1991 (prior to February 28, 1991) incorporating responses to public comments, updates to the literature review reports, an updated list of potential restoration options, and proposals for 1991 Project activities.

In addition to the items described above, several other products remain under development by the RPWG. These include a flier and posters announcing the public symposium and the local scoping meetings, a list of invited speakers for both the symposium and the experts workshop, background materials for inclusion in the information packet that will be handed-out to all symposium and public meeting participants, and a restoration techniques slide show presentation. These products will be presented for the Trustee Council's approval as soon as possible. In addition, the RPWG recognizes that other tasks, not outlined in this package, will have to be performed in the near future. For example, we expect to be directed by the Restoration Framework Committee to provide specific dates for various milestones in the overall Restoration Planning process, as well as for 1990 deliverables.

Action:

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> The schedule for the Restoration Planning Project is ambitious. In order to meet this schedule, it is necessary that approval be received very quickly for scoping phase activities to be initiated. The RPWG is seeking a general approval at this time. Specific details can be modified as scoping preparations progress; however, without approval to proceed (and in particular, without an approved budget) the proposed Restoration Planning activities cannot occur.

_ Please contact any of the RPWG members if there are any questions about this proposal.

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Fobruery 9, 1980

MEMORANDUM

Detailed Proposal: Restaration Planning Project <u>Subject:</u> Initiation of Public Scoping Phase Activities Frank Moyeneer ADFEG Brien Roos EPA Eram: for Restoration Planning Work Group

To: Trustee Council

We are pleased to provide this proposal to initiate the Restoration Planning Project for your consideration. As you know, the Restoration Planning Work Group (RPWG) has held several preliminary meetings during the last two Weeks to prepare this package. Please find the following items attached to this memo:

- Proposed agenda for a two-day public symposium on restoration to be held in Anchorage, approximately coinciding with the anniversary date of the cil spill;
- Proposed agenda for restoration scoping meetings to be held following the Anchorage symposium in several Alaska communities directly affected by the oil spill;
- 3. Detailed budget estimates for Restoration Planning Project activities during the 1990 "oil spill year."

1990 activities will focus on the public scoping phase of restoration planning. The attached budget cutlines several major tasks for the Project in 1990, including: conduct a major restoration symposium to "kick off" the public scoping process; conduct local public scoping meetings in affected communities; initiate a comprehensive literature review and synthesis effort; conduct a special technical workshop of invited scientists having experience and expertise relevant to restoration; and conduct limited-scale feasibility studies to test potentially beneficial restoration techniques in Alaskan conditions.

Note that the agenia for the public symposium has been arranged so that opening addresses can be given by any "VIPs" the Trustee Council may wish to invite. Given that the symposium is timed to coincide with the spill anxiversary date, it is assumed that appropriate speakers are likely to already be in Alaska at this time.

1

Several reports would be generated by the Project during 1990. These reports, listed in the attached budget, include: draft and final scoping meeting summaries (public comments would be summarized here); a report of the experts workshop on restoration; Phase 1 and Phase 2 literature review summary and synthesis reports; and initial and revised Restoration Planning Reports. Restoration Planning Report Number 1 is proposed for completion in June, 1990, and would be distributed for public review and comment. The scoping meeting and literature review reports would be reproduced as appendices to this report, and the report will also include an initial list of potential restoration options as well as any proposals for feasibility studies to be conducted during the summer of 1990. Restoration Planning Report Number 2 would be distributed in winter 1990/1991 (prior to February 28, 1991) incorporating responses to public comments, updates to the literature review reports, an updated list of potential restoration options, and proposals for 1991 Project activities.

In addition to the items described above, several other products remain under development by the RPWG. These include a flier and posters announcing the public symposium and the local scoping meetings, a list of invited speakers for both the symposium and the experts workshop, background materials for inclusion in the information packet that will be handed-out to all symposium and public meeting participants, and a restoration techniques slide show presentation. In addition, the RPWG recognizes that other tasks, not outlined in this package, will have to be performed in the near future. For example, we expect to be directed by the Trustee Council to provide specific dates for various milestones in the overall Restoration Planning process, as well as for 1990 deliverables.

<u>Action</u>:

The schedule for the Restoration Planning Project is ambitious. In order to meet this schedule, scoping phase activities will have to be initiated quickly. The RPWG requests that this proposal be discussed at the Trustee Council meeting February 13th and 14th, and recommends that approval be granted to conduct the symposium, public scoping meetings, experts workshop, and literature review. Specific details of this proposal can be modified as scoping preparations progress.

Please contact any of the RPWG members if there are any questions about this proposal.

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DRAFT DRAFT DRAFT

AGENDA FOR THE RESTORATION SYMPOSIUM

MONDAY, MARCH 26

- I. INTRODUCTION
- 0:00 -8:30 a.m. Welcome and opening remarks
- Q(30 -9:00 Introductory speaker(s)

EXPLANATION OF THE RESTORATION SCOPING PROCESS

Speaker to describe the purpose of the symposium, to explain^Athe restoration scoping process, and to provide a general overview of how restoration is described in CERCLA and CWA.

Break / Under

MEEN OF MATURAL RESOURCES

Keynote speaker will discuss the options for restoring, replacing, and acquiring equivalent natural resources with emphasis on the ecosystem as a whole.

Aquatic Resources

This session will provide a forum to discuss both direct and indirect restoration opportunities and constraints including habitat rehabilitation, species reintroduction and breeding programs, changes in fish and game management policies, and the acquisition of equivalent resources.

Panel will consist of experts on the subject of restoration of intertidal zones, fisheries, marine mammals, seabirds and wetlands.

Question and answer period.

Lunch Break Welcome Beck Land Resources 9:00-9:15 9:15 -9845 = K

This session will provide a forum to discuss both direct and indirect restoration opportunities and G15 Ber Constraints including habitat rehabilitation, arect and indirect restoration opportunities and constraints including habitat rehabilitation, and breeding programs, changes in land management policies, and the acquisition of equivalent resources

B. Land Resources (continued)

Panel will address restoration options from the perspectives of private, native, and public owners; including environmental groups and the timber industry.

Question and answer period.

3:00

3:15 C. User Group Perspective Cover under land

Break

Panel will consist of spokespersons for the various resource user groups impacted by the oil spill including the native corporations, environmental groups, commercial fishing industry, mariculture and aquaculture interests, sportfishing and hunting interests, other recreational users, and the oil industry.

Question and answer period.

Reception - Egan Center

DAY, MARCH 27

7:30

IV.

cover ander the Natl revouver

RESTORATION OF SUBSISTENCE RESOURCES

9:00

Keynote speaker and panel will discuss the options for restoring, replacing and acquiring equivalent subsistence resources. The panel will include representatives from the native groups and experts on the health and biological considerations of restoration.

Question and answer period.

10:20 Break

v.

Cover Hands

RESTORATION OF CULTURAL RESOURCES

10:40

Keynote speaker and panel will discuss the options for restoring, replacing and acquiring equivalent archaeological and historical resources. The panel will include representatives from the native groups and experts on the legal and technical considerations of restorations.

Question and answer period.

12:00

Lunch

delete

LEGAL/REGULATORY PERSPECTIVE ON RESTORATION¹ VI.

1:30

This session will have a keynote speaker and a panel. The panel may include a representative from Exxon or a surrogate of its choice as well as a representative(s) for state and federal interests and/or non-aligned attorney. felet

Question and answer period.

2:45 Break

ECONOMIC PERSPECTIVE ON RESTORATION² VII.

3:00

This session will have a keynote speaker and a panel. The panel may include a representative from Exxon or a surrogate of its choice as well as a representative(s) for state and federal interests and/or a non-aligned economist.

Question and answer period.

VII.

OPEN MICROPHONE SESSION

4:00

The purpose of this session is to provide a forum for the public to comment and/or suggest other restoration options which may not have been covered in the formal sessions.

2 See footnote 1.

Panel size and representation will be determined in discussions with Exxon Corporation.

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STUDY NO.	STUDY TITLE		ENDATION: DISCONTINUE	LEAD A	GENCY	1989 BUDGET ¹	1990 BUDGET
AIR WATER							
6	Oil Toxicity	Х	•	NOAA	/	0	\$720,000
1							
COMMENT	S						

I. Introduction

The rationale for this study is simply that there is no existing program that will supply all the needed data on the geographical spread, chemical characteristics and toxicity of oil remaining in Alaskan waters from the <u>Exxon Valdez</u> spill. The proposal presents a coordinated plan for obtaining such information. It will generate data that will be used to assess the geographical extent and degree of damage to the environment from residual oil. The data from this proposed study can be used to counter the argument that weathering, and degradation have rendered the remaining oil non-toxic.

<u>Study Plan</u>

There are four main components to the program; (1) a mass balance or oil budget, (2) assessment of toxicity of environmental samples of oil in a standard bioassay, (3) assessment of the toxicity and chemical characteristics of oil degradation products, (4) assessment of the toxicity of weathered oil in laboratory studies using sensitive early life history stages of marine animals (e.g. larval fish). Some data from existing studies can be used, for example many of the G.C./M.S. analyses of weathered oil in sediments for various studies can be used to support this present study. Nonetheless, a substantial amount of new effort will be required to provide useful information for the case.

The mass balance study will estimate the amount of oil in the water, on the beaches and in the air at several times after the spill and continuing past 1991. Some new information will be required but much of the currently available data would be used to provide even rough estimates of where the oil has gone. Based upon these preliminary results, it may be desirable to undertake a more comprehensive mass-balance program. That effort needs further refinement and is not budgeted in this proposal.

Continued:

Litigation Sensitive

¹ Reflects budgeted figures, not amount actually spent. NRDA Study Recommendations Page 65

STUDY NO.	STUDY TITLE		ENDATION: DISCONTINUE	LEAD AGENCY	1989 BUDGET ¹	1990 BUDGET
Air' Water						
6	Oil Toxicity	Х	•	ΝΟΑΛ	-0-	\$720,000

COMMENTS

The assessment of toxicity of oil remaining in the environment will be based on sampling at 15-20 sites, spread over a large geographical area and assessed using a standard toxicity assay, such as microtox. These sites will be sampled every six months and assayed. As deemed appropriate chemical analyses of environmental samples will be done to correlate with the results of the bioassays. Samples from the supratidal, intertidal and subtidal areas of each site will be screened initially with UV fluorescence to eliminate samples inappropriate for further analysis. Emphasis will be placed on testing sand, gravel and cobble samples. In heavily oiled beaches interstitial water samples will be tested. The 15-20 sites will be selected to cover a wide geographic range and deliberately placed at sites most likely to show continuing effects.

The assessment of the toxicity and chemical characteristics of oil degradation products will also be based on environmentally collected samples from heavily oiled beaches. Large volumes of interstitial water and smaller volumes of variously weathered oil residues will be chemically fractionated using standard techniques of column chromatography. A polar fraction will be eluted from the column for each sample. A small number of selected samples will then be subjected to further analyses by mass spectrometry, gas chromatography, liquid chromatography, infrared spectrophotometry and nuclear magnetic resonance spectrometry to determine its composition. Subsamples of these fractions will be tested in simple assays to determine their toxicity. Microtox and fish cell assays are appropriate for toxicity testing on small volume samples of this sort. Based on the results of detailed characterization of these samples of degradation products and their toxicity, the study will either be expanded or curtailed.

The laboratory studies will test the toxicity of weathered oil to sensitive early life history stages of marine organisms. Columns of beach cobble and gravel coated with oil will be flushed with sea water on a periodic basis and the resultant effluent used to expose larval stages of animals. Various lethal and sublethal endpoints will be measured. In addition this will be closely coordinated with the studies of oil degradation products. It is suggested that pink salmon

Litigation Sensitive

¹ Beliects budgeted ligures, not amount actually spent. NRDA Study Recommendations Page 65

STUDY NO.	STUDY TITLE		DISCONTINUE	LEAD AGENCY	1989 BUDGET 1	1990 BUDGET
AIR' WATER		x		ΝΟΑΑ	-0-	\$720,000
6	Oil Toxicity			<u> </u>		
•						
COMMENT	S					
Conti	nued:					
and herring be used as study species to provide corroborative evidence for initial findings of damage to these species in 1989.						

TT. Personnel and Organizations

Not all aspects of this study can be carried out by the same organization, but they should be coordinated by one scientist with some experience in hydrocarbon chemistry, toxicology and microbiology. Properly qualified individuals in each case should carry out the research. The mass balance can be carried out in the Air/Water No. 1 study. Most of the chemical analysis can be done under the current technical services components of the NRDA studies. The bioassay of environmental samples would probably be best done by a commercial laboratory experienced in running the microtox assay. The assessment of oil degradation products could be let as a contract to a university research laboratory. The laboratory exposures of eggs and larvae could be done by an existing laboratory, e.q. Auke Bay laboratory. Scientific coordination should be done by a designated scientist in consultation with a small working group of peer review scientists.

III. Budget

Estimated costs.

Mass Balance	100k
Bioassays of environmental samples	250k
Degradation products	120k
Laboratory toxic experiments	<u>250k</u>
TOTAL COST	720K

Litigation Sensitive

TOTAL COST

¹ Reflects budgeted ligures, not amount actually spent.

DRAFT restoration chapter for "black book 02-20-90; 11:30 h

STAND SENNSALZ

I. Introduction

The purpose of this project, Restoration Planning 1, is to identify actions that may be taken to restore the ecological health of the areas affected by the <u>Exxon Valdez</u> oil spill. This will be done through development of Restoration Methodology/Restoration plans, which will address direct restoration of damaged resources, replacement of damaged resources, and acquisition of equivalent resources.

Although the 1989 Damage Assessment plan had a budget of \$500,000 for restoration planning, such activities were not initiated until late in the year; no substantial funds were expended. The project, however, is expected to continue in 1991 and beyond, as needed. At any time during this process the Trustees may implement restoration measures demonstrated to be ecologically sound and cost effective, subject to the availability of funding.

II. Study Plan

As described below, six major tasks will, carried out in 1990: (1) conduct a Public Restoration Symposium, (2) conduct local Public Scoping Meetings, (3) conduct a series of Technical Expert Workshops, (4) conduct a comprehensive Literature Collection/Review, (5) develop and conduct Feasibility Studies, and (6) prepare draft Restoration Methodology-/Restoration plans.

(1) Restoration Symposium: A two-day public symposium will be held in Anchorage, March 26-27, 1990, to begin the scoping process. This meeting will disseminate information about the planning process and invite public comments about restoration needs and opportunities. Alaska Natives, environmental groups, the fishing industry, and other interested constituencies will be invited to participate. Scientists and others who have experience with restoration of natural resources will make presentations. The meeting will be recorded and summarized for inclusion in the Restoration Methodology-/Restoration plans. Budget: \$50,000.

(2) Public Scoping Meetings: A series of six public meetings will be held in major communities directly affected by the spill: Cordova, Valdez, Whittier, Seward, Homer, and Kodiak. Persons directly affected by the spill will have the chance to express their opinions about restoration needs, methods, and priorities. The meetings will be recorded and summarized for inclusion in the Restoration Methodology/Restoration plans. Budget: \$40,000.

(3) Cechnical Expert Workshops: A series of closed meetings will be held to exchange

ideas among damage assessment principal investigators, peer reviewers, and other key scientists. The purpose of the workshops is to identify and evaluate the feasibility of restoration options, including those suggested by the public. Because of the need to draw upon confidential Damage Assessment data, the workshops will be closed to the public. Budget: \$200,000.

(4) Literature Collection/Review: Drawing on existing bibliographies and new information, published and unpublished literature on the restoration of damaged natural resources will be collected and reviewed. Results of the literature review will serve as background for the technical workshops and the entire restoration planning process. The results will be summarized in the Restoration Methodology/Restoration plans. Budget: \$90,000.

(5) Feasibility Studies: Tasks 1-4 will identify various restoration options. To determine whether some of these projects are technically feasible and cost effective, a series of carefully targeted studies may be necessary. These studies may include evaluation of both field restoration techniques and potential opportunities for replacement or acquisition of equivalent-value resources. In 1990, only limited feasibility studies will be undertaken, but in 1991 there will be increased emphasis on such studies. Budget: \$500,000.

(6) Development of Draft Restoration Methodology/Restoration Plans: Results from tasks 1-4, as well as other Damage Assessment studies, will be used in the development of the draft Restoration Methodology/Restoration plans. An initial report will be completed by June 30, 1990 and distributed to the public; a second report will be completed by February 28, 1991. Each report will include a matrix of species, habitats, and other ecosystem components affected by the oil spill and corresponding restoration options to the extent that such options have been identified at that time. Each report also will summarize results of the scoping tasks (i.e., 1-4 above). These summaries will also be published and distributed as separate documents. Plans for any Feasibility Studies to be conducted in 1990 will be presented in the first report. Reports that directly involve confidential Damage Assessment data will not be distributed to the public. Budget: \$150,000.

III. Personnel and Organizations

The Restoration Planning Project is directed by the Trustee Council through the Restoration Planning Work Group, consisting of representatives from the federal Environmental Protection Agency, Department of the Interior, National Oceanic and Atmospheric Administra-

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tion, and Forest Service, and the Alaska departments of Fish and Game, Natural Resources, and Environmental Conservation. "How working group is chaired jointly by the U.S. Environmental Protection Agency and the Alaska Department of Fish and Game. Contract support will be necessary for conducting the symposium, public scoping meetings, literature review, feasibility studies, and report preparation.

3

IV. Budget

Estimated costs¹:

Public Symposium	50k
Public Scoping Meetings	40k
Technical Workshops	200k
Literature Collection/Review	90k
Feasibility Studies	500k
Restoration Methodology/Restoration	
Plan Development	150k
Salaries	0 -> 750k]
Travel	, → 100k 5
-8 Fit 70	·
TOTAL:	1,900 k
The m 907	71200
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Still a question about whether to cover some of these costs under overhead. Alternative humbers are #525K + #75K, respectively. The total would then be #1,630K.

'Overhead costs of 20% are not included here.

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RPWG 1989 BUDGET 1990 BUDGET \$500 K \$1,630 K

I. Introduction

The ultimate purpose of this project, Restoration Planning 1, is to identify specific actions that potentially may be taken to restore the ecological health of the areas affected by the Exxon **Valdez** oil spill. This will be done through development of Restoration Methodology/Restoration plans, *which because plans* will address direct restoration of damaged resources, replacement of damaged resources, and acquisition of equivalent resources.

The elements of restoration planning are dynamic and will be modified as new information becomes available. Restoration scoping and planning will be coordinated with injury assessment studies; legal, scientific, and economic reviews will be integrated as appropriate. With respect to the damage assessment process, the Restoration Methodology Plan will be integrated with the results of other studies for the purposes of calculating the Damage Claim to be presented to the responsible particular. In addition, the Project is designed to develop final Restoration Plan elements for implementation after receipt of the Damage Award from the respon-ALTHOUGH THE 1989 DAMAGE ASSESSMENT PLAN HAD A BUDGET OF \$500,000 FOR RESTORATION PLANNING, ALTHOUGH THE 1989 DAMAGE ASSESSMENT PLAN HAD A BUDGET OF \$500,000 FOR RESTORATION PLANNING, ACTIVITIES WERE NOT INITATED UNTIL LATE IN THE YEAR; NO SUBSTANTIAL FUNDS WERE EXPENDED. THE PROTEG ACTIVITIES WERE NOT INITATED UNTIL LATE IN THE YEAR; NO SUBSTANTIAL FUNDS WERE EXPENDED. THE PROTEG ACTIVITIES WERE NOT INITATED UNTIL LATE IN THE YEAR; NO SUBSTANTIAL FUNDS WERE EXPENDED. THE PROTEG ACTIVITIES WERE NOT INITATED UNTIL LATE IN THE YEAR; NO SUBSTANTIAL FUNDS WERE EXPENDED. THE PROTEG ACTIVITIES WERE NOT INITATED UNTIL LATE IN THE YEAR; NO SUBSTANTIAL FUNDS WERE EXPENDED. THE PROTEG HOWEVER A IS EXPECTED AND THE UNTIL LATE WITH YEAR; NO SUBSTANTIAL FUNDS WERE EXPENDED. THE PROTEGNES HOWEVER A IS EXPECTED AND THE HAT THIS PROJECT WITH FOR THE PROTECT. may implement restoration measures demonstrated to be ecologically sound and cost effective, subject to the availability of funding.

II. Study Plan

DISSEMINATE INFORMATION WILL BE CARRIED OUT IN 1990

INTERESTED CONSTIT-

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WILL BE

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Scientis

AND OTHERS WHO HAVE

EXPERIENCE WITH RESTOR-ATION OF NATURAL RESOURCES L MAKE PRESENTATIONS

AS DESCRIBED BELOWS During 1990 the Project will carry out six major tasks: (1) conduct a public Restoration Symposium; (2) conduct local Public Scoping Meetings; (3) conduct a series of Technical Expert a comprehensive Literature Collec-Workshops; (4) conduct tion/Review; (5) develop and conduct Feasibility Studies; and (6) prepare draft Restoration Methodology/Restoration plans. Each of these tasks is described below.

Restoration Symposium: A two-day public symposium will be held in Anchorage, March 26-27, 1990 to initiate the restoration This meeting will provide the first forum scoping process. > to educate the public about the restoration planning process of the as well as will provide the restoration needs and A reference opportunities. opportunities. Participation from interested groups and constituencies will be encouraged, including Alaska Natives, environmental groups, the fishing industry, will be recorded, and a summary of comments and ideas presented at the symposium will be prepared for inclusion in the Restoration Methodology/Restoration plans. Budget: \$50,000.

Public Scoping Meetings: A series of six public meetings will be held in major communities directly affected by the spill:

Cordova, Valdez, Whittier, Seward, Homer, and Kokiak. These meetings will give persons directly affected by the spill an THECHANCE opportunity to express their opinions about restoration needs, methods, and priorities. The meetings will be recorded, and summary of comments and ideas raised will be prepared for inclusion in the Restoration Methodology/Restoration plans. Budget: \$40,000.

Technical Expert Workshops: A series of meetings to provide opportunities for an intensive exchange of ideas among damage assessment principal investigators, peer reviewers, and key scientists. not already involved in the damage assessment process. The purpose of the workshops is to identify and evaluate the feasibility and effectiveness of potential restoration projects, including those suggested through the Restoration Symposium and (Public) Scepting Meetings. The workshops per se will be closed to the public Because it will be necessary to discuss confidential information, developed through the damage assessment process. Budget: \$200,000.

THE WORKSHOPS WILL BE CLOSED TO THE PUBLIC: DRAWING ON EXISTING BIBLIOGRAPHIES Literature Collection/Review: Aublished literature and to the extent possible, unpublished reports portaining to the restoration of damaged natural resources will be collected and reviewed. Results of the literature review will serve as background for the Technical Expert Workshops and the entire restoration planning process. A summary of the results will be incorporated into the Restoration Methodology/Restoration plans. Budget: \$90,000.

> Feasibility Studies: The tasks described above will identify a variety of restoration options. In order to determine whether some of these projects are technically feasible and cost effective, it will be necessary to carry out a series of carefully targeted studies. These studies may include evaluations of threat field restoration techniques as well as AND potential opportunities for replacement or acquisition of equivalent-value resources. It is anticipated that in 1990, only limited feasibility studies will be undertaken, but that w/990 there will be increased emphasis on such studies, in 1991. Budget: \$500,000.

Development of draft Restoration Methodology/Restoration Plans: Results from the Restoration Symposium, public scoping meetings, literature review, and the technical workshops (as TASKS 1-5,A5WE well as other Damage Assessment studies, will be used in the development of the draft Restoration Methodology/Restoration (Plans. The first of these reports will be completed by July 1, 1990, and distributed to the public; A The second draft report will be completed prior to February 28, 1991. These EacH reports will include as initial matrix of species, habitats, and other ecosystem components potentially affected by the oil spill, and Margary of the matrix. Each report will include summary and initial consideration of public comments as well

RESULTS OF THE SCOPING TASKS (I.C., 1- ABOVE)

TO THE EXTENT THAT SUCH OPTONS HAVE BEEN

LAVE

(THESE SUMMARIES WILL ALSO BE PUBLISHED AND DISTRIBUTED AS SEPARATE DOCUMENTS.)

CONDUCT 190 N 1990

ANY. a literature review summary. / Plans, for, 1999 Feasibility Studies will be presented in first report. Interim documents from the symposium, scoping meetings, and literature review will be prepared separately, and distributed to the public as appropriate. However, reports that discuss litigation-sensitive Damage Assessment data would not be distributed to the public. Budget: \$150,000.

III. Personnel and Organizations

DIRECTLY INVOLVE CONFIDENTIAL

THE WORK GROUP IS CHAIRED

TRUSTEE COUNCIL THROUGH THE The Restoration Planning Project is directed by the Restoration Planning Work Group, which representat the Environmental Protection Agency, the National Oceanic and Atmoshperic Administration, the U.S. Forest Service, and the Alaska Departments of Fish and Game, Natural Resources, and Environmental Conservation. Y Contract support will be necessary for conducting the symposium, public scoping meetings, literature review, feasibility studies, and report preparation.

IV. Budget

Estimated costs¹:

JOINTLY BY THE LENVIRONMENTAL PROTECTION AGENCY AND THE ALASKA DEPARTMENT OF FISH AND Symposium: 50k GAME. Scoping Meetings: 40k Technical Workshops: 200k Literature Collection/Review: 90k Feasibility Studies: 500k Restoration Methodology/Restoration Plan Development: 150k -770k- 5'25K Salaries: 75K -100k -1,900k-1,630k

TOTAL:

Travel:

OF 20%

Overhead costs (not included.

FEB 19 '90 09:58 AK DEPT FISH & GAME, JUNEAU DEPARTMENT OF FISH AND CAME

DIVISION OF ADMINISTRATION

P.O. SOX 32000 JUNEAU, ALASKA 99802-8000 PHONE: (907) 455-4120

STEVE COWPER, GOVERNOR

FAX: (907) 586 9448 6595

FAX TRANSMITTAL SHEET

TO: Brinn Ross.

DATE: 02-20-90 EPA /OJL SPILL RESTOR NO. PAGES: (following this page)

FROM: STAN SENNER

- / -		
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	6/1	6/ ASIA

MESSAGE:

Brian - This is a new somewhat tighter draft. Gregg Erteleson wanted it shorter and editorially tightened. I think I have done that with out doing viblence to our concepts. Major change was deletion of and puragraph in introduction.



I. Introduction

The purpose of this project, Restoration Planning 1, is to identify actions that may be taken to restore the ecological health of the areas affected by the Exxon Valdez oil spill. This will be done through development of Restoration Methodology/Restoration plans, which will address direct restoration of damaged resources, replacement of damaged resources, and acquisition of equivalent resources.

Although the 1989 Damage Assessment plan had a budget of \$500,000 for restoration planning, such activities were not initiated until late in the year; no substantial funds were expended. The project, however, is expected to continue in 1991 and beyond, as needed. At any time during this process the Trustees may implement restoration measures demonstrated to be ecologically sound and cost effective, subject to the availability of funding.

II. Study Plan

As described below, six major tasks will carried out in 1990: (1) conduct a Public Restoration Symposium, (2) conduct local Public Scoping Meetings, (3) conduct a series of Technical Expert Workshops, (4) conduct a comprehensive Literature Collection/Review, (5) develop and conduct Feasibility Studies, and (6) prepare draft Restoration Methodology-/Restoration plans.

(1) Restoration Symposium: A two-day public symposium will be held in Anchorage, March 26-27, 1990, to begin the scoping process. This meeting will disseminate information about the planning process and invite public comments about restoration needs and oppor-Alaska Natives, environmental groups, the fishing industry, and other tunities. interested constituencies will be invited to participate. Scientists and others who have experience with restoration of natural resources will make presentations. The meeting will be recorded and summarized for inclusion in the Restoration Methodology-/Restoration plans. Budget: \$50,000.

(2) Public Scoping Meetings: A series of six public meetings will be held in major communities directly affected by the spill: Cordova, Valdez, Whittier, Seward, Homer, and Kodiak. Persons directly affected by the spill will have the chance to express their opinions about restoration needs, methods, and priorities. The meetings will be recorded and summarized for inclusion in the Restoration Methodology/Restoration plans. Budget: \$40.000.

(3) Technical Expert Workshops: A series of confidential meetings will be held to

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exchange *m* ideas among damage assessment principal investigators, peer reviewers, and other key scientists. The purpose of the workshops is to identify and evaluate the feasibility of restoration options, including those suggested by the public. Because of the need to draw upon confidential Damage Assessment data, the workshops will be closed to the public. Budget: \$200,000.

(4) Literature Collection/Review: Drawing on existing bibliographies and new information, published and unpublished literature on the restoration of damaged natural resources will be collected and reviewed. Results of the literature review will serve as background for the technical workshops and the entire restoration planning process. The results will be summarized in the Restoration Methodology/Restoration plans, Budget: \$90,000.

(5) Feasibility Studies: Tasks 1-4 will identify various restoration options. To determine whether some of these projects are technically feasible and cost effective, a series of carefully targeted studies may be necessary. These studies may include evaluat if field restoration techniques as well as potential opportunities for replacement or acquisition of equivalent-value resources. In 1990, only limited feasibility studies will be undertaken, but in 1991 there will be increased emphasis on such studies. Budget: \$500,000.

(6) Development of Draft Restoration Methodology/Restoration Plans: Results from tasks 1-4, as well as other Damage Assessment studies, will be used in the development of the draft Restoration Methodology/Restoration plans. An initial report will be completed by June 30, 1990 and distributed to the public; a second report will be completed by February 28, 1991. Each report will include a matrix of species, habitats, and other ecosystem components affected by the oil spill and corresponding restoration options to the extent that such options have been identified at that time. Each report also will summarize results of the scoping tasks (i.e., 1-4 above). These summaries will also be published and distributed as separate documents. Plans for any Feasibility Studies to be conducted in 1990 will be presented in the first report. Reports that directly involve confidential Damage Assessment data will not be distributed to the public. Budget: \$150,000.

III. Personnel and Organizations

The Restoration Planning Project is directed by the Trustee Council through the Restoration Planning Work Group, consisting of representatives from the federal Environmental Protection Agency, National Park Service, National Oceanic and Atmospheric Administration,

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and Forest Service, and the Alaska departments of Fish and Game, Natural Resources, and Environmental Conservation. The working group is chaired jointly by the U.S. Environmental Protection Agency and the Alaska Department of Fish and Game. Contract support will be necessary for conducting the symposium, public scoping meetings, literature review, feasibility studies, and report preparation.

IV. Budget

Estimated costs1:

Public Symposium	50k
Public Scoping Meetings	40k
Technical Workshops	200k
Literature Collection/Review	90k
Feasibility Studies	500k
Restoration Methodology/Restoration	
Plan Development	150k
Salaries	770k 6 525
Travel	100k e 75
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TOTAL:

1,900k - 1,630

'Overhead costs of 20% are not included here.

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I. Introduction

The purpose of this project, Restoration Planning 1, is to identify actions that may be taken to restore the ecological health of the areas affected by the <u>Exxon Valdez</u> oil spill. This will be done through development of Restoration Methodology/Restoration plans, which will address direct restoration of damaged resources, replacement of damaged resources, and acquisition of equivalent resources.

Although the 1989 Damage Assessment plan had a budget of \$500,000 for restoration planning, such activities were not initiated until late in the year; no substantial funds were expended. The project, however, is expected to continue in 1991 and beyond, as needed. At any time during this process the Trustees may implement restoration measures demonstrated to be ecologically sound and cost effective, subject to the availability of funding.

II. Study Plan

As described below, six major tasks will carried out in 1990: (1) conduct a Public Restoration Symposium, (2) conduct local Public Scoping Meetings, (3) conduct a series of Technical Expert Workshops, (4) conduct a comprehensive Literature Collection/Review, (5) develop and conduct Feasibility Studies, and (6) prepare draft Restoration Methodology-/Restoration plans.

(1) Restoration Symposium: A two-day public symposium will be held in Anchorage, March 26-27, 1990, to begin the scoping process. This meeting will disseminate information about the planning process and invite public comments about restoration needs and opportunities. Alaska Natives, environmental groups, the fishing industry, and other interested constituencies will be invited to participate. Scientists and others who have experience with restoration of natural resources will make presentations. The meeting will be recorded and summarized for inclusion in the Restoration Methodology/Restoration plans. Budget: \$50,000.

(2) Public Scoping Meetings: A series of six public meetings will be held in major communities directly affected by the spill: Cordova, Valdez, Whittier, Seward, Homer, and Kodiak. Persons directly affected by the spill will have the chance to express their opinions about restoration needs, methods, and priorities. The meetings will be recorded and summarized for inclusion in the Restoration Methodology/Restoration plans. Budget: \$40,000.

(3) Technical Expert Workshops: A series of closed meetings will be held to exchange

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ideas among damage assessment principal investigators, peer reviewers, and other key scientists. The purpose of the workshops is to identify and evaluate the feasibility of restoration options, including those suggested by the public. Because of the need to draw upon confidential Damage Assessment data, the workshops will be closed to the public. Budget: \$200,000.

(4) Literature Collection/Review: Drawing on existing bibliographies and new information, published and unpublished literature on the restoration of damaged natural resources will be collected and reviewed. Results of the literature review will serve as background for the technical workshops and the entire restoration planning process. The results will be summarized in the Restoration Methodology/Restoration plans. Budget: \$90,000.

(5) Feasibility Studies: Tasks 1-4 will identify various restoration options. To determine whether some of these projects are technically feasible and cost effective, a series of carefully targeted studies may be necessary. These studies may include evaluation of both field restoration techniques and potential opportunities for replacement or acquisition of equivalent-value resources. In 1990, only limited feasibility studies will be undertaken, but in 1991 there will be increased emphasis on such studies. Budget: \$500,000.

(6) Development of Draft Restoration Methodology/Restoration Plans: Results from tasks 1-4, as well as other Damage Assessment studies, will be used in the development of the draft Restoration Methodology/Restoration plans. An initial report will be completed by June 30, 1990 and distributed to the public; a second report will be completed by February 28, 1991. Each report will include a matrix of species, habitats, and other ecosystem components affected by the oil spill and corresponding restoration options to the extent that such options have been identified at that time. Each report also will summarize results of the scoping tasks (i.e., 1-4 above). These summaries will also be published and distributed as separate documents. Plans for any Feasibility Studies to be conducted in 1990 will be presented in the first report. Reports that directly involve confidential Damage Assessment data will not be distributed to the public. Budget: \$150,000.

III. Personnel and Organizations

The Restoration Planning Project is directed by the Trustee Council through the Restoration Planning Work Group, consisting of representatives from the federal Environmental Protection Agency, National Park Service, National Oceanic and Atmospheric Administration,

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and Forest Service, and the Alaska departments of Fish and Game, Natural Resources, and Environmental Conservation. The working group is chaired jointly by the U.S. Environmental Protection Agency and the Alaska Department of Fish and Game. Contract support will be necessary for conducting the symposium, public scoping meetings, literature review, feasibility studies, and report preparation.

IV. Budget

Estimated costs¹:

Public Symposium	50k	
Public Scoping Meetings	40k	
Technical Workshops	200k	
Literature Collection/Review	90k	
Feasibility Studies	500k	
Restoration Methodology/Restoration		
Plan Development	150k	ALL SALARIES SHOWN:
Salaries	-770k 60	OKE OVERED OUT OF
Travel	_100k 7	OK OTHERS CALLS TRAVEL
		DOLLARDO (1150 1101-2)
TOTAL:	-1,900k /,	took for the otheres)

¹Overhead costs of 20% are not included here.

ц 4 (5) Certification is not to be construed as approval by the lead agency of response actions undertaken by that organization. Certification does not authorize that organization to act on behalf of, or as an agent for, the lead agency.

(6) Certification may be revoked at the discretion of the Administrator for failure to comply with this Plan or the requirements of CERCLA.

(d) Releases from liability. Implementation of response measures by responsible parties, certified organizations, or other persons does not release those parties from liability.

Subpart G—Trustees for Natural Resources

SOURCE: 50 FR 47978, Nov. 20, 1985, unless otherwise noted.

§ 300.72 Designation of Federal trustees.

When natural resources are lost or damaged as a result of a discharge of oil or a release of a hazardous substance, the following officials are designated to act as Federal trustees pursuant to section 111(h)(1) of CERCLA and section 311(f)(5) of the Clean Water Act for purposes of sections 111(h)(1), 111(b), and 107(f) of CERCLA and section 311(f)(5) of the Clean Water Act:

(a)(1) Natural resource loss. Damage to resources of any kind located on, over, or under land subject to the management or protection of a Federal land managing agency, other than land or resources in or under United States waters that are navigable by deep draft vessels, including waters of the contiguous zone and parts of the high seas to which the National Contingency Plan is applicable and other waters subject to tidal influence.

(2) *Trustee.* The head of the Federal land managing agency, or the head of any other single entity designated by it to act as trustee for a specific resource.

(b)(1) Natural resource loss. Damage to fixed or non-fixed resources subject to the management or protection of a Federal agency, other than land or resources in or under United States waters that are navigable by deep draft vessels, including waters of the 40 CFR Ch. I (7-1-88 Edition)

contiguous zone and parts of the high seas to which the National Contingency Plan is applicable and other waters subject to tidal influence.

(2) Trustee. The head of the Federal agency authorized to manage or protect these resources by statute, or the head of any other single entity designated by it to act as trustee for a specific resource.

(c)(1) Natural resource loss. Damage to a resource of any kind subject to the management or protection of a Federal agency and lying in or under United States waters that are navigable by deep draft vessels, including waters of the contiguous zone and parts of the high seas to which the National Contingency Plan is applicable and other waters subject to tidal influence, and upland areas serving as habitat for marine mammals and other species subject to the protective jurisdiction of NOAA.

(2) Trustee. The Secretary of Commerce or the head of any other single Federal entity designated by it to act as trustee for a specific resource; provided, however, that where resources are subject to the statutory authorities and jurisdictions of the Secretaries of the Departments of Commerce or the Interior, they shall act as cotrustees.

(d)(1) Natural resource loss. Damages to natural resources protected by treaty (or other authority pertaining to Native American tribes) or located on lands held by the United States in trust for Native American communities or individuals.

(2) *Trustee.* The Secretary of the Department of the Interior, or the head of any other single Federal entity designated by it to act as trustee for specific resources.

§ 300.73 State trustees.

States may act as trustee for natural resources within the boundary of a State or belonging to, managed by, controlled by, or appertaining to such State as provided by CERCLA.

§ 300.74 Responsibilities of trustees.

(a) The Federal trustees for natural resources shall be responsible for assessing damages to the resource in ac-

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cordance with regulations promulgated under section 301(c) of CERCLA, seeking recovery for the costs of assessment and for the losses from the person responsible or from the Fund, and devising and carrying out a plan for restoration, rehabilitation, or replacement or acquisition of equivalent natural resources pursuant to CERCLA.

(b) The trustee may, upon notification, take the following actions as appropriate:

(1) Request that the lead agency issue an administrative order or pursue judicial relief against parties responsible for the release, as authorized by CERCLA section 106;

(2) Request that the lead agency remove or arrange for the removal or provide for remedial action with respect to any hazardous substance from a contaminated medium, as authorized by CERCLA section 104;

(3) Initiate actions against responsible parties under CERCLA section 107(a); or

(4) Pursue a claim against the Fund for injury, destruction, or loss of a natural resource, as authorized by CERCLA section 111. (When this option is selected, a plan for restoration, rehabilitation, or replacement or acquisition of equivalent natural resources must be adopted pursuant to section 111(i) of CERCLA.)

(c) Where there are multiple trustees, because of co-existing or contiguous natural resources or concurrent jurisdictions, they shall coordinate and cooperate in carrying out these responsibilities.

Subpart H—Use of Dispersants and Other Chemicals

SOURCE: 49 FR 29197, July 18, 1984, unless otherwise noted.

§ 300.81 General.

(a) Section 311(c)(2)(G) of the Clean Water Act requires that EPA prepare a schedule of dispersants and other chemicals, if any, that may be used in carrying out the plan. This subpart makes provisions for such a schedule.

(b) This subpart applies to the navigable waters of the United States and adjoining shorelines, the waters of the

contiguous zone, and the high seas beyond the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act, activities under the Deep Water Port Act of 1974, or activities that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

(c) This subpart applies to the use of any chemical agents or other additives as hereinafter defined that may be used to remove or control oil discharges.

§ 300.82 Definitions.

For the purposes of this subpart:

(a) Chemical agents, in general, are those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or removal of the pollutant from the water.

(b) Dispersants are those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

(c) Surface collecting agents are those chemical agents that form a surface film to control the layer thickness of oil.

(d) Biological additives are microbiological cultures, enzymes, or nutrient additives that are deliberately introduced into an oil discharge for the specific purpose of encouraging biodegradation to mitigate the effects of the discharge.

(e) Burning agents are those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied.

(f) Sinking agents are those additives applied to oil discharges to sink floating pollutants below the water surface.

(g) Navigable water means the water of the United States, including the ter-

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ritorial seas. "Territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.

§ 300.83 NCP Product Schedule.

(a) Oil discharges. (1) EPA shall maintain a schedule of dispersants and other chemical or biological products that may be authorized for use on oil discharges in accordance with the procedures set forth in § 300.84 of this part. This schedule, called the NCP Product Schedule, may be obtained from the Emergency Response Division, U.S. Environmental Protection Agency, Washington, DC 20460. Phone (202) 382-2196.

(2) Products may be added to the NCP Product Schedule by the process specified in § 300.86.

(b) Hazardous substance releases. [Reserved]

§ 300.84 Authorization of use.

(a) The OSC, with the concurrence of the EPA representative to the RRT and the concurrence of the States with jurisdiction over the navigable waters polluted by the oil discharge, may authorize the use of dispersants, surface collecting agents, and biological additives on the oil discharge, provided that the dispersants, surface collecting agents, or additives are on the NCP Product Schedule. The OSC shall consult with other appropriate Federal agencies as practicable when considering the use of such products.

(b) The OSC, with the concurrence of the EPA representative to the RRT and the concurrence of the States with jurisdiction over the navigable waters polluted by the oil discharge, may authorize the use of burning agents on a case-by-case basis. The OSC shall consult with other appropriate Federal agencies as practicable when considering the use of such products.

(c) The OSC may authorize the use of any dispersant, surface collecting agent, other chemical agent, burning agent, or biological additive (including products not on the NCP Product

Schedule) without obtaining the concurrence of the EPA representative to the RRT or the State with jurisdiction over the navigable waters polluted by the oil discharge, when, in the judgment of the OSC. the use of the product is necessary to prevent or substantially reduce a hazard to human life. The OSC is to inform the EPA RRT representative and the affected States of the use of a product as soon as possible and, pursuant to the provisions in paragraph (a) of this section. obtain their concurrence for its continued use once the threat to human life has subsided.

(d) Sinking agents shall not be authorized for application to oil discharges.

(e) RRTs shall, as appropriate, consider. as part of their planning activities, the appropriateness of using the dispersants, surface collecting agents, or biological additives listed on the NCP Product Schedule. and the appropriateness of using burning agents. Regional contingency plans shall, as appropriate, address the use of such products in specific contexts. If the RRT and the States with jurisdiction over the waters of the area to which a plan applies approve in advance the use of certain products as described in the plan, the OSC may authorize the use of the products without obtaining the concurrence of the EPA representative to the RRT or of the States and without consultation with other appropriate Federal agencies.

[50 FR 47979, Nov. 20, 1985]

§ 300.85 Data requirements.

(a) *Dispersants.* (1) Name, brand, or trademark, if any, under which the dispersant is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Dispersant Toxicity—Use standard toxicity test methods described in Appendix C.

(8) Effectiveness—Use standard effectiveness test methods described in Appendix C. Manufacturers are also encouraged to provide data on product performance under conditions other than those captured by these tests.

(9) Flash Point—Select appropriate method from the following: ASTM—D 56-77; ASTM—D 92-78; ASTM—D 93-77; ASTM—D 1310-72; ASTM—D 3278-78.¹

(10) Pour Point—Use ASTM—D 97-66.¹

(11) Viscosity-Use ASTM-D 445-74.1

(12) Specific Gravity–Use ASTM–D 1298-67.¹

(13) pH-Use ASTM-D 1293-78.1

(14) Dispersing Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages will include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. Identify at least the following major components: surface active agents; solvents; additives.

(15) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Using standard test procedures, state the concentrations or upper limits of the following materials:

(i) Arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc, plus any other metals that may be reasonably expected to be in the sample. Atomic absorption methods should be used and the detailed analytical methods and sample preparation shall be fully described. (ii) Cyanide. Standard colorimetric procedures should be used.

(iii) Chlorinated hydrocarbons. Gas chromatography should be used and the detailed analytical methods and sample preparation shall be fully described.

(16) The technical product data submission shall include the identity of the laboratory that performed the required tests, the qualifications of the laboratory staff (including professional biographical information for individuals responsible for any tests), and laboratory experience with similar tests. Laboratories performing toxicity tests for dispersant toxicity must demonstrate previous toxicity test experience in order for their results to be accepted. It is the responsibility of the submitter to select competent anavtical laboratories based on the guidelines contained herein. EPA reserves the right to refuse to accept a submission of technical product data because of lack of qualification of the analytical laboratory, significant variance between submitted data and any laboratory confirmation performed by EPA. or other circumstances that would result in inadequate or inaccurate information on the dispersing agent.

(b) Surface collecting agents. (1) Name, brand, or trademark, if any, under which the dispersant is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Toxicity—Use standard toxicity test methods described in Appendix C.

¹1981 Annual Book of ASTM Standards. American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

-(8) Fiash Point-Select appropriate method from the following: ASTM-D 56-77: ASTM-D 92-78: ASTM-D 93-77: ASTM-D 1310-72; ASTM-D 3278-78.1

(9) Pour Point-Use ASTM-D 97-66.¹

(10) Viscosity-Use ASTM-D 445-74.1

(11) Specific Gravity-Use ASTM-D 1298-67.1

(12) pH-Use ASTM-D 1298-78.1

(13) Test to Distinguish Between Surface Collection Agents and Other Chemical Agents.

(i) Method Summary-Five (5) milliliters of the chemical under test are mixed with ninety-five (95) milliliters of distilled water and allowed to stand undisturbed for one hour. Then the volume of the upper phase is determined to the nearest one (1) milliliter. (ii) Apparatus.

(A) Mixing Cylinder: 100 milliliter subdivisions and fitted with a glass stopper.

(B) Pipettes: Volumetric pipette, 5.0 milliliter.

(C) Timers.

(iii) Procedure-Add 95 milliliters of distilled water at 22 °C+3 °C to a 100 milliliter mixing cylinder. To the surface of the water in the mixing cylinder, add 5.0 milliliters of the chemical under test. Insert the stopper and invert the cylinder five (5) times in 10 seconds. Set upright for one (1) hour at 22 °C+3 °C and then measure the chemical layer at the surface of the water. The major portions of the chemical added (75 percent) should be at the water surface as a separate and easily distinguished layer.

(14) Surface Collecting Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages should include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. Identify at least the following major components: surface active agents; solvents: additives.

1981 Annual Book of ASTM Standards. American Society for Testing and Materials. 1916 Race Street, Philadelphia, Pennsylvania 19103.

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(vi) Optimum pH. temperature, and

salinity ranges for use of the additive,

and maximum and minimum pH, tem-

perature, and salinity levels above or

below which the effectiveness of the

additive is reduced to half its optimum

(viii) Enzyme optimum storage con-

(10) Laboratory Requirements for

(d) Burning agents. EPA does not re-

quire technical product data submis-

sions for burning agents and does not

include burning agents on the NCP

§ 300.86 Addition of products to schedule.

lecting agent, or biological additive to

the NCP Product Schedule, the tech-

nical product data specified in § 300.85

must be submitted to the Emergency

Response Division, U.S. Environmen-

tal Protection Agency, 401 M Street,

SW., Washington, DC 20460. If EPA

determines that the data submitted

meet the relevant requirements, EPA

(b) EPA will inform the submitter in

writing, within 60 days of the receipt

of technical product data, of its deci-

sion on adding the product to the

(c) The submitter may assert that

certain information in technical prod-

uct data submissions is confidential

business information. EPA will handle

such claims pursuant to the provisions

in 40 CFR Part 2, Subpart B. Such in-

formation must be submitted separate-

ly from non-confidential information.

clearly identified, and clearly marked

"Confidential Business Information."

If the submitter fails to make such a

claim at the time of submittal, EPA

may make the information available to

(d) The submitter must notify EPA

of any changes in the composition or

formulation of the dispersant, surface

collecting agent, or biological additive.

On the basis of this data, EPA may re-

quire retesting of the product if the

change is likely to affect the effective-

the public without further notice.

ness or toxicity of the product.

will add the product to the schedule.

(a) To add a dispersant, surface col-

Technical Product Data. Follow speci-

(vii) Enzyme shelf life.

fications in § 300.85(a)(16).

Product Schedule.

schedule.

capacity.

ditions.

(15) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Follow specifications in § 300.85(a)(15).

(16) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in \S 300.85(a)(16).

(c) Biological additives. (1) Name, brand. or trademark, if any, under which the dispersant is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity. water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Statements and supporting data on the expected effectiveness of the additive, including degradation rates, the test conditions, and data on effectiveness.

(8) For microbiological cultures furnish the following information:

(i) Listing of all microorganisms by species.

(ii) Percentage of each species in the composition of the additive.

(iii) Optimum pH, temperature, and salinity ranges for use of the additive, and maximum and minimum pH, temperature, and salinity levels above or below which the effectiveness of the additive is reduced to half its optimum capacity.

(iv) Special nutrient requirements, if any.

(v) Separate listing of the following. and test methods for such determinations: Salmonella, fecal coliform, Shigella, Staphylococcus Coagulase positive, and Beta Hemolytic Streptococci.

(9) For enzyme additives furnish the following information:

(i) Enzyme name(s).

(ii) International Union of Biochemistry (I.U.B.) number(s).

- (iii) Source of the enzyme. (iv) Units.
- (v) Specific activity.

(e) The listing of a product on the NCP Product Schedule does not constitute approval of the product. To avoid possible misinterpretation or misrepresentation, any label, advertisement, or technical literature that refers to the placement of the product on the NCP schedule must either reproduce in its entirety EPA's written statement, referred to in Subsection (b), that the product has been listed on the schedule, or include the following disclaimer, which must be conspicuous and must be fully reproduced as follows:

D. JCLAIMER

[PRODUCT NAME] is on the U.S. Environmental Protection Agency's NCP Product Schedule. This listing does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of [product name] on an oil discharge. This listing means only that data have been submitted to EPA as required by Subpart H of the National Contingency Plan, § 300.85.

Failure to comply with these restrictions or any other improper attempt to demonstrate EPA approval of the product shall constitute grounds for removing the product from the NCP Product Schedule.

APPENDIX A TO PART 300-UNCON-TROLLED HAZARDOUS WASTE SITE RANKING SYSTEM; A USERS MANUAL

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