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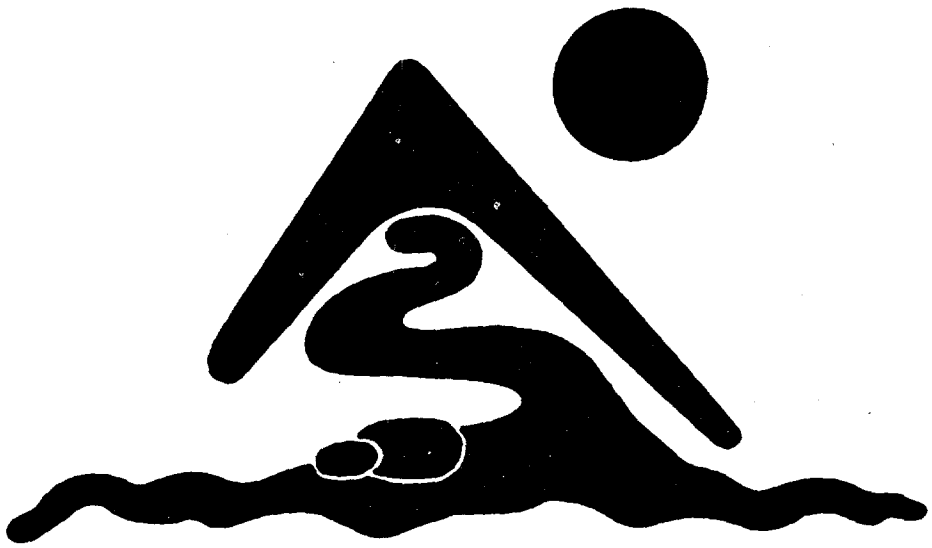
Lessons to be Learned:
The National Park Service Administrative History and Assessment of the *EXXON VALDEZ* Oil Spill



by

Rick S. Kurtz

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LESSONS TO BE LEARNED: THE NATIONAL PARK SERVICE ADMINISTRATIVE HISTORY AND ASSESSMENT OF THE *EXXON VALDEZ* OIL SPILL

by

Rick S. Kurtz, Historian

National Park Service
Alaska Regional Office
1995

TABLE OF CONTENTS

List of Photographs vi

Maps viii

Foreword ix

Introduction xi

Acknowledgements xiv

List of Acronyms xv

Chronology of Events xviii

Summary xxi
- Resource Management Priorities xxi
- The NPS Response xxii
- Resource Protection xxiii
- NPS Tort Investigation, Damage Assessment, and Restoration xxvi
- Threat Mitigation xxvii
- Interagency Cooperation xxviii
- Final Comments xxix

Chapter 1. The Institutional Setting 1
- Introduction 1
- Constitutional Influences 2
- Constraints on Discretionary Authority 3
- Sources of Agency Power and the Decision Making Process 4
- Toward a National Natural Resource Management Mandate 6
- Development of the NPS Mandate 7
- Federal Legislation and Alaska 9

Chapter 2. Combating the Disaster 13
- The Spill Environment 13
- Whether to Federalize the Spill 13
- Beyond Prince William Sound 15
- NPS Decides to Act 18
- The Two Front War 21

The Katmai Response 24
Resource Protection Officers 27
Aniakchak 28
New Battles on the Bureaucratic Front 28
The Financial Dilemma 30
Damage Assessment and the Trustee Process 34
The Tort Investigation 36
Summer Wrap-up 39

Chapter 3. Beyond the Early Frenzy 48
How Clean is Clean 48
Winter Monitoring on NPS Lands 49
The Summer Cleanup Program 54
Winter Monitoring and the 1991 Summer Cleanup 57
Damage Assessment Moves Forward 59
Restoration 66
Reaching Settlement 69
Department Restructuring and the Post-Settlement
Trustee Process 71
Final Comments 75

Chapter 4. Spill Successes and Failures 82
Exxon Valdez, The Failed Response 82
The National Park Service Response 84
NPS and Incident Command 85
Defensive Booming and RPOs 87
Pre-Inventory 90
Response Efforts Beyond 1989 91
How Clean are the Beaches? 93
The NPS Tort Investigation 94
The Damage Assessment and Tort Comparison 97
NPS and the Damage Assessment Process 98
Post-Settlement Restoration 101
NPS and Restoration 103
Measuring NPS Restoration Success 107
Spill Linkages 110
Final Remarks 111

Chapter 5. Confrontation and Cooperation 120
Agency Turf Wars 120
The Bureaucratic Decision Making Process 121
NPS Intra-Agency Conflict 123
NPS Interjurisdictional Conflict 127
The Transfer of Boyd Evison 131

Resolving the Bureaucratic Conflict 132
Tracking the Fate of Spilled Oil 136
Financial Reconciliation 138
Final Comments 150

Chapter 6. Epilogue 159
Spill Preparedness Today 159
Threats to Park Lands 164
Fulfilling the NPS Policy Mandates 167
Final Reflections 169

Appendix: By Timothy Cochrane, A Review of Agency Traditions and Actions During the Spill 173
NPS Occupational Culture 173
Disaster Behavior 180
NPS Organization and Adaptation 189

Glossary 197

Bibliography 201

Suggested Readings 209

Index 210

LIST OF PHOTOGRAPHS

following page 22: **Early oil movement and its impact**

The stricken tanker *Exxon Valdez* lies in anchorage at Naked Island.

Swift moving water renders boom on a Kenai Fjords stream ineffective.

A salmon stream at Kenai Fjords is successfully boomed.

A rocky outcropping at Ragged Island's Morning Cove shows the effects of oiling.

Two large patches of mousse--storm whipped water in oil emulsion--cling near the coast.

Fishing boats made up a large part of the ad hoc fleet assembled to fight the spill.

Oil trapped among rocks on a cobblestone beach at Cape Douglas, Katmai.

Some of the 7,800 bird carcasses retrieved from the Katmai coast.

A red fox scavenges among oil stained rocks in the intertidal zone.

A brown bear falls victim to oil while scavenging along the Katmai coast.

following page 30: **Implementing the Cleanup**

A cleanup worker is using high pressure hot water to wash oil of a rock face.

A self contained omni-barge equipped with a portable hot water wash-down system is used to rinse oil off an impacted beach.

Coast Guard, ADEC, and Exxon officials gather to observe the results of a COREXIT test application.

Member of the press gather for a cleanup briefing at the Valdez Civic Center.

following page 96: **How Clean are the Beaches?**

ADEC workers gather samples from a beach segment during the 1989 - 1990 WIMP.

Cleanup workers use hand tools, to remove oil from a section of beach at McArthur Pass in Kenai Fjords National Park.

An NPS technician takes a sample of weathered oil during a 1992 summer site survey.

This weathered oil was found clinging to rocks during a Kenai Fjords site survey.

following page 144: **Former Regional Director Boyd Evison**

Boyd Evison in his office at Rocky Mountain Regional Headquarters.

Another long afternoon as the Trustee Council debates a contentious issue.

following page 166: **Spill Preparedness Today**

The tanker *Arco Independence* being loaded with North Slope crude at the Alyeska terminal in Valdez.

A Ship Escort Response Vessel prepares to accompany a laden tanker leaving the Alyeska terminal.

Yorktown Clipper, a 257 foot tour boat, struck Geikie Rock on August 18, 1993 at Glacier Bay National Park and Preserve.

Abandoned fuel drums at the Lava Lake weather station in Bering Land Bridge National Preserve.

LIST OF MAPS

following page 26:

Map 1. *Exxon Valdez* Oil Spill Location Map

Map 2. *Exxon Valdez* Oil Spill Areas within National Park System

FOREWORD

My recollections of the many frustrations and few rewards that came with helping manage National Park Service activities in the *Exxon Valdez* Oil Spill are beginning to dim with time. Not dimming, however, is the deep-gut horror of parks and employees stained by the impossibly sticky, thick, black stuff. The tears have all dried up but wounds are still a little sore and the anger remains.

In early April, 1989, my good friend and colleague Dan Hamson and I were sent to Katmai early on to help park staff mobilize resources to deal with what we believed to be the impending strike of oil on park beaches. By the fall of 1989, Dan and I had been given the job of establishing a new division which would administer all of the Service's *Exxon Valdez* oil spill activities. Sandy Rabinowitch joined us in 1990 to assist with restoration planning. Restoration planning was problematic. No one knew how it would end up. There was little policy and virtually no precedent for what we were doing. We improvised as we went along and did not stop until we transferred out of the Alaska oil spill business in 1992, 1994, and 1995, respectively. We assumed roles in which we were not fully comfortable, but rather grew into. In essence we became the defacto Alaska Region oil spill "experts."

Dan and I realized that the Service could benefit from the "whole story" of the NPS's involvement in the oil spill. The good effort by Bill Hanable, in his report on initial response, focused on March through September, 1989 response activities. But there was much more to the story. There was also a significant response season in the summer of 1990 and response participation in 1991. As well, the Service was extensively involved in damage assessment and restoration activities with the State and Federal Trustees between 1989 and 1994. These were major programs with multi-million dollar opportunities in restoration at stake for the oil spill-affected parks.

We took the idea of an expanded oil spill story to Associate Regional Director Paul Haertel who endorsed the concept and sent us off to Kate Lidfors, the Regional Historian, for help with implementation. We told Kate that we wanted a complete collection of facts about the Service's participation in *Exxon Valdez* oil spill activities--response, damage assessment and restoration. That, in our opinion, the Service could benefit from having these facts collected under one cover rather than in the memories of dozens of participants and the mountains of files in our offices and warehouse. We also realized that, because of its complexity and magnitude, no one person in our agency had a complete understanding of this incident (including us!). We did not want any spin doctoring; we wanted a record that could serve as a chronicle of decisions and events so others could learn from this incident's complexity and activities. It was our experience that much of what we did was by trial and error--literally making it up as we went along. Surely and unfortunately, there will be more major oil spills affecting park lands. According to Dan, major oil and hazardous spills affected more than a dozen parks in 1994 alone. If people would learn from our successes and failures, maybe, as a Service, we could respond more effectively in the future.

With Kate, Sande Faulkner, and Ted Birkedal's able oversight and our encouragement and money, Tim Cochrane and, later, Rick Kurtz were hired to compile this document. Working with all of these professionals was very enjoyable--I value their commitment to the project. Realize there is some controversy between these covers and there may be an error or two because much of what is printed here is based on the recollection of the individuals involved. Try to rise above that to an appreciation of what was involved in our agency's participation in this major oil spill.

Cordell J. Roy
Superintendent, Timpanogos Cave National Monument

INTRODUCTION

On March 24, 1989 the Tanker Vessel *Exxon Valdez* ran aground on Bligh Reef in Alaska's Prince William Sound. Within hours the tanker had spewed out more than 10 million gallons of oil into the pristine waters of the Sound. Over the next several weeks the oil inundated some 1,200 miles of coastline within Prince William Sound and the Gulf of Alaska. The spilled oil wreaked havoc among coastal ecosystems, killed thousands of waterfowl and other wildlife, negatively impacted significant coastal historic sites, and soiled the shorelines of three national park units. The event was the most disastrous tanker spill to occur in North American waters.

Since the spill, multiple accounts have been written about the event. Many have focused primary attention on the spill response, providing a chronology of the events immediately preceding and following the fateful grounding. Several accounts have incorporated select biases, relating events based upon preconceived perceptions of the author or parent organization. Depending on the version, one could interpret the spill as an environmental apocalypse, an incident of minimal consequence, or a public relations opportunity for pushing political agendas. Such versions failed to objectively assess all pertinent evidence regarding the incident. Just as importantly, it should be noted that several federal agencies, the State of Alaska, and private parties have produced spill accounts which provide useful perspectives and decision making insights into the *Exxon Valdez* catastrophe. A bibliography of suggested readings contains a representative cross-section of these studies.

This study differs in several respects from many earlier studies. The National Park Service (NPS) commissioned this study to provide an accurate historical accounting and policy assessment of the park service's efforts to combat, assess, and rectify the oiling of park unit coasts of the Kenai Fjords, Katmai, and Aniakchak units. The study reaches beyond the initial pre- and post-spill accounting of most other versions of the event. The study incorporates a discussion of all major facets of park service post-spill involvement over the past several years. In this respect the study goes well beyond an earlier NPS report which documented the park service's initial response to the event.

This study, however, is not exhaustive. Time and financial constraints, coupled with the sheer volume of material and the inability to garner access to all participants, meant that some information would inevitably be left out. Every attempt has been made to overcome these constraints or make note of them when unavoidable. Likewise, every attempt has been made to corroborate and verify the historical validity of the information provided in this study. Opinions of individual participants are presented as such, rather than being represented as indisputable facts. The same can be said for the many rumors of which this document makes note. Opinions and rumors are included because they constituted an integral part of the decision making process associated with the spill and they reflect the partial and imperfect knowledge of the time.

Finally, this study makes no attempt to gloss over or provide a decidedly favorable slant to the park service's participation during the aftermath of the *Exxon Valdez* oil spill. To maintain objectivity, the NPS recruited an individual from outside the park service to write the study. For his part, the author repeatedly struggled with the difficulty of drawing out the positive aspects of NPS post-spill operations without seeming favorably biased towards the study's sponsor. The author likewise had to undertake the task of identifying NPS shortcomings, with the full knowledge that criticisms often loom larger in the eyes of participants than do compliments, and with the understanding that the luxury of 20/20 hindsight greatly favors the danger of being overly critical.

The study consists of 6 chapters divided into 2 parts. Part 1 consisting of chapters 1, 2, and 3, is a narrative of park service involvement in post-spill operations. Chapters are divided into subject areas with each area organized chronologically. Chapter 1 examines the official and unofficial institutional devices which the National Park Service must address in carrying out its mandates. The chapter also provides a brief overview of developments which have contributed to the shaping of the park service's mission. Understanding this information is important for comprehending park service actions during the spill's aftermath. Chapter 2 briefly discusses the pre-spill situation, and elaborates upon park service post-spill operations--both administrative and in the field--during the 1989 cleanup season. Chapter 3 narrates park service post-spill activities through mid-1992.

Part 2 of the study consists of chapters 4, 5, and 6. Part 2 assesses in greater detail specific park service activities discussed in part 1. Park service rationalizations, successes, and failures associated with the spill are examined. Lessons which can be learned are extracted in hopes that they will be incorporated or avoided as appropriate, in future park service spill contingency planning.

Chapter 4 addresses specific actions which park service spill combatants and decision makers adopted and implemented in response to the disaster. Merits are weighed against intended results and final outcomes. Chapter 5 discusses the intra-agency and interjurisdictional conflict and cooperation between the park service and other spill participants. Sources and contributing elements of friction and cooperation are identified. Methods for mitigating future conflicts and enhancing cooperation between the park service and other spill participants is discussed. The chapter also addresses the unique features of a technological (human caused) disaster as opposed to a natural disaster. The implications of these modern disasters for the park service with respect to *Exxon Valdez* and similar catastrophes is examined. The chapter draws in part upon an appendix written by Dr. Timothy Cochrane. Chapter 6, the epilogue, begins with an assessment of present day oil and hazardous spill response preparedness in Prince William Sound and the Gulf of Alaska. The chapter incorporates a discussion of the park service's current spill planning, preparedness, and response capabilities, followed by an examination of external technological threats and their implications for the integrity of national park units.

The appendix reviews NPS oil spill related actions from a different vantage point than the earlier chapters. The appendix examines three principal topics: (1) how the occupational culture of the NPS provided tacit "guidance" to NPS decision making and action, much beyond the norm of day to day management activities. The distinctive occupational culture of the NPS including traditions, managerial predispositions, perceptions, and values all contributed significantly to how NPS participants understood the event and helps explain why certain actions were taken. (2) discusses the social scientific disaster literature which provides a vocabulary and study results to compare with the NPS experience during the *Exxon Valdez* oil spill. This literature reminds us that disasters are not a conflation of emergencies which only try our abilities to operationally respond, but rather disaster's attack our basic assumptions and scramble assumed organizational functions. And (3), the final section of the appendix discusses the importance of institutional adaptability to successfully meet a chronically stressful event such as the oil spill. Three types of organizational structures are reviewed and their appropriateness for the tasks at hand are noted and analyzed.

ACKNOWLEDGEMENTS

Like the response to the spill, the writing of this study drew upon the time and expertise of a multitude of individuals. To thank each and every individual would require several pages and more than likely fail to account for all contributors. Therefore, I shall limit myself to acknowledging the contributions of several major participants who dedicated countless hours towards the completion of this study.

Numerous persons outside of the NPS deserve mention. Among these are reviewers, Thomas Dunlap of Texas A&M University, Susan Schrepfer of Rutgers University, and Carl Shepro of the University of Alaska, Anchorage. Their critiques provided valuable perspectives which helped shape the final product. I would also like to thank Paul Gates and Pamela Bergmann of the Department of the Interior for their participation. Within the NPS a thank you is extended to my colleagues Sandra Faulkner, Frank Norris, and Timothy Cochrane for their worthy peer reviews and advise in completing this study. Thank you to Wendy Davis and Joni Piercy for designing illustrations. Thanks likewise to ARO Cultural Resources Division Chief Ted Birkedal for his support during the development of this study. Finally, a special thank you must be extended to former oil spill office staffers Daniel Hamson, Cordell Roy, and Sanford Rabinowitch--who conceptualized this study and willingly submitted themselves to several hours of interviews and followups. Without their support this study could not have been written.

LIST OF ACRONYMS

ADEC	Alaska Department of Environmental Conservation
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ANWR	Arctic National Wildlife Refuge
ARO	Alaska Regional Office (of NPS)
BLM	Bureau of Land Management
BP	British Petroleum America
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of federal Regulations
CWA	Clean Water Act
DOI	Department of the Interior
DOJ	Department of Justice
DOT	Department of Transportation
EPA	Environmental Protection Agency
FOSC	Federal On-Scene Coordinator
FWS	Fish and Wildlife Service
FY	Fiscal Year
GAO	General Accounting Office
ICS	Incident Command System
ICT	Incident Command Team

IMT	Incident Management Team
MAC Group	Multi-Agency Coordination Group
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPCA	National Parks and Conservation Association
NPS	National Park Service
NRDA	Natural Resource Damage Assessment
NRT	National Response Team
OEA	Office of Environmental Affairs
OMB	Office of Management and Budget
OPA 90	The Oil Pollution Act of 1990
OOSC	Office of Oil Spill Coordination
OSEF	Oil Spill Emergency Fund
OSPIC	Oil Spill Public Information Center
PWS	Prince William Sound
PWSRCAC	Prince William Sound Regional Citizens' Advisory Council
REA	Regional Environmental Assistant
REO	Regional Environmental Officer
RPO(s)	Resource Protection Officer(s)

RPWG	Restoration Planning Work Group
RRCT	Resource Recovery Coordination Team
RRT	Regional Response Team
TAG	Technical Advisory Group
TAPS	Trans Alaska Pipeline System
USFS	United States Forest Service
WIMP	Winter Interagency Monitoring Program
WPG	Washington Policy Group

CHRONOLOGY OF EVENTS

RESPONSE OPERATIONS

Date	Event
March 24, 1989	*Exxon Valdez* runs aground on Bligh Reef.
March 30, 1989	Leading edge of slick moves beyond Prince William Sound. ICT arrives in Seward to assist Kenai Fjords National Park.
April 1, 1989	Senator Stevens visits Seward and encourages defensive booming. Seward MAC Group decides to implement defensive booming with ICT support.
April 10, 1989	Oil strikes Kenai Fjords coast.
April 13, 1989	Boyd Evison testifies before Congress about spill impact to NPS land.
April 19, 1989	ICT at Seward demobilizes.
April 26, 1989	NPS reports confirmation of first major oiling of the Katmai coast.
May 4, 1989	Interagency team visits Katmai coast to confirm extent of impact.
May 5, 1989	Exxon begins cleanup at Kenai Fjords.
May 10, 1989	Exxon begins cleanup at Katmai.
July 2, 1989	Confirmation of impact to Aniakchak beaches.
July 4, 1989	Exxon crews begin cleanup at Aniakchak beaches.
September 15, 1989	Exxon ceases 1989 cleanup activities.
Winter 1989 - 90	NPS participates in Winter Interagency Monitoring Program for impacted shoreline segments.
March 1990	Spring shoreline assessments made to determine 1990 cleanup priorities.

Summer 1990	Exxon contract crews resume cleanup at Kenai Fjords and Katmai. City of Chignik contracted to conduct cleanup at Aniakchak.
Winter 1990 - 91	Limited winter monitoring program implemented. NPS questions value of further cleanup at impacted park units.
Summer 1991	Two week cleanup of select sites at impacted park units. No further cleanup at NPS sites.

DAMAGE ASSESSMENT

Date	Event
April 2, 1989	NPS initiates independent tort investigation of damages to park resources.
April 1989	Trustees decide to conduct an interagency damage assessment. Plan formulation begins. FWS designated as lead agency for DOI damage assessment activities. NPS participates in early planning sessions.
April 28, 1989	Federal Trustees sign MOA outlining framework for conducting an interagency damage assessment of resource injuries.
August 3-5, 1989	Trustees set timetable for completion of damage assessment. NPS voices concerns over scope of proposal and lack of NPS participation.
August 1989	NPS staffer named as assistant to FWS damage assessment Management Team member.
January 1990	Time frame for conducting damage assessment studies revised and extended beyond February 1990 scheduled completion date.
Summer 1990	Total of 43 damage assessment studies conducted or carried over from previous year throughout the spill zone.
Fall 1990	Trustees release fall review plan for 1991 damage assessment studies.
April 24, 1991	U.S. District Court rejects Exxon's criminal plea bargain. Damage assessment studies continue.

September 26, 1991	DOI staffers assume primary damage assessment responsibilities from FWS.
October 8, 1991	U.S. District Court approves a new settlement package.
Summer 1992	Damage assessment studies finalized or merged with restoration studies.

RESTORATION

Date	Event
August 1989	Trustees' NRDA Plan review draft identifies need for developing a restoration strategy.
Fall 1989	NPS staffer assigned as DOI RPWG member.
March 26-27, 1990	RPWG holds restoration public symposium.
August 1990	RPWG releases restoration planning progress report.
Summer 1991	RPWG develops resource injury list in support of government damage assessment claim against Exxon.
Spring 1992	ARO threatens to discontinue further participation in restoration work groups unless DOI establishes better communication and a more meaningful role for NPS.
January 1993	Trustee Council recognizes acquisition as a viable restoration method; approves funding for land acquisition in Kachemak Bay. Presents opportunity for additional acquisition proposals.
March 24, 1993	Federal Trustees target $25 million of Exxon's criminal fine for acquisition purposes in former spill zone. Inholdings at Kenai Fjords included in purchase package.

SUMMARY

When the Tanker Vessel *Exxon Valdez* ran aground on Bligh Reef, most National Park Service (NPS) decision makers in Alaska shared a commonly voiced opinion that the spill, though a terrible tragedy, was limited to Prince William Sound. They were thankful the spill had not occurred along NPS shorelines and felt safe in the knowledge that the nearest national park unit, Kenai Fjords National Park, was over 100 miles away. This assessment was quickly replaced once it was realized that the oil could not be contained within the Sound. Ultimately, the oil struck three national park units--Kenai Fjords National Park, Katmai National Park and Preserve, and Aniakchak National Monument and Preserve--impacting resources along nearly 400 miles of coastline.

This study documents NPS efforts to combat, assess, and mitigate injuries to national park lands from the *Exxon Valdez* oil spill. Three spheres of operations are addressed: the impacted parks, the Alaska Regional Office (ARO), and NPS-Department of the Interior (DOI) interaction in Washington, D.C. The study incorporates a discussion of all major facets of park service post-spill involvement over the past several years. The policy implications for resource protection, threat mitigation, and interagency cooperation are identified and discussed. The application of these lessons to present day spill response planning and preparedness on NPS lands is also examined. Ultimately, the study focuses on enhancing the capabilities of NPS decision makers charged with resource protection responsibilities.

RESOURCE MANAGEMENT PRIORITIES

More than 80 federal departments and agencies have some type of responsibilities in environmental affairs. Each has its own distinct history, traditions, and values. These factors, in conjunction with basic statutory mandates, define the collective conception of what a resource management agency perceives as its protection obligations. These concepts play an integral part in the agency decision making process, helping to shape, define, assign urgency and importance to the various challenges federal resource managers encounter.

The foundations of a distinct park service culture can be traced back to the late 19th century, a period when U.S. Cavalry troops patrolled Yellowstone and other early parks. These hardy troopers and their ranger successors brought with them traditions of independent action and initiative which, in turn, fostered a park service culture of decentralized management. Living in remote, often isolated locations, park service rangers were encouraged to assume personal responsibility for resources in their respective park units. Their scope of responsibilities ran the gamut from daily mundane chores to matters having substantial implications for life and property. Rangers were seen as "can-do" people, capable of managing any situation in their park. The proprietary attitudes created through these

traditions have continued to the present, and remain quite evident when park managers speak and act in terms of "my park."

A core group of federal statutes has likewise influenced NPS management practices. The 1916 "organic act" most clearly spells out the NPS mission. Congress created the NPS as a bureau level entity within the Department of the Interior to:

> promote and regulate the use of the federal areas known as national parks, monuments, and reservations... by such
> means and measures as conform to the fundamental purpose
> of said parks, monuments, and reservations, which
> purpose is to conserve the scenery and the natural
> and historic objects and the wildlife therein and
> to provide for the enjoyment of the same in such manner
> and by such means as will leave them unimpaired for
> the enjoyment of future generations.

The 1916 act charged the park service with the twin mandates of resource preservation and visitor enjoyment. This language, in combination with a distinctive park service culture, remains the heart of NPS management policy. How the park service chose to deal with the *Exxon Valdez* spill was to a large extent a reflection of these guiding principles.

THE NPS RESPONSE

On March 24, 1989, at 12:04 a.m. the 987 foot Tanker Vessel *Exxon Valdez* ran aground on Bligh Reef, 25 miles out of Valdez on a heading for Long Beach, California. The impact tore open eight of the ship's eleven cargo tanks and spewed out 10.8 million gallons of North Slope crude into Prince William Sound. By April 1 it had become apparent to decision makers at the threatened parks and within the NPS Alaska Regional Office that oil would exit the Sound and impact park units in the Gulf of Alaska. A decision was made to mobilize a park service response.

The park service was as inadequately prepared as other agencies to combat the oncoming spill. NPS had been in the process of finalizing a spill response plan for small scale incidents at Kenai Fjords when the tanker ran aground. The process of formulating spill response plans for the two other impacted parks, Katmai and Aniakchak, had not yet begun. Few NPS employees had any prior hands-on training in spill response management. The park service likewise suffered because it did not know the full extent and value of coastal resources at the soon-to-be impacted park units. This made resource protection efforts exceedingly difficult.

Decision makers at the park service's Alaska Regional Office and at the threatened park units initiated the NPS response effort. The actual management of the NPS spill response was

likewise handled at the regional level. Support of the ARO response effort from the NPS Directorate in Washington, D.C., though initially strong, became sporadic and cautious. NPS Director William Mott and Deputy Director Denis Galvin had, coincidentally, received their marching orders within a few days of the spill. The outgoing directorate was able to marshal some financial and political support for the ARO. The Bush Administration's newly appointed Director James Ridenour and Deputy Director Herb Cables came aboard in mid-April. The new appointees were bombarded with conflicting information from sources within the DOI, the State of Alaska, ARO, and various political interests. Their cautious assessment of ARO spill operations was a reflection of these conflicting pressures.

In contrast, ARO decided to muster all available resources and attack the spill as if it were a fire or similar resource threat. The first step was to request support through the Incident Command System (ICS). The ICS is a nationally recognized crisis management system which was first developed for wildland fire fighting in California. Incident Command Teams (ICTs) were tasked with providing administrative support to the superintendents in charge of the threatened parks. Later, an ICT Area Command was created at ARO. The area command was charged with managing the NPS spill response, thereby relieving ARO of this administrative burden. The area commander reported to the regional director.

Post-spill studies credited the park service's use of the ICS with doing an outstanding job of mobilizing resources and administering ad hoc response operations. The official DOI spill report to Congress said that the non-fire use of the system proved to be "a significant step in giving quick and orderly response to initial threats to widespread resources at risk." Still, use of the ICS was not without problems. ICT decision making channels were often tangled. Communication flow between park superintendents, the regional office, ICTs, and the area command were often unclear. Superintendents at the stricken parks felt they were not being provided with sufficient input and feedback on ICS operations. ICS cost tracking mechanisms did not readily mesh with standard NPS financial procedures.

Problems of this type could hardly be avoided. The ICS was unfamiliar to many NPS participants. This caused confusion during the heat of the response. Likewise, ICS, although technically labelled an all-risk system, had little experience outside of fire response prior to the *Exxon Valdez* spill. Adaptations were required in order to make the system meet oil spill needs.

RESOURCE PROTECTION

The protection of natural and cultural resources against spill injury was of prime concern to park service decision makers. Steps taken to implement resource protection were three-fold. They included pre-inventorying, defensive booming, and cleanup restrictions.

Pre-inventorying involved sending out small scientific teams to select sites along the threatened national park coasts to conduct natural and cultural resource site surveys. This

information provided baseline data on park resources for gauging spill impact, and gave park personnel an idea of the resources lying in the spill's path. The need for conducting a hurried pre-inventory of resources for the threatened park units illustrated a glaring shortcoming. The park service had minimal knowledge about the coastlines of the stricken parks prior to the spill. This was partially the result of the bureau's traditional reluctance to embrace science and research as a park service priority. The relative newness of the threatened parks added to the problem. Provisions of the 1980 Alaska National Interest Lands Conservation Act created Kenai Fjords and Aniakchak units. This same legislation expanded Katmai. Compounding these difficulties was the chronic underfunding which had traditionally plagued park service operations. Both the Executive branch and Congress had shown a continual willingness to earmark funds for new park unit capital projects. In contrast, they demonstrated a reluctance to appropriate sufficient funds to cover basic NPS operation and resource protection needs. The ARO, to its credit, had made prior attempts to secure funding for baseline data gathering. These attempts largely failed to clear the federal budgetary process. A good pre-spill baseline inventory would have served as a useful tool in determining special cleanup requirements for the oiled beaches. It would have also helped the NPS more quickly target sensitive sites which were favorably disposed to defensive booming and freed up critical resources to focus on other tasks.

The park service had not originally planned to involve itself in defensive booming. Exxon and the Coast Guard were supposed to direct this operation. However, when the Seward - Kenai Fjords coastal region was first threatened, neither Exxon nor the Coast Guard was on-scene. NPS, in conjunction with community leaders, decided to organize a cooperative response. Local community leaders and U.S. Senator Ted Stevens (R-AK) helped to assure ARO decision makers that NPS should get involved in directing the placement of defensive boom.[a]

The actual effectiveness of these booming activities can best be described as mixed. For those individuals who "wanted to get a lot of boom out there and stop oil from hitting anything," booming was a miserable failure. Oil moving out of Prince William Sound was impossible to contain. For those who gauged booming in terms of finite deflection opportunities and protection of select habitat areas, booming was more successful. The ad hoc Seward Multi-Agency Coordination Group (MAC Group) was able to identify and effectively boom off salmon streams and other sensitive habitat areas. Still, the opportunities for effective defensive booming were limited. There simply was not enough boom to protect all targeted sites. Likewise, many critical habitat areas consisted of wide bays, rocky headlands, and other sites exposed to the full force of the weather. Booming was not effective under these conditions.

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[a]A similar joint effort was later implemented in the Kodiak-Katmai sphere of operations, with both Exxon and the Coast Guard playing an active role.

The failure to contain and deflect most oil away from critical resources had other implications as well. It meant there would have to be an extensive cleanup effort. To facilitate the cleanup effort the park service implemented the use of Resource Protection Officers (RPOs). RPOs were responsible for preventing negative impact to resources from cleanup workers, preventing encounters between workers and wildlife, and enforcing NPS cleanup restrictions. RPOs also served as the eyes and ears of decision makers at the main offices. The official DOI *Exxon Valdez* spill report submitted to Congress credited RPOs with preventing unnecessary damage to park resources, limiting encounters with bears, and ensuring compliance with special permitting requirements.

The actual cleanup operation carried two basic costs. First there were the direct costs. These included the labor, equipment, and other resources mobilized to combat the spill. Direct NPS costs attributed to the spill response exceeded $7.3 million. The park service's authority to incur these costs became a major issue of contention between NPS and DOI. The DOI spill coordinator was adamant in his convictions that NPS only initiate actions which were clearly reimbursable under federal law. ARO decision makers chose instead to implement an aggressive response first and then worry about reimbursement. Ultimately, some $2.7 million in NPS spill expenditures were not reimbursed. Factors which contributed to this included: park service implementation of non-reimbursable activities, DOI consolidation and disbursement procedures associated with spill funding, and overly restrictive interpretations of federal reimbursement guidelines.

There were also indirect costs associated with the spill which had to be reconciled. These included detrimental impacts the cleanup had on resources, and the subsequent implications for restoration. Such indirect costs of the spill cleanup are best understood as a continuum. In this continuum, natural cleansing rates as the least destructive means of cleanup. Next are the less intrusive "type A" methods which include cold water washing, the extensive use of hand tools to remove oil, and bioremediation.[b] At the far end of the scale are the more intrusive "type B" cleanup methods such as hot water washing and the use of heavy mechanized equipment to remove oil, and the application of harsh chemicals to break down the oil. In addition, resource damage and disturbance from heavy foot traffic and spill worker transport contributed to the indirect costs of the cleanup. Eventually there came a point where the costs of implementing further cleanup outweighed the net benefits derived. Going beyond this point meant greater overall resource restoration costs.

NPS deemed the spill cleanup threshold level as relatively low for impacted park resources. NPS decision makers felt that in a majority of cases intrusive cleanup measures, in conjunction with uncontrolled mechanized transport and foot traffic, constituted a greater threat to park resources than did the oil. In retrospect the park service's conservative approach to cleanup appears to have been a wise decision for resources. Scientific findings

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[b]Bioremediation involves the use of chemical applications to enhance the presence of oil eating microbes.

presented at the 1993 *Exxon Valdez* Oil Spill Symposium in Anchorage suggested that high pressure hot water washing and harsher chemical treatments often had a more detrimental effect on oiled shorelines than simply leaving impacted beaches to the forces of nature. Scientists found that many of the more intrusive treatments, particularly high pressure hot water washing, caused reductions in the intertidal biota. In areas where less intrusive methods were employed or only natural cleansing occurred, biota recovery was significantly faster than in heavily treated zones.

For cultural resources, evidence has shown that direct oiling had no measurable impact on coastal artifacts. However, inadvertent disturbance and destruction through hot water washing and other removal activities occurred despite Exxon's extensive efforts to minimize such damage. Cleanup activities also had the unintended effect of making known the whereabouts of previously undisclosed archeological sites, thereby placing these sites at risk to future looting and vandalism.

NPS TORT INVESTIGATION, DAMAGE ASSESSMENT, AND RESOTRATION

The statutory authority and procedures for conducting an assessment of injuries after a spill are contained in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Clean Water Act. CERCLA specifically authorizes the designation of federal and state officials with appropriate jurisdiction to act as trustees on behalf of the citizenry, and to protect the natural resources on impacted public land. During the aftermath of *Exxon Valdez*, this responsibility was met through the implementation of an interagency natural resource damage assessment (NRDA), and the submittal of claims for injury from the responsible parties. Acting through his trustee authority, the Secretary of the Interior designated the FWS to represent all impacted DOI agencies during the damage assessment process.

Rather than focus its efforts on participating in the Trustees' NRDA, the park service launched an independent damage assessment of NPS resource injuries. By initiating a tort investigation of spill damage to park lands, NPS personnel correctly recognized the need for implementing an evidence gathering mechanism to document injury to park resources. The NPS tort investigation, however, failed in two critical respects. First, tort investigators were never able to clearly define the purpose or ultimate goals of their effort. What was begun as pre-oil field observations and sampling evolved into an independent evidence gathering effort to support NPS loss recovery claims filed against the spiller in court. Field support teams were unsure about the evidence they were supposed to gather. They felt they were not being adequately briefed about shifts in the focus of the tort investigation. The result was inappropriate sample gathering, confusion, and a failure to realize stated intentions. Second, NPS was unable to effectively integrate tort information into the Trustee-directed NRDA, once it was realized that evidence gathered and incorporated into the Trustees' NRDA would serve as the basis for the federal litigation effort against Exxon. The tort evidence was well suited to assigning criminal penalty. It also presented an effective model

for packaging trial evidence. The NPS tort evidence, however, was simply not suited to the litigation requirements and compensatory goals of a NRDA. The tort lacked the rigid methodologies and study designs demanded in a viable NRDA.

The park service's inability to secure a larger share of the NRDA compensation monies was also the product of political factors. Unlike other impacted agencies, NPS did not have any upper level decision makers participating in the Trustee directed NRDA. ARO attempts to garner a meaningful role in the trustee process were largely rebuffed. Reasons for this remain unclear. A federal Trustee memorandum of agreement, signed in April 1989, said that all federal agencies deemed appropriate could name a consultant to the Trustees' NRDA process. The Department never provided ARO with an answer for denying an NPS consultant. Some ARO staffers felt that the Department was denying NPS access because the park service supported dissenting viewpoints not in keeping with Interior priorities. In any event, this placed the park service at a distinct disadvantage during NRDA and restoration.

The decision to implement an independent NPS tort effort--in combination with the general exclusion of NPS as an active participant in the studies and political process associated with the NRDA effort--dealt the park service a severe blow. At no time was NPS fully integrated into the NRDA process. The park service assumed a peripheral role in NRDA studies and received minimal funding for studies on park land.

The park service's NRDA shortcomings carried negative consequences for the restoration of injured resources at the stricken parks. Securing restoration projects and project dollars was based, in part, upon an agency's ability to document injury during the damage assessment process. Any agency which failed to verify spill related injuries during damage assessment was much less likely to receive restoration compensation commensurate with the actual damage inflicted during the spill. This appears to have been the case for NPS.

THREAT MITIGATION

Throughout the course of the spill response, the park service cited its 1916 organic act and subsequent statutes as justification for many of the restrictions NPS was placing on spill cleanup. However, the NPS generally failed to convince other spill participants of the legitimacy of NPS resource protection priorities. The park service had to repeatedly reassert to the Coast Guard the uniqueness of resource protection values contained in the NPS mandate. The perceived degree of impact, severity of oiling, and park service cleanup restrictions became heated issues because of misunderstandings over park service resource values. ARO Director Boyd Evison acknowledged the difficulty ARO encountered in trying to make the Coast Guard understand NPS resource protection values. The Coast Guard, in Evison's opinion, understood the scenery aspect of park values. The Coast Guard failed to grasp the concepts of ecosystem integrity as defined in the NPS mandate. This caused the Coast Guard to pursue a policy of oil removal through any means, in the mistaken belief that restoring the scenic view was the only goal of cleanup in the stricken parks. In contrast, the

Coast Guard and several other respondents interpreted many NPS stipulations as absurd. NPS resource mandates were something they had never before encountered. One Coast Guard official said that working with the park service was "like dealing with another country, never mind another federal agency."

The park service's inability to successfully convey its resource protection mission to the Coast Guard was a reflection of a larger NPS predicament. For too long, park unit managers had tended to focus their attention on what was happening within the confines of their park. The implications of activities outside park boundaries and the potential impact these activities could have upon park unit resources were largely ignored. One clear lesson of the spill has been the need for NPS decision makers to look beyond their respective boundaries. Effective threat mitigation, be it for an *Exxon Valdez* or a host of other external threats which jeopardize resource integrity, precludes insular thinking. Many of the issues and threats which NPS and other public land managers face today cross jurisdictional boundaries. Successful threat mitigation requires proactive policy involvement at all levels. A preoccupation with internal matters does not work ecologically nor does it work politically in today's interdependent world.

INTERAGENCY COOPERATION

Taking steps to mitigate external threats can be difficult. Other federal agencies with multiple use mandates, state and local governments in search of tax dollars, and private developers do not have the same priorities as agencies charged with resource protection. Politics, competing agency missions, and strict adherence to lines of responsibility all serve to prevent unity of action. Success depends, in part, upon the ability to identify common interests. During *Exxon Valdez* the park service initiated some positive steps in this direction. NPS participation in the Seward MAC Group and Kodiak Emergency Council proved that a great deal could be accomplished when groups joined together in a concerted effort. These ad hoc groups had sufficient political clout to overcome obstacles and get the response process moving forward in their respective regions. It is doubtful if any one member of these intergovernmental groups would have had the ability to do so had it acted alone.

The ARO likewise made a positive move with the creation of an Oil Spill Coordination Office in the fall of 1989. Spill office personnel tracked the myriad of constantly shifting planning schemes and schedule changes, thereby keeping NPS involved in the ongoing cleanup process after the area command demobilized. Spill office personnel advocated park service priorities in what limited access NPS was able to garner in the damage assessment and restoration phases of the spill.

The ability of NPS to protect resources under its jurisdiction, however, requires more than the capacity to form ad hoc cooperatives in the face of impending disaster. Proactive steps must be taken to protect resources against environmental calamities. NPS participation in prior spill planning efforts at the national, regional, and local levels were inadequate.

Contributing factors to this failing were three-fold. First, there was the previously mentioned dilemma associated with the park service's insular management style. Contributors to the 1992 *Vail Agenda* chastised NPS for its repeated failure to actively enlist and become involved with citizen advocates, senior administrators, sister agencies, and organized interests having mandates and goals complementary to park service agendas. Strengthening these ties would have provided NPS with allies in the political arena and helped prevent unwarranted misunderstandings.

Second, as witnessed during *Exxon Valdez*, NPS attempts to combat the spill suffered from a lack of adequate baseline data and specific scientific expertise among park service personnel. Evidence presented in a 1987 General Accounting Office report and in the *Vail Agenda* identified the development of a solid base of scientific information as a critical requirement for mitigating external threats.

NPS engagement in "risk politics" compounded the above deficiencies. Risk politics is peculiar to low probability-high consequence technological events in which people generally assume that the risk of an accident is so remote it will never happen. They therefore fail to formulate adequate plans to meet the disaster should it ever occur. Consequently, once the disaster strikes, respondents must fashion from scratch an organization sufficient to meet the needs of the technological disaster. This scenario sums up the state of preparedness for all respondents prior to the *Exxon Valdez* spill.

FINAL COMMENTS

The *Exxon Valdez* spill emphasized in glaring fashion the need for improved spill planning and preparedness. Fortunately, several solutions are available to alleviate many of the problems NPS (and other land managers) experienced during the spill's aftermath. First, there is an acknowledgement of the need to implement comprehensive contingency planning prior to an incident. The park service needs to deal with external threats more aggressively through long-range strategic planning. NPS must integrate these plans into broader interagency area plans. Agency personnel charged with planning and response roles must understand the National Response System and the bureau's role within this spill management system. NPS needs to actively participate in all relevant spill exercises. This hones professional skills and offers the opportunity to foster positive working relationships with counterparts from other agencies. This is particularly important for the NPS and other agencies charged with resource protection missions which may not otherwise be readily apparent to the on-scene coordinator. It provides an opportunity to educate other participants about the mission NPS is charged to uphold. Without this involvement the park service will be only minimally effective in its attempts to prevent and mitigate spill events.

To its credit, the park service has recently taken some positive steps to enhance its spill planning and response capabilities. The NPS currently holds servicewide spill response and contingency planning courses. Regional and park unit decision makers attending these

courses receive training in oil and hazardous spill management. This should enhance NPS spill mitigation capabilities. The NPS is in the process of developing an updated and expanded servicewide oil spill contingency plan. This document will serve as a valuable resource for spill planning and response. The park service has been participating in the development of a computer generated oil spill decision support system. NPS has augmented these efforts through the creation of two national all-risk Incident Management Teams (IMTs). The IMTs are made up of experienced park service ICS personnel. Team members are trained to manage a variety of non-fire catastrophes. The system, thus far, has proven to be extremely successful. Park service IMTs have been used for managing situations as diverse as the 1991 observance of the 50th anniversary of the bombing of Pearl Harbor to Hurricane Andrew relief efforts in Florida.

One final ingredient--money--must be included if NPS is going to successfully meet the challenges of threat mitigation. The park service has traditionally suffered from a chronic underfunding of basic operations, while being overwhelmed by political pork-barreling. House Subcommittee Chairman on National Parks Bruce Vento said the situation has reached a point where "we're going to turn the park service into a spoils system rather than steward of our most important natural and cultural resources." In sum, the situation has resulted in an inability to provide adequate facilities for park visitors and insure the protection of national park resources. Multi-year funding will have to be made available if resource management and threat mitigation are to be properly addressed. At present, there simply is not enough money in the operations budget to fund these programs.

Granted, no amount of money would have prevented an *Exxon Valdez* sized spill from impacting NPS shoreline. Today's technology is simply not up to the task. However, most spills and other external activities which threaten park unit resource integrity are not of the magnitude of an *Exxon Valdez*. The adoption of comprehensive planning and preparedness strategies should not be ignored. Proactive threat mitigation will ultimately result in fewer incidents, lower cleanup costs, less direct impact to resources, and a more timely restoration of injured resources.

CHAPTER 1

THE INSTITUTIONAL SETTING

INTRODUCTION

Cursory reflection about oil spills often brings images of floating slicks, beaches inundated with oily waste, and dead sea birds and wildlife littering the impacted spill zone. Further thought may call to mind images of response mechanisms, the deployment of boom; skimmers on the water; and cleanup crews washing, scrubbing, and collecting debris along the shoreline. This, however, constitutes only a portion of what happens during the aftermath of an oil spill. Theoretically, a spill incident can be broken down into three phases. There is the response phase, a period in which industry, government, and often times a concerned citizenry rally in an effort to contain, limit, and cleanup the escaping oil. Next comes the damage assessment phase, in which injuries are determined, damages assessed, and responsible parties make restitution. Finally, there is the restoration phase of a spill incident. The actual mitigation of injured resources occurs during this period.

In concept, this all sounds like a straight-forward process. The reality of dealing with post-spill aftermath is anything but this. The three post-spill operational phases may take from a few months to many years. Means and ends become muddled. In the case of *Exxon Valdez*, the phases continually overlapped, lending to the confusion of post-spill operations. Furthermore, the battle is never fought on a single front. A variety of bureaucratic activities augment and offset the on-the-ground efforts throughout the post-spill period. Sorting the process out and making sense of it all is a time consuming and often confusing process. This, however, is what this study sets out to accomplish.

The study documents National Park Service (NPS) efforts to combat, assess, and where possible, mitigate *Exxon Valdez* oil spill injuries to national park lands. Specifically, three NPS spheres of operations are addressed: the impacted parks, Alaska Regional Office, and NPS - Department of the Interior activities in Washington, D.C. The study begins with a chronology of the spill event focusing on NPS operations and interaction with other spill participants. An analysis of the specific set of actions the park service chose to implement in response to the oiling of Kenai Fjords, Katmai, and Aniakchak beaches follows this accounting of events. The study analyzes NPS participation in the post spill damage assessment and restoration processes. The park service's interaction with other agencies and efforts as a "Trustee" agency are examined. Relevant organizational structures and bureaucratic mechanisms utilized in the wake of the spill are also identified and discussed.

CONSTITUTIONAL INFLUENCES

Because this study focuses on the efforts of a federal agency, it is imperative that the reader have a basic understanding of the institutional setting in which federal agencies operate. Agency decision making and policy implementation does not occur in a vacuum. To a large extent, the established framework of our system of governance shapes the discretionary authority of the park service and other federal agencies. Institutional and political constraints can and often do influence an agency's ability to act.

The NPS is but one of many federal land management agencies in the United States vested with authority to act on behalf of the American public.[a] This authority to act is bestowed through the Constitution, of which, Article II makes reference to an administrative system. Specifically, Article II, Section 2 grants the President power to request in writing opinions from department heads, and gives the President the authority to appoint executive officers with the advice and consent of the Senate. Article II, Section 3 charges the President to "take care that the laws be faithfully executed." In sum, these two sections authorize the President to head the federal bureaucracy and utilize all federal agencies to enforce federal law. For their part, NPS and other federal agencies are legally bound to implement and enforce all laws charged to an agency. Conflicts ensue when the President or his political appointees' interpretation and application of a statute differ from that of a specific agency. These factors became the source of repeated friction between NPS and the Bush Administration during the aftermath of *Exxon Valdez.*

The President, as chief executive, does not have absolute power over the park service or other federal agencies. Congress and the courts also play a role. Article II, Section 2 makes note of the power of Congress to establish by law, inferior executive positions, and to grant power of appointment in filling such positions to the "President alone, in the courts of law, or in the heads of departments." The appointment process for the NPS Director and other Department of the Interior agency heads are defined through this authority. The political ramifications of this process upon NPS resource management practices and policy discretion shall be discussed in chapters 5 and 6. The role of Congress in shaping the bureaucracy is further enhanced through Article I, Sections 1, 7, and 8, which vests legislative power and the power of the purse with Congress. These provisions endow Congress with the power to fashion the enabling laws that NPS and other federal agencies must enforce, and gives Congress authority to determine budgetary appropriations for bureaucratic entities.

As for the courts, much of their Constitutional power over bureaucratic activity is not so much granted outright as it is implied. The concept of "judicial review" as Chief Justice John Marshall originally put forth in the 1803 case of Marbury v. Madison, extends to the laws under which federal agencies operate. Judicial review provides the courts with

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[a]I am using the term agency throughout this study to denote any federal bureaucratic entity operating below the departmental level.

authority to declare a law, executive order, or bureaucratic regulation resulting from a law unconstitutional. But perhaps more germane to this study are the constitutional provisions of Article III, Section 2. Section 2 extends federal judicial authority to "all cases in laws and equity arising under this Constitution." This stipulation guarantees that any violations of federal laws and regulations will be decided in federal court. Consequently the terms of settlement for the *Exxon Valdez* incident, with all of the subsequent direct implications for the impacted federal land managers were determined in federal court.

This discussion demonstrates how bureaucratic agencies derive their constitutional authority to act. Federal agencies, NPS included, are responsible to the chief executive. However, the authority the President exercises and delegates to department heads and subordinate officials on the President's behalf, is not absolute. The Constitution grants Congress and the courts authoritative powers which also affect federal agencies. All of the enabling legislation which pertains to national parks comes out of Congress. It is this legislation which NPS is legally bound to implement and uphold. Complying with these legislative mandates, however, is sometimes more difficult than imagined. This was arguably the case for NPS during the aftermath of *Exxon Valdez*. Therefore, some attention must be given to the matter of constraints on agency actions.

CONSTRAINT ON DISCRETIONARY AUTHORITY

Federal agencies, as previously stated, do not make policy nor do they implement decisions in a vacuum. Recurring internal and external constraints affect the daily decision making processes of an agency. In the aftermath of a crisis such as *Exxon Valdez*, these constraints can severely impact the ability of an agency to act in the public's best interest. An understanding of the NPS response to the *Exxon Valdez* incident must take into account the basic constraints which could and often did affect park service post-spill decision making.

In general, federal agencies are allowed varying degrees of discretion in setting policy and making decisions. However, there are some common constraints which limit and shape agency decision making in response to environmental matters. The most obvious constraint on agency discretionary action is the Constitution. The separation of powers among the legislative, executive, and judicial branches, as just discussed, often manifests itself in institutional rivalries. As a result, effective agency decision making during an *Exxon Valdez* incident or similar environmental crisis becomes bogged down as government attempts to collaborate and overcome these institutional conflicts.

The Constitution further limits discretionary decision making through the principle of federalism. Government authority in the United States is dispersed between the national and state governments. This can result in jurisdictional rivalries, confusion, and costly delays in responding to an environmental disaster. The consequences for land managing agencies attempting to protect and mitigate impact to resources can be severe. The Constitution disperses discretionary power further through the guaranteed freedoms of petition,

expression, and assembly.[1] The result of this has been the formation of organized interest groups capable of accessing the system at numerous points in the decision process. Agency decision makers, even during a crisis situation, must consider and generally reconcile differences with these interests prior to taking action.

Political feasibility throws up another roadblock for agency decision makers. Often a subjective process, decision makers must consider what action can be implemented given the political realities of the situation. Calculations must be made to gauge whether a course of action will fly with legislative, executive, and judicial concerns; organized interests; and bureaucratic superiors.[2] This is particularly applicable for NPS and other Interior agencies. The Department of the Interior is charged with trustee responsibilities for over 549 million acres of public land. The Department has been given authority for natural resources, cultural resources, and environmental oversight on these lands. The Department must reconcile the management of lands classified as wilderness, restrictive use, and multiple use areas. These multiple mandates create conflicting agendas between the Department's operating agencies.[3] Because of this conflict, highly internalized agency missions and goals are sometimes compromised in light of political realities. An agency caught in these circumstances is often forced to be pragmatic if it is going to realize continued organizational growth, decision making autonomy, and independent budgetary authority.[4]

Because of these constraints, government decision making power though collectively great, may not be up to the task of meeting an unanticipated environmental calamity. The division, dispersion, and overlapping responsibilities of government agencies can lead to competition and conflict at a critical period when cooperation is required. Political turf battles emerge in which each agency attempts to place its priorities in the dominant position. Responsible environmental decision making becomes thrown into a state of flux, with coalitions realigning in an effort to address the current issue or crisis. Agencies failing to enlist allies during these shifts in the policy struggle may see a loss of mission goals to more politically skilled opponents.[5]

SOURCES OF AGENCY POWER AND THE DECISION MAKING PROCESS

With so many factors placing limits on an agency's discretionary ability, one might conclude that agencies have little or no independent authority. Such is not the case. Many times the very influences which tend to dilute an agency's strength can bolster agency independence. Congress routinely tasks federal land managers with deciphering and implementing broad legislative mandates. In fact, the basic Congressional relationship with federal agencies is one of cooperation, with occasional Congressional challenges of particular bureaucratic actions.[6] Agencies are delegated the authority to interpret and promulgate regulations within these legislative boundaries. This can mean wide discretionary power for agency decision makers when choosing between options. Furthermore, Congressional subcommittees charged with oversight of a federal agency often develop a positive relationship with the given agency. These relationships generally extend beyond government to incorporate outside

effectively meet an environmental crisis.[11] The consequences of such insular thinking are a recurring topic in the NPS *Exxon Valdez* saga.

TOWARD A NATIONAL NATURAL RESOURCE MANAGEMENT MANDATE

One seminal event in the early attempts to implement sound natural resource management in the United States was President Theodore Roosevelt's 1908 White House Conference on Conservation. A moving force at the conference was Gifford Pinchot, Roosevelt's Chief of the United States Forest Service (USFS). Conservation as Pinchot defined it, implied the wise use and management of natural resources on public lands, for the greatest good of the greatest number of people over the longest time. Pinchot's wise use management concept evolved out of his graduate training in forestry management in Europe. To European foresters timber was a crop requiring controlled management, for maximum sustained yield. Pinchot extended these concepts to all facets of natural resource management. Pinchot rejected the wholesale exploitive practices of American development advocates of the period. He called for the wise use of all natural resources. Pinchot likewise, envisioned other sustainable by-product uses of sound forestry practices such as grazing and recreation.[12]

Pinchot's definition, however, was not the only interpretation of conservation to emerge during the late 19th and early 20th centuries. Like Pinchot and his fellow advocates of wise use, other proponents of sound natural resource management deplored the rampant exploitation that was taking place. However, many of these advocates rejected Pinchot's wise use mandate. They called for the preservation of unaltered nature. The leading proponent to become associated with this movement was the naturalist writer, John Muir. Muir and like minded individuals envisioned conservation as the setting aside of wilderness tracts for purposes of preservation and appreciation.[13] A prolific, and much sought after writer, Muir pushed the concept of preservation through his books, and articles which appeared in leading journals of the period. Muir took upon himself the life vocation of educating his fellow citizens about the values of wilderness.

In 1921 Aldo Leopold, building upon the thinking of Muir and other preservation proponents, called for a program explicitly dedicated to the creation of wilderness set asides in order for future generations to fully experience America's natural heritage. That Leopold would propose such a program seems at first odd, considering his background. Leopold had graduated from Yale University with a degree in forestry, a program which was established in 1900 through the generous contributions of the Pinchot family. He then went on to become an Assistant Forester with the USFS. Leopold, however, never lost his fascination with fish and wildlife. This fascination eventually drew Leopold away from forestry management, causing him to refocus attention on the issues of habitat protection and land management for non-exploitive reasons. Over time these concepts became the impetus for one segment of the present day environmental movement.[14]

During the mid-1960s a second natural resource protection movement swept the nation. Numerous pieces of legislation were passed to enhance the environment, and promote better conservation on public lands. For example, the Wilderness Act of 1964 was passed in order to strengthen and expand wilderness set asides. Section 2(c) of the act defined wilderness classifications as "undeveloped land retaining primeval character/influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions."[15] Proponents of the legislation saw the bill as a means for preserving the natural beauty, solitude, and environmental integrity of wilderness areas. The act also contained language recognizing nonmechanized recreation activities such as camping, hiking, backpacking, and cross-country skiing as important secondary uses on wilderness land.[16] In sum, these and other stipulations of the Wilderness Act were in keeping with one of the major tenets of the modern environmental movement, namely the preservation of pristine tracts of public land.

DEVELOPMENT OF THE NPS MANDATE

As just discussed, proponents of sound natural resource management at the turn of the century emerged as a movement divided. Muir, and like-minded preservationists dedicated to the protection in perpetuity of pristine tracts of land opposed Pinchot and fellow advocates of wise use. Of these two movements, the early preservationists' mandate had only narrow support. Many of their views were considered too extremist for the time. Furthermore, unlike wise use proponents who, through the support of Pinchot, succeeded in bringing national forest reserves under wise use management, preservationists initially lacked a vehicle for moving their agenda forward. This obstacle was partially overcome once preservationists began promoting and focusing on national parks as wilderness areas.[17]

With respect to national parks, preservationists helped create 16 national parks and 21 national monuments prior to 1916. This is not to say that the preservation of wilderness was the only reason for creating national park areas. When Yellowstone was created in 1872 Congress set aside the 2 million plus acres as "a pleasure park or pleasuring-ground for the benefit and enjoyment of the people."[18] The park was to be managed for the protection of natural wonders and curiosities, the development of visitor accommodations, and the protection of fish and game. The 1906 Antiquities Act authorized the President to create national monuments for the purpose of preserving historic landmarks, structures, and other objects of historic or scientific value.[19] Inclusion of these sites in the national park system implied a responsibility for the protection of these cultural treasures.

The management responsibility for these park areas was assigned to the Department of the Interior. The park lands were greatly abused because of inadequate funding and a failure to task any one agency with management accountability. Grazing, farming, lumbering, and other exploitive practices were tolerated. Adequate protection of park areas through the creation of an agency specifically tasked with protection and oversight functions became a top priority for park proponents. Subsequent prodding and infighting prompted Congress in 1916 to create a National Park Service for the purpose of administering these lands.[20]

Congress created NPS as a bureau level entity in the Department of Interior to:

> promote and regulate the use of the federal areas known as national parks, monuments, and reservations... by such means and measures as conform to the fundamental purpose of said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.[21]

The 1916 "organic act" charged the park service with the twin missions of preservation and visitor access. This language remains the heart of the NPS management philosophy and policy according to the NPS *Management Policies* book.

Further articulation of these mandates was expressed in a 1918 letter from Secretary of the Interior Franklin K. Lane to the first NPS Director, Stephen T. Mather. Lane said NPS administrative policy should be based upon three principles:

> First, that the national parks be maintained in absolutely unimpaired form for the use of future generations as well as those of our own time; second, that they are set apart for the use, observation, health, and pleasure of the people; and third, that the national interest must dictate all decisions affecting public or private enterprises in the parks.[22]

In order to establish a wider clientele group Director Mather decided to place initial emphasis on providing for the public's enjoyment. Tourists became the agency's primary clientele. This strategy worked well, resulting in greater Congressional appropriations and agency recognition. However, by the 1930s the park service had begun shifting some of its focus away from public enjoyment, and began to give greater attention to wilderness expansion. The USFS, which was trying to broaden its resource management base through the inclusion of wilderness lands under USFS control, contributed to this partial NPS refocusing on wilderness.[23] NPS Director Arno B. Cammerer highlighted the park service's shift in management emphasis in an article he wrote in 1938. Cammerer's article portrayed NPS as the nation's premier wilderness preservation agency, and served as an impetus to the expansion of wilderness set asides as a park mandate. As an ultimate consequence of this refocusing, many additional areas considered pristine or wilderness were turned over to NPS management.

During the 1970s and early 1980s NPS policy was obliged to accommodate new legislative and executive mandates. In 1970 Congress passed the General Authorities Act. The act said National Parks "shall be administered in accordance with the provisions of any statute made specifically applicable to that area," and in compliance with statutes applying to all NPS areas so long as the general legislation did not conflict with any specific park enabling provisions.[24] The act reemphasized the applicability of general enabling legislation to all

park units. It likewise reaffirmed the Congressional intent that legislation passed specifically for a particular park unit would take precedence over general park statutes when the two conflicted. This was an important distinction simply because much of the legislation fashioned for individual park units afforded a higher level of protection than did the general provisions. The 1970 statute was augmented in 1978 when Congress passed the National Recreation and Park Act. This piece of legislation instructed NPS to establish carrying capacities for each park unit. The effort when completed would help the park service gauge user impact and accommodate environmental quality considerations in recreational planning.[25]

Further augmentation of the NPS mandate occurred during the Reagan Administration when the President dismantled the Heritage Conservation and Recreation Service created under President Carter. Most of the dismantled agency's responsibilities which included the preservation of primitive areas and historic sites of National significance were transferred to NPS. Administration of the Land and Water Conservation Fund, the primary source of recreational funding in the United States was also transferred to the park service.[26] This transfer of responsibilities reinforced NPS obligations for the protection of cultural, natural, and recreational resources.

FEDERAL LEGISLATION AND ALASKA

On December 2, 1980 the Alaska National Interest Lands Conservation Act (ANILCA), P.L. 96-487 became law. The legislation set aside 104.3 million acres of federal land into four zones of conservation. Primary responsibility for implementing the public land provisions of the law were delegated to the Department of the Interior. The bill expanded or added to the boundaries of the five national conservation systems in Alaska, which included the national park system. Of the total acreage, 43.6 million acres were targeted for inclusion in Alaska's national park system. Wilderness overlay protection would affect 32.4 million acres of the new park lands.[27] Section 101(a)(b) of the act described purposes of the act which were applicable to these wilderness set asides.

> In order to preserve for the benefit, use, education, and inspiration of present and future generations... nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values...
>
> It is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes... to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems... to preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities...

Title II, Section 201 of the act dealt specifically with the expansion and establishment of new areas within the national park system in Alaska. The legislation created ten new units and expanded three others. Two of the newly established units were Aniakchak National Monument And Preserve, and Kenai Fjords National Park located on the Gulf of Alaska. Aniakchak in total, would encompass about 600,000 acres, and was to be managed for the purposes of:

> maintaining the caldera and its associated volcanic features and landscape... in their natural state; to study, interpret and assure continuation of the natural process of biological succession; to protect habitat for, and populations of, fish and wildlife, including, but not limited to, brown/grizzly bears, moose, sea lions, and other marine mammals, geese, swans, and other waterfowl...[28]

Five hundred and sixty-seven thousand acres of public land were dedicated for inclusion at Kenai Fjords. The park would be managed for purposes of:

> maintaining unimpaired the scenic and environmental integrity of the Harding Icefield, its outflowing glaciers, and coastal fjords and islands in their natural state; and to protect seals, sea lions, other marine mammals, and marine and other birds and to maintain their hauling and breeding areas in their natural state, free of human activity which is disruptive to their natural process.[29]

The legislation also expanded a pre-existing National Park unit on Alaska's Gulf coast, Katmai National Monument, which was redesignated as Katmai National Park and Preserve. The park and preserve was expanded to include some 4 million total acres of public land, and was to be managed for purposes of:

> protecting habitats for, and populations of, fish and wildlife including, but not limited to, high concentrations of brown/grizzly bears and their denning areas; to maintain unimpaired the water habitat for significant salmon populations; and to protect scenic, geological, cultural and recreational features.[30]

This enabling legislation together with general ANILCA provisions, prior federal legislation pertaining to national parks, and regulations, as promulgated and incorporated in agency management policies constituted the official mandates of these three parks prior to the *Exxon Valdez* incident. As a federal agency, NPS was duty bound to manage and protect these lands in compliance with this body of federal law. However, the reality of the institutional, political, and ideological context in which NPS operated, also required that NPS consider the official and unofficial constraints affecting agency decision making. These were the operational realities of the NPS position just prior to the *Exxon Valdez* incident. How NPS chose to deal with these realities and still fulfill park mandates during the aftermath of the spill shall be revealed in subsequent sections of this study.

1. Walter A. Rosenbaum, Environmental Politics and Policy (Washington, D.C.: Congressional Quarterly Inc., 1985), 31-34.

2. Ibid., 44.

3. Ibid., 59-61.

4. Phillip O. Foss, ed., Federal Lands Policy (Westport: Greenwood Press, 1987), 128.

5. Rosenbaum, 46.

6. Randall B. Ripley, Congress Process and Policy (New York City: W.W. Norton & Co., 1988), 338.

7. Ibid., 339, 340.

8. Daniel H. Henning and William R. Mangun, Managing the Environmental Crisis (Durham and London: Duke University Press, 1989), 29.

9. Ibid., 49, 51, 52.

10. Ibid., 79.

11. Ibid., 79, 80.

12. Roderick Nash, Wilderness and the American Mind (New Haven and London: Yale University Press, 1982), 134.

13. Henning and Mangun, 22, 23; Nash, 129, 279-281.

14. Henning and Mangun, 181-182, Nash, 183-185.

15. Foss, 114.

16. Henning and Mangun, 182-183.

17. Nash, 134, 138.

18. Department of the Interior, National Park Service, Management Policies (1988), 1.1.

19. Ibid., 1.1.

20. Jeanne N. Clarke and Daniel McCool, Staking Out the Terrain: Power Differentials Among Natural Resource Management Agencies (Albany: State University of New York Press, 1985), 48, 49.

21. DOI/NPS, 1.1.

22. Ibid., 1.4.

23. Foss, 131-134.

24. DOI/NPS, 1.2.

25. Henning and Mangun, 175.

26. Ibid., 172-174.

27. Congressional Quarterly, vol. 38 (Washington, D.C.: Congressional Quarterly Inc., 1980), 2447; Department of the Interior, ANILCA: Public Law 96-487 (1983), Title III.

28. ANILCA, Title II Section 201(1).

29. Ibid., Title II Section 201(5).

30. Ibid., Title II Section 202(2).

CHAPTER 2

COMBATING THE DISASTER

THE SPILL ENVIRONMENT

Alaska is the nation's leading oil producer. The state provides 25 percent of America's domestic oil supply. Much of Alaska's oil comes from two major fields, Prudhoe Bay and Kuparuk, lying on the state's arctic North Slope. To reach market North Slope crude is transported via the 800-mile-long Trans Alaska Pipeline System (TAPS), which begins at Prudhoe Bay and terminates at the Port of Valdez, Alaska. Since the first oil began to flow through the pipeline on June 20, 1977, an average of 2.1 million barrels per day has passed through the pipeline. By 1988 this amounted to over 6 billion total barrels and 8,000 tanker loads going out of Valdez.[1]

Alaska, while the largest domestic oil producer, is also one of the nation's and even the world's last vestiges of wilderness preserves. The state has the largest state park system in the United States. Alaska contains over 123 million acres of federal set asides in various conservation zones. Roughly 51 million acres of these federal set aside lands are managed through the national park system which is divided into 15 separate units throughout the state. These national park units in conjunction with other federal and state conservation zones provide protection to ecosystems throughout Alaska.

Could pristine wilderness and energy development coexist in Alaska? This was the great experiment being implemented prior to March 24, 1989. Up to this point it did seem possible. Granted, numerous smaller incidents had occurred, as recently as January 3, 1989 when 1,700 barrels escaped during a cracked hull incident. But these were generally dealt with in an efficient manner causing minimal damage. Still, there was something disquieting about these dual roles assigned for Alaska, oil spigot for America and national park for all humanity.[2]

WHETHER TO FEDERALIZE THE SPILL

On March 24, 1989, at 12:04 a.m. the 987 foot Tanker Vessel *Exxon Valdez* ran aground on Bligh Reef, 25 miles out of Valdez on a heading for Long Beach, California. The impact tore open eight of the ship's eleven cargo tanks spewing out 10.8 million gallons (over 257,000 barrels) of North Slope crude into Prince William Sound.* Initial response personnel from the United States Coast Guard (USCG) and the Alaska Department of

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*The 257,000 barrel figure is based upon a standard size barrel which holds 42 gallons of oil.

Environmental Conservation (ADEC) arrived on the scene at 3:38 a.m. to assess the situation. The Coast Guard, according to provisions of the National Contingency Plan and National Response System, was the federal government's lead agency for spill response on marine waters within United States boundaries. The person in charge of leading the Coast Guard's effort was the federal On-Scene Coordinator (FOSC), a pre-designated Coast Guard Officer. The ADEC was the state's leading agency for spill response.[3]

Under federal guidelines the Coast Guard had to identify the responsible party and assign legal and financial response obligations. The actual response effort was assigned to the spiller, in this case Exxon Shipping Company, a subsidiary of Exxon Corporation. The Coast Guard would only step in to take over and "federalize" the spill if the spiller could not or would not respond. So long as the spiller in the Coast Guard's opinion, was making a legitimate response effort, then the spiller would remain in charge of the response.

Through a state approved contingency plan, Exxon had contracted with Alyeska Pipeline Service Company, the TAPS operator, for initiating response activities in the event of a spill. The contingency plan called for Alyeska to respond within two to five hours of an incident. According to the plan, upwards of 50 percent of the oil would be ultimately retrieved. By the end of day three approximately 100,000 barrels would be recovered in a spill of this magnitude.

As it turned out, Alyeska's initial response time was closer to 15 hours. At 18 hours into the spill, containment boom still needed to be laid around the ship. A barge which was supposed to be loaded with boom and other response equipment, and ready to go at a moment's notice in Valdez, was not prepared to deploy when the ship ran aground. Equipment had been off-loaded from the barge in anticipation of scheduled repairs to the craft. Reloading the equipment took over ten hours. Two skimmers were working the spill trying to contain it, but they lacked a barge for off-loading skimmed oil. At 70 hours only 3,000 barrels had been recovered; the contingency plan called for 200,000 barrels at this point.[4]

This was most unfortunate, considering that weather conditions in Prince William Sound in the first couple of days of the spill, provided an ideal opportunity for recovering oil. During this period, oil from the crippled tanker remained in a fairly continuous patch, on the uncommonly calm waters of the Sound. Such conditions are not the norm in the winter-storm-racked seas of Prince William Sound. This opportunity for recovering a significant portion of the oil was lost when on day three, a major storm with winds of up to 70 miles per hour whipped much of the oil into discontinuous bands of frothy water in oil emulsion, commonly referred to as mousse.[5]

Alyeska's response difficulties during the early days of the spill prompted the ADEC to request Coast Guard takeover. With only $5 million in the response fund Commander Steven McCall, the on-scene coordinator, and head of the Valdez Coast Guard Marine Safety Office was hesitant to federalize the spill. Federalization would mean the use of limited federal response funds, although it should be noted that the spiller, Exxon, would still be

responsible for cleanup liability costs. Given his limited financial resources McCall decided that allowing Exxon and Alyeska to continue heading up the response was the prudent thing to do.[6]

On April 6, Senator Ted Stevens (R-AK), standing before members of the Senate Subcommittee on Merchant Marine, read a copy of a letter dated April 5 from Governor Steve Cowper to Rear Admiral Edward Nelson Jr., Commander of the 17th Coast Guard District, Juneau, Alaska. In his letter the Governor noted how the slick had already escaped Prince William Sound and was moving through the Gulf of Alaska. Furthermore, the Exxon response effort had succeeded in recovering only about four percent of the total oil spilled. Given these circumstances and the Coast Guard's formal responsibilities in spill situations, the Governor felt Coast Guard takeover of the response effort was justified. Stevens asked his fellow Senators to join the Alaska Congressional delegation in urging the President to declare an emergency and order Coast Guard federalization of the spill.[7]

Despite this pressure a decision was made not to federalize the spill. The principal parties involved in the spill response continued with a three tiered command structure which had emerged about day four of the spill. Rear Admiral Nelson, Frank Iarossi, President of Exxon Shipping, and Dennis Kelso, Commissioner of ADEC headed up a steering committee on the top tier. Tier two was an operations coordinating committee containing representatives from state and federal agencies and local fisheries groups. Tier three consisted of the on-scene operational forces of the state, Coast Guard, and local communities.[8] This structure would dominate the early response effort.

BEYOND PRINCE WILLIAM SOUND

Confusion and chaos reigned during the early days of the spill. Alyeska's slow response, the spill's magnitude, and conflicting information each hampered response efforts. But it was probably conflicting information and the uncertainty it brought which proved to be the most frustrating for communities and land managers lying in the spill's path. Early reports from the National Oceanic and Atmospheric Administration (NOAA) and the Coast Guard suggested little if any of the spilled oil would escape beyond Prince William Sound. Rumblings from other directions argued otherwise. Local fishermen in the town of Seward believed prevailing currents could carry the oil toward their community. Dr. Thomas Royer, an oceanographer with the University of Alaska, confirmed these fears. It was Royer's opinion that prevailing currents would result in oil escaping Prince William Sound.[9]

Area personnel of the NPS were also giving the spill more serious attention. When the spill first occurred most park service employees shared an opinion which David Ames, Associate Director for Operations, Alaska Region Office (ARO) had voiced; the spill was a terrible tragedy limited to one place and he was thankful that it was not happening along NPS shoreline.[10] After all, the nearest national park, Kenai Fjords, was over 100 miles southwest of Bligh Reef.

Independent analysis from numerous NPS sources quickly replaced this false sense of well being. By March 27 Anne Castellina, Superintendent for Kenai Fjords, was beginning to have doubts. She called in William D. "Bud" Rice the park's Resource Specialist, and requested his opinion of the situation. Rice had recently completed a master's project on glaciers and climate, and was familiar with the mechanics of offshore currents. Based on his knowledge of currents and news reports of a 70 mile per hour north wind driving the oil towards Montague Strait, Rice concluded that it was not a question of whether the park would get hit, but rather when.[11]

By April 1 it was becoming apparent to individuals within the NPS Alaska Region that oil, contrary to what NOAA was saying, would leave the Sound in large quantities and enter the Gulf of Alaska.[b] The only question was where it would end up? Dan Hamson, an Environmental Specialist, in the region's Mining and Minerals Division, out of personal curiosity, began to research where the oil might go. Another Mining and Minerals Division Environmental Specialist Cordell Roy, assisted Hamson in this effort. Roy supplied Hamson with information on the oil's location, which Roy had received from the Alaska Regional Response Team (RRT). As one of several RRT's established under the auspices of the National Response System, the Alaska RRT was charged with providing support to the FOSC in Alaska coastal waters. Roy had become involved with the RRT when Ames asked him to attend the March 29 RRT meeting on Ames' behalf. Hamson felt the official NOAA position did not correspond with information on prevailing currents and other data he had gathered. Hamson concluded, and Roy concurred that oil would impact park beaches at Kenai Fjords. In addition, Hamson estimated that Katmai National Park, located on the Alaska Peninsula southwest of Kenai Fjords, would be impacted as well. Hamson and Roy took their information to Dave Ames, Acting Regional Director. Alaska Regional Director, Boyd Evison, had already left to teach a class at the NPS Albright Training Center, and was going on from there to a regional director's meeting, and budget hearings in Washington, D.C. Ames agreed with Hamson and Roy's information and instructed them to go to King Salmon and prepare a spill plan for Katmai.[12]

Ames was also receiving spill response input from personnel at Kenai Fjords. Castellina met with Rice and Chief Ranger Peter Fitzmaurice, all of whom agreed that the threat of a spill impact was realistic enough to warrant response preparations. Castellina contacted Ames on March 29 and requested an additional ranger for Nuka Bay near the park's western boundary to monitor any spill impact.[13]

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[b]Steve Rinehart's Anchorage Daily News report of 3-31-89 cited an interview with NOAA Oceanographer Jerry Galt in which Galt said, the volume of oil moving out of Prince William Sound represented a tiny fraction of the 10 million gallon spill. Galt estimated about 10 percent of the spilled oil could escape the Sound. Galt also said any oil impacting beaches outside the Sound, would not leave the heavy deposits concentrated on beaches in Prince William Sound.

Kenai Fjords was not totally unprepared for a spill event. Rice had recently completed a park spill response plan which Fitzmaurice was in the process of reviewing when *Exxon Valdez* ran aground. The plan, however, was designed to deal with small scale spills from barges containing oil, oil by-products, and hazardous waste materials which frequently passed off Kenai Fjords shores. The plan did not anticipate a spill the size of *Exxon Valdez* coming out of the Sound to impact the park.[14]

In contrast to the local NPS park response plan, general regional level response was supposed to be coordinated through the RRT. RRT members would act as a conduit for tapping the special response capabilities of the member agencies. In a large spill the RRT could draw further support from the National Response Team (NRT). The NRT's job would consist of coordinating the activities of member agencies at a national level, thereby ensuring a unified federal approach on policy issues and response mechanisms.[15]

At the time of the spill Paul Gates, the Department of the Interior Regional Environmental Officer (REO), represented the entire Department, including NPS. In the event of a spill Gates would advise the FOSC on Department of the Interior Resources at risk, and would be responsible for organizing the spill response activities of Department bureaus. Gates would likewise act as spokesperson and liaison to the Secretary's office.

Gates was notified about the spill within hours of the incident. He in turn dispatched the Department's Regional Environmental Assistant (REA), and RRT alternate, Pamela Bergmann, to Valdez, the command center for the response effort. Bergmann would be responsible for providing support to the FOSC, and for advising the FOSC of Department priorities as expressed by Interior agencies with management obligations in the spill zone. Gates then notified the appropriate response management coordinator within each agency.[16]

The NPS coordinator assigned to the RRT was Bill Lawrence the Chief of Environmental Compliance at ARO. In the event of a spill, Lawrence would provide support to Gates and provide input on NPS priorities and concerns. Like many others, Lawrence did not initially comprehend the full magnitude of the *Exxon Valdez* spill. By March 29 realization of the spill's enormity began to sink in. Gates called and told Lawrence the Coast Guard was predicting the spilled oil would leave Prince William Sound and put Kenai Fjords at risk. Gates was therefore, requesting NPS attendance at the March 29 RRT meeting.

Despite the Coast Guard's assessment, there was still no consensus over the direction the slick would take. RRT support staff and NOAA personnel at the meeting, said no oil was currently exiting the Sound. Furthermore, they were not certain if any oil would actually move beyond the Sound. After much discussion, it seemed fairly obvious to Lawrence and several other individuals at the meeting that oil would spread beyond Prince William Sound.[17]

Although Lawrence and other park service staff attending subsequent RRT meetings provided NPS input, no one from NPS was ever dispatched to the FOSC's Valdez spill operations

center, as Gates had requested. There was a perception that decision makers within ARO saw no need to send support staff to Valdez; as if the Valdez center was not accountable for response operations outside the Sound. The entire issue became muddled, with both ARO and Gates' office questioning whether the other side was being cooperative in attempts to dispatch park service support personnel to Valdez. Regardless of who was to blame, this was a serious blow to ARO's ability to provide input into the early response process. In contrast, the FWS and Bureau of Land Management (BLM) did send support personnel to Valdez. These agency personnel worked with Bergmann to identify agency cleanup and protection priorities for recommendation to the FOSC. They likewise helped to field inquiries from the press and disseminate information.[18]

On March 29 Lawrence contacted Fitzmaurice at Kenai Fjords. Lawrence explained NPS and Interior's roles within the RRT framework and outlined how a response would be handled for the park should it become necessary. Lawrence attempted to reassure the park staff and allay fears of imminent disaster.[19] Despite these reassurances there was a growing NPS perception that the RRT was incapable of dealing with a spill of this size. It was felt the system had broken down, thereby leaving individual agencies to go it alone in organizing a spill response.

NPS DECIDES TO ACT

At the NPS regional level, Ames was beginning to wrestle with the idea of the park service staging its own response effort. Kenai Fjords seemed particularly vulnerable to any oil escaping Prince William Sound. After consulting with Lawrence, Castellina, and Evison in Washington, D.C., and after receiving additional input from Richard O'Guin, ARO's Chief of Protection and Ranger Activities, Ames decided something had to be done. He just was not sure what.[20]

Ultimately, Ames decided to call in an Incident Command Team (ICT) to help manage the spill response at Kenai Fjords. The Incident Command System (ICS) is a nationally recognized crisis management system which was first developed for wildland fire fighting in California. The system is designed to expand from the top down. This provides the ICS with enough flexibility to muster sufficient resources to meet the crisis at hand. The system utilizes a common organizational structure and terminology to ensure uniformity and prevent confusion. Teams are mobilized through the Interagency Fire Center in Boise, Idaho. The ICS is considered all-risk, although it should be noted that the interagency program in place at the time of the spill focused primarily on managing wildfire incidents.

On March 27 the BLM fielded a request for ICT support at Valdez. The specific nature and source of this request was never clear. BLM personnel understood that they were supposed to supply Exxon with an ICT. Dave Liebersbach, the BLM Alaska Fire Service, Fire Management Officer at Fairbanks was appointed Incident Commander and sent to Valdez. Liebersbach arrived in Valdez on March 28 to assemble his team. He then met with

representatives from Interior, the Coast Guard, and Exxon to clarify what had been requested. Liebersbach had initially been told his team would be responsible for establishing shore camps to house workers fighting the spill in Prince William Sound. The Exxon project manager said they were not aware that the team had been called-up, but acknowledged that utilizing ICT support was being considered. Exxon ultimately declined to utilize Liebersbach's team in a support capacity. Exxon also decided that it would be more convenient to house workers on boats offshore rather than onshore.[c] This left the ICT idle. In the meantime, O'Guin had contacted Boise requesting an ICT for park service use at Kenai Fjords. He was informed that the Valdez team was available and would be sent to Seward for use at Kenai Fjords.[21]

During this period Castellina was receiving requests from Seward officials for NPS help in coordinating a local response for combating the spill should it become necessary. Neither the Coast Guard or Exxon were as of yet, on-scene. Ames and Castellina agreed that the ICT would provide logistical support for Kenai Fjords operations, and help organize operations in Seward as part of an area wide effort. The ICT would report to Castellina; she in turn would work with local officials in a joint effort.

The ICT arrived in Seward on March 30. Team members met with Castellina to plan response efforts and arrange for housing and establishing an operations center. Later in the afternoon Castellina and Liebersbach met with local officials from the City of Seward and several other Kenai Peninsula entities to discuss the coordination of response efforts.[22] Liebersbach suggested the best way to coordinate efforts would be through the formation of a Multi-Agency Coordinating (MAC) Group. Provided for in the ICS, such a group could better serve to organize the response and provide direction for ICT functions. With the political backing of Don Gilman, Mayor of the Kenai Peninsula Borough, a ten agency MAC Group was formed to fight the spill.[23]

NPS and MAC Group efforts in Seward got a big boost from Senator Stevens when he visited Seward on April 1. Prior to coming to Seward, Stevens had consulted with Dr. Royer about Prince William Sound currents, prevailing winds, and related matters which could influence the direction the spill might take. Armed with this knowledge, Stevens made a gutsy recommendation to the forces assembled in Seward to fight the spill. Stevens came into the local meeting and said, "you know you guys are going to get hit." Stevens then said that he hoped the town, would, despite their not having a clear mandate to implement defensive booming, and despite their not having Exxon or the Coast Guard present to

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[c]Any industry requests for ICT support should have been made with the FOSC. The FOSC in turn would have forwarded the request to Interior RRT representative, Paul Gates. Exxon had made an inquiry with the Coast Guard regarding resources the BLM could make available for worker camps. This request was forwarded to Paul Gates. But, Gates never received a request from the FOSC to mobilize an ICT to Valdez. Following this protocol could have prevented the ICT from being needlessly mobilized to Valdez.

facilitate efforts, choose to protect the resources that needed protection.[24] Taking these words to heart the MAC Group decided to proceed with defensive booming and prepare for the spill impact. This was done despite reassurances from Exxon and Coast Guard officials that there was nothing to worry about.[d]

Department of the Interior officials were rumored to be less than supportive of NPS participation in defensive booming in the Kenai Fjords - Seward region. Word had filtered down saying any park service booming efforts would need Coast Guard approval if NPS hoped to get reimbursed for these expenditures. This obstacle was circumvented through the intervention of political entities within the MAC Group. The City of Seward succeeded in securing over two miles of boom for the effort. Mayor Gilman signed an agreement with NPS to reimburse the park service for ICT expenses incurred in support of booming and related response activities outside park boundaries.[25]

By the time Exxon and the Coast Guard arrived on-scene the booming effort was in full swing. The MAC Group with ICT support had been directing the placement of boom at the mouths of salmon spawning streams, and other sensitive areas where it was thought defensive booming would do the most good. The reality, however, was that there was insufficient boom to protect all critical sites. Furthermore, there were many areas where booming was simply impractical. This was particularly true for sites exposed to the full force of winds, tides, or strong currents. Boom placed under these conditions was ineffective in containing any oil. As a result of these shortcomings, Seward respondents were unable to prevent oil from spilling into Resurrection Bay (on which the City of Seward is located), nor could they prevent oil from repeatedly impacting the Kenai Fjords shoreline. By mid-April Exxon and the Coast Guard had assumed administrative responsibility for booming operations from the Seward ICT. And, by April 17, the ICT had turned most of its operations over to Exxon. However, even after the ICT disbanded, the MAC Group with Castellina serving as chair, remained the focal point for response activities in Seward, and continued as such throughout the summer.[26]

The Seward ICT also provided Kenai Fjords personnel with administrative and logistical support in another critical endeavor. This was the pre-inventorying effort. When Ames and Evison first discussed bringing in an ICT, Evison urged Ames to have the ICT concentrate on providing logistical support for gathering a baseline data sample of threatened resources, before the oil struck Kenai Fjords. This was necessary because of a general lack of information concerning the types of resources on Kenai Fjords' beaches, particularly during the time of year when the spill occurred. The process of pre-inventorying involved sending

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[d]Captain Rene Roussel, Commanding Officer of the Marine Safety Office in Anchorage, downgraded the Coast Guard's earlier assessment of potential threat at Kenai Fjords to no threat. Roussel expressed this opinion after a flight to Seward with Dave Ames, to assess the threat, shortly after local response mobilization had begun in Seward. Oil struck the Kenai Fjords coast a few days later on April 10.

small teams of scientists to select sites along the coast to gather resource samples. Sites were chosen based upon the probability that they would get impacted and the anticipated value of resources at several sites. The teams had to work fast, gathering as much data as possible before the oil struck, and were just finishing up when the oil began to impact Kenai Fjords' coastline on April 10. The samples gathered provided an inventory for gauging the pre- and post-spill conditions of impacted resources. This information would be invaluable for restoration planning and could be useful for litigation purposes.[27]

The actual quantity of oil impacting Kenai Fjords turned out to be much less than had been feared. Strong currents and favorable winds caused much of the oil to remain offshore. Early estimates from the park service said only 23 miles of the park's 395 miles of coastline were oiled.[e] Despite this positive news, extensive damage still occurred. Oil became entrapped in rocky outcroppings and lay in large patches along the shore. The carcasses of countless dead birds littered park beaches. Bald eagles and other scavengers were seen picking at the oiled remains. Sensitive habitat areas were inundated. The long-term impact and indirect consequences from all of this could prove devastating for park service resources.[28]

THE TWO FRONT WAR

While the NPS was gearing up to support the spill fight in Seward, battle lines were being drawn on another front. NPS personnel in Alaska soon found themselves in a confrontation with other federal entities in Alaska and Washington, D.C. In Alaska, Gates informed NPS that the Coast Guard was in charge of the federal government's response effort. Any NPS action in Seward outside of the agency's jurisdictional obligations, according to Gates, needed Coast Guard approval. Lack of prior FOSC approval could result in no reimbursement for NPS costs incurred while fighting the spill. The Coast Guard for its part, was insisting the park service had been premature in calling in an ICT.[29]

In Washington, D.C. the NPS was taking heat for what many saw as a rash and premature reaction to the spill event. When Regional Director Evison first arrived in Washington on March 29 he found messages waiting from NPS Director William P. Mott, and Dave Ames. Evison called Mott first and was informed that the Bush Administration's appointee would replace Mott in a few weeks. A Bush appointee would also assume Deputy Director Denis Galvin's position. This would prove a hinderance in future ARO spill mitigation efforts. Evison then returned Ames' call. Ames told Evison that he was calling in an ICT to provide support in preparation for an unavoidable impact at Kenai Fjords, and possibly other parks. Ames said he had also informed appropriate Department personnel of his decision to call in an ICT. Ames said the Department had strongly discouraged him from calling in an ICT.

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[e]Revised figures for Kenai Fjords presented in a November 8, 1989 ARO shoreline report cited oiling to an additional 20 miles of rocky headlands.

Evison concurred with Ames decision noting that protection of park resources was a top priority which could not be ignored.[30]

The resistance within the Department was said to have been echoed, or had possibly originated with Department of the Interior, Deputy Under Secretary for Alaska Affairs, Vern R. Wiggins[f], who was acting as the Department's coordinator in Washington for the spill response.[31] Wiggins was rumored to be downplaying the spill on orders from sources within the Bush Administration. This, according to major national media publications, was because a major disaster in the Sound could torpedo the administration's efforts to open the Arctic National Wildlife Refuge to drilling.[32]

Wiggins was a long-time Department employee for Alaska affairs. During the first Reagan Administration, Secretary of the Interior James Watt had tapped Wiggins to represent the Department as co-chair of the Alaska Land Use Council. While in this position, Wiggins and ARO had numerous run-ins over the issue of increased protection for Alaska park lands, as specified in ANILCA. In several cases, NPS accused Wiggins of siding with the State of Alaska, and voting against the park service.[33] Because of this, and the before mentioned rumor, ARO viewed Wiggins' role as Department spill coordinator with skepticism. Wiggins and Evison confronted each other during Secretary of the Interior Manuel Lujan's initial spill briefing. Wiggins told the Secretary there was not going to be any oil escaping from Prince William Sound. If by some chance any oil did escape it would be "tiny little balls of inert stuff."[34] Evison countered this with reports he had received of a large patch of oil near Chiswell Islands, just offshore from Kenai Fjords' coastline. Evison advised the group that this oil would hit the park.

Wiggins attempted to establish policy regarding the NPS response effort in other ways. During an April 3 Department conference call in which Wiggins, Evison, and Gates participated, Wiggins flatly stated that NPS could not accept any Exxon money for costs it had incurred in fighting the spill, nor could the park service in Alaska communicate with the press except through the RRT.[35]

Later, on April 13, during testimony before the House Subcommittee on National Parks and Public Land, Evison was questioned about Wiggins' motives for taking these actions. Evison said the Department was afraid any direct acceptance of payment from Exxon might inadvertently relieve Exxon of payment responsibilities to the federal government. With regards to communications, Evison said information from the agency was being reviewed and disbursed through the RRT. Park service employees had been discouraged from talking

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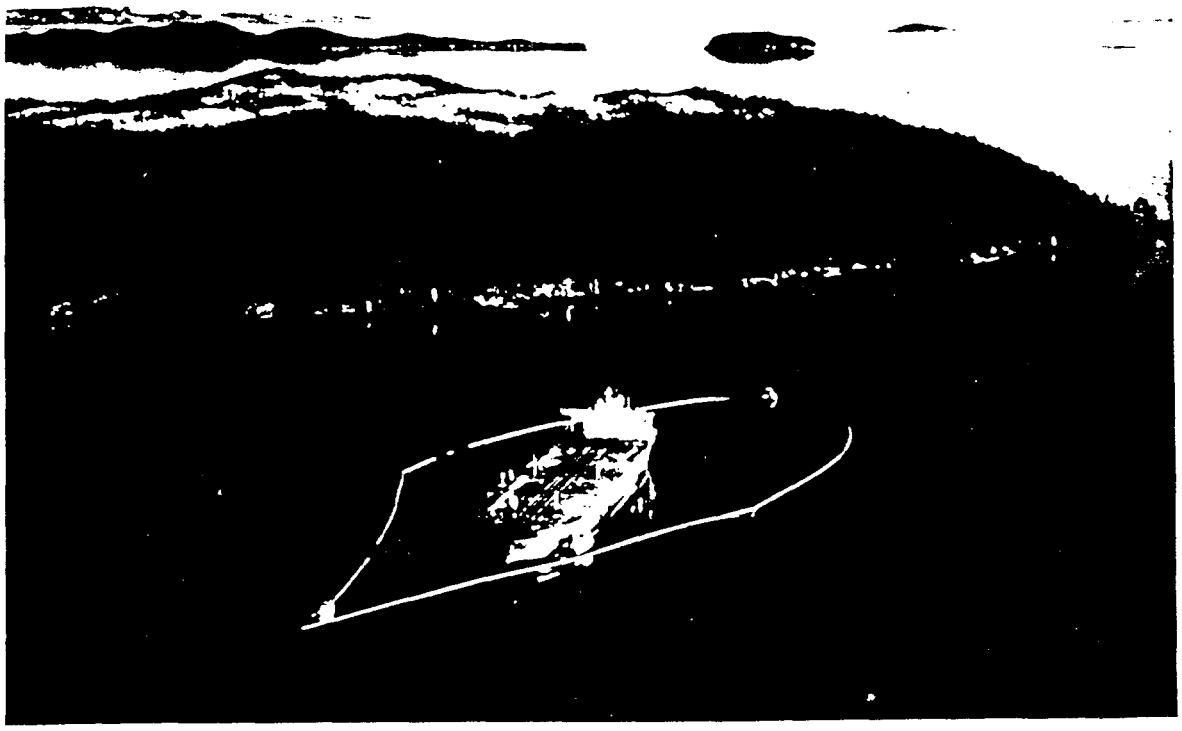
[f]Vern Wiggins never consented to provide an interview for the NPS spill study. All of the author's attempts to secure an interview with Mr. Wiggins through official and unofficial channels went unanswered. Official Departmental correspondence, news reports, transcripts from Congressional hearings, and interview transcripts from other spill participants, were relied upon as the primary sources for determining Mr. Wiggins role in the spill event.



1. The stricken tanker *Exxon Valdez* lies in anchorage at Naked Island. Note the containment boom which has been placed around the tanker to prevent oily residue from impacting adjacent shoreline.

Alaska Center for the Environment

2. Swift moving water on this Kenai Fjords stream has already begun to submerge the boom, rendering it ineffective. If boom is to be effective, even under the best of circumstances, frequent maintenance is required.

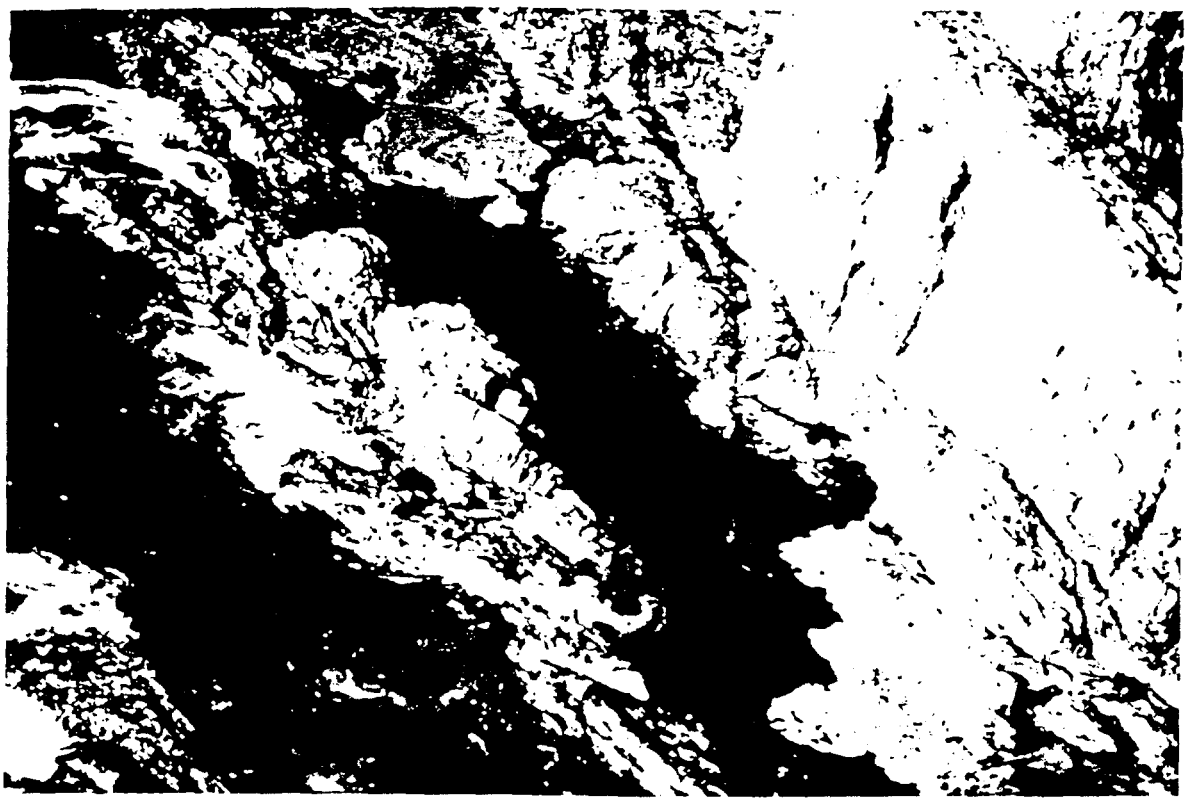
Karen Jettmar

3. A salmon stream at Kenai Fjords National Park is successfully boomed off, thus preventing critical salmon habitat from becoming inundated with oil.

NPS

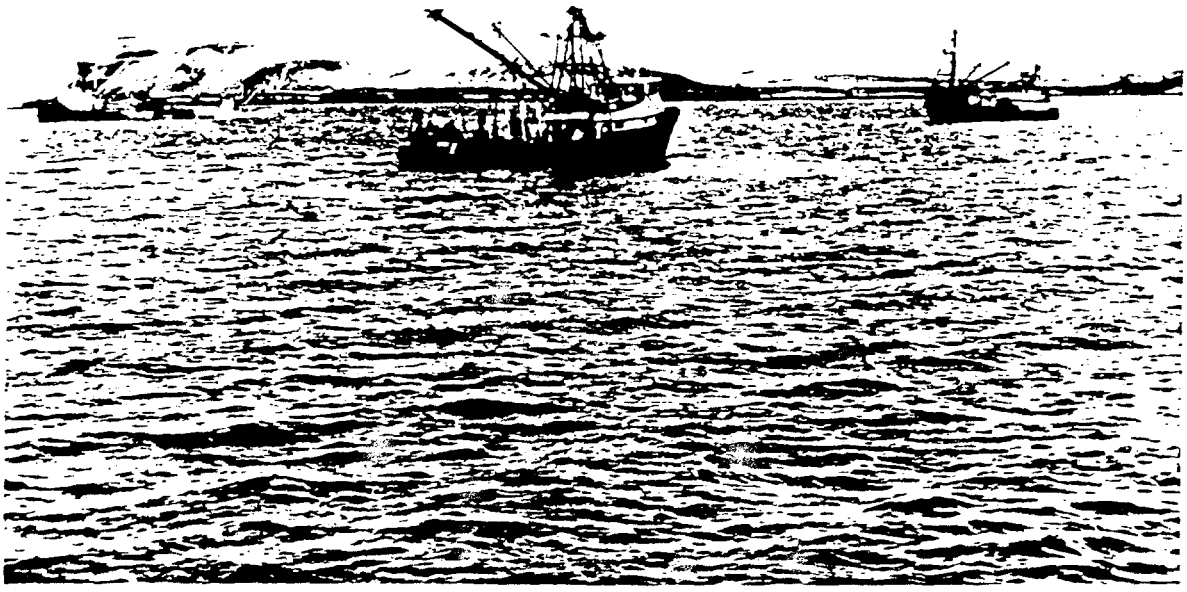
4. A rocky outcropping at Ragged Island's Morning Cove, on the outer Kenai Fjords coast, shows the effects of oiling.

Dave Duggins, NPS



5. The two large patches floating on the water (upper left, lower right) against the shoreline are mousse. Mousse was a product of storm whipped water in oil emulsification.

NPS



6. Fishing boats made up a large part of the ad hoc fleet assembled to fight the spill. Boats were converted to makeshift skimmers, provided logistic support, or were rigged to tow deflection boom.

NPS

7. Oil trapped among rocks and on smaller cobblestone beaches, as in this Cape Douglas photo, occurred along the Katmai coast. Coast Guard flyovers often missed these pockets of trapped oil.

NPS

8. Over 7,800 oiled bird carcasses were retrieved from the Katmai coast. Cleanup workers came to despise this gruesome task.

NPS

9. A red fox scavenges among oil stained rocks in the intertidal zone. Preventing ingestion of oiled carcasses was a high priority at the stricken parks.

NPS

10. The intertidal zone supplies an abundance of food for coastal bears emerging from their winter dens. This brown bear fell victim to oil while scavenging along the Kenai coast.

directly to reporters. This was done in order to coordinate media efforts and prevent conflicting versions of the same story from being told to the press. This restriction, however, was quickly lifted after the media began focusing attention on the matter.[36]

Evison's testimony received national and local media attention. In an April 14 article appearing in the *Anchorage Daily News*, Sierra Club spokesperson Tim Mahoney said Wiggins was responsible for the Interior Department's negligible response to the spill. He accused Wiggins of suppressing Departmental agencies in their efforts to combat the spill. The article noted a reluctance on the part of Evison to give details about Interior's participation in the overall response plan. The article implied that prior Office of Management and Budget (OMB) clearance of Evison's testimony may have had something to do with this.[37]

Wiggins' efforts to influence NPS spill operations in Alaska were not limited to Alaska Regional personnel. Wiggins and other top level Department of the Interior officials pressured top level NPS personnel in Washington, D.C. In particular there were several early encounters with NPS Deputy Director, Denis Galvin. On March 31 Galvin was called into a Department meeting to explain what the park service was doing in Alaska. In addition to Wiggins there were several Department notables at the meeting, including the Assistant Secretary for Budget and Administration, the Deputy Assistant Secretary for Fish and Wildlife, and Parks, and representatives from the Solicitor's Office. Why was the ICT called in? Why was the park service not coordinating their response efforts with other Department agencies? Galvin worked to allay these fears and explain why NPS was acting inconsistently with the Department as a whole. He emphasized the need for taking prudent action on the ground before the spill hit. Kenai Fjords in all likelihood was going to get struck. Preparations had to be made to combat the spill.[38] Such explanations did little to calm Department fears. Within the Department of the Interior there remained skepticism about the NPS choice of action. The park service was criticized for acting hastily and precipitously. According to Galvin, subsequent follow-up meetings during the early days of the spill were primarily limited to status reporting, not decision making. This factor, in conjunction with the anticipated change in the NPS Directorate, placed much of the decision making burden upon personnel in Alaska.

In contrast to NPS, there was an impression among critics that other agencies within Interior were slow in responding to the spill event. The Fish and Wildlife Service (FWS), the federal agency responsible for migratory birds, endangered species, and other select species on spill impacted land was said to be particularly slow in responding to the spill. And in fact, the Fish and Wildlife Regional Director for Alaska, Walt Stieglitz, believed NPS was overreacting in responding to the spill.[39] Unlike NPS, the FWS in Alaska was closely following Department guidelines. However, Stieglitz was also quick to try and dispel any notions that the FWS was not responding adequately to the spill. On May 18 he sent a blistering rebuttal to allegations that the Center for Marine Conservation had made against FWS during hearings before the Senate Subcommittee on Merchant Marine. Stieglitz called

many of the criticisms inaccurate and said they failed to paint a true picture of FWS efforts.[40]

THE KATMAI RESPONSE

Located on the Alaska Peninsula southwest of Prince William Sound along the Gulf Of Alaska, Katmai National Park and Preserve was much more remotely situated than Kenai Fjords. Still farther southwest of Katmai and also likely to get impacted from the spill lay Aniakchak National Monument and Preserve, one of Alaska's most remote national park units. When it became apparent to NPS personnel that Katmai and possibly even Aniakchak would get hit, plans were formulated for a response. While Hamson and Roy were in King Salmon putting together a contingency plan, Castellina and Liebersbach went to Kodiak to organize a MAC Group as they had done in Seward. Kodiak residents brushed their suggestions aside, giving an impression that NPS help was unwanted in Kodiak. Castellina and Liebersbach, however, were unaware that Kodiak already had a disaster response mechanism in place to deal with tsunamis, earthquakes and other hazards threatening the area. Because they already had an Emergency Response Council, Kodiak residents saw no need for burdening themselves with another layer of bureaucracy.[41]

Because of this misperception, NPS personnel were reluctant to establish park service operations in Kodiak, even after it was realized that running Katmai operations from alternate locations would be too difficult. However, once Katmai and Aniakchak's Superintendent, Ray Bane arrived in Kodiak, he found local residents and council members very supportive of joint operations to protect Katmai and the surrounding coastline. Kodiak residents simply wanted to avoid unwarranted bureaucratic layering. Park service cooperation was welcome. The same held true for Roy when he arrived to help set up Katmai response operations. Roy credited the council with having sufficient political clout among its borough and city members to consolidate divergent interests and present a united front before Exxon and the FOSC.

On April 6, Kodiak response personnel calculated that the leading edge of the slick would hit Katmai in four to five days. Estimates from NOAA said the oil now covered a 2600 square mile area. Weather factors made it difficult to estimate exactly when and where the oil would come ashore. The oil consisted of a heavy sheen and numerous discontinuous bands. According to the ADEC, the leading edge of the slick was now in the Gulf of Alaska, about 22 miles south of Kenai Fjords' Nuka Bay. Skimmers being deployed to try and capture some of the larger patches of the decomposing oil were having little success. Much of the oil had mixed with debris, or had been storm whipped into a viscous mousse making it difficult to pick up.[42]

Bane and other park personnel agreed that the first task which needed to be done, was to conduct a pre-inventory of resources on the Katmai coast, followed by preventive booming where possible to protect sensitive habitat.[43] Bane met with some initial resistance from

ARO when he suggested conducting pre-inventorying along the Katmai coast. Reasons for this were two-fold. First there was the cost of the undertaking. ARO was already spending huge sums of money at Kenai Fjords to inventory resources. Boat costs, overtime for park staff, plus paying for the ICT and contract scientists participating in the pre-inventory at Kenai Fjords, were quickly adding up. Such an undertaking at remote Katmai would bring substantially greater costs. Furthermore, because pre-assessments were already being done at Kenai Fjords, regional officials saw no need to duplicate efforts at Katmai.[44] Bane successfully argued that Katmai's low to moderate energy beaches with their cobble stones, slight gradients, and wide-shallow bays, were sufficiently different from the rocky outcroppings and headlands, typical of much of the high to moderate energy beaches at Kenai Fjords, to warrant a separate inventory.

NPS efforts at cooperation with Exxon and the Coast Guard met with mixed success in Kodiak. Roy found the local Exxon representative Dick Dorney and other Exxon employees in Kodiak to be genuinely concerned, and highly professional in their efforts to combat the spill. This spirit of cooperation was probably due in part to Roy's having worked with Dorney on spill events in South Florida in years past. In contrast, park service personnel had difficulties with several Coast Guard officials.

The Coast Guard failed to confirm initial NPS reports of oil along the Katmai coast. This was because much of the oil which had impacted Katmai was trapped in crevices on the cobblestone beaches. This caused the beaches to appear oil free from the air during Coast Guard flyovers. On sandy beaches, shifting tides washed sand over much of the oil within a couple of days. These patches although invisible from the air, were easily uncovered with a shallow scoop of a shovel. Much of the oil was also becoming trapped in the intertidal zone, mixing with sea weed, kelp and floating debris, making the job of spotting the oil difficult. The conflicting reports were receiving widespread media coverage. On April 14 and 15, local newspaper articles cited reports from ARO sources which said oil had been visually and physically verified along Katmai beaches. Park personnel did admit they were unsure about the actual quantities hitting Katmai, because the weathered oil, much of which had become mousse or tarballs, was often difficult to detect.[45] Still, they were certain that oil was impacting the Katmai coastline.

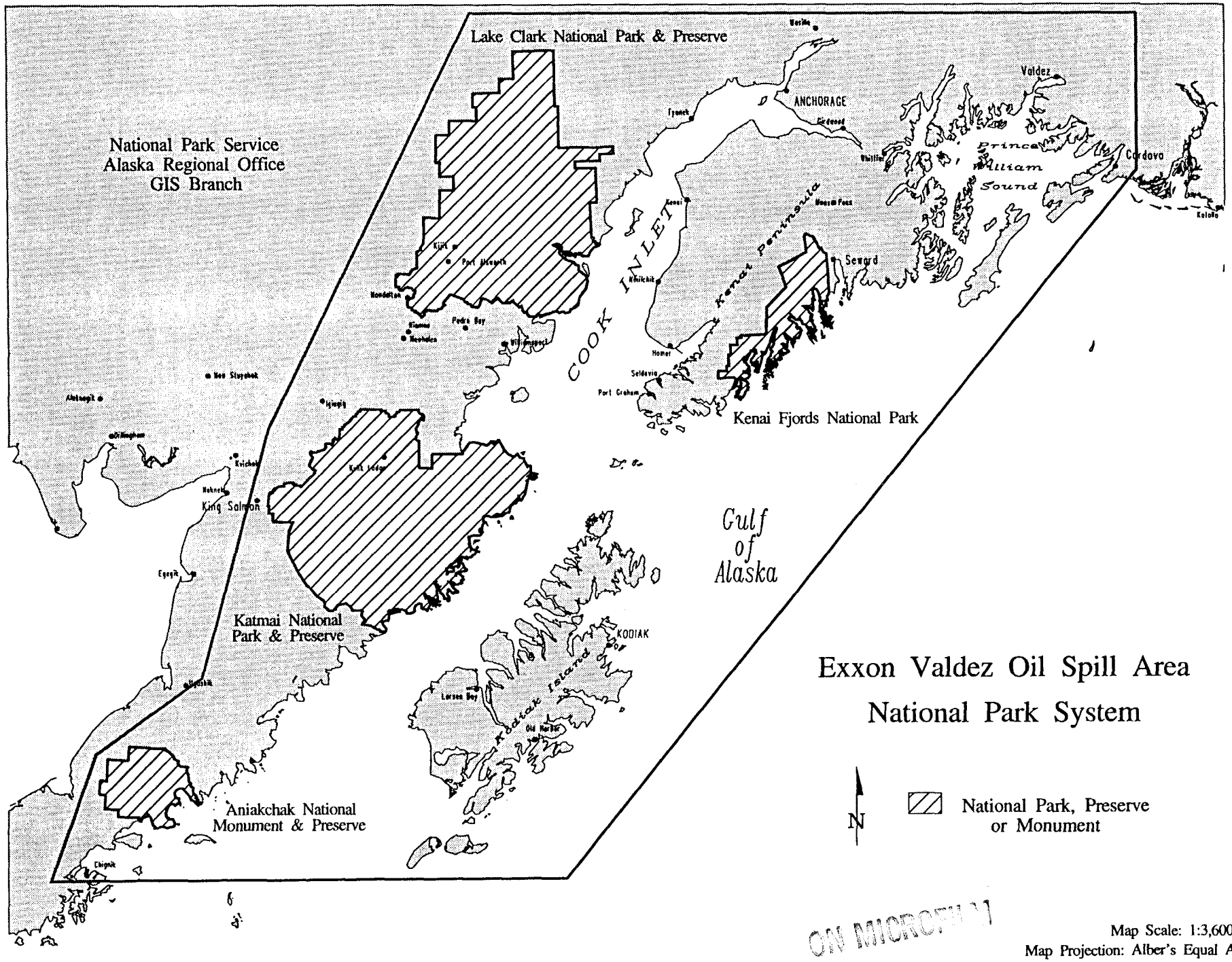
The situation was finally resolved when a supposed call from the White House was made to Kodiak on May 3 ordering the Coast Guard and whoever else was concerned to conduct an immediate on the beach assessment of the disputed areas. The caller further ordered all parties to jointly produce and sign a full report agreeing to the scope of the impact. The following day, staff from the Coast Guard, ADEC, NOAA, and NPS flew to Katmai's Hallo and Swikshak Bays to gauge the actual degree of oiling. The subsequent report--utilizing the ADEC's shoreline classification system--placed the degree of oiling at the two sites as moderate to light. The ADEC did note in the report, however, that its classification system made no attempts to determine the degree of biological impact at the two sites. In contrast, NPS stated that the amount of oiling was responsible for high mortality rates among shore birds and represented a significant threat to beach scavengers.[46]

On May 6 the new Coast Guard FOSC, Vice Admiral Clyde Robbins, showed up in Kodiak saying he had been accused of not paying enough attention to impacted areas outside Prince William Sound. Robbins, the Coast Guard's Pacific Area Commander, had assumed FOSC duties from Commander McCall on April 9. He wanted to see the impacted areas and get the facts. A trip was quickly arranged to the Katmai coast providing Robbins with a first hand look at the impact to Katmai and surrounding areas. Robbins then mobilized cleanup resources to the area, thereby making the Alaska Peninsula an official part of "the spill."[47]

Just prior to this incident, Ames and Evison had made a visit to Kodiak to assess NPS response efforts. Standing NPS policy at this time was that cleanup of park shorelines would not begin until all the oil had passed. Roy convinced Ames and Evison that such a policy was unfeasible in light of oil reoccurrences which could continue in the area for some time to come. The go ahead was given for cleanup personnel to begin operations on Katmai beaches. Evison also agreed to allow mechanized equipment along the Katmai coast on a controlled basis in cases where it would facilitate cleanup efforts. It was decided that the general benefits provided through the limited use of mechanized equipment outweighed any harm to the Katmai coast.[48]

Other action was also being taken to limit coastal impact, prior to the official confirmation of oil hitting the Katmai coast. Boats were dispatched from Kodiak to work the Katmai coast and were scheduled for the Aniakchak area, should there be a need. The boats concentrated efforts on deflective booming near shore, and high seas booming to capture or breakup oil before it reached the shoreline. On the beaches, NPS personnel assigned to beach assessment tasks were retrieving dead birds and debris along the shore to prevent scavenger ingestion. Park personnel reported seeing signs of bear and other predator scavenging among the beached carcasses. In one short section of beach surveyed the end of April, park employees found 103 dead murres. Many of them were covered with oil to such an extent that it was difficult to determine their species.[49] Recovering the carcasses proved to be a particularly gruesome chore, one many NPS personnel and other responders came to despise. The emotional impact proved to be too much for some.

By late April, the human costs of the spill were beginning to mount up. Numerous individuals succumbed to sheer exhaustion. When Regional Director Evison made a trip to Seward in April, he sensed that the whole town was in shock. The catastrophe had overwhelmed many local residents. Drunkenness, family strife and crime were at all time highs. Valdez became a boomtown overnight. The normal winter time population of 3,500 had doubled by April 10. The town experienced a dramatic increase in barroom fights, thefts, and traffic violations. Local authorities were unable to manage the tremendous influx of spill workers, media personnel, and VIPs. In Native villages, contamination and perceived health risks caused local subsistence harvests to decline as much as 78 percent. Many area Natives wondered whether they would ever be able to resume their traditional way of life. Within NPS the emotional and physical traumas were equally devastating. The hard work and long hours, coupled with a sense of enormous loss manifested itself in a host of physical and emotional ailments, and family conflicts. Feelings of futility, frustration, and



Exxon Valdez Oil Spill Area
National Park System

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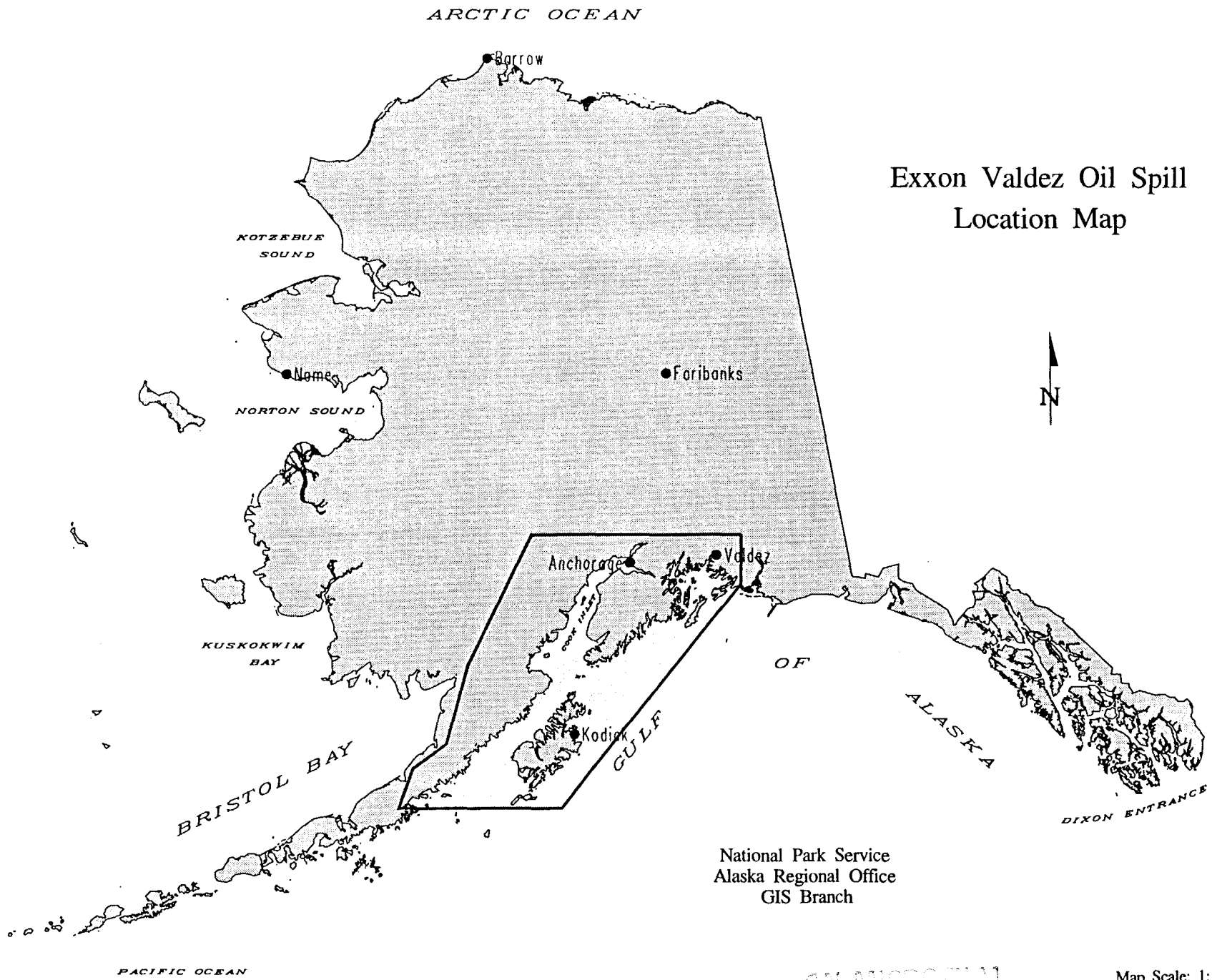

Exxon Valdez Oil Spill Location Map

National Park Service
Alaska Regional Office
GIS Branch

Map Scale: 1:12,000,000
Map Projection: Alber's Equal Area

453/20003

rage were common among many NPS employees. The regional office brought in professional counselors to talk and work with a number of people who were particularly traumatized during the event.[50]

RESOURCE PROTECTION OFFICERS

Once the decision was made to allow the cleanup to proceed along Katmai shores, a method for implementing the process had to be agreed upon. Because Katmai was designated wilderness care had to be taken to protect resources against further contamination and degradation during cleanup. In this regard several restrictions were placed on cleanup teams. Mechanized equipment would be allowed on a case by case basis. Cleanup workers would be housed offshore overnight, not on park beaches. Precautions would be taken to protect wildlife, habitat, and cultural (archeological and historical) resources in and near spill areas. The park service was particularly concerned about preventing encounters between cleanup crews and scavenging bears.

To facilitate these park directives, NPS personnel implemented the use of Resource Protection Officers (RPOs). An RPO was assigned to each crew working Katmai beaches. RPOs were responsible for preventing negative impact to resources, protecting wildlife, and for maintaining a park presence. RPOs also served as the eyes and ears for NPS personnel at the main offices. RPOs provided current information about the progress of cleanup activities in impacted park areas.[51]

Finding merits with the RPO concept, Coast Guard officials on May 8, directed the use of RPOs on all park lands. This meant that Castellina had to organize RPO personnel for Kenai Fjords. To facilitate the process Castellina decided to base her RPO requirements on the number of workers Exxon planned to deploy on Kenai Fjords beaches. Exxon estimated that it would soon have upwards of 150 people deployed to the area. Based on this figure the ICT commander in Seward requested that 12 RPOs be assigned to the area for use at any given time. As with Katmai, plans were made for housing RPOs assigned to cleanup crews offshore on chartered boats.[52] It soon became apparent that Exxon was not going to deploy anywhere near 150 workers on the Kenai Fjords beaches at any one time. Numbers were constantly changing. Castellina would get a revised figure from Exxon and beef up the number of RPOs assigned to an area, only to find out Exxon could not assign that many people to the area.[53]

Providing sufficient numbers of qualified RPOs proved a major undertaking. On May 12 Evison sent out a request to other NPS regions for RPO assistance. All available Alaska region personnel had already been assigned to the spill. Personnel deployed to Alaska for RPO duty were rotated through on 21 day assignments. These individuals had to be housed, trained for their new duties, supported in the field, and rotated in a timely manner.[54] The paper work alone for managing such a task was overwhelming. This process was greatly facilitated after the formation of an ICT Area Command. The area command would

coordinate the rotation of RPOs, and manage NPS field operations, thereby relieving park staff of this burden. The area command also assumed most spill related duties at the regional office. This meant regional office personnel could resume work on other pressing park business. The person selected to fill the position of area commander was Frank Betts, a retired NPS superintendent from Denali National Park. Betts was assigned the tasks of providing logistical support to ICT field units, providing some decision making guidance to Evison as requested, and overseeing the rotation of RPOs from "lower 48" parks.[55]

ANIAKCHAK

Confirmation of impact at Aniakchak National Monument and Preserve, the most remote and furthest removed park unit from the spill site (about 500 miles southwest), occurred on July 2. On July 4, Bane made the two hour flight in the park's Super Cub from park headquarters at King Salmon to Aniakchak, in order to assess the damage first hand. Bane made landings at several locations to survey the damage, although the unpredictable Aniakchak weather prevented him from making one of his planned stops. Oil on the impacted beaches appeared to be of moderate to light consistency. Much of it was mixed with seaweed and other debris littering the shoreline.[56]

When Bane arrived at Aniakchak Bay he was surprised to find a cleanup crew already working the beach. A manager from Veco, Exxon's principal cleanup contractor, and a Coast Guard representative were supervising the crew's work. There were no RPOs or other park service personnel on-scene. This was because neither Veco's on site supervisor or the Coast Guard official were aware that they were working on NPS managed land. Bane discussed park service priorities and restrictions with the Veco supervisor, who promised to coordinate and inform the NPS Kodiak spill office of future cleanup operations at Aniakchak. The Veco supervisor also told Bane they hoped to complete most cleanup at Aniakchak within a couple of days. Recovery would consist primarily of the removal of oiled debris, tarballs, mousse patties, and a large number of dead birds. Before leaving, Bane reiterated park service protection priorities and supplied the cleanup crew with maps showing Aniakchak boundaries.[57]

NEW BATTLES ON THE BUREAUCRATIC FRONT

Bureaucratic infighting continued to plague Alaska Regional Director Evison after he returned from Washington, D.C. At an April briefing for Senator Stevens at Elmendorf Air Force Base, Evison found himself again on the defensive. NOAA and Coast Guard representatives at the meeting insisted that oil was escaping Prince William Sound only in

very small amounts, and was not impacting Katmai.[g] Evison, however, had already received samples from the Katmai coast to back up his claims of oil impacting the area. The NOAA and Coast Guard position was also inconsistent with a supposed Exxon request to dump some 24,000 gallons of dispersant on a large patch of oil off the Katmai coast.

At one point in the course of the briefing Walt Stieglitz, Evison's counterpart at the FWS, leaned over to Evison and said "you guys are way overreacting to this."[58] In contrast to the park service, fish and wildlife was keeping a low profile. Fish and wildlife, according to Stieglitz, had placed a person in Valdez to provide advice and counsel in the planning effort, not to direct boom placement and cleanup operations. These latter tasks belonged to the Coast Guard. The FWS had absolutely no authority to direct boom placement. The FWS, however, was making recommendations for booming and cleanup priorities.[59] Such actions, according to Stieglitz, were appropriate and in keeping with Department of the Interior guidelines based on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), provisions of the Clean Water Act (CWA), and the RRT operational structure.

The spillover from the bureaucratic infighting was having a negative effect on efforts in the field. At Katmai the Coast Guard and NPS personnel were arguing over the degree of impact to Katmai shores once it had been established that Katmai had in fact been impacted. The May 6 visit by Gates, the FOSC, and NPS representative Cordell Roy illustrated just how confusing this issue could be. During the visit three Katmai areas were assessed using the ADEC's rating system. NPS had reported each of these areas as being heavily oiled. According to the rating system these areas were labelled as light to moderately oiled.

From a park service viewpoint the amount of oil represented a substantial impact. NPS personnel viewed as catastrophic, oiling which in the Sound, was classified moderate to light. Even a sheen was considered to be enough oil to profoundly alter the integrity of pristine park shorelines. To park proponents these shorelines represented a benchmark by which similar ecosystems around the world could be measured for natural integrity. The FOSC, however, did not share this NPS assessment. He accused the park service of not working through established channels. Reporting the presence and determining the concentrations of oil was the responsibility of the ADEC, NOAA, and the Coast Guard. NPS was to work through proper channels, not through the press.[60]

Problems also emerged over cleanup methods and tools for effecting the cleanup. In order to further limit damage during cleanup, the park service decided to limit most cleanup to the "type A" method. This meant using trowels, shovels, and other hand tools to manually remove the oil, and oily residue. Debris had to be bagged and transported for disposal or burning at approved sites outside park land. In contrast, the more intrusive "type B" cleanup

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[g]This briefing occurred prior to the supposed White House order which demanded a clarification on the status of Katmai shorelines.

method was being extensively employed in the Prince William Sound impact zone. Type B cleanup involved the use of hot water washing under high and low pressure spray and mechanized equipment to scrape beaches clean, followed by repeated applications of harsh chemicals[h] to breakdown any remaining oil.[61]

The park service rejected extensive use of these harsher type B methods, saying they would cause more harm to resources than the oil. Pressure from Exxon, individuals within the Department, the State of Alaska, and the Coast Guard to alter this policy would become an issue of major contention with the park service.[62] In Evison's opinion, even Secretary Lujan appeared insensitive, or failed to understand the park service's resource protection priorities. When asked about the problem of removing oil from the beaches, Lujan said the solution was simple, "just bring in a bulldozer and scrape it off."[63] The state--which claimed title to all land below the mean high tide line to a distance of three miles out--pressed NPS to agree to type B cleanup in the intertidal zone within park boundaries.[64] Coast Guard officials were especially upset at NPS insistence on controlling and limiting the use of all terrain vehicles on park beaches. Coast Guard Captain Rene Roussel accused the park service hierarchy of having a hidden agenda and of being unrealistic in the NPS cleanup approach. He also accused NPS of putting out disinformation through the press, namely the reporting of impacts to park beaches that had not yet occurred.[i] This, he said, caused the Coast Guard to waste time chasing false leads.[65]

THE FINANCIAL DILEMMA

From its earliest involvement in post-spill operations, the Department's spill management group, which Vern Wiggins headed, was concerned about two main issues. One of these was the appropriate administrative format for response, the other, was the matter of financial liability. Wiggins handed the reins for both these chores to the Office of Environmental Project Review (OEPR). Statutory language contained in the CWA and related statutes served as the basis for determining Interior's response format. The language and interpretation of these laws, however, was unclear and not fully understood. Questions arose over the CWA's reimbursement provisions.[66] REO Paul Gates was instructed to reiterate these concerns to Interior agency personnel in Alaska. The Department was particularly

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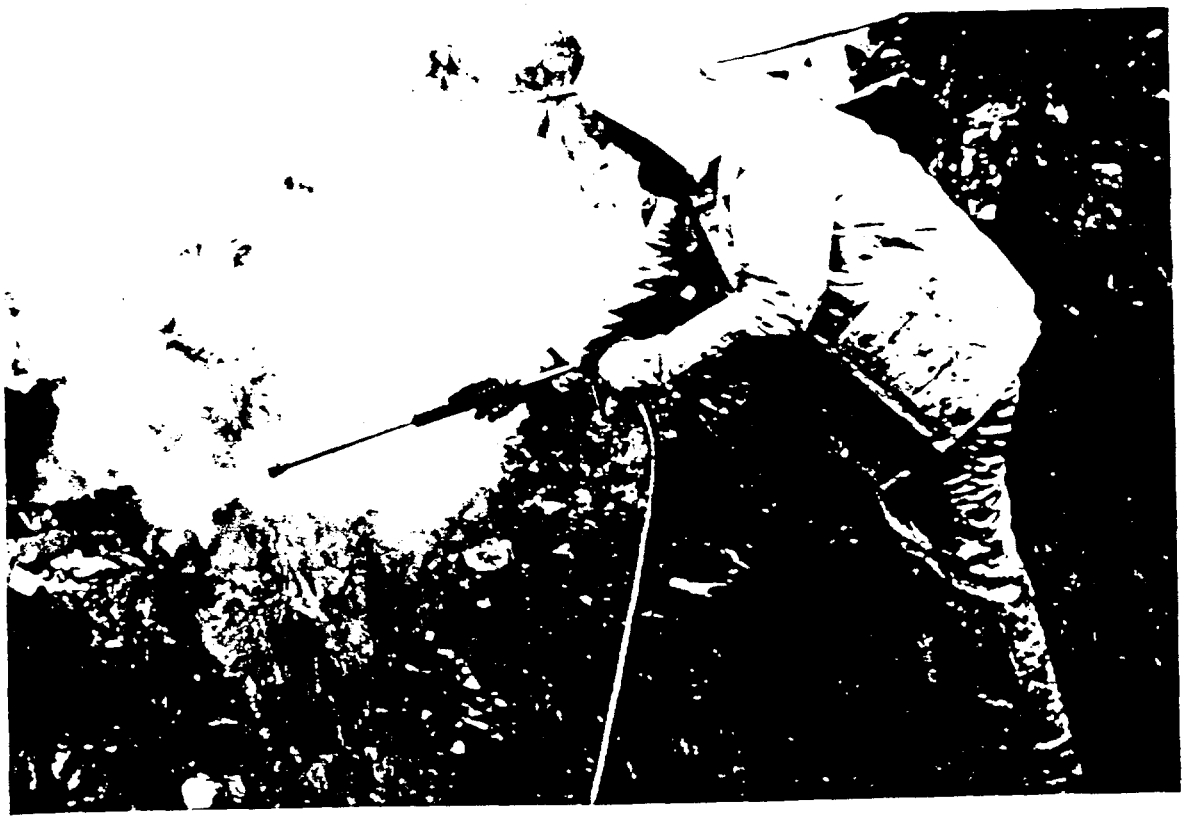
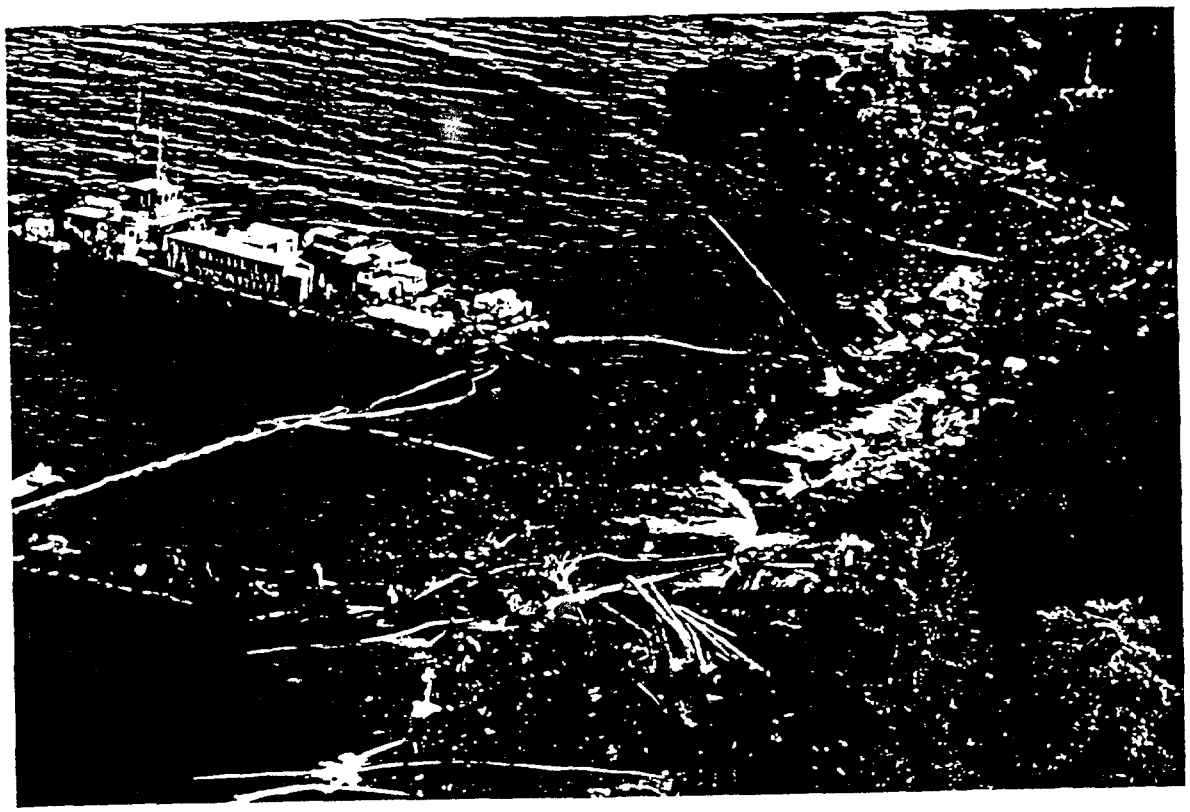
[h]Chemical treatment to breakdown oil included the testing of COREXIT 9580, an Exxon manufactured dispersant. Organic treatment was generally limited to the use of fertilizers or similar products designed to enhance the presence of oil eating microbes.

[i]In Evison's October 17, 1989 interview transcript, he describes a situation which may have contributed to this Coast Guard perception. A park employee had reported seeing a brown bear walking in oil and feeding along the Katmai coast. Members of the press picked up on the unofficial report and gave it wide coverage. Further NPS checking determined the bear was wading in kelp, not oil. This, in Evison's opinion, hurt NPS credibility.



11. Cleanup began at Kenai Fjords on May 5, 1989. This cleanup worker is using high pressure hot water spray to wash oil off a rock face.

Karen Jettmar

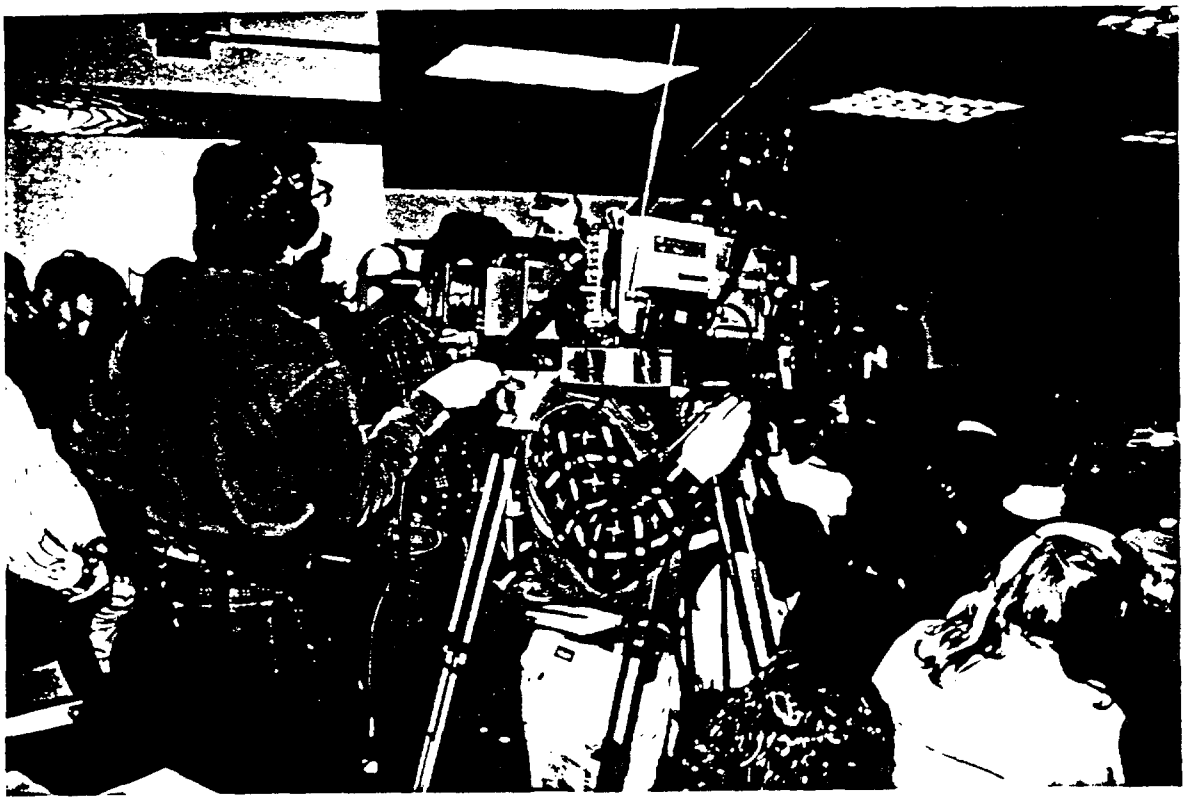


12. A self contained omni-barge equipped with a portable hot water wash-down system is used to rinse oil off an impacted beach. Capture boom contains the freed oil for easy recovery.

State of Alaska, Governor's Office

13. Coast Guard, ADEC, and Exxon officials gather on Smith Island in Prince William Sound to observe the results of a COREXIT test application. Poor tests results caused the FOSC to ban the use of COREXIT. During the *Exxon Valdez* cleanup several innovations were employed to help remove the stubborn oil.

State of Alaska, Governor's Office



14. Members of the press gather for a briefing at the Valdez Civic Center. Valdez remained the response operations hub throughout the 1989 cleanup season.

State of Alaska, Governor's Office

concerned about agencies taking action which the FOSC had not authorized. This could jeopardize an agency's chances of reimbursement. NPS was told the responsibility for paying for any response activities which the FOSC failed to clear would become the agency's burden.[67]

Despite the warnings, NPS-ARO decided to protect the resources first and figure out how to pay for it later. In Washington, D.C., Galvin felt the scope of the emergency authorized NPS to respond. Consequently he invoked Section 101, an Interior Budget Act provision, which allowed NPS to expend funds from any source in the event of an emergency. This mechanism was regularly invoked for fighting fires on national park lands. Although Section 101 did not mention oil spills specifically, it did deal with the notion of disasters in broad terms. Galvin therefore felt safe in extending 101 to the spill incident.[68]

Galvin's interpretation of Section 101 did not set well with Department officials. A controversy quickly erupted over the applicability of 101 to the spill response. Galvin's first few meetings focused on park service authority to allocate funds to the spill response. Department officials informed Galvin in no uncertain terms that NPS would have to pay for its own expenses if Exxon failed to come up with reimbursement funds. The Department would not step in to bail NPS out. Was Galvin willing to accept this responsibility, and did he have the authority to allocate these funds?

Galvin felt justified in what he was doing. Expenses for bringing in the ICT could be covered through regular park service accounts. If all else failed, Galvin could freeze natural resource preservation program funds and use them to cover ICT expenses. This was appropriate given that the ICT was essentially doing inventorying and monitoring of park resources, the very purpose for which these funds were allocated. In subsequent Department meetings and in early briefings with the Secretary, the subject of fiscal responsibility came up repeatedly. Galvin stuck by his opinion and remained confident that NPS had the authority to expend funds on the spill response.[69]

Galvin made a point of keeping Evison informed of the financial haggling taking place in Washington. Likewise, he reassured Evison that Alaska Region was legally correct in its reaction to the emergency. So long as Evison continued to act prudently, money would be made available to pay for it. Galvin and Evison were in agreement that the important thing to do was protect park resources. They could not worry about compliance with the specific language of CERCLA and CWA merely for the sake of guaranteeing reimbursement.

The possibility of financial relief resurfaced as an issue on April 13, during testimony before the House Subcommittee on National Parks and Public Land. Evison indicated that paying for the response was of particular concern to the agency. The park service had already set up a special account for charging spill costs against. Unfortunately, the account had no money in it just yet, and NPS costs to combat the spill were already in excess of $800,000.

Follow-up testimony from Robert Lamb of the Department's budget office seemed to indicate relief was in sight. Lamb told subcommittee members reimbursement for NPS expenses was being sought from the Coast Guard through a response reimbursement mechanism of the CWA called 311(k). A memorandum of agreement (MOA) was already in place with the Coast Guard for reimbursing FWS costs through 311(k). Hopefully this MOA could be expanded to include NPS. The Department had sent out detailed instructions for keeping track of costs. This would help insure full reimbursement. In addition, Lamb anticipated that any long-term monitoring costs associated with damage assessment would be covered under CERCLA/CWA damage assessment provisions.[70]

Despite these reassurances, financial worries continued to plague Evison. Department representatives were expressing concern that ARO was spending money without prior authorization from the FOSC. Rumors began to circulate about Evison having misappropriated money in violation of the Anti-Deficiency Act, and perhaps spending the rest of his life in Leavenworth. The new Bush Administration appointees were taking over activities in Washington. Galvin was replaced a few days after the April 13 hearing, and was therefore no longer in a position to give further assurances about ARO spill expenditures. Evison found himself traveling to Washington to explain Alaska Regional activities to James M. Ridenour, the new NPS Director; the new Deputy Director, Herb Cables; and several Department of the Interior officials. Although supportive, the new NPS Directorate was much more cautious than Mott and Galvin had been in their support of Evison. Evison, for his part, likened the event to a fire saying that "you don't ask a fellow whether he can pay for the water before you let him turn the hose on." Alaska Region was doing what it had to do, the best it knew how, with what was at hand. Sorting out how to pay for it would have to wait.[71]

In late May Evison again met with the Director and Deputy Director. Both expressed their continued support for Evison's actions but were clearly uncomfortable given the heat that was coming down from Wiggins and other Department personnel. Further doubts were raised because of conflicting information from Congressional staffers, and the State of Alaska.[72] Meanwhile, costs were rapidly increasing with projections for the park service response exceeding $8 million. Pressure eased in July when Congress passed P.L. 101-45, a supplemental appropriation package of $7.3 million. Congress also expanded the Department's Budget Act reprogramming authority for Section 102 funds. Prior to this, Section 102 reprogramming authority had only been extended to fire incidents. This new authority allowed NPS to redirect funds from the agency's multi-year construction funds, and land and water conservation funds to the spill effort.[73]

Evison, with the support of Senator Stevens, had lobbied hard to secure the $7.3 million. Evison spoke to key Congressional staffers and committee staff. He anticipated that a majority of the appropriation would go to NPS to help cover spill costs. The bill's language, however, did not specify that these funds go directly to NPS. The funds were allocated directly to the Department of the Interior. The Department placed $1 million of the appropriation in a reserve fund for covering future contingencies and costs. The Department

gave the FWS $4.6 million. NPS was given $1.2 million. As a result, the park service was forced to draw $5 million from Section 102 reprogramming authority to cover the remaining costs. This was done with the Congressional stipulation that the Department seek reimbursement for the 102 money as a part of future appropriation requests.[74]

In late June, reimbursement for expenses under Section 311(k) of the CWA was readdressed. Rick Dawson, Chief of Resource Management Southeast Region, first brought major provisions of the CWA and CERCLA to the attention of ARO personnel. An expert on CWA and CERCLA, Dawson had been brought up from NPS Southeast Region at the suggestion of Roy. Dawson spent time in Seward, Kodiak, and the Regional Office providing guidance and direction for pre-assessment screening and inventorying. He likewise informed personnel about the framework and working scope of CWA and CERCLA.[75]

While in Kodiak, Dawson made Hamson aware of the 311(k) provision in CWA for recovering expenditures for spill response actions. At Dawson's suggestion, Hamson began looking into the subject for guidance on cost documentation and applying for reimbursement through the Coast Guard from Exxon. Generally, the Coast Guard managed 311(k) funds were only available after a spill had been federalized. However, as the responsible party, Exxon was providing reimbursement payment directly to the 311(k) fund. The Coast Guard was then distributing these funds to parties incurring legitimate spill response costs under standard 311(k) guidelines.[76] Hamson hoped to tap into a portion of these funds.

Upon his return to ARO, Hamson realized that accomplishing the task would be much more difficult then he had first imagined. Word had supposedly come down from Interior telling NPS to forget about recouping any funds under 311(k). This was because NPS had failed to get prior approval from the FOSC before taking action. Still, from what Hamson could find, it seemed as if NPS could recover numerous spill expenditures through the 311(k) fund.[77] Written documentation and transcripts from several meetings verified that NPS had consulted with Coast Guard officials at the local level, or had been ordered to implement specific response actions. Based on this evidence Hamson felt justified in pushing for 311(k) reimbursement. Hamson took his case to the Department's REO Paul Gates. Gates was at first skeptical of Hamson's argument. But after careful review, he concluded a case could be made for NPS reimbursement under 311(k). Subsequently, Gates invited NPS to a 311(k) reimbursement meeting with the Coast Guard set for July 26. To prepare for the meeting Gates requested that NPS and other Interior agencies attending the meeting submit general estimates summarizing agency response costs.[78]

A decision was made to go ahead with the time consuming task of costing out NPS expenditures incurred during the spill response. Summary figures were submitted for the July 26 meeting with the Coast Guard. In addition, NPS began assembling a comprehensive accounting of all response costs potentially reimbursable under 311(k). Jim Randall, the area command's Planning Section Chief, was given the job of sorting out and documenting those costs specifically associated with spill response. The job proved to be a paperwork nightmare. No one had kept track of response costs per 311(k) stipulations. Furthermore,

each local NPS base of operations seemed to have its own method of bookkeeping. Personnel, travel, equipment, monitoring, and administrative costs had to be accounted for at all NPS sectors participating in the response effort. Legitimate response costs per 311(k) had to be broken out from inventorying and other costs not directly related to Coast Guard approved response activities. When the job, now under Hamson's direction, was finally finished in November, ARO submitted a bill to the Coast Guard for $2,576,353. The bill was backed up with six volumes of verifiable documentation.[79]

DAMAGE ASSESSMENT AND THE TRUSTEE PROCESS

It is impossible to speak about the damage assessment process that occurred following the *Exxon Valdez* incident without discussing the Trustee system. The two manifest from the same authority. The Trustees were the bureaucratic force behind the damage assessment process. The Trustees dictated the damage assessment's scope of study, and established the time table for work completion. The Trustee system was the administrative mechanism for bringing suit against the spiller, and would ultimately collect and distribute any compensation money paid to the federal and state governments for damage to resources.

The statutory authority and procedures for establishing a trustee process after a spill, are contained in CERCLA and the CWA. CERCLA specifically authorizes the designation of federal and state officials with appropriate jurisdiction to act as trustees on behalf of the citizenry, and to protect the natural resources on impacted public lands.[80] As authorized in CERCLA, and implemented through Executive Order 12580 and the National Contingency Plan, the damage assessment process called upon the State of Alaska, and the federal Departments of Agriculture, Commerce, and Interior to serve as trustees for impacted natural resources under their individual management and control.

Together, CERCLA and CWA provided the authorization for establishing a legal framework for the Trustees to protect public interests for impacted natural resources. This was done through the damage assessment, and the submittal of claims for damages from potentially responsible parties (42 U.S.C. 9601 et seq; 33 U.S.C. 1321). Natural resources under these provisions include non-living resources (air, land, sediments, surface, groundwater), and living resources (fish, wildlife, other biota), 42 U.S.C. 9601(16). CERCLA further specifies that funds recovered through the damage assessment process be used to restore, replace or acquire equivalent natural resources, 42 U.S.C. 9607(F). Under CERCLA, trustees can also recover costs incurred while conducting damage assessments, 42 U.S.C. 9607(a)(4)(c).

The Trustees' damage assessment tasks were facilitated through the establishment of a Trustee Council. The relationship between the various Trustees, the Trustee Council and subsequent working groups formed to serve the Trustees were outlined in an MOA in April 1989. The State of Alaska refused to sign the MOA, although the state did participate in the process as outlined in the document. The MOA authorized each Trustee to assign a single

representative to the Trustee Council. The Department of the Interior made FWS the lead Interior agency for damage assessment. Walt Stieglitz, the Alaska Regional Director for the FWS, was named as the Department's representative to the council. In addition, the Environmental Protection Agency and any other state or federal agencies deemed appropriate could provide a consultant to the council. This provided a mechanism for NPS and other non-lead agencies to participate in the process. The council would oversee the natural resource damage assessment (NRDA) process.

A Budget Control Team, Legal Team and Management Team would assist the Trustee Council. Only the Management Team was headquartered in Alaska. It was also the only team specified to include at least one representative for each trustee plus an Environmental Protection Agency consultant. The Management Team with Trustee Council guidance was tasked with planning, implementing and evaluating the NRDA effort.[81]

The NRDA process swung into gear in April even before the MOA issue was settled. Management Team personnel were selected and directed to begin formulating a damage assessment plan. The Management Team chose not to utilize the non-mandatory damage assessment guidelines stipulated in Title 43 Part 11 code of federal regulations (CFR). Thus, much of the plan was "made up" to suit the Trustees' perceived needs. Early working drafts of the plan anticipated that the NRDA process would require three to four years to complete. The earlier drafts likewise called for the development, approval, and implementation of a restoration plan. These steps would not be taken until after the assessment was completed.[82] After several redrafts a working plan was submitted for public review in August 1989.

During the planning phase some preliminary field studies were begun. Almost immediately after the spill NOAA--which was acting as the lead agency for the Department of Commerce--and the state, independent of the Trustees NRDA planning process, but aware of CERCLA requirements, sent teams to Prince William Sound to collect resource samples before the oil struck. In April NOAA established a damage assessment headquarters in Washington, D.C. and a damage assessment and restoration office in Juneau. Likewise, within days of the spill incident, FWS personnel had initiated NRDA procedures in compliance with CERCLA stipulations. Field staff recovered dead and injured wildlife and made counts for use in gaining compensation from the responsible parties.[83] Overall, though, major field studies were put on hold until after the planning phase was completed.

During the summer of 1989 NPS personnel played a limited role in the Trustees' NRDA activities. This was partly because the park service did not have an individual on the Trustee Council, nor did NPS have anyone assigned to the Management Team. Personnel from the FWS filled both of these positions. This is not to say that NPS was completely outside the NRDA loop. On April 12 personnel from the ARO attended an NRT meeting (the before mentioned RRT parent organization). The meeting focused on CERCLA compliance. Agencies attending the meeting were briefed on the NRDA process and on procedures for conducting damage assessments.[84]

In early April Roy and Al Lovaas, Division Chief of Natural Resources at ARO, attended a NRDA planning meeting. Members of Lovaas' staff later attended a set of NRDA working group meetings in Juneau. In Anchorage, Lovaas participated in a NRDA mammal working group. Members from the division helped to devise proposals and concepts for brown bear at Katmai, river otters, foxes, mink, and the intertidal zone to name a few. NPS personnel likewise put forth scoping proposals for water column toxicity studies, intertidal vegetation, marine mammals, and black bears on park lands. These proposals if adopted, would be used to help establish the Trustees' case against Exxon.[85]

Members of the ARO Cultural Resource Division participated in similar planning sessions which resulted in the creation of a Cultural Resources Working Group. The ARO Regional Archeologist served as the Deputy Chair of this multi-agency group.[86] In addition, ARO Associate Director for Resource Services Paul Haertel, met with Stieglitz and members of his staff on May 16 to discuss NRDA issues. Resource working group progress, the scope of NPS participation in NRDA studies, and Stieglitz' role as the Department's Trustee Council representative were discussed. NPS and FWS personnel attending the meeting agreed to continue sharing information.[87]

Despite this interaction, Evison felt NPS was being left out of the trustee process. Correspondence between Evison and Stieglitz during the spring and summer of 1989 was sporadic. In early August Evison drafted a memo to NPS Director Ridenour outlining his fears. Evison was primarily worried that NPS concerns were not being addressed in the damage assessment planning process. He wanted NPS to have a consultative representative assigned to the Trustee Council and an NPS employee named to the Management Team as provided for in the MOA. Evison pointed out that all of the injured land managing agencies except NPS, had representatives on the Trustee Council and the Management Team.[88]

Shortly after Evison drafted his memo, NPS Director Ridenour drafted a letter to Secretary Lujan. Ridenour reiterated the need for NPS representation on the Trustee Council and Management Team. He specifically requested that Evison be assigned as the NPS consultant to the Trustee Council and named Roy as the NPS person who should represent the park service on the Management Team.[89] Actually, Roy had already become involved with the Management Team. In early August NPS efforts to access the trustee process succeeded in getting Roy assigned as an assistant to Interior's representative on the Management Team, Rowan Gould, an Associate Director for FWS in Alaska. As Gould's assistant, Roy did not have official power to vote on Management Team decisions, however, he could provide an NPS perspective in the damage assessment process.[90]

THE TORT INVESTIGATION

The idea of NPS conducting an investigation of damage to park lands was conceived shortly after agency officials realized the spill would impact park resources. This ARO initiated investigation was independent from the Trustees' damage assessment planning activities.

During an early conversation with Ranger Activities Chief O'Guin, ARO Law Enforcement Specialist Steve Shackelton emphasized the need for collecting evidence suitable for pursuing a criminal case should it become necessary. Such evidence could likewise be used in a civil case. They submitted the idea to the ARO directorate, stressing the need for gathering evidence in anticipation of a legal confrontation with Exxon.[91] The problem was that an evidence gathering effort of this magnitude required someone with specific expertise to lead the process. A survey of park regions showed that Shackelton's own father, Lee Shackelton, was the individual best suited for heading up the investigation.

At the time of the spill, Lee Shackelton was serving as a Ranger at Yosemite National Park. He was a graduate of the FBI's National Academy, and specialized in civil and criminal investigations. With these credentials he was well suited to the demands of leading the ARO envisioned tort investigation of the spill's impact to park resources.[92] Shackelton assumed the position of Chief Investigator on April 2, 1989. A team of 15 investigators was assembled to implement the investigation process. The investigation was broken into two phases. Phase one, running through the end of May, was a hurried effort to conduct pre-assessments of park resources prior to impact. This information would provide pre-oiling baseline data for park resources. Phase one was initially a separate effort from the pre-inventorying process being conducted at Kenai Fjords and Katmai with ICT help. Later on the two became intermeshed, with pre-inventory information eventually becoming incorporated into the tort investigation. Phase two of the investigation focused on post-oil monitoring. During this phase investigators gathered evidence needed to evaluate NPS losses from the oil impact. This evidence gathering process was scheduled to last throughout the summer of 1989.

A significant factor during the post-oiling phase was the collection of samples linking the oil impacting NPS shores to the *Exxon Valdez*. Early efforts concentrated on the verification of aerial reports of impact to park shores. Physical on-sight inspections were made, at which time oil samples were collected from the shoreline. Numerous photos were taken of oiled birds and shorelines to provide a photographic record. Later, chemical comparisons or "fingerprinting" was done in order to link samples taken from the shoreline with oil samples from *Exxon Valdez*. In all, some 96 samples were collected; 93 of these were linked to the tanker.[93]

Lee Shackelton, and others within the ARO, initially assumed that any evidence gathered through an NPS tort investigation would be used to support independent NPS loss recovery claims filed against the spiller or other responsible parties.[94] The tort investigation team would produce case evidence to support NPS claims for damages under the CWA, federal common law trespass action, and the Archeological Resources Protection Act.

The Department's Regional Solicitor's Office provided some initial guidance for the NPS tort effort. Attorneys for the Solicitor's Office, at first, did not specify to Shackelton what evidence his team should gather. This created some uneasiness among NPS investigators over the applicability of their efforts to a civil or criminal suit. These fears were relieved to

some degree after discussions with Interior Solicitor Randall Luthi. Luthi assured Shackelton that the evidence gathering methodology NPS had employed thus far was correct and would contribute to the government's case.[95] Attorneys with the Solicitor's office also emphasized the need for incorporating NPS evidence into the greater federal civil effort being conducted under CERCLA and CWA stipulations. They did, however, hint at the possibility of NPS pursuing recovery for damages through separate civil litigation against Exxon should it become necessary.[96]

The need for gathering tort information in conformance with CERCLA's damage assessment provisions was also a matter of concern to NPS personnel. Cordell Roy, temporarily assigned to Katmai operations from ARO, was particularly adamant in voicing his concerns over CERCLA compliance. Roy wanted to be certain NPS tort investigators were gathering evidence applicable to CERCLA stipulations. He discussed the subject with Bill Lawrence, ARO's liaison to the RRT, and with Rick Dawson. Roy provided feedback from these discussions to tort team members, and suggested that tort supervisors get in touch with Lawrence and Dawson to discuss the issue.[97]

It soon became clear that any evidence gathered from the NPS tort investigation would not be used to pursue a separate claim in court against Exxon. Rather, the evidence would become part of a larger trustee effort for pursuing recovery for damages against Exxon in civil court. This was made clear when Luthi went to Anchorage the week of May 14. Luthi provided the tort team with advice for integrating tort evidence into the Trustees' damage assessment effort.[98]

As the summer wore on, Interior lawyers in consultation with Department of Justice (DOJ) lawyers, focused on the task of preparing the federal government's case. Martin J. Suuberg, the Associate Solicitor for Conservation and Wildlife within Interior, was assigned as the Department's contact person for coordinating efforts with DOJ. In an October 18, 1989 memo Suuberg called for staff participation from Interior agencies in a Department working group. The group would be tasked with identifying and generating research into areas for potential claims for cleanup and restoration of Interior resources. This effort was not intended to duplicate the Trustees damage assessment process. The group's research would go beyond seeking compensation for natural resource damages. The group would look at recovery of funds in order to implement restoration of natural resources under Interior control. Information gathered would also be used to determine whether federal law allowed for civil action against Exxon above and beyond criminal penalties. NPS was identified as an agency which should provide a representative to the group.[99]

In placing emphasis on natural resources, Suuberg's group failed to address cultural resources, an area of major concern to NPS. Natural resources as defined in CERCLA does not specifically mention historical and archeological resources. From an NPS perspective, this created a serious void in the damage claims process. The protection of cultural resources, as defined in the National Historic Preservation Act and the Archeological Resources Protection Act, were as important to the park service as natural resource

protection. NPS assessment teams therefore included cultural resource specialists. Resource Protection Officers on park beaches were charged with preventing negative impact to cultural resources during the cleanup process.[100] Specific concerns included the direct impact of oiling upon artifacts, the anchoring of boom, equipment placement, looting, and shoreline activity.

The lack of information regarding the number of cultural sites and their location within the affected areas further complicated the situation. Poor access and limited funds had prevented a thorough inventorying of cultural resource sites prior to the spill. Estimates of the number of actual sites in the entire spill area went as high as 10,000.[101] Many of the impacted park service sites, particularly at Kenai Fjords, lay within the boundaries of land parcels which Alaska Natives had selected under provisions of the Alaska Native Claims Settlement Act. In these situations and in situations where Native human remains or sacred sites were impacted, Alaska Natives would have to be notified and brought into the process.[102]

SUMMER WRAP-UP

By September 1989 several things were becoming increasingly clear. The crisis response mentality had been down scaled to a manageable emergency. Major government and private industry players had staked out their initial roles and were now trying to redefine and reestablish the parameters of their involvement in the post-spill environment. Spill containment, capture, and deflection had largely failed, giving way to cleanup, damage assessment, and restoration planning. Cleanup in particular was a contentious issue during this period. Exxon had mobilized an enormous spill cleanup effort during the summer of 1989. Workers scrubbed rocks, removed tainted debris, raked, shoveled, and scraped oily residue from the impacted coastline. In addition more aggressive efforts such as high pressure hot water sprays, cold water sprays, and chemical applications were tried to remove the oil. Still, much oil remained when Exxon halted efforts on September 15.

The September wrap-up date was not selected because cleanup efforts were becoming ineffective; the date was the product of a Coast Guard mandate. The Coast Guard specified this date in order to avoid the hazardous fall storm season. Exxon officials saw this as an opportunity to either discontinue or greatly down scale cleanup efforts when they resumed in the spring. Public outcry, however, was so great that Exxon acquiesced and announced the company would launch a full scale effort again in the spring.[103]

At ARO, park personnel were still tallying the financial, environmental, and personnel costs of the spill operation. As of August 14 the park service had expended nearly $5.4 million to combat the spill, a figure which would expand to $7 million by year's end. Much of the money had been diverted from Section 102 reauthorization authority. Park officials were hoping to recover many of their expenditures through Section 311(k) of the CWA and through other reimbursement from the responsible parties. Park personnel conceded that repayment through these various mechanisms could take years to accomplish, if ever.[104]

The environmental costs of the spill were especially tragic. In Kenai Fjords and the nearby Seward area about 3,300 dead and oiled birds were recovered.[j] Over 40 miles of the park's beach were impacted. At Aniakchak 469 dead birds were recovered along the 50 miles of oiled shoreline. The impact was greatest at Katmai. By the season's end over 7,800 oiled bird carcasses had been recovered. More than 300 miles of Katmai's coast were oiled. Cleanup crews removed an estimated 7 million pounds of oil and oily debris off 66 miles of Katmai beaches. Exxon crews removed roughly 99,000 bags of oily debris from the beaches in the three park units. Impact to cultural resources was still unknown. Quantification of these injuries would have to wait until studies could be implemented.[105]

Finally, there were severe personnel costs resulting from the spill. Six weeks into the spill, 106 ARO employees had been reassigned to spill activities. Some of these people were on spill detail for the entire summer. This severely crippled the ability of many parks and regional office divisions to carry out their regular duties. The park service had employed about 520 people in spill related capacities. Many of these people were reassigned from other parks throughout the nation, causing a direct strain on their personnel resources.[106] The long hours and difficult working conditions caused physical and emotional strain to untold numbers of personnel. For many of these people the season's end was a welcome relief.

There was also a great degree of uncertainty at the end of the 1989 cleanup season. The resumption and scope of cleanup on park beaches for the upcoming season was not known. Park service participation in damage assessment and related Trustee activities were not going well. Individuals assigned to the area command were demobilizing. ARO personnel would have to assume area command duties and any future spill related administrative tasks. This could cause additional strains on limited resources. Relations with the Department remained strained. Working out the numerous misunderstandings and conflicts would require a good faith effort by all. In sum, NPS employees participating in upcoming post-spill activities had their work cut out for themselves.

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[j]The actual number of birds and wildlife spill related deaths will never be known. Estimates place the number of dead birds at between 300,000 and 500,000 for the entire spill zone.

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CHAPTER 3

BEYOND THE EARLY FRENZY

HOW CLEAN IS CLEAN

Exxon's foot dragging over the resumption of cleanup in the spring of 1990 raised a serious question, "When should the cleanup effort be discontinued?" At what point did the net benefits from cleanup remediation efforts cease to outweigh the negative impact cleanup was having on resources? In the case of the more intrusive methods this threshold was reached very quickly. Hot water wash downs, while removing up to 25 percent of the oil, also tended to sterilize the shoreline, killing off entire colonies of microorganisms. Chemical application on oiled beaches had similar drawbacks. Less intrusive methods also had flaws. Foot traffic and mechanized equipment on beaches disturbed wildlife and posed a threat to cultural resources. Many wilderness advocates deplored the thought of further cleanup worker intrusion.

A January 1990, NOAA report, prepared for the FOSC attempted to address these issues. According to NOAA, evidence from previous major spills indicated that most surface oil on high energy beaches was removed within a couple of years through natural forces. In contrast, low energy areas retained oil for 20 years or more. NOAA's research indicated that the majority of beaches impacted during the spill were moderate to high energy beaches.

Distribtuion of Wave Exposure in Impact Areas

	Low	Moderate	High
PWS	34%	40%	26%
Gulf of Alaska	12%	27%	61%

Source: NOAA Recommendations to FOSC for 1990, 2.

Analysis of other spills showed subsurface sediments to be much less susceptible to natural removal even in high energy areas. Although, some removal did occur in areas where storm action had reworked sediment, subsurface sediments were likely to remain contaminated for some time. In conclusion, NOAA estimated wave action would remove most oil to a depth of 10 centimeters in moderate to high energy areas. Low energy beaches would show little change from the fall of 1989. NOAA therefore recommended focusing cleanup attention on sheltered areas. Special precautions would have to be exercised to protect fragile ecosystems. NOAA likewise recommended giving high priority to the protection of cultural

resources in compliance with Section 106 of the National Historic Preservation Act. Specific NOAA remediation proposals included bioremediation, the enhancement of oil eating microbes through fertilizer application; physical removal of oiled debris above the high tide line; the breakup and removal of tarmats in recreation areas or areas of high biological value; and tilling or plowing in sheltered areas to encourage natural weathering processes.[1]

The NOAA proposal called for FOSC consultation with impacted land management agencies. Land managers would be included to discuss sensitive resource areas and issues that might constrain cleanup activities. Reassessments of impacted beaches would be made in April to determine the full extent of remaining oil and to identify archeological sites. The surveys would be jointly conducted with federal and state agencies, Exxon, and affected land managers participating.[2]

WINTER MONITORING ON NPS LANDS

Once the official 1989 summer cleanup season had ended, NPS personnel began planning for winter monitoring and the 1990 summer season. One of the major issues to be tackled was the demobilization of the ICT area command. It was apparent that NPS post-spill involvement would stretch into 1990 and beyond. The immediate crisis phase of responding to the spill was over. Therefore, continuation of an ICT emergency response type of structure did not seem warranted. What was required was some sort of group within the ARO which could coordinate NPS post-spill efforts over the long haul.[3] ICT Area Commander Frank Betts and other NPS personnel, recommended the creation of an Oil Spill Coordination Office. Betts suggested that Dan Hamson and Cordell Roy assume primary staffing responsibilities in the new office.

Hamson and Roy were well suited for the task. Through their post-spill involvement both men had established a working relationship with area command personnel and had gained a familiarity with area command activities. Once the go ahead was given, they began initiating an assumption of responsibilities from the area command. Hamson was placed in charge of overall office functions. He would also continue to represent NPS interests during future cleanup efforts on park land. Roy would continue his Departmental duties on the Management Team and would oversee park service NRDA involvement for the ARO.

In addition to these tasks, Hamson and Roy had to contend with several other pressing issues. The transition from an ICT structure to an office setting more typical of regional divisions meant a change in operating procedures. A budget plan had to be worked out and office staff needed to be hired. Regular procurement channels rather than the ICT system had to be utilized when making purchases to support office post-spill activities. Implementation of these changes took time.[4]

With respect to programs, several carryover projects from the summer required attention. Figures for the 311(k) reimbursement submittal had to be finalized. Because of the size and

importance of this project, several people from the ICT area command were kept on until December 1989 to help complete the job. Members from the tort investigation team were scheduled to arrive in November to complete the second half of their summer report. Plans were already in the works for an NPS winter monitoring and spring assessment program.[5] These last tasks would require extensive operational support from the Oil Spill Coordination Office and were of immediate urgency. Winter monitoring and spring assessment activities would help determine cleanup priorities for the 1990 summer season.

Like NOAA, the NPS was concerned with identifying sites where cleanup efforts could be best employed during the 1990 summer season. At the request of the Department's REO Paul Gates, NPS Acting Regional Director David Ames, submitted a winter monitoring proposal for the three impacted park units. NPS would direct its efforts toward the monitoring of oil along park shores during the winter. This information would be used to make recommendations to the FOSC for cleanup on park beaches during the summer of 1990. Specific recommendations would address cleanup techniques and site locations. To arrive at these recommendations, NPS would follow the guidelines presented in NOAA's September 6, 1989 winter study plan. Emphasis would be placed on determining how the oil degraded and where it ended up following storm activity. Twenty permanent reference stations, 11 at Kenai Fjords and 9 at Katmai, would be created to track both treated and untreated beaches. Teams operating out of Seward and Kodiak would visit each site a minimum of three times. Ames noted that to save costs, NPS would welcome the formation of interagency teams to assess the various agency beaches in these areas. As a final step, NPS would station personnel in Seward and Kodiak during the winter months. These individuals would coordinate NPS winter monitoring operations and provide input on park matters to the FOSC's local representatives.[6]

In a follow-up memo dated December 29, 1989, Alaska Regional Director Boyd Evison advised Gates of proposed winter monitoring programs, and of his concerns for cleanup efforts on park lands in 1990. In addition, Evison informed Gates that three active winter programs involving on-site visits and shoreline surveys, were scheduled for NPS units. First, Exxon was implementing an interagency monitoring program. The ADEC was conducting a monitoring and shoreline mapping program. Finally, NPS planned on conducting a late winter - early spring survey. These programs in combination would provide an adequate information base for determining additional cleanup action on park beaches in 1990.

As for cleanup, NPS reserved the right to review all proposed cleanup techniques Exxon planned to use on park beaches. NPS would also require Exxon to secure special use permits for landing helicopters, vessel use, or taking action that could negatively impact park resources. (In 1989 permits had been issued in order to limit disturbance to wildlife and protect cultural resources.) Evison asserted that NPS, given its unique land management constraints and the national significance of park resources, could have different standards "of clean" than other agencies. This could mean stricter constraints on the types of cleanup actions employed.[7]

Preliminary findings in 1989 had indicated impact to more than 300 miles of Katmai's 400 mile shoreline. Of these, only a few beaches had been heavily impacted. At Aniakchak about two-thirds of the shoreline was impacted. Assessment studies needed to be made to determine the amount of oil remaining on these beaches. Documentation of impact to park resources would have to be made and park personnel would have to continue collecting evidence to support tort litigation. In those areas, where it was determined that further cleanup was still needed, steps would be taken once again, to minimize human interaction with bears. To meet this goal RPOs would have to be recruited and trained.

At Katmai, NPS Ranger William R. Miller was given the task of representing park interests during winter monitoring efforts. He would work out of the NPS Kodiak spill office. Miller accompanied state ADEC personnel and members of the Winter Interagency Monitoring Program (WIMP), a Coast Guard sanctioned NOAA administered program, on monitoring trips to the Katmai coast. These first hand assessments showed oil remaining trapped in layers of gravel and ice. Winter storms, however, had washed surface layers clean giving a false impression about the oil that remained underneath.

On February 16 Miller received minutes from Kenai Fjords Superintendent Anne Castellina, about a recent Seward MAC Group meeting with the new FOSC, Rear Admiral D.E. Ciancaglini. Castellina and the Seward MAC Group were participating in a WIMP for the entire Seward region, including one site at Kenai Fjords. Castellina's meeting notes alarmed Miller because they made no mention of a January proposal Miller had heard about from the ADEC's Kodiak supervisor. According to Miller's ADEC source, representatives from the ADEC, Coast Guard, and Exxon had met in San Diego and struck a deal for 1990 cleanup efforts. A joint team of representatives from Exxon, ADEC, and the Coast Guard would conduct on-site spring assessments. Land managers would not be brought into the process until after the assessments were completed. Assessments would be conducted at sites Exxon had pre-selected. Cleanup methods would be decided in the field and submitted to land managers at that time. Managers could either accept or reject the proposal as is. Cleanup methods would not be modified.[8]

With only a few WIMP monitoring sites in Katmai, Miller did not believe Exxon had a firm grasp on the extent of impact to the Katmai coast. Local ADEC officials, running a much more intensive monitoring program, were likewise concerned whether their decision makers were fully aware of the true extent of impact to the Kodiak area. Miller decided to make the FOSC aware of these concerns at a meeting scheduled with the FOSC on February 17. The meeting began with Ciancaglini discussing the merits of natural cleansing in coastal spill incidents. The admiral believed that nature was the best cleaner of impacted beaches. Ciancaglini further said since taking over the job of FOSC from Vice Admiral Robbins in the fall of 1989, he had been developing strategies for response in consultation with all concerned agencies. Spring Shoreline Assessment Teams would include representatives from the land management agencies having responsibilities within each sector. Therefore, he wanted no more agency back-stabbing or finger-pointing.

The admiral envisioned most cleanup for Katmai area as the less intrusive type A method. Concerned agencies would provide input and have the right to approve or disapprove the cleanup's general work scope. Cleaning would augment nature's cleansing process. The FOSC noted how nature had already reduced surface oil impact in the Sound 60-80 percent and subsurface impact 50 percent. Miller speculated that what was true for Prince William Sound was not necessarily true for Katmai. His own assessments had shown diminishing surface oil in high energy beach areas only. In many cases a four to six inch thick layer of storm surge gravel had merely covered the oil.[9]

Miller came away from the meeting feeling as if the Prince William Sound area was being given priority for the upcoming cleanup season at the expense of Alaska's impacted Gulf regions. Several incidents during March reinforced his convictions. Monitoring events scheduled for the Kodiak area were given a back seat to priorities in the Sound. At a March 7 meeting in Kodiak an Exxon representative talked about how good everything in the area appeared after a single season of cleanup and winter storm cleansing. ADEC evidence presented on March 22, 1990 in testimony before the House Subcommittee on Water, Power and Offshore Energy Resources disputed Exxon's rosy prognosis. According to ADEC estimates approximately 162,000 barrels still remained unrecovered throughout the spill zone in March 1990.

Amount of Oil Lost and Barrels Recovered

257,000	spilled
350	burned
17,000	recovered
77,000	evaporated
162,000	unrecovered[10]

In addition, rumors from local ADEC personnel said a decision had been made, based on Coast Guard flyovers, to implement only bioremediation methods for Kodiak area. Land managers could either "like it or lump it." Refusal to accept bioremediation would result in no action whatsoever.[11]

On March 2, 1990, Regional Director Evison wrote a letter to Ciancaglini requesting better communication between the FOSC and land managers during the upcoming cleanup season. Evison was particularly concerned about the FOSC's perceived unwillingness to comply with resource protection stipulations NPS had expressed for park lands. Failure to comply with these stipulations in Evison's opinion, could result in additional damage to park resources. Evison did acknowledge that his concerns had been voiced to Gates, but were also being addressed in this letter directly to Ciancaglini in the interest of saving time.

In a letter dated March 14, Ciancaglini responded to Evison's concerns. The FOSC instructed Evison to route all future correspondence through Interior's RRT member, Paul

Gates. Furthermore, according to the FOSC, much of the day-to-day matters being forwarded from the agencies for his input, could be better accommodated at lower levels. Finally, those issues which Evison had raised were already being addressed in consultation with the Department of Interior.[12]

Much of the same bickering and suspicion which had plagued winter monitoring hampered the spring shoreline assessment process, once it got underway in late March. Park personnel accused Exxon and Coast Guard representatives on the Shoreline Assessment Teams of having a hurry-up attitude resulting in sloppy assessment work. Team members became separated on the beach minimizing the ability of park RPOs to prevent human encounters with bears.[13] Assessment schedules often became jumbled because of shifting priorities, poor logistics, and bad weather. ARO spill office personnel were constantly having to redirect team members and RPOs at the last minute to accommodate these difficulties.

The FOSC was determined to see that the 1990 summer cleanup season was not the haphazard affair witnessed in 1989. During the winter, plans were implemented to centralize all cleanup response operations in Anchorage. Exxon, the Coast Guard, ADEC, and participating land managers would all funnel their response activities through the Anchorage headquarters. The various ad hoc groups operating in the spill zone would no longer set cleanup priorities. Instead, cleanup priorities would be targeted based on information gathered during the spring assessment process.

All spring assessment forms went through a Technical Advisory Group (TAG) review process. TAG members consisting of representatives from NOAA, ADEC, and Exxon reviewed each survey and made recommendations whether to cleanup, and the type of cleanup for impacted beaches. Initial TAG recommendations were submitted to the land managers for review. Land managers had 48 hours to either concur, make suggestions, or appeal TAG recommendations for a given site. The TAG would review land manager rebuttals and make final recommendations to the FOSC. Land managers had 24 hours to review and appeal final TAG recommendations to the FOSC for adjudication.[14]

The subject of NPS restrictions on cleanup operations for park lands was a particularly contentious issue, both during the TAG process and once cleanup operations got underway. TAG recommendations often ignored NPS constraints which had been exercised during the 1989 season and were again being implemented for the 1990 cleanup season. Archeological constraints at Kenai Fjords and wildlife protection constraints at Katmai were constantly having to be reasserted to TAG members. The use of the bioremediant Inipol was also a major issue. Over the winter, Exxon and the EPA both tested the bioremediants Inipol and Customblen. Park service personnel believed tests regarding the use of the more intrusive chemical agent Inipol, were inconclusive. There were simply too many unknowns. ARO therefore decided to disallow Inipol's use on park beaches. In contrast Customblen, a fertilizer designed to enhance the effects of oil eating microbes, displayed positive benefits, without harsh side effects. ARO approved its use on a case by case basis. NPS, despite the

announcement of these decisions, was repeatedly required to remind the FOSC via Interior RRT member Gates, of the park service ban on the use of Inipol on park beaches.[15]

Park service relations with the FOSC continued to go badly. At the May 2 weekly operations briefing, FOSC Ciancaglini raised questions about NPS authority requiring special use permits for cleanup operations on park lands in 1990. He also questioned the park service requirement for on-site monitors (RPOs) with cleanup crews working park beaches. On May 8, Evison responded to the FOSC's questions in a tersely worded memorandum routed through Gates' office. Evison said the magnitude of the spill, coupled with complex lines of communication, and the manner in which cleanup decisions were being implemented required NPS to utilize on-site supervisors in order to protect park resources. Attached to the memo was a summary defining for the FOSC fundamental management responsibilities of NPS. The summary specifically addressed NPS permitting authorities and responsibilities related to spill activities. In conclusion, Evison noted that implementation of these requirements would not slow down the cleanup process. Rather, the utilization of and compliance with NPS permitting authority would provide the application of the minimum tools necessary to ensure the protection of park resources and visitors as legally mandated.[16]

THE SUMMER CLEANUP PROGRAM

The 1990 summer cleanup program got underway without much of the fanfare and media hoopla of the previous year. National attention had refocused on other issues. Impacted agencies settled in for what could be a long-term effort. At Kenai Fjords the staff was preparing for a much smaller cleanup effort. Castellina had remained MAC chairperson throughout the winter months and would continue to occupy the position during the summer effort. Park personnel were chosen to conduct shoreline monitoring on a limited basis. RPOs were organized to accompany cleanup crews to selected beach sites.

The general policy at Kenai Fjords for the 1990 season was to not treat areas which had been lightly or very lightly impacted. There was a fear that cleanup efforts in these areas would do more harm than good. In all, three sites were treated. Customblen was used at two sites. The more intrusive chemical agent Inipol, was not authorized for use on any park beaches, despite pressure from Exxon and the Coast Guard to allow its use.[17]

Other issues of contention between NPS and Exxon plagued the 1990 cleanup at Kenai Fjords. On June 15 park staff reported that an NPS beach assessment team had detected a strong smell of oil while on a site visit at Pony Cove. This led NPS to suspect the amount of oil at Pony Cove was greater than what the Spring Shoreline Assessment Team had reported. Representatives from ADEC, NOAA, Exxon, the Coast Guard, and NPS were dispatched to the scene on July 9 to investigate. After a thorough examination, the team concluded that the amount of oil remaining at Pony Cove did not warrant a recovery attempt. Exxon said the quantity of oil found was very small and termed the incident another example of NPS exaggeration. NPS said the amount of oil found was a matter of subjective opinion.

According to NPS, sufficient oil had been located to warrant a cleanup, but was unanimously rejected because of inaccessibility and concerns over cleanup crew safety.[18]

The most intensive response work at Kenai Fjords, and largest issue of contention between the park service and Exxon at Kenai Fjords, occurred at McArthur Pass, located on the outer Kenai Peninsula coast. On July 31, 1989, an Exxon Shoreline Cleanup Assessment Team went ashore to survey a 262 foot band of mousse and oil coated rocks on a narrow boulder strewn beach. The team's archeologist Mike Yarborough, identified the location as a site dating prior to European contact. The find was surprising because the location did not fit the typical profile for a coastal archeological site. Artifacts were found in the intertidal zone below the mean high tide line, which was state land, and in the park service managed uplands. Sections of the uplands in the site area were under pending claims from Chugach Alaska Corporation, English Bay and Port Graham Village Corporations under provisions of the Alaska Native Claims Settlement Act.[19] The jurisdictional difficulties that followed resulted in costly and time-consuming delays.

Exxon requested a delay in treating the site until 1990, to provide time for sorting out jurisdictions and developing a work plan. Work plan participants included Exxon, the state's Office of History and Archeology, Chugach Alaska Corporation, and NPS. Initial discussions questioned whether a cleanup should even be conducted at the site--given the high density of artifacts and potential for harm. Concerns about the oil's impact upon natural resources and a conclusion that cultural resources could be protected during cleanup, resulted in a decision to proceed. The work plan called for mapping intertidal artifacts and excavating upland test pits. Investigation of the upland area was curtailed after English Bay Village Corporation sought a court injunction to halt upland digging. The corporation argued it had not been consulted on the issue and should be consulted before any upland excavation could begin. Further problems erupted when Exxon and NPS got into a dispute over the perceived size of subsurface testing. Exxon accused NPS of pushing for the extensive excavation of unoiled areas at a cost of $1.5 million to Exxon.* The park service denied having ever made such a request of Exxon. Several NPS employees suspected Exxon was using the entire issue as an excuse for discontinuing further cleanup at Kenai Fjords.[20] The issue was finally settled in August 1990, but not before attorneys from Exxon and the Department of the Interior became involved. The ensuing flurry of lawyer-generated paperwork and correspondence resulted in a conclusion that the squabble had been a misunderstanding.[21]

The 1990 work plan called for employing three treatment components at the site: manual removal of oil and debris, hot water washing and cold water flooding, and bioremediation. The effort would have to comply with stipulations of the National Historic Preservation Act and the Archeological Resources Protection Act. Because of overlapping claims between

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*The actual costs of testing and associated archeological work at McArthur Pass amounted to less than one-tenth of this amount.

NPS and the State of Alaska in the intertidal zone, Exxon was required to secure special land use permits from both entities.[22] Cleanup workers were required to attend an artifact orientation class before they began work. Once the details were ironed out and cleanup began, things proceeded in good order. Exxon, NPS, and Chugach archeologists worked together to ensure a well managed site cleanup.[23] Over 13,000 pounds of oiled debris and sediment were removed. Forty-two artifacts were removed from the intertidal zone to facilitate cleanup. Several Customblen treatments were also applied to enhance bioremediation.

Cleanup efforts at Katmai had to address a different set of concerns than Kenai Fjords. Preventing encounters between bears and humans was again a major issue during the 1990 summer cleanup season. RPOs were recruited to prevent encounters and oversee park resource protection during cleanup operations. Efforts were made to prevent cleanup crews from making indiscriminate flyovers and beach landings that could disturb wildlife. Archeological and historical sites required monitoring to prevent vandalism and looting.

Exxon field supervisors at Katmai worked well with RPOs. A good working rapport was established allowing cleanup to proceed fairly smooth. Still, problems did occur among individual cleanup crews. Poorly managed crews caused havoc on oiled beaches. This situation improved over the summer. Uncooperative personnel and poor supervisors were weeded out. Cleanup quality improved and site recovery was generally completed to NPS specifications.[24]

Because of its remoteness and the subsequent cost factor, the FOSC and Exxon were reluctant to send crews to Aniakchak in 1990. NPS was therefore going to have to take special action if cleanup operations were to get fully underway. In the spring, NPS came out in support of the idea of contracting with the City of Chignik for cleanup along the Aniakchak coast. The city was issued a special use permit and told to proceed with the effort. Crews were organized to work along Aniakchak's shores and in areas south of the park. NPS requested that all debris be removed from coastal areas and taken to Chignik for Exxon's eventual disposal.[25] Financial support for the Aniakchak cleanup effort was provided through a State of Alaska funded program. NPS paid for RPOs and related support activities associated with the operation.[26]

In July Gates, sent a memo to Evison informing him of the Coast Guard's plan to begin implementing procedures for cessation of the cleanup effort on various agency shorelines, as described in federal guidelines. The FOSC said cleanup would cease in all areas no longer having any detectable oil present on the water adjoining shorelines, or in places where oil was not likely to reach the intertidal zone again. Further cleanup in these and other less impacted areas would result in more harm than good. The cleanup was becoming excessively costly in view of the contribution it was making to minimize threats to public health or the environment. Shorelines meeting the FOSC's stipulations would be signed off as clean.[27]

From an NPS perspective, it was likewise becoming increasingly clear that any further benefits derived from cleanup of park beaches would be minimal. A September 6, 1990 Katmai Shoreline Assessment Team report concurred with the FOSC's general observations. The report said little additional oil could be removed from park beaches without using harsh chemicals, the application of which would compromise water quality. In addition, comprehensive assessments were no longer needed. Given the minimal amounts of oil remaining on the shoreline it was simply no longer practical to disturb these sensitive areas.[28]

A September 30, 1990 ARO spill coordination office report reinforced this perception. All NPS beaches targeted for treatment were said to have been successfully addressed. Although oil still remained in scattered patches along Katmai and Kenai Fjords coasts, Exxon crews had removed the maximum oil possible given shoreline conditions, weather, and environmental constraints.[29]

This is not to say that NPS was wholly satisfied with the progress of the 1990 cleanup season. NPS summer assessments had located several pockets of oil missed during the spring assessment. NPS was partially successful in getting these added to the 1990 cleanup priority list. Follow-up spot checks identified several trouble areas where oil had resurfaced and formed tarmats after site demobilization. These sites would have to be reassessed and possibly treated in 1991.[30]

Reinforcing park resource protection constraints had been a continual source of friction throughout the summer. This happened despite NPS attempts to ensure constraints were written into the work plans prior to initiating cleanup. On several occasions NPS was forced to remind the FOSC of cleanup stipulations on park beaches. Areas of contention included NPS restrictions on cleanup during wildlife nesting and pupping seasons, bioremediation in sensitive upper intertidal zones, and the protection of vegetation.[31]

WINTER MONITORING AND THE 1991 SUMMER CLEANUP

With the cessation of cleanup operations in September 1990, plans began to be formulated for a downsized cleanup operation in 1991. Evidence NOAA presented at the end of the 1990 season indicated that between 250,000 and 1.2 million gallons of oil remained trapped in crevices, between rocks, or embedded below the surface. NOAA's Chief of the Hazardous Response Branch said "We tend to believe the remaining oil doesn't pose as much risk as some of the measures it would take to get it out."[32] The chief said the remaining oil was in locations where it would do the least harm: rock crevices and porous beaches, which were not rich in biological habitat. In addition, most of the aromatic hydrocarbons, aliphatic hydrocarbons, and other toxic elements had long since evaporated. Removal of the remaining oil would require the use of heavy earth moving equipment to till the soil over and expose it to cleansing wave action. Such intrusive methods were shown to do more harm

than good. In NOAA's opinion, hand cleanup and bioremediation would again be the best tools to use in 1991.

Winter monitoring plans for 1990-91 were considerably smaller than the previous year. Exxon conducted some remote site monitoring to gauge the effects of wave action on specific beaches. Plans for implementing WIMP were dropped as being too costly and logistically difficult to justify the costs. As for the park service, it too scaled back operations once the summer cleanup season was complete. The Kodiak office was permanently shutdown. No plans were made for doing any winter monitoring on park beaches, although park personnel at Kenai Fjords did conduct spot checks at a couple sites.[33] NOAA conducted on-site studies at 24 locations throughout the spill zone to determine the effects of weathering on remaining oil and to gauge the recovery rate of affected organisms. In a March 15, 1991 report to the FOSC, NOAA said upcoming plans to remove remaining oil were rapidly reaching a point of diminishing returns.[34] The NOAA report said their studies also showed significant natural cleansing had taken place during the winter storm season.

Over the winter park service officials began to reassess the idea of cleanup on park beaches in 1991. Cleanup had been going on for two seasons. Park personnel were becoming concerned about the adverse impact cleanup activity was having on wildlife. Katmai and Aniakchak Superintendent Alan Eliason felt that the negative impact to resources would offset any net benefit derived from further cleanup. (Eliason had taken over as park superintendent in June of 1990.) NPS personnel at the Oil Spill Coordination Office in Anchorage tended to agree with Eliason, although they did identify a few sites where further cleanup would be of some benefit without adversely impacting wildlife.[35]

Ultimately, a decision was made to recommend no further cleanup on park shorelines at Katmai. A memo outlining this position was routed through Gates, advising the FOSC of the park service position. NPS stressed the belief that further cleanup would not be effective, when balanced against the intrusion of sensitive park areas. NPS did, however, point out this recommendation was not an acknowledgement that oil was gone from park beaches.[36]

The issue, however, was still not settled. The State of Alaska, in contrast to NPS, identified several sites within the intertidal region along Katmai coast they felt needed further treatment. This created a real dilemma for the park service. NPS and the state had, despite initial confrontations, generally been able to work out their differences over intertidal treatment beforehand, thus presenting the FOSC with a unified proposal for treatment of these areas. If NPS were to maintain this rapport, it would have to agree to additional treatment on Katmai shorelines. The NPS Oil Spill Coordination Office Chief, Dan Hamson, decided to approach Eliason on the issue to see if a compromise could be worked out. Together, Hamson and Eliason agreed upon a few selected sites where they believed cleanup operations could be conducted with the least impact to resources. This short list was presented to the FOSC, who in turn convinced state officials to accept the NPS downsized proposal.[37]

In May a spring shoreline assessment was conducted at selected sites throughout the spill zone. Team composition and the TAG review process remained the same as in 1990 with one exception. A cleanup team accompanied the assessment team in order to treat small incidents while everyone was at the site. This was done in order to save costs incurred from having to revisit remote sites requiring minor cleanup. The park service expressed some reservations about this procedure. They feared cleanup workers would inadvertently impact archeological sites, particularly at Kenai Fjords' McArthur Pass, unless proper supervision and precautions were taken in advance. This would be difficult to do during the hurried pace of spring assessments.[38] To solve the problem, park officials resorted to placing personnel on site in advance of the assessment and cleanup teams. In this way they were able to insure the protection of archeological and other resources.

Other park service concerns were also addressed prior to the 1991 cleanup season. As previously, the park service refused permission to use Inipol on park lands, while Customblen's use would be decided on a case by case basis. The park service further stipulated that only boats be used for Katmai cleanup operations in order to protect wildlife from aircraft disturbance.[39] NPS was only partially successful in having these stipulations met. In a letter dated May 28, the FOSC said he would not approve bioremediation on any site without the land manager's approval. With regard to transportation along park shorelines, the FOSC was more obstinate. He told the park service boats would not be used this season. NPS could either approve the use of helicopters for accessing park service beaches or forget about getting the job done. In the end, park service officials acquiesced to the FOSC's demands. The entire cleanup for park beaches in 1991 was over in two weeks. Manual removal of oiled debris followed by bioremediation with Customblen was completed on park segments, thereby ending official cleanup operations on NPS shorelines.[40]

DAMAGE ASSESSMENT MOVES FORWARD

The damage assessment process moved into high gear about the same time the 1989 summer cleanup season was winding down. In August, the Trustees released a public review draft of a natural resource damage assessment plan. The public review draft was the product of numerous Management Team redrafts, with guidance from the Trustee Council. The Trustees set the specific time table for completing the damage assessment process in a statement released on August 3, 1989. The statement noted that 76 of 78 damage assessment studies had already commenced at an anticipated cost of $24.8 million.[b] Participating federal agencies would assume about $17.2 million of those costs. The Trustees established September 30, 1989 as the study completion target date. They set February 1990 as the completion date for reviewing all of the various studies. This was a much shorter timetable

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[b]As the NRDA process progressed, several of the early studies were either eliminated or combined with other studies. The initial cost estimates tied to the studies likewise changed, usually running more than anticipated.

than the three to five year estimate the Management Team had first proposed. According to the Trustees' statement, the compressed schedule was set in order to meet the Bush Administration's stated goal of expeditious restoration of the ecology of Prince William Sound. (The Bush administration made no mention of the Gulf of Alaska spill zone.)[41]

The federal Trustees called upon the Trustee Council to revise the damage assessment plan, prior to public release, in order to comply with estimated budget parameters and to yield the bulk of data within the first year.[42] The federal Trustees said the revised draft must emphasize that damage assessment would essentially be a one year program. Further limited assessment could be allowed after February 28, 1990 to facilitate legal and restoration efforts. To meet this timetable the federal Trustees proposed August 7, 1989 as the deadline for the Trustee Council to submit a revised draft incorporating the new timetable. August 11 was set as the deadline date for submitting the draft to the *federal register* for public comment.[43]

NPS received a copy of the federal Trustees' August 3 statement on August 5. Park service personnel voiced numerous concerns about the statement. Of the 76 studies which had already begun, NPS was aware of only two: a bear study at Katmai in cooperation with the Alaska Department of Fish and Game, and a FWS lead bird census at Kenai Fjords. NPS noted the oddity of not being informed about the other studies getting underway, especially since the park service was supposed to be a cooperating agency in some of them. The Prince William Sound focus of the federal Trustees' statement also alarmed the park service. All impacted park areas were outside the Sound. In sum, NPS found the damage assessment proposals to be insufficient for meeting park service management responsibilities. If the process were not revised, NPS said it would be forced to fund damage assessment studies out of its own resources.[44]

NPS sought to address agency concerns in part, through Cordell Roy's access to the Management Team. He voiced NPS concerns over being left out of, and under-represented during the damage assessment planning process. Roy, with help from Hamson, attempted to sell the idea of park lands as high value areas requiring assessment. Roy said NPS was not concerned with trying to change the scope of damage assessment studies, but rather wanted to shift the focus of some studies to include park lands.

To a large degree Roy was unsuccessful in attempting to insert park service concerns into the damage assessment process. Reasons for this were varied. An atmosphere choked with suspicion and litigation rumors permeated the early Management Team meetings. This caused Roy to take a cautious approach. As an assistant to Interior's Management Team representative Rowan Gould, Roy was compelled to address greater Department concerns first and voice park service concerns when possible. Likewise, by the time Roy attended his first Management Team meeting in early August, the damage assessment plan had already been completed. Gould impressed this point upon Roy when he rejected Roy's attempts to raise park concerns. Gould told Roy to forget about raising new issues. The plan had

already gone through several redrafts and would not be rewritten to accommodate NPS.[45]

As it turned out Gould was right. The *Natural Resource Damage Assessment Plan*, which emerged in August 1989 for public review, complied with the general timetable stipulated in the federal Trustees August 3 statement but did little to address park service concerns. Studies were scheduled for completion by February 28, 1990, at an estimated cost of $35 million. The entire damage assessment process would be completed within one year, although special exceptions could be made beyond the cutoff date for studies necessary to support restoration and further assessment of recoverable natural resource damages. The assessment would have three major components: determination and quantification of injury, determination of damages, and the development of a restoration strategy. The determination of injury would provide documentation of exposure of resources to oil from the *Exxon Valdez*, and identify which resources had been adversely affected. Quantification would measure the amount of adverse effect upon each resource. Determination of damages would place a price tag on these adverse effects. The recovered damages would be used to restore, replace, or acquire the equivalent of injured resources.[46]

The damage assessment plan targeted several categories for analysis. General areas included such things as coastal habitat, water and air quality, and damage to wildlife. Economic losses of services which resources provided to humans were slated for assessment. Impacts to resource exploitation and recreation on public lands was mentioned. Economic losses arising from non-consumptive intrinsic values were also targeted in the damage assessment plan. This would be one of the most difficult damages to gauge but also one the most important types of damage from a park standpoint, given the park emphasis on maintaining the wilderness character of impacted lands under its stewardship. However, placing a dollar figure on a pristine landscape, unspoiled view, or symbolic importance of the impacted parks to the American public was not an easy task. The plan called for conducting surveys to determine the public's values of these lands but failed to identify a specific procedure for doing so. Finally, economic studies would assess spill impact to archeological sites. Threats to artifacts through direct oiling, and the loss of vegetation which could lead to erosion and the exposure of artifacts would be determined. Dollar figures would be assigned based upon the extent of damage and the rarity of the impacted artifacts.[47]

When the public review draft of the plan was released in late August, several environmental groups strongly criticized it. The Natural Resource Defense Council called the document cursory, and said it lacked sufficient detail to allow for serious scientific review. The Council went on to say the studies were not broad enough, accusing the Trustees of focusing on "species appeal" rather than a sound ecosystem approach. The National Wildlife Federation cited similar shortcomings. A spokesperson for the organization said the plan would give an incomplete picture of the true damage to spill impact areas. Other groups called the time frame of the studies unrealistic, pointing out that the effects of the impact to some species could take several years to determine.[48]

Many of the initial NRDA field studies the Trustees approved were complete in late September. This was ironic considering that the public comment period for the NRDA plan did not end until September 30, 1989.[49] In any event, the completion of field studies meant it was time to begin compiling the information into factual reports suitable for use by DOJ attorneys against Exxon. Reaching this end product would not be easy. Many of the NRDA samples collected during field operations needed to be sent to a lab for analysis before injury assessments could be determined. This was often a painstakingly slow process. Once the information was compiled it then had to go through a process of peer review in order to test the data's validity and to determine whether further assessment was required for the given resource. Peer review satisfaction with the quality of NRDA studies was a vital link in the Trustees' case against Exxon. These scientific consultants would serve as expert witnesses, and would present the Trustees' NRDA results should the Trustees go to court against Exxon.[50]

It is important to note that the driving force behind NRDA prior to settlement was litigation. Trustee lawyers were primarily interested in identifying damages to natural resources which could be easily proven in a court of law. Trustee lawyers therefore focused on the most dramatic injury studies yielding quick results.[51] This created a tendency to focus on species appeal. Cuddly sea otters and oiled waterfowl topped this list. Studies were weighted towards the most visible resources, because lawyers felt those resources could get the greatest dollar payback in court. Political realities and costs were additional factors which had to be considered. Individual damage assessment studies ran upwards of $500,000. Any study not meeting the Trustee lawyers' criteria were given a low priority. Studies for gauging the loss of intrinsic values, or requiring a multi-year effort did not fair well under these conditions. In sum, NRDA activities in support of restoration activities were of secondary importance to federal attorneys at this stage of the process.[52]

By early January 1990 the realization had sunk in among key decision makers that one year was too little time for conducting a viable damage assessment effort, having any chance of standing up in court. Management Team and Trustee Council members, along with peer reviewers and DOJ attorneys, began pressing the Trustees' Washington Policy Group (WPG) for more time.[c] The WPG agreed and instructed the Management Team to prepare a list of potential studies for assessment in 1990.

On January 22-26, members of the Management Team, Legal Team, and peer reviewers met in Anchorage to evaluate the principal status reports assessing injury to resources resulting

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[c]The Washington Policy Group was a federal Trustee created ad hoc organization. A State of Alaska representative in Washington, D.C. acted as the Governor's liaison to the group. WPG appointees served as the day-to-day administrative Trustees acting on behalf of Department Secretaries having Trustee responsibilities for spill impacted resources. Members of the WPG supervised and provided direction for the activities of the federal Trustee Council members. Interior's representative on the WPG was Vern Wiggins.

from the spill. Attempts were made to identify studies where sound methodologies could be employed, to determine injury, and to recover damages in court.[53] During the course of the meetings NPS personnel presented a detailed briefing on damage assessment related information the park service had gathered during its tort investigation. Meeting attendees agreed that NPS data did provide some worthwhile pre-assessment information and coastal habitat data. Later, a discussion was held to decide whether NPS should get reimbursed for costs incurred while collecting this information. NPS tort-related costs were said to be approaching $3 million.[d] Opposition against the idea came from Interior Management Team representative Rowan Gould, and from Interior's Legal Team Attorney, Randall Luthi. Gould argued there was no need to reimburse these costs because NPS had already covered them through Section 102 construction fund reprogramming authority. Furthermore, the costs were probably not recoverable because they did not come under the auspices of the approved NRDA plan.[e] Others rejected Gould's assertions, arguing it was ethically correct to pursue recovery of NPS costs which the American taxpayer had incurred because of the spill.[54] Several of the lawyers present then offered alternative strategies for recovering park service costs.

The subject of costs was an issue of concern for all of the federal trustees involved in the NRDA process. In 1989 Exxon had supplied $15 million in up-front money to help the NRDA process get started. By March 1990, Exxon had still not responded to the Trustees request for another $20 million to help cover projected 1990 costs. Minutes from a WPG meeting held on March 2 estimated NRDA costs for 1990 at $30 million. This amount would pay for the continuation of 40 studies begun in 1989, plus five newly added studies in 1990. Office of Management and Budget (OMB) personnel attending the meeting were concerned because a method of paying for the studies had not yet been identified. OMB felt it was the WPG's responsibility to begin coordinating fund reprogramming in order to meet these anticipated costs.[55]

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[d]According to ARO records, actual NPS tort expenditures were about $550,000 (see chapter five, figure 5.1). The $3 million amount was the result of improper cost tracking procedures. This shall be discussed in greater detail in the "Financial Reconciliation" section of chapter 5.

[e]This was not the only criticism directed towards the NPS tort effort. At an earlier January 1990 joint Trustee Council-Management Team meeting, several participants learning of the NPS tort investigation for the first time accused NPS of launching a separate, independent damage assessment. State of Alaska representatives were particularly harsh in their criticism of park service efforts. They wanted to know where NPS had received the authority to proceed with independent action without approved guidance from the Trustees? State representatives also wanted to know why they had not been notified of this effort sooner? Others at the meeting felt the independent NPS effort could prove detrimental to the governments' case. Some of this criticism was later withdrawn, once Trustee participants had an opportunity to examine NPS evidence.

The issue of paying for upcoming damage assessment studies was also of grave concern to Congress. During subcommittee hearings held on March 22 and April 24, 1990, Congressional members questioned Interior representatives about projected NRDA costs and the possible sources of NRDA funding. As was the case with the other Trustees, the Department of the Interior was uncertain how it would meet anticipated NRDA expenses. Projected costs for the Department's damage assessment effort for 1990 were between $7 million and $8 million; most of which the FWS would incur. Department representatives said the amount was not formally in their budget. Although, the Department was exploring funding alternatives. Congress, of course, was one primary alternative source of funding in lieu of Exxon. The Department and other federal Trustees hoped Congress would step in to fill the funding gap.[56] Failing in this effort, the federal Trustees would be forced to reprogram their own budgets to cover NRDA expenses. Ultimately, the WPG gave tentative approval to the Trustee Council's study proposals for 1990. Damage assessment activities would proceed despite the lack of clear payment methods.[57]

Funding issues had to be reconciled with other changes taking place in the trustee process. In February, Gould stepped down from his position as Interior Management Team representative. Paul Gertler, a FWS employee stationed in Fairbanks, was assigned to the position. In addition to being on the Management Team, Gertler was made a Deputy Assistant Regional Director, and head of Fish and Wildlife's newly created Office of the Oil Spill. Before bringing Gertler in, Gould had asked Roy--who had been representing NPS and the Department as an assistant to Gould--if he was interested in the position. Gould told Roy FWS was pleased with his work and implied that Roy could be considered for the position. Roy, however, would have to become a FWS employee. Roy declined the offer. Reasons for the stipulation were not expressed, but it was assumed that FWS was unwilling to give up control of the position to NPS.[58] Likewise, assigning an NPS employee to the Management Team slot was said to be unacceptable to individuals within the Interior Department.

About this time bickering over who was running the NRDA process began to escalate. State officials accused their federal counterparts of trying to assume the lead role. Their suspicions seemed to have some basis, because DOJ attorneys envisioned themselves as the driving force behind damage assessment. The realization was also setting in that a court trial could be decided in the Trustees' favor. Prior to this, there had been considerable doubt over the government's ability to defeat the oil giant in a court of law. A victory in court would mean a large criminal fine and civil compensation for damages. Everyone wanted to be in charge of the process so they could have some control in disbursing these funds.

All of this infighting came to a head at a meeting held in Seattle shortly after Gertler came aboard. Members of the WPG came in backing a plan to make NOAA, a Department of Commerce agency, the lead federal Trustee. As the scientific advisor to the Coast Guard for spill response, NOAA was the most experienced participant. In addition, NOAA had already assumed the leadership role in the WPG. With the backing of the WPG, NOAA established

itself as the lead federal Trustee on the Trustee Council.[f] Steve Pennoyer, Alaska Regional Director of the National Marine Fisheries Service (NMFS), a component of NOAA, was given federal leadership on the Trustee Council. Federal and state co-chairs rotated on a quarterly basis, would head-up the leaderless Management Team. The U.S. Forest Service (USFS) was given the initial federal Management Team chair because NOAA was unable to find somebody on short notice to fill the federal slot. For the Management Team this organizational shift also brought about an operational change. The Management Team became more powerful, thereby offsetting many of the attempts of other groups to drive the NRDA process.[59]

One issue which was not being resolved to the satisfaction of NPS during this period was the assessment of spill impact upon cultural resources. The archeological studies were not moving forward as part of the Legal Team's economic assessment. DOJ lawyers were of the opinion that CERCLA's definition of natural resources did not include cultural resources and were therefore outside the boundaries of the Trustees' damage assessment.[60] If true, this meant the Trustees would not get reimbursed under CERCLA/CWA for any archeological studies they implemented. Nor could they hope to use these provisions to collect compensation for cultural resource injuries. Agency lawyers on the Legal Team were divided on the issue and were reluctant to move forward with the study. On January 25, 1990, Roy submitted a memo to the Trustee Council on behalf of NPS, requesting a decision on the matter from either the Trustee Council or the WPG. Roy noted that over 20 federal sites had been identified as impacted, 10 of which were on park service land.[61]

Support for moving ahead with the study came from the USFS Management Team member, and Department of Agriculture Legal Team attorney. Archeological resources on forest service land had also been impacted. The USFS pushed for conducting the assessment even if there was the uncertainty the government would not get reimbursed. In a March 1990 brief DOJ reiterated the opinion that archeological studies could not be funded as part of the NRDA process. They suggested compensation for damage to archeological sites be sought under the Archeological Resources Protection Act.[62]

Federal Trustee Council members decided to seek advice on the issue from the WPG. The council drafted a memo to the WPG apprising them of the situation. The Trustee Council said it favored going ahead with the study under the auspices of CERCLA, despite objections from DOJ.[63] In the end a decision was made to allow the Management Team to go ahead with a cultural resources damage assessment study.

Once the 1990 summer field studies were complete the entire process of compiling data, reviewing studies, and making recommendations to the Trustees for future assessment was

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[f]In testimony before the House Committee on Merchant Marine and Fisheries on 3-20-91, Thomas A. Campbell, General Council for NOAA, stated that NOAA had been officially designated the lead federal Trustee in the fall of 1990.

repeated. The 1990 NRDA fall review plan identified 78 study components, at a cost of $37.3 million, for analysis during the summer of 1991. NPS was named as a consultant on four of the 78 studies: Coastal Habitat, Brown Bears, Archeology, and Restoration Planning.[64]

Nineteen ninety-one, was a year of major changes for damage assessment. Shortly after the first of the year the Trustee system underwent a structural change. Walter Hickel, the state's new Governor, was insisting that three trustees represent Alaska, not just one, as had been the case during the Cowper Administration. This would conceivably balance the Trustee Council and provide the state a greater say in NRDA activities and the ensuing restoration process. Although first reluctant, the three federal Trustees acquiesced, granting the state three Trustee seats. This in turn translated into three state members on the Trustee Council and Management Team.[65]

The entire NRDA process further changed once it was realized that a settlement between Exxon and the Trustees was imminent. A first attempt at reaching settlement in the spring of 1991 was turned down in federal court. Because of this failure damage assessment studies scheduled for the summer went forward as planned. All of the participants, however, knew that a second settlement attempt was in the making. This contributed to a shift in damage assessment thinking. Agencies participating in the NRDA process began looking beyond damage assessment in support of litigation. Once the court approved the second settlement proposal in the fall of 1991, litigation ceased to be the driving force behind the NRDA process. Restoration became the motivation for future NRDA studies.

RESTORATION

According to NRDA regulations, 43 CFR 11, restoration is defined as "actions undertaken to return an injured resource to its baseline condition, as measured in terms of an injured resource's physical, chemical, or biological properties or services the resource previously provided."[66] Under the terms of CERCLA the President is authorized to restore natural resources to their previous condition. This authority at the time of the *Exxon Valdez* incident was delegated to the Trustees through Executive Order 12580.[67]

Restoration activities are divided into three categories. These include direct restoration, which refers to on-site measures taken to directly rehabilitate injured resources; replacement, the substitution of a resource of the same type for the injured resource; and the acquisition of equivalent resources, namely the outright purchase or protection of resources similar to those injured in terms of ecological value, function, and use.

The need for developing a restoration strategy was identified in the Trustees' August 1989 *Natural Resource Damage Assessment Plan* public review draft. Discussions about the scope of the plan were begun through the WPG. The Washington, D.C. office of the Environmental Protection Agency (EPA) attempted to secure the lead role in the restoration planning process. Word of EPA's attempted takeover reached federal land managers in

Alaska through local EPA officials. The Management Team, at the suggestion of local EPA officials, moved immediately to get a restoration planning team up and running, thereby preventing EPA officials in Washington, D.C. from dominating the process. The Management Teams' efforts were successful. Late in 1989 an interagency Restoration Planning Work Group (RPWG) was created to develop restoration planning activities. RPWG was charged with identifying appropriate measures that could be taken to restore the ecological health and uses of injured resources.[68]

Restoration planning started before the damage assessment process was complete. This overlap caused RPWG in the early stages to develop a broad plan incorporating a variety of restoration proposals which could be modified to suit available funding once damages were collected from the responsible parties. Likewise, it must be noted that restoration planning on a scale of the *Exxon Valdez* incident had never been tried before. CERCLA provided general guidelines on the process, but no one really knew how to make the plan a reality. For these reasons RPWG took a cautious approach. Many policies were formulated as the process went along. Emphasis was placed on involving the general public to help determine what had been injured and how the injuries should be restored.[69]

On March 26-27, 1990, RPWG held a public symposium in Anchorage to provide input and help identify restoration concerns of the general public. Scientists and government representatives provided alternative viewpoints on how restoration should proceed and what resources should be restored. Restoration models ranged from a do nothing approach, where nature did the work, to much more intrusive methods involving reintroduction of a native species, or habitat enhancement to promote more rapid natural recovery.[70]

Competing organizations and the general public identified a host of resources requiring restoration. Terrestrial mammals frequenting the intertidal zone were listed as at risk through direct exposure, consumption, or cleanup worker disturbance. Waterfowl, fish and fish habitat, and fauna were said to need restoration. Tour operators were concerned about the negative image the spill caused to the visitor industry. Recreationists feared the spill impact would limit their access to pristine wilderness areas. Paul Gleeson, an NPS Archeologist for ARO, spoke of the threat presented to cultural resources. Possible impacts he identified included chemical alteration to exposed artifacts, accelerated erosion caused through vegetation destruction at archeological sites, and site damage or possible looting of sites during the cleanup process. Gleeson called for revegetation and other stabilization methods, removal of artifacts where stabilization was not possible, and site protection to prevent looting and destruction of artifacts.[71]

Gleeson was not the only NPS staff person involved in the restoration process. To prevent the agency from being left out of the restoration process, Alaska Regional Director Boyd Evison had drafted an October 6, 1989 memo for NPS Director Ridenour, to send to Secretary of the Interior Lujan. The memo expressed the need for an NPS representative on RPWG in order to insure park service policy mandates were being addressed.[72] Shortly thereafter, Gould approached Roy to discuss the matter of placing an NPS person on RPWG.

Gould said he and Interior Trustee Council member Walt Stieglitz had discussed the matter and decided to place an NPS person in the group in order to address NPS concerns over being left out of the NRDA process. There was one stipulation; NPS would have to provide somebody with Ph.D. credentials. This was necessary because EPA, in its consultive role to the Trustees was assigning a Ph.D. to RPWG. Therefore, in order to be credible and taken seriously, Interior would have to do likewise. Gould suggested Gary Ahlstrand, a research ecologist in the Natural Resource Division at ARO, as someone of suitable caliber to fill the position. Ahlstrand was at first reluctant to take the job. He had already contributed considerable time to NRDA work group planning efforts, thus placing himself behind schedule on NPS natural resource assignments. In the end Ahlstrand acquiesced, taking the job until another suitable park service employee could be found.[73]

In April 1990 Sandy Rabinowitch, an Outdoor Recreational Planner with ARO, was asked to fill the Interior RPWG slot.[g] As the Department's RPWG representative, Rabinowitch like Ahlstrand represented all concerned Interior agencies, not just the park service. This did cause occasional difficulties, but overall, Rabinowitch found himself able to accommodate the needs of all concerned Interior agencies. This was due in part to the consensual nature of the early restoration planning process. RPWG members decided from the outset that restoration to injured resources regardless of ownership would be the primary goal. Individual mandates would be kept to a minimum.[74] Emphasis was placed on trying to figure out what resources had been injured and how to go about repairing the injury.

In August 1990, RPWG published a restoration planning progress report. The report contained plans for three restoration support projects dealing with natural recovery monitoring, alternative recreation site development, and cultural resource restoration. Suggestions and input from agency experts, peer reviewers, and the general public helped to shape the plans and subsequent feasibility studies. The feasibility studies would evaluate the practicability of implementing specific restoration techniques. The studies would also help to determine implementation costs should the project be adopted.[75]

In the months following the publication of the August 1990 progress report, RPWG members concentrated on tasks to move the process forward. Public comments embodied in the August 1990 report were expanded upon and incorporated with other ideas to form a series of restoration options. Criteria had to be developed to systematically evaluate and test the validity of each option. Considerations included costs, implementation feasibility, resources to be restored, and related factors. Potential options would then be passed along to Trustee decision makers for assessment and approval. Proposed options would also appear in the *federal register* for public input and review.[76]

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[g]When Rabinowitch was appointed to RPWG, the issue of Ph.D. credentials had already become a dead issue. According to Rabinowitch, the issue was never raised when Gertler interviewed him for the position.

The overall process was extremely time consuming and fluid. Public input, definition terminology, recovery discussions, enhancement proposals, and restoration options had to be addressed and reworked to arrive at a final plan. Satisfying the competing needs of multiple agencies with a stake in the issues required fine tuning. In some cases options were completely reworked in order to satisfy all participants. NPS was particularly concerned about including options which addressed the lost use of recreational services and intrinsic values at the impacted parks. In all, some 35 major restoration options were developed. As incorporated in the restoration plan framework, these options identified the major available alternatives for restoring resources injured during the *Exxon Valdez* incident. Options were not necessarily tied to a specific resource. Likewise, resources were generally not limited to a particular restoration option. For example, in the case of salmon restoration several options lent themselves to enhancement of the injured resource. Such was not the case with large terrestrial land mammals like brown bears, where restoration options were more limited.[77]

By the summer of 1991 RPWG members were on their way to completing the job of creating a sound restoration planning framework. The process, however, was sidetracked when DOJ lawyers pulled RPWG personnel off restoration planning and redirected their energies toward generating a list of injuries for use during the penalty phase of the civil case against Exxon. This, of course assumed that a settlement might not be reached and also assumed the government would win its case against Exxon. For the next three months RPWG concentrated on developing lists of species suffering the greatest injury and providing the greatest payoff in the courtroom. This was in keeping with the strategy utilized during the NRDA process: a focus on species appeal and a focus on Prince William Sound. From a litigation standpoint the reasoning behind this emphasis made sense. Cuddly sea otters were much more endearing than hermit crabs. A species focus was more tangible than abstract concepts such as intrinsic values, lost use, or ecological processes. Likewise, there was a perception among the general public, fed by the media and numerous statements from public officials, that Prince William Sound was the place where all of the oil had ended up.[78]

To make the job easier a rating system was devised, categorizing restoration options based upon the degree of injury a resource had sustained, the potential clarity of the case that could be made in court proving an injury had occurred, and the perceived ability to collect damages for the injured species which the option had identified.[79] Restoration options meeting these criteria were given the highest rating. DOJ discarded restoration options receiving a middle or low rating. Like damage assessment, this rating system did not bode well for park service resources.

REACHING SETTLEMENT

Injury determination and NRDA in support of reimbursement became a moot issue in the fall of 1991 when Exxon reached a court approved settlement with the federal and state Trustees. As previously mentioned, the fall settlement was actually the second attempt at avoiding

litigation. On April 24, U.S. District Court Judge H. Russel Holland rejected Exxon's criminal plea bargain fine of $100 million as insufficient. In rejecting the plea bargain Holland said the criminal fine "does not appear to adequately punish the defendants for the guilty pleas that were offered."[80]

The civil settlement of $900 million in compensation payable over 10 years was not rejected outright. However, the rejection of the criminal settlement and the added requirement that both Judge Holland and the Alaska State Legislature approve the civil measure threw the civil settlement's acceptability into doubt. From an NPS standpoint, the first attempt at settlement was less than satisfactory. The proposed civil agreement contained no mechanism guaranteeing a full restoration for impact to park lands, nor did it guarantee compensation for park injuries. NPS would be forced to compete with other state and federal agencies for restoration funding. Park service proponents feared that their Department appointed Trustee representative would fail to adequately represent NPS priorities on the proposed six member (three federal, three state) Trustee Restoration Board.[81]

On October 8, 1991, Judge Holland approved a new settlement proposal for federal and state claims against Exxon Corporation and Exxon Shipping Company for criminal violations, and for recovery of civil damages resulting from the oil spill. The new agreement levied a criminal penalty of $150 million against Exxon. It also included an additional $100 million restitution payment of which $50 million would go to the state and $50 million to the federal government. As a major provision of the criminal settlement, Exxon Shipping Company pled guilty to three misdemeanor counts for violation of the Federal Water Pollution Control Act (CWA), the Migratory Bird Treaty Act, and the Rivers and Harbors Act (Refuse Act). Exxon Corporation pled guilty to one count for violation of the Migratory Bird Treaty Act. Of the $150 million imposed for the fine, $125 million was remitted for good corporate citizenship. Of the remaining $25 million, $12 million was deposited in the North American Wetlands Conservation Fund, and $13 million was slated for the Victims of Crimes Account. In making his decision Holland cited Exxon's cooperation as a good corporate citizen in responding to the spill. He said Exxon deserved credit for the $2.5 billion it had already spent during spill response and for the sensitivity the corporation had exhibited to its environmental obligations.[82]

The civil settlement Exxon entered into with the two governments was little changed from the earlier agreement. Exxon agreed to pay up to $900 million over a 10 year period. The civil settlement also contained a reopener provision which allowed the federal and state governments to claim up to an additional $100 million between September 1, 2002 and September 1, 2006 for population, habitat, and species restoration suffering substantial losses because of the spill.[83] Spending guidelines for civil settlement monies were set forth in an August 28, 1991 court approved Memorandum of Agreement and Consent Decree. As a part of the agreement the two governments resolved all claims against each other and agreed to act as co-trustees in using natural resource damage recoveries from the spill.

The primary emphasis of the $900 million civil suit was natural resource restoration. The Court-approved settlement definition of restoration included: the restoration, replacement, and enhancement of affected resources; acquisition of equivalent resources, and services; long-term environmental monitoring and research programs for prevention, containment, cleanup, and amelioration of future spills. The disbursement of restoration settlement funds would require unanimous approval from all of the trustees within the context of the settlement agreement.[84]

Several environmental groups labelled the settlement inadequate. They said a primary shortcoming was the settlement's failure to assess and collect for the true costs of spill damage. Erik Olson, Senior Attorney for the Natural Resource Defense Council, singled out the Department of the Interior's NRDA methodology for wildlife injuries as a prime example. Olson said the Department's use of market valuation methodology was inappropriate. He cited an incident where the Department allegedly assigned the value of a dead fur seal at $15, the current market price for a pelt. Olson said the Department failed to use the higher valuation mechanism available through contingent valuation methodology, as established in the case of State of Ohio v. U.S. Department of the Interior, 880 F.2d 432 (D.C. Cir. 1989). This case established contingent valuation as a method for federal and state governments to calculate damages for resources not normally sold in the marketplace. The case placed specific rules on the books for the realization of the higher intrinsic values of many resources beyond the market clearing price.[85] This method, in Olson's opinion, more closely realized the true value of impacted resources on FWS and NPS lands.[h]

It was generally assumed that the majority of restoration funds would be dedicated towards a plan to implement and monitor the restoration and rehabilitation of resources lost or destroyed as a result of the spill, or for the acquisition of equivalent resources and services. The NPS perspective on these funds centered on the challenge of obtaining an appropriate share of the restoration dollars commensurate with the injuries to park resources. To meet this challenge, the park service would have to be an active participant during the 10 year span of the agreement. Park restoration strategies would have to be successfully incorporated into the greater Trustee effort. This could only be accomplished if NPS continued to participate and effectively express its views to the Secretary's office.[86]

DEPARTMENT RESTRUCTURING AND THE POST-SETTLEMENT TRUSTEE PROCESS

On December 10, 1990, Secretary of the Interior Lujan issued a memo outlining a program for revising the Department's organizational structure for NRDA and restoration activities associated with the *Exxon Valdez* spill. Lujan would continue as Trustee for the Department.

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[h]Speculation had it that the true costs of damages because of the spill using contingent valuation methodology totalled somewhere between $3 and $5 billion.

Walt Stieglitz, Alaska Regional Director for Fish and Wildlife, would continue as the Department's representative to the Trustee Council. Vern Wiggins, who had moved from the position of Deputy Undersecretary to a position on Lujan's personal staff as Assistant to the Secretary for Alaska, would remain the contact person for *Exxon Valdez* affairs.[i] Correspondence and reports from Stieglitz would be routed through Wiggins to ensure smooth operations within the Department on a day-to-day basis. In addition, Wiggins would continue to represent the Department on the WPG, and would serve as chairman of the Department's ad hoc review group on *Exxon Valdez* matters.[87]

In a September 26, 1991 memo, Secretary Lujan again addressed the issue of reorganization of Departmental trustee responsibilities. As before, Lujan would continue in his capacity as Trustee for the Department. Curtis V. McVee, a retired BLM Director for Alaska, would become a Special Assistant to the Secretary for Alaska, and assume the position of Trustee Council representative for the Department. McVee would be responsible for management and coordination among Interior organizations in Alaska having a role in planning, damage assessment, restoration, and implementation of the settlement. Interior's Office of Environmental Affairs (OEA), in consultation with McVee, was given the task of designating a person to serve as the Department's representative on the Management Team. This job was later given to Pamela Bergmann, Interior's REA. Vern Wiggins would continue with his previous assignments.[88]

The Secretary's reorganization finalized the consolidation of all major Department positions within the trustee process into the hands of Department officials. Impacted Interior land managers no longer occupied key positions in the trustee process. In a memo dated October 4, McVee commented how the reorganization was in conformance with traditional arrangements within the Department for responding to oil spills. Personnel from OEA, namely Paul Gates and his staff, had been involved in spill response from the very beginning. Their participation in post-settlement restoration was a natural extension of this earlier process. In conclusion, McVee instructed Department agencies to route all Trustee Council related matters to himself and all Management Team matters to Bergmann.[89]

From an administrative standpoint the OEA resumption of principal responsibility for post-spill operations within the Department made sense. Under normal circumstances the OEA would be responsible for administering all phases of the Department's post-spill involvement. However, in the case of *Exxon Valdez*, OEA found itself unable to administer all post-spill operations. Because of this, OEA chose to concentrate on spill response and supported delegating responsibility for NRDA to the FWS. To OEA personnel the spill settlement,

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[i]Wiggins move to a position on Lujan's personal staff, effectively removed him from the direct supervision of the Department of the Interior Undersecretary, Frank A. Bracken. Bracken was seen as being favorably disposed to the NPS protection mandate. Some individuals viewed Wiggins removal from Bracken's chain of command as an overt attempt to eliminate any influence Bracken may have had over Wiggins' actions.

with the subsequent switch in emphasis from NRDA to restoration, offered the opportunity to reassume administration of the post-spill process.[90]

NPS staff involved in the post-spill process found this change of Department representatives in the trustee process disheartening. ARO spill personnel had developed a solid working relationship with the FWS staff representing Interior on the Trustee Council and Management Team. Park personnel felt the reshuffling weakened NPS access to the process. They were also afraid that McVee and Bergmann were not experienced with the process, because individually they had not participated in previous *Exxon Valdez* NRDA and restoration Trustee activities. There was, however, a recognition of Vern Wiggins involvement in prior NRDA and restoration activities. It was assumed that Wiggins would provide regular advice and guidance to McVee and Bergmann.[91]

To protect NPS interests and insure smooth lines of communications, John M. Morehead, Evison's successor as Alaska Regional Director, sent a memo to Curt McVee on October 7 addressing NPS continued involvement in the post-settlement process. Morehead notified McVee that Cordell Roy would continue to act as the lead contact within NPS for NRDA activities. Morehead also offered Sandy Rabinowitch's continued service as Interior representative to RPWG. In closing, Morehead said the requirements of NRDA and restoration planning were sufficiently different to warrant two points of contact within the park service.[92] In an October 18 memo McVee responded to Morehead, acknowledging Roy's continued role as NRDA contact for NPS and Rabinowitch's job as Interior representative to RPWG. McVee also reminded Morehead that any Department spill related communications must go through appropriate Interior channels.[93]

The need for utilizing appropriate Department channels on all spill related matters continued as a repeated theme during this period. Memos from McVee argued that following proper procedures would ensure effective communication. McVee felt it was his duty to be fully informed in order to provide complete updates to the Secretary, and to fulfill McVee's obligations as the Secretary's representative to the Trustee Council. Routing all interagency spill correspondence through McVee and his staff would assure this of happening. To this end, Bergmann requested weekly progress reports from all agency members representing the Department on Trustee working groups. She felt this mechanism would suit Department needs; it would also help insure that agency interests were taken fairly and fully into account during the restoration phase of the settlement.[94]

On October 24, Wiggins issued a memo proposing the disbandment of the WPG in favor of a more active role for the Trustee Council. Wiggins suggested that restoration decision making could best be served at the Alaska level through Trustee Council members. To this end, Wiggins proposed a November 4 scoping meeting among WPG members and the respective federal Trustee Council representatives.[95] The meeting resulted in the issuance of a Department of Agriculture and Interior joint draft proposal on November 6, 1991. The draft called for an operational restructuring of the Trustee system utilized during the NRDA and litigation phases of the spill incident. This was necessary because of the August 1991

Memorandum Of Agreement, and Judge Holland's emphasis on maximizing settlement funds for restoration use, which implied a minimization of administrative costs.

The proposal stated that in order to comply with the restoration emphasis of the settlement, decision making authority would be delegated from Washington, D.C. to federal Trustee representatives in Alaska. A Trustee Board would replace the existing Trustee Council. The board would be authorized to approve projects and make decisions needed to implement restoration. Board members would select an annually rotated chairman to preside over the body.

The proposal did not cut all ties to Washington. A Washington, D.C. departmental component would provide policy guidance and oversight to the federal board members as a matter of normal policy making through normal channels. Federal board members would keep Washington apprised of all restoration progress. Furthermore, the D.C. component would form as needed, an ad hoc policy making team to review sensitive federal restoration issues and give guidance to federal board members. The functions of the Management Team and RPWG would be merged to form a single Resource Recovery Coordination Team (RRCT). This would strip away the multiple layers of management that currently existed and streamline the decision making process. The RRCT would direct its attention towards restoration. This process would in turn be facilitated through the creation of a restoration planning subgroup. The subgroup, with RRCT guidance, would be responsible for the overall plan development.[96]

The November 6 draft proposal caused quite a stir within the park service ARO. In a memo to John Morehead, Oil Spill Office Coordination Chief, Dan Hamson voiced his fears about the possible negative implications the reorganization plan could have for NPS. Hamson believed the reorganization would completely remove NPS from any direct participatory role in the post-settlement process. Interior staffers he felt, would take over formulation of agency restoration needs leaving NPS to merely implement others' decisions. The creation of the RRCT seemed like nothing more than a red herring designed to direct attention away from the real issues. Replacing the Management Team and RPWG with RRCT and a restoration subgroup seemed to be a futile gesture. The number of groups would remain the same. To Hamson, the restructuring proposal was merely a guise for pushing NPS and other Department agencies out of the restoration decision making process. Hamson felt that McVee and Bergmann's gag rule prohibiting communication between Department agencies on restoration issues had already started the process.[97] The proposal, if adopted, would complete the process of ostracism.

Ultimately, the Trustees decided to partially restructure the process. The Management Team after much wrangling became the Restoration Team. The name change focused attention away from managing the NRDA process and toward managing the court-approved restoration agenda. In this respect the process shifted further away from being a litigation driven NRDA process to a restoration driven process, as specified in the settlement. As for RPWG, it too went through some changes. After several attempted renamings and suggested changes in

duties, the group's name and duties remained as they had been. Department participants in the Trustee structure remained the same also, within Interior and the park service.[98]

Effective communication between the Department and operating agencies continued to be a problem in 1992 despite the repeated attempts to realize greater efficiency within Interior and within the trustee process. On March 27 both Bergmann and McVee issued memos addressing the issue. Bergmann reminded park service and fish and wildlife personnel of the need for directing weekly reports to her office. Furthermore, beginning in April, Bergmann would hold weekly restoration meetings with all concerned agency officials. McVee addressed the ongoing problem of agency participation in various restoration subgroups. He specifically reiterated his order, with minor exceptions, that one person represent the Department on each working group. Attendance by individuals from every concerned Interior agency caused confusion over who really represented Department interests.[99]

John Morehead responded to McVee's March 27, 1992 memo restricting NPS attendance at interagency restoration meetings. Morehead described the action as an effort to prevent meaningful NPS participation in the restoration process. McVee was bottling up Interior's restoration policy decision process. In addition, McVee's appointment of OEA and BLM personnel to the majority of positions in the Department's post-settlement organization structure, further shutout NPS. Because of this, NPS had no meaningful role to play in the restoration process and could not fulfill park service mandates. In light of the situation, Morehead told McVee that he was instructing NPS staff with restoration duties to concentrate on project generation and implementation, rather than continue fruitless attempts to participate with administrative work groups.[100]

FINAL COMMENTS

Morehead's memo reflected the difficulties which continued to plague Department and park service relations in the *Exxon Valdez* post-settlement phase. Miscommunication, agency accessibility to the decision making level of the trustee process, and the scope of restoration on NPS managed lands had been, and would in all likelihood persist as issues of contention between the Department and the park service. How and whether these difficulties can be mitigated to the satisfaction of all concerned shall be addressed in chapter 5.

In any event it seems safe to say that confrontations between the park service and Department were not tempered through the post-settlement reorganization of Trustee representatives. The post-spill reshuffling in many respects only served to heighten the anxiety of park service spill participants. To many park service employees the restructuring was nothing more than another step in the Department's ongoing attempt to keep NPS out of *Exxon Valdez* post-spill activities.

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CHAPTER 4

SPILL SUCCESSES AND FAILURES

Previous chapters have provided a narrative of NPS involvement in post-spill operations. They have likewise supplied the reader with an overview of the confusion, complexity, and the myriad of competing agendas which influenced the spill environment. This chapter analyses major NPS spill related functions to determine whether the park service was justified in assuming those roles. The consequences of assuming these various roles is discussed, as well as NPS successes and failures in such endeavors.

EXXON VALDEZ, THE FAILED RESPONSE

Much of the speculation over the justification for the park service response to *Exxon Valdez* hinges on the argument of whether there was a breakdown in the various response mechanisms in place at the time of the spill. Specifically, the argument NPS detractors put forth has been that the park service, in responding to the spill, exceeded the jurisdictional boundaries of responsibilities commensurate with the agency's resource protection duties. In other words, NPS assumed too much authority. NPS detractors called much of the early park service response activities hasty and precipitous. NPS personnel responding to this argument have said that the park service was forced in some cases to exceed traditional land management restrictions, because of the magnitude of the event, and because of the failure of designated respondents to adequately fulfill their response duties. Analyzing the appropriateness of the NPS response effort therefore requires some scrutiny of the bigger picture.

The *Exxon Valdez* spill was (and still is at the time of this writing) the largest volume tanker spill to occur in North American coastal waters. The 10.8 million gallon spill contaminated some 1,244 miles of coastline in Prince William Sound and the Gulf of Alaska. By the fall of 1989, FWS personnel had recovered 980 sea otters, 138 bald eagles, and 33,126 other seabirds. Trustee Council follow-up estimates published in 1992 placed the number of sea otter deaths for the entire spill zone between 3,500 and 5,500. The same report approximated that between 375,000 and 435,000 birds died as a result of direct exposure. This figure did not take into account chronic effects or the loss of future reproductive output.[1] Furthermore, a 1990 Institute of Management Science management systems assessment of the incident--produced with support from the National Science Foundation--said all of the major participants were slow to recognize that the incident was a major disaster, requiring an extraordinary response effort. This led to a reactive rather than proactive response effort.[2] To put it bluntly, nobody was prepared for a spill the size of *Exxon Valdez.*

These facts readily verify the horrendous magnitude of the spill, and lend credence to the assessment that spill responders were slow to recognize the scope of the disaster and react adequately to the event. When viewed in this light it seems probable that NPS (and numerous other ad hoc response entities) rather than jumping the gun, was simply reacting in a timely manner to an incident it had rightly assessed as a catastrophic event, requiring an immediate mobilization of all available assets.

The various post-spill assessments--those of which both government agencies and private concerns had written--agreed that the early response effort was a botched affair. The May 1989 report to the President from the United States Department of Transportation (DOT) and EPA found contingency preplanning to be wholly inadequate. In addition, the report said the contingency plans in place at the time of the spill failed to realistically contemplate a spill the magnitude of *Exxon Valdez*.[3]

Alyeska's contingency plan called for the prepositioning of equipment and immediate availability of personnel to fight a "most likely spill," not a "worst case" incident. This meant having sufficient resources on-hand to combat a spill of 14,000-84,000 gallons, less than one percent of the oil spilled during *Exxon Valdez*. Alyeska did have a worst case spill plan on the books. The plan anticipated an 8.4 million gallon spill. In an event of this magnitude, existing equipment on-hand would be supplemented through outside sources. The worst case plan called for extensive use of dispersants, in situ burning, and long-term cleanup. Critics have said Alyeska did not seriously believe a worst case spill would ever occur. Nor could it be effectively argued that the State of Alaska or the federal government believed a major spill would ever occur, given their lax enforcement of existing regulations, poor preparedness, and failure to pass tougher standards prior to the *Exxon Valdez* spill.[a] If anything, there existed an attitude of unwarranted complacency.[4]

According to the DOT/EPA report, the various response plans for the impact zone were incompatible with each other.[b] This caused serious delays in containment and cleanup. Critics said the Regional Contingency Plan for Prince William Sound suffered from shortcomings similar to the Alyeska plan, namely planning and inadequate resources for responding to a 200,000 barrel incident.[5] As a consequence of these shortcomings the pre-existing response infrastructures, according to FOSC Rear Admiral Ciancaglini, were quickly overwhelmed during the initial spill response stage. This infrastructure breakdown led to the formation of the three-tiered command structure mentioned in chapter 2, a hybrid system completely different from anything pre-spill planners had anticipated.[6]

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[a]The supposed failure of Alyeska and others to believe a major spill would occur is not unique. Risk analyst experts have identified this as a common phenomenon. Known as risk politics, this phenomenon shall be further discussed in chapter 5.

[b]When the *Exxon Valdez* ran aground on March 24, 1989, there were six contingency plans covering in whole or part, the Gulf of Alaska and Prince William Sound impact areas.

The three tiered structure did help to patch up the administrative breakdown which the spill had caused. However, it was unable to address equipment shortages and technological shortcomings critical to containment during the early spill response phase. When Vice Admiral Clyde Robbins (Ciancaglini's predecessor) assumed the job of FOSC in April 1989, he was amazed at the lack of technological advancement in spill response capabilities. In testimony presented before a Congressional subcommittee on August 10, 1989, Robbins said that he had expected to see all sorts of new techniques developed during the ten years since he had last fought a spill.[7]

Simply put, the technology and available equipment were not up to the task of containing a spill the magnitude of *Exxon Valdez*. Given the response capabilities available immediately prior to the spill, post-spill estimates noted that Alyeska could have realistically burned, treated through dispersants, or mechanically recovered about 15-30 percent of the oil spilled. A rosier U.S. General Accounting Office assessment placed total recovery in a "best case" scenario at 35-40 percent.[8] Either way, this meant a significant amount of oil would not have been recovered, thereby escaping to impact coastlines in Prince William Sound and the Gulf of Alaska.

Taken in sum, this evidence clearly demonstrates a breakdown of the preplanning response mechanisms in place prior to the spill. The DOT/EPA report put it best; the preplanning and early response efforts to the *Exxon Valdez* oil spill were unequal to the task.[9] This evidence supports the supposition that in order to protect its threatened resources, the park service was required to initiate efforts on its own. But were these specific park service response activities prudent or effective in protecting park unit resources?

THE NATIONAL PARK SERVICE RESPONSE

ARO decision makers initiated the first steps to protect the threatened park units. However, the need for taking appropriate action in response to threats to park resources was established prior to the spill incident. As discussed in chapter 1, Congress in creating the national park system tasked NPS with protecting public resources under its jurisdiction. Subsequent enabling legislation incorporated in the NPS preservation mandate, defined this protection role for individual parks and the greater park system.

As recently as March 16, 1989, just a few days before the *Exxon Valdez* incident, the House Subcommittee on National Parks and Public Lands had held hearings to discuss threats to park resources and the need for passing legislation to mitigate these threats. One major subject of discussion during the hearings was the increasing vulnerability of park resources from interests operating outside park boundaries. Other items discussed at the hearings included the need for a comprehensive inventory of natural and cultural resources in park units; and the need for NPS to convey the park service resource protection mission to the general public, and other government agencies interacting with the park service.[10]

Testimony presented at the hearing heightened a growing realization that parks were no longer isolated from the outside world. Events like the 1988 Yellowstone fire and the oiling of coastline at Olympic National Park also in 1988, presented stark evidence of the inter-relationship between resources within park units, and activities outside of park boundaries. When *Exxon Valdez* ran aground on Bligh Reef on March 24, 1989, park proponents and Congressional members were already grappling with the implications of the NPS role in cross-boundary resource management issues. *Exxon Valdez* took the issue to a new level of awareness. The spill illustrated in dramatic fashion where NPS strengths and weaknesses lay when faced with outside threats to national park units.

The NPS was about as inadequately prepared as most other land managers for responding to an event the size of *Exxon Valdez*. The park service, as discussed in chapter 2, was in the process of finalizing a spill response plan for small scale incidents at Kenai Fjords National Park in March 1989. The process of formulating a response plan for Katmai National Park and Preserve and Aniakchak National Monument had not yet begun. When the spill struck, Environmental Compliance Chief Bill Lawrence, represented ARO in the RRT process. Outside of Lawrence, perhaps only Environmental Specialist Cordell Roy, and a few other ARO employees previously exposed to spill incidents had a grasp on spill response operations. Prior to *Exxon Valdez*, NPS had no hands-on training mechanism for park managers and other key personnel who would be responsible for decision making in a spill event. Few ARO employees other than Lawrence, had participated in the RRT response process.[11] ARO likewise suffered from the handicap of not knowing the extent and value of coastal resources at the soon-to-be impacted park units. ARO Regional Director Boyd Evison's previous efforts to secure funds for resource inventorying had been largely unsuccessful.[12]

Because of all this NPS found itself in much the same position as other spill respondents. The enormity of the incident quickly overwhelmed ARO's limited response mechanisms and expertise. At this point ARO decision makers, realizing the basic inadequacies of their own response capabilities, made a decision which turned out to be a major success story in oil spill operations. They sought support through the ICS.

NPS AND INCIDENT COMMAND

NPS use of the ICS (discussed in chapter 2) occurred first, and was most prominent at Kenai Fjords. Subsequent use of ICT units to support other park service spill activities were more limited. Therefore, much of this assessment extrapolates from ICT participation in the Kenai Fjords/Seward operations sphere.

In his book, *Out of the Channel*, John Keeble described the ICS as a decentralized structure in which each unit is semi-autonomous. The system was purposely designed to anticipate sudden changes in a situation.[13] John Howard, an ICS planner with the Department of Interior, described ICS as a flexible response system designed to control team sizes and

muster sufficient resources to meet the crisis at hand. Howard contributed the general success of the ICS to a few basic concepts of which the most important are extensive preplanning, intensive training, and the rule of fives; which says tasks should be broken down so that not more than five people are required to address any single task, and no unit within an ICT should have to deal with more than five items at a time.[14]

With respect to *Exxon Valdez*, the system has been credited with doing an outstanding job of mobilizing resources and administering ad hoc response operations. Kenai Peninsula Borough Mayor Don Gilman, a major participant in the Seward MAC Group, described ICS as an effective emergency response program. Gilman said he and other MAC Group members were amazed at how quickly the ICT helped to assemble a local response.[15] Other participants who interacted with the ICT in Seward echoed Gilman's sentiments. In a final report, the Alaska Oil Spill Commission recommended the adoption of an Incident Command structure for spill response. The report identified the ICS as an ideal command and control system for such incidents. The official Department of the Interior spill report submitted to Congress said that the non-fire emergency use of ICTs proved to be "a significant step in giving quick and orderly response to initial threats to widespread resources at risk."[16]

Likewise, if imitation is in fact the highest form of flattery, then NPS has much to be happy about with respect to ICS. Within weeks of the spill, the Coast Guard began setting up ICS type command posts, adopted the terminology, and MAC Group-ICT type concepts. When reorganizing the Tanker Spill Prevention & Response Plan for Prince William Sound, Alyeska based its organizational management structure on the ICS.[17] Likewise, British Petroleum America (BP), in 1989, incorporated a modified version of ICS as part of the company's organizational structure for spill response. BP had the opportunity to utilize the system in February 1990, when the company responded on behalf of the spiller during the *American Trader* incident, a 9,458 barrel spill.[c] BP credited the modified ICS with effectively implementing a timely and well coordinated decision making process.[18]

Despite all this praise several problems occurred during ARO's utilization of the ICS. The NPS operations review of the park service's 1989 spill response activities, said that ICT decision making channels were often tangled. The communications flow between park superintendents, the regional office, ICTs, and the area command were often unclear. Individuals felt they were being left out of the loop. Former Katmai and Aniakchak Superintendent Ray Bane echoed many of the report's findings. Bane credited the ICS with an outstanding ability for self containedness and mobility. However, he felt these very assets created a tendency for the ICS to act too independently. This led to confusion over who was in charge. Situations arose where Bane felt his responsibilities as superintendent suffered

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[c]The American Trading & Transportation Company owned *American Trader*. The company accepted full responsibility as the spiller, after the ship ran over its own anchor while positioning to off-load.

because he was not being provided with sufficient input and feedback on ICS operations. Former Regional Director Evison concurred with many of Bane's comments, saying the use of ICTs for a non-fire event had some "real gaps." The Alaska Oil Spill Commission's report likewise noted drawbacks to the system. The commission cited confusion of command, missions, and misallocation of resources as frequent ICS problems. Furthermore, despite the creation of a successful MAC Group in Seward, the commission felt there were places where the ICS type command structure neglected to provide sufficient avenues of input for local citizens.[19]

Problems of this type during *Exxon Valdez* could hardly be avoided. The ICS was unfamiliar to many of the participants. Park personnel at both the region and park level were often unaware of how an ICT operated. This caused confusion during the heat of the response. Likewise, ICS, although technically labelled an all-risk system, had little experience outside of fire response prior to the spill. Adaptations were required in order to make ICS mesh with oil spill needs.

With respect to an oil spill, none of these problems should be considered insurmountable. The NPS *Operations Review Report* suggested ICT orientations for regional personnel and the institution of an on-scene ICT advisor to the area command as solutions to decision making and communication difficulties. BP and Alyeska have successfully adapted a modified Incident Command structure to their spill response needs. Facilities are currently in place at the Boise training center for cross-training ICS personnel for all-risk situations. ICS response personnel with fire expertise are being integrated into this training. Evison cited the use of the ICS during *Exxon Valdez* as a primary impetus for the creation of an NPS all-risk ICT for major non-fire catastrophes and preplanned events.[20] This organization, which shall be discussed further in chapter 6, was called in to use at Everglades National Park after Hurricane Andrew struck Florida in August 1992. In sum, despite the noted problems, ICS appears to be a workable system for managing spill response and other non-fire catastrophes. Furthermore, it seems safe to assume NPS made the right decision in calling in an ICT when faced with the overwhelming task of protecting park resources during the *Exxon Valdez* crisis.

DEFENSIVE BOOMING AND RPOs

Aside from the ICT, chapter 2 describes several other direct response mechanisms NPS implemented during 1989 spill operations. Principal among these were defensive booming and the use of RPOs. Of all the early response efforts in which NPS directly participated, defensive booming was probably the most questionable. Many individuals have questioned whether NPS had the authority to participate in the operation. Questions have also lingered in regards to the actual effectiveness of booming as a resource protection tool.

When ARO Associate Director David Ames, in his capacity as Acting Regional Director, made the decision to call in the ICT, he was not thinking about using the ICT to help support

defensive booming operations.[21] Coast Guard restrictions conveyed to Interior agencies from RRT representative Paul Gates (discussed in chapter 2), were fairly clear on what was deemed appropriate response activities for federal land managers. Defensive booming was to be directed and implemented through the Coast Guard and Exxon. But park proponents, MAC Group members, and Senator Ted Stevens helped convince ARO decision makers that NPS should get involved in defensive booming in some capacity, particularly since neither the Coast Guard or Exxon were initially present to direct the operation.

In choosing to become involved in defensive booming, NPS pushed the envelope of park service authority. Defensive booming was arguably beyond park service jurisdictional authority, especially since it involved participating in activities outside park boundaries. Furthermore, the CWA stipulations on 311(k) reimbursement required FOSC preapproval before initiating certain response activities. The Department had a legitimate financial concern over NPS reimbursement capabilities. Coast Guard Captain Rene Roussel, of the Anchorage Marine Safety Office, was afraid NPS involvement in booming operations could be perceived as federalization of the spill. Coast Guard officials impressed this point upon Gates during an early post-spill RRT meeting.[22] The Coast Guard's $5 million in the 311(k) fund was no match for a spill of this magnitude. Letting Exxon finance the spill response directly from the oil giant's coffers seemed a much more prudent and timely mechanism. The Coast Guard did not want NPS or any other federal agency taking action that could negate this arrangement.

According to Ames, NPS in taking on defensive booming and other tasks, did assume a broader role than at first anticipated. Much of this had to do with the previously mentioned lack of a Coast Guard or Exxon presence when the Seward/Kenai Fjords region was initially threatened. The park service (with ICT support), community leaders, and local FWS personnel were the only decision makers on-scene when the spill entered the area. Likewise, as Kenai Fjords Superintendent Anne Castellina pointed out, the spill crossed multiple jurisdictions and threatened entire ecosystems. The only way to fight a spill of this size was through an integrated approach.[23] These factors more than anything contributed to the NPS taking on a broader role in the spill response effort.

Fortunately for NPS, decisions were made which helped render the argument over NPS involvement somewhat moot. NPS Deputy Director Denis Galvin's decision to authorize Section 101 budgetary reprogramming authority relieved pressure on ARO, as did local community purchases of boom.[d] Likewise, Castellina and Ames both credit Senator Stevens with being an advocate of ICT and MAC Group response efforts in Seward. Stevens' support contributed to the Coast Guard's approval of NPS-MAC Group initiated booming

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[d]Obtaining boom as mentioned in chapter 2 was a contentious issue. If NPS as part of the MAC Group accepted boom directly from Exxon, it could according to Department officials, jeopardize any future federal case against Exxon. The problem was circumvented when local governments assumed responsibility for obtaining boom.

activities in early April, and to Coast Guard participation in Seward MAC Group operations.[24]

The actual effectiveness of these booming activities can best be described as mixed. Gauging the success of booming operations to a considerable degree, has to do with perceptions. For those individuals who, in Ames words, "wanted to get a lot of boom out there and stop oil from hitting anything," booming was a miserable failure.[25] Oil moving out of Prince William Sound was impossible to contain. For those who saw booming in terms of limited deflection and protection of sensitive habitat areas, booming was more successful. Seward MAC Group participants were able to identify and boom some sensitive habitat. In Kodiak, respondents effectively joined together to plan and deploy boom.[26]

Still, the opportunities for effective defensive booming were finite. There simply was not enough boom to go around. Likewise, many critical habitat areas consisted of wide bays, rocky headlands, and other areas exposed to the full force of the weather.[27] Booming was simply not effective under these conditions. Finally, efforts to steer the oil away from critical shoreline through deflective booming proved largely unsuccessful. The spill's enormity overwhelmed the Kodiak capture and deflection fleet. This realization was probably summed up best by Cordell Roy who said, "When the oil finally came it was like a great punch. It was more oil than our meager little boats could defend against. Our areas just got slammed."[28]

The consensus among major spill participants seems to be that defensive booming worked best in well protected bays and inlets. Deflective booming only works during situations where there are advantageous weather conditions, minimal quantities of oil, and favorable prevailing currents.[29] According to Roussel, booming activities during *Exxon Valdez* also provided participants with a psychological boost. It gave people a feeling of contributing to the effort. However, Roussel pointed out that because of the before mentioned limitations, defensive booming has not been a widely used tool in oil spill response.[30]

In contrast to booming, park service use of RPOs to oversee cleanup operations on park land and protect park resources was an indisputable success. Early endorsement of this program, as discussed in chapter 2, came when the Coast Guard mandated the use of RPOs at all impacted park units during cleanup operations, after the process was initiated at Katmai. The official Department report submitted to Congress credited RPOs with preventing unnecessary damage to park resources, preventing encounters with bears, and ensuring compliance with special permitting requirements. Bane and Castellina also credited the RPOs with maintaining a park presence, and acting as the eyes and ears of administrators back at park headquarters.[31]

If there was a drawback to the use of RPOs it was the rotation system. The 21 day rotation assignments described in chapter 2 placed a severe administrative burden on strained resources. Training, outfitting, and maintaining rotation assignments for park personnel brought in from ARO and throughout the nation was a logistical nightmare. Much of Frank

Betts' time as ICT Area Commander went towards this task. This took time away from Betts' other administrative spill duties. In retrospect, some park service administrators were of the opinion that RPOs should have been rotated in for longer periods. Evison agreed that the logistics of training and rotating RPOs put a tremendous strain on limited resources. However, he did not believe longer rotations would have been very beneficial. The 21 day rotation cycle was based on the ICT rationale that longer rotations would result in undue stress or burnout. Evison felt it prudent to stick to these guidelines during the spill.[32]

PRE-INVENTORY

Like defensive booming and the use of RPOs, pre-inventorying was a major task which NPS undertook during the early post-spill phase. As discussed in chapter 2, pre-inventorying involved sending out small scientific teams to select sites along Kenai Fjords and Katmai coasts, prior to spill impact, to conduct natural and cultural resource site surveys. This information would provide baseline data on park resources for gauging spill impact, and would give park personnel an idea of the resources lying in the spill's path.

The need for conducting an extensive pre-inventory of resources for park units at risk from the spill illustrated a glaring shortcoming of national park units throughout Alaska (and the nation). The park service simply did not have an adequate inventory of its own resources. Because of this NPS in many cases, has had only a rudimentary understanding of many park resources. The 1992 *Vail Agenda* defined the NPS research component for natural and cultural resources over the past three decades, as sporadic and inconsistent.[e] The report called this a serious deficiency which limited resource management capabilities, and impacted park service ability to respond to threats inside and outside park boundaries.[33]

With respect to *Exxon Valdez*, Castellina said the only substantial inventorying that had ever been done at Kenai Fjords was in response to the spill incident.[34] Because of this the park units found themselves in a scramble against time to pre-inventory a sample of resources before the spill hit park coasts. Bane echoed many of Castellina's sentiments. Bane said the park service knew virtually nothing about the Katmai coastline prior to the spill. The park's resource data bank was woefully inadequate. For years focus at Katmai was placed on Brooks Camp, while coastal resources were taken for granted and ignored.[35]

This is not to imply that efforts had not been made to inventory Alaska park unit resources. As mentioned earlier in this chapter, park proponents and Congress had been grappling with

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[e]*The Vail Agenda* resulted from an NPS initiative to assess and plan the direction for the park service in the 21st century. A subsequent symposium held in Vail, Colorado in October 1991 brought together nearly 700 experts and interested parties to contribute to the effort. Final findings and recommendations of the symposium were presented to the NPS Director in 1992 as *The Vail Agenda*.

this issue for several years prior to *Exxon Valdez*. In September 1986, a major scientific initiative was proposed for Alaska park units. The study would have cost $8 million and would have provided park managers with an effective baseline inventory of natural and cultural resources. The initiative failed to clear the budgetary process; although ARO was later able to secure some limited funding. Compounding this problem was the relative newness of the threatened parks. Kenai Fjords and Aniakchak units were established under the 1980 ANILCA provisions (see chapter 1). Katmai was expanded through this legislation. As a result of these predicaments, ARO was forced to conduct an extensive hurried inventory effort in threatened units at a cost approaching the 1986 figure.[36]

In his testimony before Congress in April 1989, ARO Regional Director Boyd Evison called inventorying an essential component in the effort to protect key resources and to assess and mitigate spill impacts. Evison told subcommittee members if a good inventory baseline had been in place prior to the spill, NPS could have much more quickly targeted sensitive spots requiring protection and possibly prevented some impact. Likewise, adequate inventorying would have helped the park service better identify sensitive sites and determine special cleanup requirements for these oiled beaches.[37] In sum, the spill served to heighten people's awareness of the implications of these inventory shortcomings.

The 1992 *Vail Agenda* report rightly noted that today's national park units are no longer isolated from outside pressures. Our modern industrial society, as witnessed during the *Exxon Valdez* spill, threatens the borders of even the most remote parks. Park policies for resources in order to be viable, must include a much stronger research component. This includes incorporation of a data base for cultural and natural resources in park units.[38]

RESPONSE EFFORTS BEYOND 1989

Two events are most noteworthy of discussion in regards to post-1989 spill response efforts. First among these was the decision within ARO to create an Office of Oil Spill Coordination to oversee NPS post-spill efforts after the area command began to disassemble in the fall of 1989. The second activity of note was FOSC Ciancaglini's (Robbins' replacement as FOSC) decision to integrate and administer response operations from Anchorage.

As discussed in chapter 3, the decision to create an oil spill office within ARO was determined through the realization that spill related operations would extend beyond 1989. But because the situation was no longer an imminent crisis, there was no need to maintain an ICS type command structure. Creating an oil spill office helped to insure the park service would remain an active participant in post-spill operations. In addition, the new office dovetailed well with the revised cleanup system Ciancaglini was implementing.

When Ciancaglini decided to consolidate all cleanup operations in Anchorage he reasserted the formal authority of the FOSC. This authority was traditional in coastal response operations. A system which clearly left ultimate authority with the FOSC replaced the three-

tiered administrative response system formed during the early post-spill frenzy. No longer were local ad hoc groups dictating response operations for each locality. Instead, all operations and cleanup planning would be implemented in the Anchorage office. This change took away much of the influence of the Seward MAC Group and other local entities which had previously determined cleanup priorities. If local entities including parks, wanted to have their cleanup priorities addressed, they would have to get them into the Anchorage winter monitoring, spring assessment, and TAG processes discussed in chapter 3.

For NPS, the oil spill office served as the mechanism for getting park priorities addressed in this decision making process. Spill office personnel successfully fought to have NPS lands included in subsequent cleanup operations. They likewise helped insure adherence to NPS special permitting requirements and cleanup restrictions.[39] Spill office personnel in essence fought the political battles which comprised the administrative decision making process. In addition, ARO spill office personnel--like the RPOs before them--served as the eyes and ears of park staff. Castellina credited oil spill office staffers Dan Hamson and Cordell Roy with serving a regional liaison function that was otherwise wanting. Because the two had been involved in 1989 summer operations, Castellina also credited them with bringing a sense of continuity to the post-1989 planning process.[40]

NPS Cultural Anthropologist Timothy Cochrane (see appendix), described the ARO spill office as a radically different organizational structure, effectively employed to meet post-spill planning needs. One of the key attributes of the office, according to Cochrane, was the collegial spirit of cooperation which permeated planning operations. Planning and decision making within the office, was the result of brainstorming and consensus building rather than hierarchical command. Primary duties of personnel and divisions of labor were broadly defined, which in turn encouraged the intermingling of responsibilities. Given the office's small staff, and the need to effectively respond to changing priorities and demands in the fluid post-spill environment, Cochrane found this mode of operations to be an effective model for meeting similar situations.

This is not to say that the spill office did not have its shortcomings. The scale of post-spill operations often times overwhelmed the spill office's small staff. This meant the staff generally assumed a reactive rather than a proactive approach to post-spill planning operations. ARO spill office operations also suffered because of a lack of direct involvement and sufficient political backing at higher levels. Unlike FWS, ARO failed to place a directorate level administrator in charge of the spill office. This contributed to the perception of a limited park service commitment to NRDA and restoration. There is also no evidence of extensive planning or strategy commitment from NPS officials in Washington, D.C. ARO spill office personnel were in effect, left to plan and wage the post-spill battle on their own.[f]

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[f]More recent direct participation from Clinton Administration appointees has offset this prior lack of political backing. This subject will be further discussed in chapter 5.

HOW CLEAN ARE THE BEACHES?

In June 1992 spill officials declared the cleanup of the nation's largest tanker spill over. Ciancaglini said the cleanup had reached a point where further efforts would likely do more harm than good. NPS officials had reached a similar conclusion regarding impacted park areas in the fall of 1991 (see chapter 3). In neither case was this an admission that all oil had been removed. Nor did federal and state officials concur with Exxon's claims that the health and ecological vitality of impacted areas had been restored to pristine condition. Rather, this was viewed as the final step in the transition from cleanup to restoration.[41]

Scientists working for the spill Trustees and impacted land managers, shared two opinions regarding spill impact at the cessation of cleanup. First, oil still remained in quantities sufficient to cause further harm to the environment; second, the actual spill injury was much more extensive than previously imagined. In February 1992, Dr. Robert Spies, the Trustee Council's coordinator for damage assessment studies, identified several species which continued to die and suffer from the spill. Among the more critical problems Spies cited were unusually high mortality rates among sea otters, murres, and harlequin ducks, lower reproduction rates among salmon, and brain lesions in harbor seals.[42] A draft restoration plan which the Trustee Council released in April 1992 provided further details of damage assessment scientific findings. The draft described extensive and ongoing injury to killer whales, sea otters, harbor seals, sea birds, fish, mussels, and other coastal zone inhabitants. Injury was attributed to initial impact from the spill and to the persistence of oil in the water and intertidal zone.[43]

How long these problems will persist is unknown. According to Spies, several species had already begun to recover, by 1992, while others continued to decline. In the case of sea birds like murres, recovery could be very slow with predictions running anywhere from 10 to 100 years. State officials anticipate spill related fishing restrictions and closures in years to come for salmon and other fish. Overall, the consensus seems to be that the full extent of injury to natural resources will not be known for several years.

As with natural resources, the long-term implications of impact to cultural resources is not certain. At present there are no threats from tarmat formations, or the masking of cultural sites through direct oiling. Current evidence--discussed in greater detail elsewhere in this chapter--likewise suggests direct oiling had negligible impact on artifacts. However, what the effects of residual oiling on artifacts over the long-term will be is unknown. Archeologists are concerned that long-term exposure to oil trapped in the substrata could skew signature methods used to chemically date artifacts. Compensation methods will have to be developed to mitigate any skewing which may occur from such exposure.[44]

In conclusion, two things seem clear. First, the cleanup did not remove all of the oil spilled from *Exxon Valdez*. Oil still remains trapped in sensitive areas and continues to threaten

resources. Secondly, some type of long-term monitoring is needed to gauge future impact, and allow for the timely implementation of additional restoration where appropriate.

THE NPS TORT INVESTIGATION

The NPS tort investigation effort was founded on good intentions. In initiating a tort investigation of spill damage to park lands, NPS personnel rightly recognized the need for implementing an evidence gathering mechanism to document park resource injuries. The NPS tort investigation, however, failed in two basic respects. First, tort investigators were never able to clearly define the purpose or ultimate goals of the effort. This resulted in confusion and a failure to realize stated intentions. Second, NPS was unable to effectively integrate much of the tort information into the Trustees' NRDA effort, once it was realized evidence gathered and incorporated into the Trustees' damage assessment would serve as the basis for the federal litigation effort against Exxon.

The justification for initial NPS tort actions was cited per Title 43 CFR 11.21 and 11.22. Title 43 CFR 11 regulations were promulgated in 1986 as non-mandatory guidelines for conducting a natural resource damage assessment. These provisions provided justification for the tort team's pre-oil field observations and sampling efforts, as discussed in chapter 2. As such, these early efforts were not markedly different from the other NPS pre-inventorying endeavors. However, an April 2, 1989, case incident record contained in the NPS CWA/CERCLA Case Summary said the investigation was opened in order to establish an information base necessary to support any loss recovery claims NPS may decide to file against the spiller or responsible parties.[45] Engaging in such activities went beyond the scope of field sampling and data collection outlined in 43 CFR 11.21 and 11.22.

A park service briefing statement dated April 20, 1989, gave some indication of just how convoluted the NPS tort investigation would become. The statement said the team was assigned to the incident in the early stages in order to support NPS claims for damages under the authority of CERCLA, CWA, federal common trespass law, and the Archeological Resources Protection Act. The briefing further stated a belief that once post-impact damage assessment began, NPS investigators would work closely with other regional response personnel, other co-trustees, and trustees in gathering information for presenting damage claims.[46]

This expansion of the NPS tort investigation, from what was basically pre-oiling data collection to something akin to NRDA, was a source of serious confusion. ARO officials recognized that park personnel knew little about conducting a damage assessment. In fact, one of the reasons cited in the April 20 briefing statement for conducting the investigation, was to develop a cadre of qualified NPS oil spill investigators. This confusion over the scope of the investigation and lack of expertise was heightened in the field. Pre-inventory teams at Kenai Fjords and Katmai were unsure whether the evidence they were gathering for baseline inventory purposes was compatible with CERCLA requirements.[47] At Katmai field

teams were not sure if they were supposed to be gathering evidence for a separate NPS tort claim, or conducting CERCLA damage assessment compliance work. According to Bane, field personnel at Katmai felt they should have been briefed about the scope of the investigation and about any shifts in the investigation's focus.[48]

As discussed in chapter 2, pre-inventorying and the tort team pre-oiling sample efforts were initially begun as two separate efforts. Pre-inventory teams were not familiar with CERCLA standards. When an early copy of the CERCLA standards reached the field in April, it was of limited value because numerous pages were missing. Pre-inventory personnel drawn into the tort effort were unsure of the proper procedures for storing and holding samples. This led to inappropriate sample gathering, and in some cases caused samples to be discarded. New samples were then gathered in a mistaken belief that the original samples were somehow tainted.[49]

In retrospect there seems to be a fairly wide consensus among park service spill participants that NPS did not have the mechanisms in place for conducting an investigation of the considerable scope the tort effort envisioned. This was due in part to the lack of understanding of CERCLA requirements. ARO personnel, and most of the other individuals involved in the early tort effort, did not have the experience or working knowledge needed to implement a damage assessment. The April 20 briefing statement admitted as much. NPS tort participants were correct in seeking outside expert advice from Rick Dawson of NPS Southeast Region and from Department attorneys. Unfortunately, many of these efforts, as addressed in chapter 2, came after park service personnel had already initiated specific activities. This meant advice was either too late in coming to correct specific errors, or only served to confirm things which had been done right.[50] The tort effort involved too much trial and error; it lacked the rigid methodologies and study designs necessary for a viable damage assessment. Pre-inventory teams and others supporting early tort data collection worked in small disjointed groups. Park personnel, according to Castellina, ended up developing their own programs and simply had to hope their methodologies would be correct for pre-inventory and tort purposes. In sum, the tort evidence NPS gathered was not adequate for supporting a damage assessment claim as specified in CERCLA.[51]

It was this inadequacy of the tort evidence for damage assessment needs which, in part, contributed to the NPS failure to get much of the tort information incorporated into the Trustee directed NRDA process. NPS evidence was likewise of limited value because of its focus. The NPS tort effort was conducted primarily as a criminal investigation. This limited its applicability to a damage compensation suit. Paul Gertler, one of the two FWS people to represent the Department on the Management Team, credited Hamson and Roy with trying to sell the merits of the NPS tort evidence to NRDA decision makers. Gertler felt that NPS tort information provided a good chronology of the spill and could have been useful in a criminal case.

NPS tort evidence did seem to have greater merit with respect to a criminal case. A May 5, 1990 letter from criminal attorneys with the DOJ Environmental Crimes Section credited

NPS with assembling a thorough and well organized documentation of evidence. They said the evidence would be of great value during the anticipated criminal sentencing procedures--which the settlement later made moot. The tort investigation also presented an effective model for packaging trial evidence. In contrast, much of the Trustees' NRDA evidence though scientifically sound, was difficult for federal attorneys to convert to anticipated trial use. The NPS tort evidence may have also had some threat value. Exxon knew that NPS was conducting an extensive tort investigation, but little else. Some ARO staffers speculated that this unknown element contributed to Exxon's decision to settle out of court.[52]

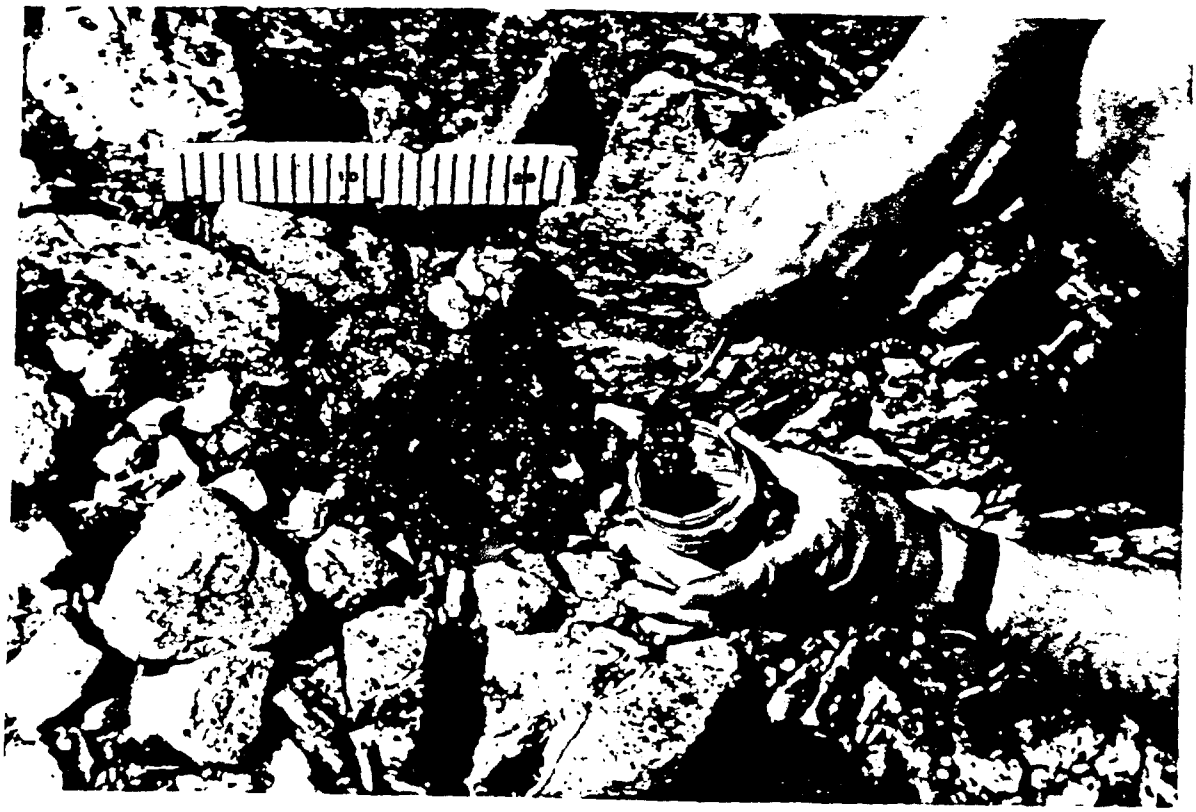
The NPS evidence, however, was simply not suited to the litigation requirements of a NRDA. NRDA, according to Jim Bennett, an authority on CERCLA with the Department of the Interior, focuses on compensation, not assigning penalty, as typical of a criminal case. NPS evidence did not fit this criteria. NRDA peer reviewers, chief investigators, and other participants repeatedly echoed this assessment to Hamson and Roy. They were therefore generally not interested in incorporating NPS tort evidence into the damage assessment claim.[53]

Another problem contributing to park service inability to incorporate tort evidence into NRDA was the independent nature of NPS tort activities. The reader may recall (discussed in chapters 2 and 3), how Secretary of the Interior Manuel Lujan delegated Department damage assessment authority to the FWS for *Exxon Valdez*. As an Interior agency (and under 43 CFR 11), NPS was obliged to coordinate further efforts with the FWS. This failed to happen during the course of the 1989 NPS tort investigation. In fact, a May 15, 1989 NPS field memo to the ARO directorate outlined plans for the implementation of a separate summer-long NPS damage assessment along the Katmai and Aniakchak coasts.[54] Reasons for such persistence are unclear. FWS Regional Director Walt Stieglitz, in a May 16 meeting with ARO personnel, had voiced his doubts over the appropriateness of the ARO tort investigation and its reimbursement under CERCLA.[55] It was rumored that ARO decision makers were unwilling let go of the one damage assessment component they had control over. Several ARO staffers cited political confrontations with members of the Department as a contributing factor. The tort investigation served as an anchor, providing NPS personnel with a sense of control in a chaotic situation.

The reality was that by the end of April 1989, the Trustees had already decided to conduct a single unified damage assessment. The federal Trustees April MOA (see chapter 2) provided ample evidence of this, as did the subsequent damage assessment planning process. NPS was busy concentrating most of its damage assessment efforts on conducting a separate tort investigation, while the FWS, acting on behalf of Secretary Lujan in cooperation with other Trustee representatives, were moving forward with an integrated damage assessment. In hindsight, NPS should have been concentrating on becoming involved in the evolving NRDA process, not on an independent tort action. The Trustee-sanctioned studies confirmed injury and resulted in compensation for damages, and ultimately restoration.

15. ADEC workers gather samples from a beach segment during the 1989 - 1990 WIMP.
State of Alaska, Governor's Office

16. Cleanup workers use hand tools, during the summer of 1990, to remove oil from a section of beach at McArthur Pass in Kenai Fjords National Park. Over 13,000 pounds of oiled debris were removed from the pre-contact archeological site.
Michele Jesperson, NPS



17. An NPS biological technician takes a sample of weathered oil during a 1992 summer site survey at Kenai Fjords' McArthur Pass. Site surveys have confirmed the post-cleanup persistence of oil on NPS beaches.

Carl Schoch, NPS

18. This weathered oil was found clinging to rocks during a 1992 Kenai Fjords site survey.

Carl Schoch, NPS

Despite these criticisms, the park service cannot be held solely to blame for shortcomings in the tort effort. Department attorneys, as mentioned previously, were consulted during the course of the investigation. Although the attorneys ultimately recommended full incorporation of NPS tort endeavors into the greater NRDA effort, they initially left the door open for a separate NPS damage claim. Department attorneys approved much of the scope of the early tort activities. Furthermore, a 1993 Department NRDA performance review noted that the legal processes and relationships among damage assessment participants have not been well defined.[56] This has caused confusion and uncertainty during NRDA operations. Each of these factors contributed to the continuation of the NPS tort investigation.

Finally, it should be said that these criticisms of the tort investigation are not directed at any one individual who participated in the effort, nor are they a condemnation of the professional expertise of the participants. Multiple decision makers and legal uncertainties contributed to the evolution of the tort investigation. Likewise, people felt that something had to be done; anything was better than sitting on their hands and doing nothing. The final consensus among NPS and several other spill participants seems to be that NPS brought in good people to conduct the tort investigation and gather data. Unfortunately, their time was misdirected in large part because of no real prior NRDA training, some questionable advice, and the general confusion indicative of all the early post-spill activities.

THE DAMAGE ASSESSMENT AND TORT COMPARISON

The scope of the Trustee damage assessment associated with *Exxon Valdez* was of a magnitude never before attempted. The matter was complicated further because the guidelines contained in 43 CFR 11 had not been widely used since their adoption in 1986.[57] In addition, like the NPS tort investigators, the Trustees did not adhere to the non-mandatory NRDA guidelines. The NRDA participants therefore, had to develop many operating procedures as they progressed. The 1993 Department of the Interior NRDA review identified insufficient training and inconsistent application of damage assessment guidelines--during *Exxon Valdez* and other incidents--as a weakness of the process. This caused duplication of efforts, delays in data gathering, and undercut the ability of the Trustees' attorneys to build an effective case.[58] With this in mind, one could assume that the Trustee-sanctioned damage assessment participants were just as poorly prepared to document injuries in a spill of this magnitude, as were the NPS tort investigators. The individuals participating in the Trustees' damage assessment process, however, did have some distinct advantages.

First, unlike NPS tort investigators, many Trustee damage assessment participants were veterans of prior spill events. This was especially true of FWS and NOAA support personnel. According to Department of the Interior REA Pamela Bergmann, FWS personnel had regularly participated in spill response operations within Alaska. FWS personnel helped fashion the Alaska RRT guidelines on oiled wildlife released in December 1988. As recently as a month prior to the *Exxon Valdez* spill, a FWS employee accompanied Bergmann to

assist the FOSC in a spill incident at Dutch Harbor, in Southwest Alaska. This experience, although not specific to damage assessment, provided FWS personnel with expertise which could be readily adapted to a NRDA. The Department's REO for the New England states (region one) Bill Patterson, and Jeff Underwood a FWS damage assessment specialist for the same region, cited other FWS spill participation. Both asserted that FWS had played an active role in damage assessment for other incidents.[59] NOAA, in its role as scientific advisor to the Coast Guard was involved in numerous spill events prior to *Exxon Valdez*.

Secondly, and perhaps more importantly, the integrated damage assessment had the backing of the federal and state Trustees. This damage assessment was authorized and delegated to act on behalf of the Trustees. Throughout the course of the damage assessment an integrated Management Team, Legal Team, and Budget Control Team with support from the EPA and DOJ, plotted the working scope of damage assessment. Final plans received scrutiny from the Trustee Council, WPG, and individual Trustees as needed, before proceeding. This provided the damage assessment team with sufficient expertise and political push necessary for conducting a NRDA the size of *Exxon Valdez*. Overall, the Trustee damage assessment participants were better positioned than NPS tort investigators to implement NRDA and overcome any methodological imperfections or criticism directed their way.

NPS AND THE DAMAGE ASSESSMENT PROCESS

Gauging the degree of success and failure of NPS in the damage assessment process must take into account several questions. First, how much did NPS participate in planning and decision making activities related to NRDA? Second, was NPS able to get study components authorized for park land?[g] Third, how much did NPS staff participate in field studies?

As previously discussed in chapter 2, park service personnel played a rather limited role in the early damage assessment planning process. Secretary Lujan's designation of the FWS as Interior's representative for damage assessment shut NPS out of key assignments. Fish and Wildlife Service employees Walt Stieglitz, and Rowan Gould were assigned to Department slots on the Trustee Council and the Management Team respectively. In contrast, NPS personnel participated in some of the early work group planning meetings, offered some scoping proposals, and attended a couple of CERCLA and NRDA familiarization briefings.

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[g]The term "study component" refers to the various geographic locales where a given study was implemented. A single study therefore, could have several study components. For the purpose of this analysis three major components are utilized: Prince William Sound, outside Prince William Sound, and NPS land. Furthermore, it should be noted that ensuing study component comparisons do not factor in the level of effort or money attributed to a given component. Incomplete Trustee Council data compilation negated the possibility of such weighting.

Evidence suggests that ARO Regional Director Boyd Evison communicated with FWS Regional Director Walt Stieglitz. In a memo dated May 31, 1989, Stieglitz discussed the subject of reimbursable expenditures under NRDA. During a July 26, 1989 conversation Stieglitz briefed Evison on the progress of damage assessment planning. Stieglitz also told Evison he would send NPS a copy of the latest NRDA working plan, and offered to have Gould brief ARO on the latest developments. There is no evidence of any regular sort of correspondence between the two regional directors. According to Evison, most of the limited interaction between the two agencies which had occurred, was through staff.[60] This assertion coincides with evidence presented in chapter 2. Based on these examples, it can be asserted that ARO was provided with some measure of information regarding NRDA planning. Still, Evison and others within ARO, perceived that the park service was being left out of the loop.

The primary source of ARO's frustration was the federal Trustees' April 1989 MOA. The MOA included a mechanism whereby federal land managers not directly assigned a seat on the Trustee Council or Management Team could still be represented (see chapter 2). This was the consultative provision of the MOA. Unfortunately, the park service was unable to fully implement this provision. ARO was successful in getting Roy assigned on the Management Team as an assistant to Gould. At no time, however, was the park service able to get a person assigned in any capacity to the Trustee Council. Reasons for this remain a mystery. Members of the NPS directorate met with the Assistant Secretary for Fish and Wildlife and Parks on August 25, 1989 to press for a larger park service role. NPS received assurances that its request would be given proper attention. The park service request was denied. Evison said the Department never provided an answer for the refusal. Rumor had it that the Department was denying NPS access because the park service supported dissenting viewpoints, not in keeping with Interior priorities.[61] NPS hesitation compounded the matter. NPS, in mid-May 1989, was still agonizing over the degree to which the agency should commit to the Trustees' NRDA.[62] By this time other agencies had already committed significant resources to the NRDA process (chapter 2) and were positioning themselves to take advantage of anticipated study allocation funds. The park service's initial hesitation inhibited its ability to influence damage assessment planning and decision making.

By the time NPS began pressing for greater NRDA participation, in August 1989, the NRDA work plan was already being finalized for public release. Coupled with this was the previously mentioned Bush Administration mandate to complete the process by February 1990. Such a time schedule allowed for relatively little modification of the original work plan. Together, these political and time constraints presented formidable impediments to park service attempts to broaden the scope of studies. Roy discovered this when he tried unsuccessfully to have additional study components assigned to park lands (see chapter 3).

Figure 4.1 illustrates the total number of Trustee Council authorized damage assessment studies and the number of study components assigned to NPS land.[h] According to figure 4.1 some 62 studies were authorized in 1989.[i] Of these studies, three park service components were identified. In 1990, 43 studies were authorized, with five studies containing park service components. Finally, in 1991, of 36 studies authorized two contained a park service component. These numbers provide an indication of how well NPS fared in its attempts to secure NRDA study components on park land. However, they do not provide a complete picture. Other factors must be considered.

Figure 4.2 provides the total number of study components authorized within and outside Prince William Sound. Study components within the Sound (figure 4.2) show a consistent increase in components as a percentage of total study components authorized. (All of the impacted park units were outside the Sound.) This seems to confirm NPS suspicions of an increasingly greater Prince William Sound NRDA focus. Figure 4.3 indicates that park service components were not made worse off than other components outside the Sound during this transition to a PWS focus. If anything, NPS components fared slightly better during this transition.

In conclusion, two things can be said. First, the scope of NRDA studies increasingly focused attention on Prince William Sound. This should not seem unusual given the Trustees' litigation emphasis on species injuries within the Sound (chapter 3). Secondly, NPS was able to secure some study components for park service land. Whether these components resulted in sufficient data to measure NPS injuries cannot be determined from the evidence available. This brings us to the issue of NPS participation in NRDA field studies.

Agencies participating in damage assessment field studies were identified as a lead agency, as a co-lead agency, or as a cooperating agency working under a lead agency. The Trustee Council used this mechanism to delegate study workloads and determine damage assessment budgetary funding levels for participating agencies. The NPS fared poorly in this process. There is no mention of NPS lead or co-lead roles in the 1989 NRDA work plan (figure 4.4). Furthermore, of the 76 preliminary NRDA studies already underway in early August 1989, NPS had only been made aware of two of the several studies it was supposed to have participated in as a cooperating agency.

Department budgetary figures presented to the Senate Subcommittee on Merchant Marine lend further credence to the supposition that NPS participation in field studies was minimal.

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[h]Economic studies were not included for the purpose of this analysis because they generally applied to the entire spill zone, and were therefore of limited value.

[i]It should be noted that the year a study was authorized was not always the same year in which it was implemented.

FIGURE 4.1

Authorized NRDA Studies with Components Assigned to NPS Land

Year	Total Studies Authorized	NPS Components
1989	62	3
1990	43	5
1991	36	2

FIGURE 4.2

Comparison of *Exxon Valdez* Authorized NRDA Study Components

Year	Total Components Authorized	PWS Components Authorized	PWS Components % of Total Components	Outside PWS Components Authorized	Outside PWS % of Total Components
1989	75	42	56%	33	44%
1990	60	34	57%	26	43%
1991	46	32	70%	14	30%

Sources: Joel Cusick, "NRDA Study List," 14 January 1993, Alaska Regional Office; Trustee Council, The 1991 State/Federal NRDA and Restoration Plan for the *Exxon Valdez* Oil Spill, vol. 1, Assessment and Restoration Plan Appendices A,B,C (Juneau, 1991), 4-8.

FIGURE 4.3

NPS NRDA Components as a Percentage of Authorized Components Outside Prince William Sound

Year	Components Authorized Outside PWS	NPS Authorized Components	NPS Components % of all Components Outside PWS
1989	33	3	9%
1990	26	5	19%
1991	14	2	14%

Sources: Joel Cusick; 1991 NRDA Plan, 4-8

FIGURE 4.4

NRDA Studies Authorized with DOI Agencies as Lead or Co-Lead Agency

Year	Total Number of Studies Authorized	Studies with DOI as Lead or Co-Lead	NPS Lead or Co-Lead	FWS Lead or Co-Lead
1989	62	19	0	19
1990	43	13	0	13
1991	36	8	0	8

Note: Figures are for resources studies only.

Sources: Trustee Council, State/Federal NRDA for the *Exxon Valdez* Oil Spill August 1989: Public Review Draft (Juneau 1989), 126-184; Trustee Council, The 1990 State/Federal NRDA and Restoration Plan for the *Exxon Valdez* Oil Spill, vol. 1, Assessment and Restoration Plan Appendices A, B, C (Juneau 1990), 356-358; 1991 NRDA Plan, 23, 27, 31, 35, 39, 43, 45.

Figure 4.5

NPS Non-Acquisition Restoration Project Proposals

Year	NPS Proposals Submitted	NPS Proposals Authorized	Project Dollars Allocated to NPS	Total Project Dollars Allocated	NPS Dollar Allocation (% of Total)
1992	5	1	$51,000	$16 million	0.3%
1993	17	2	$213,000	$8.8 million	2.0%

Sources: Trustee Council, State/Federal NRDA for the *Exxon Valdez* Oil Spill August 1989: Public Review Draft (Juneau 1989), 126-184; Trustee Council, The 1990 State/Federal NRDA and Restoration Plan for the *Exxon Valdez* Oil Spill, vol. 1, Assessment and Restoration Plan Appendices A, B, C (Juneau 1990), 356-358; 1991 NRDA Plan, 23, 27, 31, 35, 39, 43, 45.

Figures indicate that by the end of July 1989, the Department had authorized NRDA expenditures to the FWS in excess of $6 million. This money came from two sources: the Department's initial $2 million share of $15 million Exxon had given to the Trustees for NRDA, and a $4.6 million appropriation from the $7.3 million 1989 supplemental appropriation (P.L. 101-45) the Department received from Congress for spill related activities. In contrast, NPS received $250,000 through the Department for NRDA activities in 1989.[63]

Figure 4.4 also demonstrates where NPS stood as a lead or co-lead during the 1990 and 1991 study authorization years. Of the 13 studies going to Interior in 1990, FWS was named as the lead or co-lead on all 13. The only role NPS played was as a cooperating agency in four studies (chapter 3). In 1991 FWS was named the lead or co-lead on all 8 Department studies (figure 4.5). No evidence was found on cooperating agencies for this year.[j]

Lead, co-lead, and cooperating agency participation provides a more lucid depiction of where the park service stood in the NRDA process. At no time was NPS a major participating agency in NRDA study initiatives. The park service at best, played a peripheral role in the implementation of damage assessment studies. This evidence when taken in conjunction with information presented in the discussion on NPS involvement in planning and decision making, supports the supposition that overall, NPS was a minor participant in the implementation of damage assessment.

Finally, recall that the end product of damage assessment is compensation for identifiable injuries to be used for restoration purposes. If an agency fails to document and link resource injuries to a spill event, then its hopes for implementing restoration projects are greatly diminished.[64] Restoration dollars are unlikely to be forthcoming to any agency unable to prove injury during damage assessment. The severity of these implications shall be examined during the ensuing discussion on restoration.

POST-SETTLEMENT RESTORATION

The transition from damage assessment to restoration was not a clean break. As discussed in chapters 2 and 3, the Trustees settlement with Exxon occurred before the damage assessment process was finalized. Damage assessment studies continued--after a settlement was reached in late 1991--even though NRDA was now officially over. The Trustees 1992 work plan said completion of several studies was necessary to support an orderly closeout of NRDA. In contrast, future studies would provide information needed to decide between various restoration options.[65] Implementing restoration thus became the end product of additional

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[j]The Trustees' annual NRDA work plan books were not consistent in the way they presented information. Presentation formats often differed as did the actual content of information provided. Hence the lack of cooperating agency data for 1991.

studies, not securing compensation for damages from the spiller as was the case with pre-settlement NRDA studies.

By January 1992 the Trustees had spent about $100 million to study the effects of the oil spill. Despite this, scientists called for authorization of another $17 million for studying spill damages. The scientists said they needed $4.9 million to finish 31 damage assessment studies and another $2.8 million to continue nine others. Additional money would go towards long- term monitoring projects to help gauge recovery, and for modifying wildlife management techniques of spill impacted species.[66]

Some Trustee Council members, environmental groups, and private citizens were beginning to tire of this continual spending of restoration settlement money on damage assessment. Individuals called for a downsizing of future damage assessment studies and the implementation, at long last, of restoration projects. Critics felt they had a right to protest. The damage assessment had cost tens of millions of dollars with little measurable results from the public's perspective. This was primarily because NRDA study results had been held in secret, pending the outcome of litigation. Out of Exxon's first $90 million settlement payment, only $9.6 million had been set aside for restoration projects. Most of Exxon's first payment, however, did not go towards continued NRDA studies. Instead it went to reimburse the state and federal governments for past legal and scientific expenditures incurred prior to settlement.

Settlement stipulations allowed the state and federal governments to recover $147 million of their pre-settlement expenses. The settlement also granted reimbursement to Exxon for $50 million the company spent during 1991 cleanup operations.[67] It was therefore perfectly legitimate for the two governments and Exxon to recover these costs from settlement payments. From the standpoint of vocal environmentalists, however, every dollar spent on other expenses took away from restoration. This is why many of them were so adamant in their criticism of further studies. Severe critics called for an end to all studies. Rick Steiner, an University of Alaska Biologist for Prince William Sound, accused agencies of using spill money to pay for work they would have budgeted for anyway.[k] Others such as Doug Miller, Alaska Director for the National Wildlife Foundation, called for an approach which focused on prudent research coupled with restoration implementation.[68]

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[k]The issue of agencies paying for normal operating expenses out of settlement funds was raised again during the September 21, 1992 Trustee Council Meeting. The USFS put forth a proposal to use settlement money to pay for second growth timber thinning of forest service land in the spill zone. Such thinning, according to the forest service, would promote terrestrial mammal habitat. State Trustee Council representatives John Sandor and Charlie Cole rejected the proposal as a misuse of funds. Cole said the proposal was a blatant USFS attempt to pay for normal activities out of settlement funding.

Post-settlement problems have gone beyond these basic spending priority questions. Competing restoration mitigation proposals became the focus of heated debate within the Trustee Council and among critics of the council. As noted in chapter 3, restoration is divided into three categories. These are direct restoration, replacement, and the acquisition of equivalent resources; with the end product of the restoration process, where possible, being the return of an injured resource to baseline condition. By 1992 numerous environmental groups had already begun focusing on acquisition as the most effective means of mitigating spill injury. This was based upon a growing consensus that it was simply beyond human means to implement many of the other restoration alternatives. Acquisition involves the outright purchase or protection of resources similar to those injured in terms of ecological value, function, and uses. Environmental groups such as the Wilderness Society urged the purchase of timber rights on Native owned land within the spill zone as one means of protecting critical habitat. Other suggestions included the outright purchase of land adjacent to prime salmon streams and wildlife habitat areas. These ideas gained additional converts after Representative George Miller (D-CA), Chairman of the House Interior Committee, called for using 80 percent of the settlement money to purchase land in the spill zone.[69]

Early reaction to Miller's 1992 proposal ranged from guarded caution from some federal Trustees to outright opposition from state Trustees. In responding to Miller's plan, Dave Gibbons the Restoration Team's Acting Director, acknowledged the level of political and public support for acquisition. However, he believed key areas would have to be identified before any acquisition could begin. State Attorney General Charlie Cole emphasized the state's position more bluntly. Cole said money should be used to restore damaged resources related to the spill, "not to simply acquire habitat to protect resources in the broad sense."[70]

Governor Walter Hickel further articulated the state's position on acquisition. In 1992 Hickel led a vigorous lobbying effort against acquisition as the primary tool for restoration. As an alternative, he called for the creation of a perpetual endowment. Investment profits from the endowment would be used over an indefinite period for a variety of restoration projects.[71] The Hickel administration later softened its position on acquisition. In January 1993 the state Trustees along with their federal counterparts authorized $7.5 million for timber buyouts on land in Kachemak Bay area near Homer. This was the first acquisition proposal the Trustees authorized. The state's concurrence in this case effectively opened the door for the adoption of acquisition proposals from federal land managers.

NPS AND RESTORATION

When RPWG first began addressing restoration there was a spirit resembling collegial cooperation. Restoration participants placed injured resources first, largely setting aside personal and agency biases. This situation began to change shortly after settlement. With the advent of restoration dollars, RPWG members became much more concerned with

securing funding for their agency's injured resources. Thus, the ongoing development of the restoration framework became much more openly political.[72]

In several respects, NPS was better positioned to participate in restoration planning than it had been during damage assessment. As discussed in chapter 3, park service employees Gary Ahlstrand and later, Sandy Rabinowitch filled the Department's seat on RPWG. They represented Department interests, including NPS concerns. After settlement, Rabinowitch was able to spend more time promoting an NPS agenda rather than fulfilling Department mandates. This was because the Department had also secured a position on RPWG for FWS. The Department did this in order to alleviate FWS fears of being left out once OEA reassumed primary NRDA and restoration functions.

Despite these advantages, the park service has had limited success in advancing restoration proposals and securing restoration funding. The post-settlement breakdown of a consensual approach to restoration planning illuminated park service shortcomings. Of these, one major factor was the carryover of difficulties encountered during the damage assessment process. As previously mentioned, damage assessment studies did not immediately cease once settlement was reached. Future studies became restoration-driven rather than litigation driven. Of the 17 natural resource studies authorized in 1992, only the oiled mussel study included a park service component. NPS was given a role as a participating agency on this study.[73] To many park advocates, this had disturbing implications for park lands, particularly since park service resources made up such a small part of earlier damage assessment studies. Castellina summed the situation up as a case where NPS knew there were injuries, but had not been able to draw any conclusions because of a lack of funding. Other park proponents feared the park service's lack of knowledge concerning the extent of injury to park units could be a serious detriment to securing funds for implementing future restoration strategies.[74]

Problems which go beyond injury identification have hampered the implementation of restoration strategies at the stricken park units. In the September/October 1992 issue of *National Parks*, Jeffrey Richardson identified a number of factors which prevented the implementation of park service restoration proposals. Specific reasons included continual clashes between participating state and federal agencies over management philosophies; the Prince William Sound focus of restoration, to the detriment of areas impacted in the Gulf of Alaska; the historical failure of NPS to effectively assert park interests in cooperative forums; insufficient staff dedicated to oil spill work; the bureaucratic enormity of implementing the settlement; and a bias in favor of economic resource restoration.[75]

This last item is a particularly contentious issue with respect to restoration on park lands. Many park resources are important for their intrinsic values rather than economic value. This issue calls into question the argument over contingency valuation; can a dollar value be placed on resources not normally bought and sold in the competitive marketplace? Several environmental groups had accused the Department of the Interior of failure to successfully employ, or realistically consider this option during the damage assessment process (see

chapter 3). The 1989 Trustees' *NRDA Draft Work Plan* had included an intrinsic valuation proposal. The proposed study never progressed beyond the methodology testing phase. The DOJ was reluctant to litigate on a contingency valuation basis. Contingency valuation was viewed as a litigation backup to be utilized only if the Trustees' economic injury strategy failed in court. The State of Alaska, working alone, was the only Trustee which aggressively implemented an intrinsic value study. The Department (and other federal trustees) in contrast, focused on what Evison called "cutesy wildlife resources." Evison felt the Department placed primary focus on the highly visible big ticket glamour injuries, and injuries to which an economic value could be readily attached.[76] And although national park proponents raised the issue of intrinsic values, they failed to get such studies wholly implemented.

Even if a price tag could be assigned and damages collected for intrinsic values, it must be asked whether it is even possible to restore many of these resources to their baseline condition. Removing surface oil and mitigating impact on a cobbled beach is feasible; attempting to mitigate impact to an environmentally sensitive tidal marsh is much more difficult. Likewise, convincing ardent environmentalists and park proponents that injured resources have been restored to pristine pre-spill conditions presents problems. How do you mitigate the psychological impact of knowing that a pristine wilderness has been soiled?

During the April 1989 House National Parks and Public Lands Subcommittee hearings, Olympic National Park Supervisor, Robert Chandler, addressed some of the problems associated with intrinsic values. Chandler said the park service, at the time of the hearings, was still trying to figure out the applicability of NRDA regulations and CERCLA to the December 23, 1988 fuel spill which had impacted Olympic's coastline. This was because many of the park service injuries were intangibles, consisting of uses and values which could not be bought and sold in the marketplace. This created serious difficulties in attempting to secure dollars for damage assessment research and subsequent restoration. Chandler said the agency was plowing new ground in trying to affix costs for intangible values.[77] Chandler was foretelling many of the problems Alaska national parks would experience in attempting to mitigate park resource injuries. Acquiring compensation, and restoring park areas to pre-spill conditions, represented a much more daunting task than many of the more tangible economic restoration projects.

The NPS has also had to deal with the restoration of impacted cultural sites. As previously noted, NRDA regulations do not incorporate cultural resources. However, both the Trustees' damage assessment and the settlement recognized cultural resources as an injured resource requiring restoration. Still, like intrinsic values, restoring impacted cultural sites is not easy. Cultural resources do not reproduce. Once an artifact is destroyed it is gone forever. Artifacts exposed to weathering resulting from protective vegetation destruction, or vandalism must often be placed in a museum to protect them from further degradation or theft.[78] This carries additional cost implications. Furthermore, the reality that cleanup workers--by the nature of the job--learned the location of remote archeological sites made

many of these sites vulnerable to looting and vandalism. This is viewed as the greatest future threat to cultural resources in the impact zone.

One potential solution to the problem of looting and vandalism is implementation of a site stewardship program. According to ARO Cultural Resources Division Chief Ted Birkedal, site stewardship programs act as deterrents principally against recreational "pot hunting" and vandalism. A successful program focuses on community involvement. Enlisting local volunteers as site stewards has the added benefits of making people aware that pot hunting is illegal, and can contribute to community condemnation of these activities.[79] Still, the implementation of such a program is not an easy task. Some members of the Trustee Council objected to such a project calling it impractical in the remote coastal spill impact areas.

Another area where all NPS resources could potentially profit during restoration is through acquisition. As Castellina noted, 77,000 acres of Kenai Fjords National Park is subject to transfer into Native Alaskan hands under provisions of the Alaska Native Claims Settlement Act (ANCSA). Much of this ANCSA selected land encompasses the fjords which are the heart of the park. Once conveyed these parcels would, in accordance with ANCSA provisions, be open to development as Native corporate owners see fit. Acquiring these lands has been a top priority of NPS. Retaining these lands as a part of the park would make the unit whole again. In addition, given the park service's proposed wilderness designation of the fjords, acquisition of these lands would ensure the future integrity and protection of the resources on these land parcels.[80]

The potential for making this purchase a reality was heightened through the apparent willingness of Native claimants to sell or trade some of these parcels for other land outside the park. Following the March 24, 1993 Congressional hearings on the *Exxon Valdez* spill, Clinton Administration Commerce Secretary Ron Brown, Secretary of Agriculture Mike Espy, and Secretary of the Interior Bruce Babbitt announced an acquisition plan using $25 million from the criminal fine Exxon paid as part of the settlement. The proposal called for using part of this money to assist in the purchase of Native inholding claims at Kenai Fjords. Realizing this transaction, however, will not be easy. Efforts to purchase the inholdings appear to be faltering. An NPS offer made in the closing months of 1994 was rejected. Major stumbling blocks included the final selling price--which is reported to be between $30 million and $40 million--and Port Graham Village Corporation's insistence upon retaining 19,000 acres of land.[81] Likewise, there have been other implementation stumbling blocks. The Kenai Fjords buyback is competing with several other acquisition proposals which--in total--could add up to as much as $390 million. Among these are the purchase of large wilderness tracts on Afognak, Kodiak, and Shuyak islands. The Trustee Council has established an acquisition target between $295 million and $320 million.[82]

Former Interior Trustee Council representative Curt McVee noted that an acquisition nomination list originally encompassing 400,000 acres had been submitted to the council. Many of the sites on this list were pet concerns of citizens' groups and government agencies.

The council has had to develop mechanisms for coming to grips with, and rating these sites. According to McVee, not all sites were of high priority with respect to overall restoration. Furthermore, except for those few cases where parcels were imminently threatened, McVee staunchly maintained that the federal Trustees had to meet National Environmental Policy Act compliance (NEPA) guidelines before initiating acquisition. The federal Trustees were ultimately required to produce an environmental impact statement which was released in September 1994.[83] The document will be used to help determine future land acquisitions.

The legitimacy of acquisition as a restoration method, has undergone serious debate and transformation within the Department. According to Rabinowitch, the commonly held perception was that former Secretary Lujan stood against acquisition of any kind. Susan MacMullin, an EPA employee assigned to restoration planning for *Exxon Valdez* echoed this perception. This impression was bolstered after the Department prevented four NPS acquisition proposals from going before the Trustee Council in 1992.[84] In responding to this issue McVee noted that Secretary Lujan never issued a blanket written or verbal statement against acquisition as a restoration mechanism. However, McVee did acknowledge that some mixed signals on the issue were sent through statements the former Secretary made regarding acquisition in other situations. In addition, McVee said both he and Washington, D.C. decision makers changed their attitudes during the ongoing acquisition debate. Where previously, Department personnel were reluctant to embrace acquisition, they later recognized situations where the concept fit into an integrated restoration program.

McVee also noted the implications of initial state reluctance as a hinderance to acquisition. As mandated in the settlement, all Trustee Council decisions must be unanimous. All it took was one "no" vote to kill a proposal. With the state being so adamantly against acquisition, McVee would have been wasting his time placing acquisition proposals on the table. Trying to push an issue, as Bergmann and McVee both acknowledged, carried political liabilities. Sometimes it was better to wait for more favorable circumstances before pressing an issue.[85] Such a window of opportunity opened once the state agreed to the Kachemak Bay timber buyout at the January 1993 Trustee Council meeting. Whether the NPS can take full advantage of this opportunity remains to be seen.

MEASURING NPS RESTORATION SUCCESS

According to former park service RPWG representative Sandy Rabinowitch, the overall success of park service restoration efforts has been hard to gauge. However, three indicators which do provide some measure of NPS success are, the number of restoration projects approved for park areas; the dollar amounts tied to these projects; and whether an agency is given a role as a lead agency or cooperating agency for project implementation.[86]

Because the implementation of restoration projects is still incomplete (at the time of this writing), it is difficult to extrapolate about final outcomes based on currently available evidence. Past trends may not be consistent with future long-term restoration developments.

Furthermore, the direct participation of Clinton Administration political appointees in the trustee process may have substantial implications for future federal restoration policy decisions.

According to Rabinowitch, the park service proposed five restoration projects for implementation in 1992 (see figure 4.5). The Trustee Council authorized one of these proposals, an oiled mussel project. The study would gauge the extent and persistence of oil in mussel beds on the Kenai Fjords coast. Data collected from the study would be used to design restoration options. The park service was named a cooperating agency for this project and allocated $51,000. This amounted to just three-tenths of one percent of the $16 million the Trustee Council authorized for restoration projects. In May 1992 NPS submitted 17 restoration proposals for implementation during 1993, at a projected cost of $3 million. Of this total the Restoration Team selected four of the proposed projects for submittal to the Trustee Council. These proposals represented a cost factor of $450,000. The Trustee Council authorized two of these park service proposals and allocated $213,300 to fund the projects. The two authorized park service projects were for archeological restoration, with NPS named as the lead agency, and the ongoing oiled mussel project, in which the park service was again listed as a cooperating agency.[87] In January 1993 the Trustee Council had authorized $28.8 million for restoration during calendar year 1993; $20 million was targeted for acquisition, and the remainder was dedicated for other projects. The park service received none of the acquisition funding, despite its having submitted acquisition proposals. Of the remaining $8.8 million allocated to other restoration methods the NPS share amounted to two percent. In sum NPS had received just 2.3 percent of the non-acquisition restoration project money made available through project year 1993. Restoration project figures contained in the Trustees' 1994 and 1995 work plans are equally dismal. The park service received none of the restoration money the Trustee Council set aside for acquisition in 1993--although the potential was there, but never materialized at Kenai Fjords in 1994. To say the least, this is a very discouraging record.

Reasons for the park service's limited success are not entirely clear. Rabinowitch did not believe such poor performance was because of any diabolical plot within the Department to punish NPS, as several national park proponents had hypothesized. However, Rabinowitch felt NPS would have fared much better had the park service been given greater access to the trustee process in the early post-settlement restoration phase.[1] Rabinowitch, and others, have asserted that the Department Trustee representatives were often unable to serve as advocates on behalf of NPS (and other Department agencies). They lacked an adequate understanding

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[1]A November 23, 1993 memo from ARO Cultural Resources Chief Ted Birkedal, lends credence to Rabinowitch's supposition. The park service's initial participation and ongoing role in the Cultural Resources Working Group helped assure that cultural resources at the impacted parks were given equal consideration during damage assessment and restoration. The park service's role as lead agency for archeological site restoration in 1992 was, perhaps, the successful culmination of this participation.

of park resources; nor did they understand NPS values. A poor communication flow hampered park service efforts to fill this understanding gap. Consequently, the difficulties persisted.[88] This subject shall be considered in greater detail in chapter 5.

Another factor which offers some insight into this matter are the linkages between damage assessment and restoration. Earlier in this chapter it was asserted that there was a direct tie between the two. Securing restoration projects and project dollars is based, in part, upon an agency's ability to document injury during the damage assessment process. If an agency does not succeed in identifying injuries during damage assessment, it will be much less likely to receive restoration compensation commensurate with the actual damage the spill inflicted. Based on the early restoration data given in figure 4.5, this appears to have been the case with the park service.

Political factors likewise contributed to the park service's inability to secure a larger share of the restoration spoils. Unlike the other impacted agencies, NPS did not have any upper level decision makers participating in the post-spill scramble. Evison's attempts to garner a consultative position on the Trustee Council, as previously discussed in this chapter, were rebuffed. This placed the park service at a severe disadvantage during damage assessment and restoration. As noted in chapter 1, agencies that fail to enlist allies and secure a favorable position during the policy struggle following an environmental disaster, often see a loss of mission goals.

The issue of whether an agency is identified as a lead or cooperating agency for implementing a restoration project provides a final measure of restoration success. According to Rabinowitch, being named a cooperating agency from an NPS perspective, is just as good as being named the lead agency. In fact sometimes it is better for the park service to be named a cooperating agency rather than lead, because NPS can then take advantage of the scientific expertise of other agencies. The important thing is getting involved, and receiving funding to implement a project.[89] Data which Rabinowitch and former ARO Spill Office Division Chief Dan Hamson compiled, suggests that NPS has not done very well in this regard. In project year 1992 NPS was listed as a cooperating agency for seven projects the park service did not originate. Many of these projects had implications for park service resources. Unfortunately, only $24,600 of the nearly $1.9 million earmarked for these projects was allocated to NPS. In project years 1993 NPS participated in only two studies: oiled mussels and an archeological site study. This was likewise the level of participation NPS was slated for in project years 1994 and 1995.[90] This gauge leads further credence to the conclusion that NPS has not done well during the restoration process. The park service has been unable to effectively establish a role for itself in many of the projects with implications for NPS resources. The end product, thus far, has been a continued lack of knowledge about resource injuries, and a subsequent inability to secure funding and implement restoration on park land.

SPILL LINKAGES

In chapter 1 it was said that post-spill operations could be divided into three phases; response, damage assessment, and restoration. Likewise, as discussed in chapter 1, the lines separating these phases often become blurred during the aftermath of a spill incident. Activities overlap and blend into each other. Means and ends become muddled as spill participants attempt to deal with the immediate problem at hand, often without thinking through the future consequences of present decisions. This was the scenario which unfolded in the aftermath of *Exxon Valdez*.

As previously discussed, NPS protection efforts suffered from numerous problems. Booming was only effective under ideal conditions. The sheer magnitude of the spilled oil overwhelmed deflection attempts, and was of minimal value in the rough Alaskan waters. The pre-inventory effort to gather baseline information and identify critical habitat requiring protection was a hurried affair. This problem, like many others, was not limited to the NPS. According to Robert Spies, NRDA study coordinator for the Trustee Council, inadequate baseline information and the subsequent limited ability to identify critical resources in need of protection was a problem for all agencies. Tens of millions of dollars in damage assessment costs could have been saved if a multi-year monitoring program had been implemented for potentially threatened areas when tanker traffic first began following completion of the Trans-Alaska Pipeline in 1977.[91]

Failure to identify and protect critical resources had other implications as well. It meant that oil impacting shoreline areas would need to be cleaned up. The full costs of these cleanup methods is only now being understood. According to analysts at North Carolina's Research Triangle Institute, oil spill cleanup activities carry two costs. First there are the direct costs. These include the labor, equipment, and other resources mobilized to combat a spill. Then there are the indirect costs incurred as a part of cleanup. Indirect costs refer to the detrimental impact cleanup has on resources, and the subsequent implications for restoration.[92]

Researchers at the Triangle Institute have described the impact from cleanup as a continuum. In this continuum, natural cleansing rates as the least destructive means of cleanup. Next on the scale are some of the less intrusive type A cleanup mechanisms addressed in chapters 2 and 3. At the far end of the scale are mechanisms such as hot water washing, use of heavy mechanized equipment to remove oil, and use of intrusive chemical applications.[93] In addition, foot traffic and spill worker transport craft contribute to the detrimental resource costs of cleanup. Wildlife disturbance, erosion, and artifact destruction are other indirect costs attributed to cleanup. Because many of the methods used to fight spills are destructive to resources, there comes a point where the costs of implementing more intrusive cleanup procedures outweigh the net benefits derived from cleanup. Going beyond this point means greater overall restoration costs.[94]

NPS deemed this threshold level to be very low for the impacted park resources. Park service decision makers felt that in a majority of cases intrusive cleanup measures, accompanied by uncontrolled mechanized transport and foot traffic, constituted a greater threat to park resources than did the oil.[95] For these reasons NPS placed limitations on specific activities.

In retrospect, the park service's conservative approach to cleanup appears to have been a wise decision for resources. Scientific findings presented at the February 1993 *Exxon Valdez* Oil Spill Symposium, suggests that high pressure hot water washing and harsher chemical treatments often had a more detrimental effect on oiled shorelines than simply leaving impacted beaches to the forces of nature.[96] According to several of the speakers, these harsher treatments, particularly high pressure hot water washing, often caused reductions in the intertidal biota of 50 to 100 percent.[97] Further evidence suggests that in areas where much less intrusive methods were employed, or no cleanup occurred, biota recovery has been significantly faster than in heavily treated zones. NOAA studies suggest it may take from three to fifteen years for heavily treated sites to repopulate to unoiled levels. In contrast scientists studying oiled rocky areas not subjected to severe cleanup, found these sites generally indistinguishable from unoiled sites during studies in 1990 and 1991.[98]

With regards to cultural resources, evidence presented at the symposium suggested cleanup activities were a greater threat to impacted sites than the actual oiling. Findings presented from an Alaska Department of Natural Resources 1991 study concluded that spilled oil had no measurable impact on radio-carbon dating results for artifacts. They found dating results from oiled artifacts, after hand cleaning, to be as accurate as those of unoiled test material. In contrast, damage to several archeological sites because of erosion and vandalism was associated with the cleanup effort.[99] Martin McAllister, chair of the *Exxon Valdez* archeological damage assessment panel echoed these state findings. According to McAllister, the principal causes of damage to cultural sites were cleanup related activities rather than direct oiling. Inadvertent destruction through hot water washing and related oil removal, impacted artifacts despite Exxon's extensive efforts to minimize such damage. Another threat during cleanup and afterward, has been looting and vandalism.[100] Cleanup activities had the unintended effect of divulging the whereabouts of previously undisclosed site locations, thereby placing these sites at risk in future years.[101]

FINAL REMARKS

This chapter assessed NPS post-spill activities. The consequences of assuming these roles and the success or failure of NPS in such endeavors was likewise discussed. Several conclusions can be made based upon the evidence presented. First, NPS was not sufficiently prepared to protect park resources against the *Exxon Valdez* spill, nor was it in all likelihood adequately prepared to respond to a smaller scale incident at the impacted park units. Of the three impacted park units, only Kenai Fjords had a plan of any sort under consideration when the spill occurred. These shortcomings were overcome to some degree through the usage of

ICTs, RPOs, and creation of an ARO spill office. Their use and development, however, was primarily reactive to the spill event rather than stemming from proactive preplanning.

Second, the NPS tort investigation process was unsuitable for the needs of a NRDA. The tort investigators gathered evidence which was well suited to assigning criminal penalty, but did not support the compensatory goals of a damage assessment. The NPS tort investigation likewise contributed to a misfocus away from the Trustees' NRDA process during the critical early formation period. This misfocus, in combination with the general failure of NPS to become an active participant in the studies and political process associated with the NRDA effort, dealt the park service a severe blow. At no time was NPS fully integrated into the NRDA process. The park service assumed a peripheral role in damage assessment studies and received minimal funding for conducting studies. The repercussions from this were felt in the restoration process, where NPS continued to play a minor role in project implementation and has had difficulty securing funding.

Finally, this chapter illuminates points which must be taken into consideration in future NPS spill planning. Spill planning and preparedness must be proactive, not reactive. Reacting to a disaster after it occurs, without adequate preplanning and training, is not the best way of protecting park unit resources. NPS spill plans must recognize that response, damage assessment, and restoration are not independent phases. What happens in one phase has implications for subsequent post-spill phases. Spills do not recognize jurisdictional boundaries. Plans must incorporate an interagency approach to spill mitigation. NPS must remain an active member in post-spill operations. This will help ensure that NPS priorities are addressed in the post-spill process.

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CHAPTER 5

CONFRONTATION AND COOPERATION

AGENCY TURF WARS

Turf wars are a common feature of the bureaucratic landscape and the *Exxon Valdez* oil spill was no exception. As noted in chapter 1, the U.S. Constitution, federalism, politics, competing agency mandates, and interest group participation all contribute to bureaucratic infighting. According to Philip Heymann, a Law Professor at Harvard University's Kennedy School of Government, every public and private organization has its own internal politics. However, government decision making and goal setting are shaped and influenced through entities outside the agency much more so than in the private sector. Such is the inherent nature of our democratic system of governance.[1]

Because of the pressures outside entities are able to exert, government agencies often find themselves forced to share power and incrementally alter goals to accommodate these pressures. If successful, this accommodation will result in the accomplishment of tasks that meet the expectations of clientele groups, Congress, Executive Department superiors, and still remain consistent with the values of individual government agencies.[2] This process, however, is thrown into chaos when a disaster strikes. This is especially true of a technological disaster, for reasons which will be explained later in this chapter. A crisis oriented decision making process usurps incremental accommodation. Coalitions shift and realign as each agency scrambles to protect its resources and find allies to meet the unanticipated threat.

This scenario, which follows most technological accidents, is what Management Systems Analysts John R. Harrald, Henry S. Marcus, and William A. Wallace have labelled the "politics of risk." Risk politics is peculiar to low probability-high consequence technological events in which people generally assume the risk of an accident is so remote it will never happen, and therefore fail to formulate adequate plans to meet the disaster should it ever occur. Consequently, once the disaster strikes respondents must fashion, from scratch, an organization sufficient to meet the needs of the technological crisis. In the ensuing reorganization, participants compete to secure a position of power from which to have their priorities addressed, through the favorable allocation of scarce resources. This, according to Harrald and his colleagues, is what happened during the *Exxon Valdez* spill.[3]

ARO Cultural Anthropologist Tim Cochrane has identified additional stresses during a technological disaster which contribute to the chaos and confrontation (see appendix). According to Cochrane, technological disasters, unlike natural disasters, are a fairly new phenomenon. People do not know how to draw together and mutually cooperate to meet these new threats. Instead of bringing people together in a spirit of cooperation as is the case with natural disasters, these human made catastrophes create contention and cleavage among

participants. Cochrane has also noted that the prolonged duration of these technological events and the ongoing potential threat of further damage, generally manifests itself in greater political turmoil. The uncertainty and stress from all of this results in a heightening of the bureaucratic infighting inherent in our political system.

THE BUREAUCRATIC DECISION MAKING PROCESS

Many NPS spill participants have described park service post-spill interaction with the Department, other government agencies, and to some degree the State of Alaska, as a contentious affair, fraught with conflict and contravention. This would fit with the observations just discussed. Park proponents including the National Parks and Conservation Association, several other environmental groups, and individuals within the park service have repeatedly deplored the politicking which typified post-spill activities, both during the early crisis phase and later. Politics they argue, supplanted rational decision making during the spill's aftermath. Such bureaucratic infighting, however, is not uncommon, nor should it be viewed as something alien to the agency decision making process. As Heymann rightly points out, this politicking cannot be avoided in our system of governance. The United States Constitution demands an intermingling of the processes of governance. In practice, this intermingling has extended to all facets of government including federal bureaucratic agencies. Realizing the legitimacy and actuality of politicking in government decision making, however, has not come easily.

In 1887, future President Woodrow Wilson published an article which argued that it was possible to separate politics from administration.[a] Wilson's political administrative dichotomy envisioned a government where the political mandates of elected officials would be implemented through a professional bureaucracy utilizing rational decision making. Wilson's paradigm was exactly what park service proponents called for in the aftermath of *Exxon Valdez*. Once a political mandate was given to government agencies, the agencies would be free to devise the best means of fulfilling the mandate. Politics would play no part in agency decision making.

Subsequent attempts to implement Wilson's model proved a miserable failure. Bureaucratic administrators soon discovered that administrative decision making could not be implemented in a rational, value-free manner. Any hopes which remained for salvaging Wilson's paradigm were shattered during the rise of the modern bureaucratic state in the post-Second World War era. Post-war experts in the fields of public administration and political science called the Wilson dichotomy a myth. The general consensus was that a self-imposed demarcation between politics and administration was unrealistic. Politics could not be

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[a]Wilson's article originally appeared in the *Political Science Quarterly* and was entitled "The Study of Administration." It has since been reprinted in *Classics of Public Administration*, edited by Jay M. Shafritz and Albert C. Hyde.

removed from administrative decision making. Nor should it be. The expansion of the U.S. bureaucracy, since the Second World War, demands political involvement as a means of checking the arbitrary exercise of bureaucratic authority.[4]

Charles Lindblom, one of the foremost thinkers in the field of public administration, put it most succinctly. Lindblom, in his 1959 thesis on "muddling through," said all decisions and policy making in the American system involved self interests and partisan values. It could not be avoided. Furthermore, to be successful in this process participants would need to set aside the unrealities of rational decision making, and actively employ the strategies of persuasion, coalition building, and compromise. By becoming more acquainted with these practices, administrators would be able to better serve their mandates.[5]

According to Political Science Professor Paul J. Culhane, Lindblom's conclusions are as valid today as they were in 1959. Culhane has noted no significant changes with respect to federal environmental policy making, which would refute Lindblom's argument. He notes that most of today's resource management issues are controversial and highly politicized. Implementing rational decision making under these conditions is impossible.[6]
The inescapability of politics in the bureaucratic decision making arena was pressed home during hearings of the House Subcommittee on National Parks and Public Lands on May 18, 1989, shortly after *Exxon Valdez* ran aground. The hearings focused on two key issues: the creation of a National Park Review Board, and Presidential appointment with Senate confirmation of the NPS Director. Park proponents from the Sierra Club, National Parks and Conservation Association, and other environmental organizations attending the hearings, said these two provisions would free NPS from the political intrigues of the Department. As envisioned, the review board would provide oversight of park service programs and activities. The board would submit annual status reports, budgets, and other recommendations directly to the President and Congress. This process would effectively eliminate unwarranted Departmental influence. As for elevating the NPS Director to a higher level of appointment, this would mean that the Director no longer served at the President's pleasure. Once appointed to a term of office, the Director could only be removed for inefficiency, neglect of duty, or malfeasance of office.

These changes, it was argued, would allow the park service flexibility to manage park lands in a rational non-political manner for the good of the resources. Proponents at the hearings cited the coordination authority granted to Vern Wiggins during the *Exxon Valdez* spill, and his subsequent attempts to limit the NPS response as just one example of the politicking to which the park service was repeatedly being exposed. Passage of a bill addressing the above issues would effectively free NPS from the clutches of such political manipulations.[7]

Speaking before the subcommittee, Dr. Thomas M. Bonnicksen, Department Chairman of Recreation and Parks at Texas A&M University, called such reasoning ludicrous. According to Bonnicksen, instituting these provisions would remove NPS from direct Departmental supervision but would not remove the agency from politics. Bureaucratic decision making, no matter how scientific, was ultimately a political process. Any time bureaucrats engaged

in balancing competing values when making resource management decisions, they were in effect making political decisions. In sum, Bonnicksen said the proposed legislation would not free the park service from political pressure. However, the legislation was not without value. Presidential appointment of the NPS Director with Senate approval in Bonnicksen's opinion, would provide the Director with the political strength necessary to balance and counteract the competing political pressures placed upon the agency.[8] Bonnicksen was in effect echoing and reemphasizing the need for working within the framework of the federal governance system, rather than making futile attempts to implement the Wilson model.

NPS INTRA-AGENCY CONFLICT

Politics is an unavoidable part of the bureaucratic decision making process. Therefore, it seems warranted to explore the areas of major bureaucratic conflict in which NPS was involved during the aftermath of the spill, in hopes of learning how to overcome or mitigate these encounters. In the chapter appendix Cochrane discusses the concept of a park family. This idealized notion of park service operations often gives way during times of crisis to bureaucratic hierarchical realities. Cochrane in fact, likens the NPS emergency structure to a para-military chain of command. The hierarchical structure asserts itself to meet a crisis, thus providing for short-term efficiency. However, it likewise can result in bruised egos, employee dissatisfaction, and miscommunication.

With respect to *Exxon Valdez*, this appears to have been the general case during the spring and summer of 1989. According to ARO Ranger Division Chief Richard O'Guin, several internal problems cropped up during the early post-spill period. One immediate problem was finance and procurement.[9] ARO Finance Chief Pat Phelan was concerned with identifying sources of funding and the proper tracking of expenditures used to combat the spill. This need for fiscal responsibility was offset by what Phelan has described as a "damn the torpedoes, full speed ahead mentality." Such people were concerned first and foremost with waging a response. They did not consider the financial ramifications of their actions. In some cases Phelan felt as if the unbridled response proponents within NPS were deliberately stonewalling any attempts at fiscal control.[10]

Another problem O'Guin cited was the issue of participation. According to O'Guin a power struggle developed within ARO over who would be involved in responding to the spill, and to what extent.[11] Al Lovaas, ARO Natural Resources Division Chief, termed the problem as one of being over-zealous. Park service response proponents wanted to throw everything and everybody into the spill battle. Individuals were sometimes sent out to do monitoring and assessment work for which they were unqualified; at other times, NPS statutory authority to conduct the activity was questionable. Furthermore, like Phelan, Lovaas worried about financial expenditures. In particular, he feared that ARO could be drawing obligated money away from other more worthwhile and previously planned research projects to throw at the spill.[12]

One explanation of why NPS response proponents were so adamant in their perceived need to combat the spill may have had to do with misperceptions of the spill's magnitude or the park service's ability to effect a spill of such magnitude. According to ARO spill office staffers Dan Hamson and Cordell Roy, many people were under the mistaken belief that the spill could either be stopped or diverted. In Kodiak, park service personnel working with Exxon, the Kodiak Emergency Council, and Coast Guard officials, invested heavily in time and money to create a spill deflection plan. When the slick arrived spill respondents found themselves wallowing in an unimaginable sea of oil. Resource protection efforts against a spill of this size were a lost cause. In Hamson's and Roy's opinions, this was a lesson which NPS was slow to learn. Park service employees had no comprehension of how to deal with a spill this big.[13] This misperception about the spill's magnitude, in combination with a fervent desire to stem the tide of oil threatening park beaches, made a park service response inevitable.

Cochrane alludes to another factor which may have contributed to the aggressive response effort of many park service personnel. According to Cochrane, disasters often trigger a socio-psychological need to respond. People feel that doing anything is better than sitting back and waiting even though, in retrospect, waiting for an opportune time to employ limited resources may be the most effective means of immediately responding to some environmental disasters. Getting involved in the response effort is likewise recognized as a first step towards healing the psychological impact of a technological disaster.[14] Cochrane also argues that the need to recognize and incorporate socio-psychological concerns is an important factor to consider in response planning.

Numerous park service employees identified a lack of information and the inability to fully participate, as major NPS shortcomings during early post-spill operations. Much of this criticism was directed at problems of operational roles and frequent miscommunication (or no communication), especially with field personnel. The 1990 NPS *Exxon Valdez Operations Review Report* described the ARO delegation of authority during the early response as either poor, vague, or in some cases non-existent. The report particularly criticized the ARO Area Command, calling it a structure that failed to function up to its delegated level of authority.

As originally instituted, the ad hoc area command was tasked with managing NPS post-spill operations, thereby assisting ARO with this administrative burden. The area commander reported directly to the regional director. This maintained a link with ARO decision makers. However, according to the operations report, the area command acted more as a dispatcher than as a command team in charge of post-spill management.[15] Such criticism may have been due, in part, to the area commander's assumption of collateral duties which were better suited to staff personnel. As previously mentioned in chapter 2, RPO functions took up much of Frank Betts time as area commander. The administrative burden of recruiting, rotating, and providing training for the dozens of RPOs was an enormous undertaking.

In addition, area command planning functions began to suffer once the planning section chief became involved in 311(k) reimbursement activities. The command leadership's assumption

of these major tasks would understandably result in the unit performing below anticipated levels. Both tasks were very time consuming. Still, these were worthwhile functions that needed to be implemented. Area command operations could have been better served if these tasks had been reassigned to other individuals. This would have given area command decision makers the flexibility they needed to properly manage the NPS spill response. Still, even with this increased flexibility it is highly doubtful that the area command leadership would have realized the management expectations placed upon it. The NPS area command leadership--as was the case with most NPS spill participants--had no real prior spill management training or expertise. This further hindered their ability to effectively manage post-spill operations.

Park personnel at Kenai Fjords, rather than viewing the area command as an entity not functioning up to its level of authority, saw the area command as an entity trying to seize too much authority from park staff. They considered the area command an impediment to park staff involvement in local response operations. Superintendent Anne Castellina accused the area command of being insensitive to park concerns, trying to take over management of the incident, and taking away park resource responsibilities.[16] Castellina repeatedly reasserted herself into the response process in order to recapture her authority as superintendent from the area command.

Castellina identified other problems as well. One principal difficulty encountered during the spring and summer of 1989 was a lack of coordination between field units, and ARO personnel responsible for directing pre-inventory and tort activities (see chapter 4). Castellina maintained these problems could have been mitigated if ARO had assigned a single individual to act as both chief scientist and as science liaison between ARO and the field. Another person from the regional office should have been assigned to oversee administrative liaison functions. These steps would have resulted in greater coordination of effort and less anxiety among field personnel.[17]

Former Katmai and Aniakchak Superintendent Ray Bane echoed many of Castellina's sentiments. According to Bane, once the NPS response got going, the regional office had a tendency to throw lots of people at the problem. Park staff were thrust aside. Katmai staff were told to take care of Brooks Camp and let ARO worry about what was happening along the impacted coastline. Consequently, park staff were left out of the loop. This created a sense of futility among Katmai staff. Matters were further complicated because Bane and ARO sometimes had different priorities. Mixed signals and misinterpretations over what was being said aggravated this problem. A final problem contributing to the overall operational difficulties at Katmai was the periodic inability to physically communicate, because of a lack of suitable equipment for this remote area.[18]

Former Regional Director Boyd Evison acknowledged that misunderstandings between the field and the regional office did occur. Much of this, according to Evison, stemmed from a misunderstanding of the ICS, and the roles of the area command and ICTs within this structure. At the time of the spill, few people within the region had received ICS training.

A misguided view of the spill's magnitude complicated the situation. Evison, like Hamson and Roy, believed that in the early stages of the spill, park personnel in general (and many other respondents) failed to grasp the real magnitude of the event. There was a misguided belief that the spill could be managed by simply augmenting the small staffs already in place at the threatened parks. Establishing an area command to facilitate the ICS structure provided ARO staff and park staff with the means for carrying out their regular assignments, which still needed to be performed despite the spill.[19]

Events in Washington, D.C. compounded ARO's spill management difficulties. Evison had enjoyed a positive working relationship with Director Mott and Deputy Director Galvin. The Bush Administration's mid-April 1989 replacement of Mott and Galvin created new uncertainties. The new NPS Director James Ridenour and Deputy Director Herb Cables were bombarded with conflicting spill information from ARO, the press, Department of the Interior personnel, and other interests.[20] The new directorate's reaction was to take a more cautious approach to ARO spill operations. This contributed to the erosion of the political support Evison needed to effectively assert NPS resource protection priorities and assure a viable role for NPS in the damage assessment process.

Intra-agency difficulties also erupted with respect to the goals of the NPS spill response. Several key park service participants believed the primary focus of the NPS response effort was to somehow contain oil and/or prevent it from impacting park beaches. When the oil struck they felt as if all the effort and money had been wasted. Millions of dollars were spent and little if any oil was prevented from hitting park beaches.[21] According to Evison, preventing impact to park beaches was not the primary goal of the NPS spill effort. At the outset, the primary goal of park service spill operations was gathering baseline data. Without this information, impacts from the spill could not be properly gauged. Defensive booming and related prevention efforts were secondary goals. Once the oil struck, minimizing the impact of cleanup to resources and removing the oil and oily debris became major park service goals.[22]

Evison also believed that the feelings of frustration which set in among park staff and other park service employees was not unique to the *Exxon Valdez* incident. As a member of the 1988 Yellowstone Fire Management Review Group, Evison and other group members reported the same type of frustrations among land managers involved in the fire response. In Evison's opinion stress, fatigue, and the complexity of responding to such catastrophic events makes frustration almost inevitable.[23]

Perhaps one of the more positive step taken to mitigate many of these intra-agency problems following the spill was the creation of the Office of Oil Spill Coordination within ARO. Castellina (chapter 4) credited Hamson, Roy, and other members of the office with serving a liaison function that would otherwise have been sorely lacking. Furthermore, because primary spill office staffers had been intimately involved with spill response operations during 1989, Castellina felt they brought an understanding and sense of continuity to subsequent post-spill planning operations.[24]

NPS INTERJURISDICTIONAL CONFLICT

One the most contentious areas of confrontation from an NPS perspective was the frequent run-ins with Department of the Interior staff. According to REO Paul Gates and REA Pamela Bergmann, disagreements between Department staff and bureaus as exhibited in the aftermath of *Exxon Valdez*, were not uncommon. What was best for the Department as a whole was not always best for individual agencies. Department policy decisions were often viewed as an impediment to the fulfillment of agency priorities. Because of this a feeling of animosity sometimes developed, along with a commonly held belief that if only the Department personnel were gone, then nothing would stand in the way of NPS or a sister agency realizing its objectives.[25]

These observations while valid, only scratched the surface of the controversy. The sources of conflict between NPS and the Department went much deeper. As noted in chapter 1, the missions and mandates of NPS were formulated through the 1916 organic act and augmented through subsequent park service enabling legislation. These mandates, although subject to periodic interpretive shifts, remained the heart of NPS management philosophies and policy. In contrast, the Department of the Interior was founded in 1849, at a time when America was consumed with fulfilling its manifest destiny. The Department was viewed as a mechanism for realizing this goal. This basic mandate was supported through a hodgepodge of subsequent legislation, much of which was linked to westward expansion and resource exploitation.[26] The Department was held responsible for such disparate tasks as the disposal of land and resources, Indian affairs, resource protection, and land reclamation. More recently, the Department attempted to reconcile these various responsibilities through the adoption of a multiple use mandate. This mandate has been subjected to reinterpretation and dramatic policy shifts during changes in Presidential administrations. Conflicts have developed between NPS and the Department when park service mandates no longer coincide with the latest application of Interior's multiple use mandate. Such was arguably the case in 1989.

The Bush Administration was a strong advocate of resource development. Executive support for oil drilling in environmentally sensitive areas such as Alaska's Arctic National Wildlife Refuge (ANWR) and offshore coastal areas were a reflection of this policy. Environmentalists viewed the initial reluctance of administration support of an aggressive cleanup (see chapter 2) during the *Exxon Valdez* spill as a further reflection of this policy. Secretary Lujan's comments during an April 1989 address to the National Ocean Industries Association reinforced the perception of an administration dedicated to resource development at the expense of environmental protection. The Secretary called the spill a tragedy. He then went on to lament the effect the *Exxon Valdez* spill would have on the development of ANWR and federal offshore areas of California.[27]

These policy trends and statements were not lost on NPS personnel. They lent credence to suspicions of Department manipulation of NPS response, damage assessment, and restoration

efforts after the *Exxon Valdez* spill. Evidence presented in other chapters does support some of the park service's claims that steps were taken within the Department to limit NPS spill activities. Deputy Undersecretary for Alaska Affairs Vern Wiggins, was openly opposed to an aggressive park service response. Departmental personnel repeatedly questioned the park service's authority to expend funds on spill operations. The park service never received the level of Departmental backing for spill operations and funding that the FWS received. Many within NPS attributed this to the park service's failure to adhere to Departmental directives. NPS failures during the aftermath of *Exxon Valdez*, however, cannot be solely blamed on the Department.

In some respects NPS was as guilty of engaging in dissension as the Department. NPS continuance of an independent tort investigation (chapter 4) after the Trustees had initiated a NRDA was a prime example. Another critical failure, prior to the spill, was the park service's lack of participation in spill planning and drills. In Gates opinion, the reasons for this were basically two-fold. First, respondents held fewer drills and planning sessions prior to *Exxon Valdez*. Second, few decision makers aside from the individuals directly assigned to spill activities participated, or wished to become informed about spill response operations because the chances of it happening seemed so remote.[28] Top level agency decision makers who really knew very little about the process inundated the system, only, after the spill. This assessment recalls the risk politics theory discussed earlier in this chapter.

Former ARO Environmental Compliance Chief and RRT liaison Bill Lawrence echoed Gates assertion of pre-spill complacency among agency decision makers. According to Lawrence, NPS suffered because park service decision makers did not, at first, understand either the RRT or the overall response system. NPS decision makers had previously signed off on regional spill contingency plans as stipulated in the National Contingency Plan, but they actually knew very little about the pre-existing emergency response network.[29] In contrast, some ARO staffers have questioned whether the NPS would have been any better off had it played a larger role in the pre-spill network. As noted in previous chapters, the pre-existing spill management network and response plans were generally inadequate to the needs of the *Exxon Valdez* spill. This led to the creation of a hybrid system completely different from anything pre-spill planners had anticipated.

One area where Lawrence and several other NPS spill participants felt the park service had lapsed, was through ARO's failure to have representation in Valdez; either to assist Bergmann or act in other capacities during the early days of the spill (see chapter 2). In contrast to NPS, the USFS organized a team of 15 to 20 individuals who were assigned to Valdez to assist the FOSC throughout the 1989 cleanup season. The FWS and BLM also sent several individuals to assist at the Valdez spill headquarters. Valdez was where the meetings were held, opinions sought, and decisions made to direct cleanup operations during the response phase of 1989. By not participating at Valdez, the park service cut itself off from the bigger picture. The park service had no one on-hand to lobby for NPS interests. NPS stipulations and concerns became lost in the myriad of filters between the field and

Valdez. In sum, the park service failed to identify itself to the FOSC as an agency with threatened and impacted resources requiring attention.[30]

Reasons for the NPS failure to send personnel to Valdez are somewhat muddled. According to Evison, the Department had asked that ARO Environmental Specialist Page Spencer be sent to Valdez to assist Bergmann. Spencer had already been pulled for the pre-inventory at Kenai Fjords and was therefore unavailable. Other individuals from the park service were offered, but none of them went. Gates confirmed that Spencer had been requested to go to Valdez. According to Gates (and verified by Spencer), Spencer ultimately declined to go, but suggested a former BLM colleague, who was eventually given the job.[31] The incident became typical of the many misunderstandings between the park service and the Department. NPS felt that its good faith efforts to supply support personnel to Valdez were rebuffed. Some individuals within ARO were of the opinion that--aside from Spencer--the park service was never given adequate opportunity to provide additional personnel. The Department, in a rush to get support personnel to Valdez, believed NPS was either dragging its feet or wanted no part in the process. With time, this and related misunderstandings took on a significance well beyond what should have been warranted. They became the focal points for continual bad feelings between NPS and the Department.

The need for greater NPS involvement in a unified response effort was a repeated theme among park service spill participants and critics in the aftermath of *Exxon Valdez*. An NPS assessment of park service participation during the spill, presented at the 1991 International Oil Spill Conference, identified several areas where greater cooperation was needed. According to the NPS conference presenters, the park service had been slow to realize that it was no longer isolated from the rest of the world. The park service, in many respects, still maintained a fortress mentality. NPS continued to think in terms of park unit boundaries when in fact many of the natural and cultural resource protection duties of the park service had cross-jurisdictional implications. This general failure to look beyond park boundaries had left park units more vulnerable to external threats. Furthermore, because NPS had generally not gotten involved with other entities in spill contingency planning, the park service had suffered during subsequent cleanup and damage assessment activities.[32] One consequence of this failure was the difficulty ARO encountered during cleanup in trying to convince the FOSC and other agencies that park lands were unique and required special protection.

Evison and others had to repeatedly reassert to the FOSC, the distinctive wilderness virtues of the impacted park areas (chapters 2, 3). The degree of impact and severity of oiling, park service cleanup restrictions, and special use permits all became heated issues because of misunderstandings over park service resource values. Evison acknowledged the difficulty he encountered in trying to make the Coast Guard understand park values. The Coast Guard, in Evison's opinion, understood the scenery aspect of park values. However, they failed to grasp the concepts of ecosystem integrity as defined in the NPS mandate. This caused the Coast Guard to pursue the policy of oil removal through any means, in a mistaken belief that restoring the scenic view was the only goal of cleanup in the stricken park units.[33]

According to Hamson, ARO ran into trouble with the FOSC whenever an NPS stipulation caused a delay or slowdown in cleanup.[34] Evison said there was continual Coast Guard pressure to declare a site clean, when in fact it was not.[35] The FOSC, in Hamson's and Evison's opinions, was not inclined to slow down the cleanup in order to comply with park service concerns. Coast Guard Captain Rene Roussel summed up best the degree to which these misunderstandings affected operations. Roussel said the Coast Guard and other responders interpreted many NPS activities as bordering on a religious fervor. Park service cleanup stipulations were viewed as totally ludicrous. Roussel said, "It was like dealing with another country, never mind another federal agency." Park service resource mandates were something never before encountered. Roussel asserted that such "severe demands" simply were not happening outside of the park service, during the early post-spill operations.[36]

During 1989 NPS had invoked a far greater number of restrictions and special use requirements than other agencies. By 1990, however, other federal agencies and the state were also placing greater restrictions on summer cleanup operations. Unlike NPS, many of the restrictions other agencies invoked did not result in heated confrontations with the FOSC. The reason for this was fairly simple. Whereas the park service often placed blanket restrictions on specific activities and on many of the more intrusive cleanup methods to protect resources, other agencies opted to address these issues on a case by case basis. This, theoretically, left the door open for the possible future use of some of these questionable activities. In reality, choosing a case by case approach was the more politically expedient way of protecting resources without engaging in heated controversy.

Hamson cited the use of Inipol as an example. Inipol was a fairly intrusive bioremediant. Results of the winter 1989-90 tests using Inipol were questionable and inconclusive. Based on this information, ARO decided to deny the use of Inipol but allow the use of Customblen, a less intrusive and better proven bioremediant. In contrast, the FWS policy during the 1990 summer cleanup season was to address Inipol's use on a case by case basis. The FWS never did approve the use of Inipol at any of its sites. This, however, was the more politically palatable approach. By leaving the door open, the FWS was able to effectively safeguard resources, deny Inipol's use, and still maintain a spirit of cooperation.[37] In contrast, Exxon and the Coast Guard repeatedly confronted the park service about reconsidering its blanket ban on the use of Inipol. They were simply unwilling to respect the park service's policy decision on the issue. Therefore, rather than kill the debate over Inipol's use, the park service ban created another issue of contention.[38]

Although they often disagreed, NPS and the Coast Guard were not always at odds with one another. On a local level, Roussel said he believed NPS and the Coast Guard worked quite well together. Castellina agreed with this assessment. Castellina credited the Coast Guard with getting itself integrated into the Seward MAC Group, implementing MAC Group suggestions, and putting pressure on Exxon to act. Furthermore, given the Coast Guard's limited resources, Castellina thought they did a good job overall.[39] Roy likewise complimented the Coast Guard for taking positive action in Kodiak once it was determined that oil had in fact impacted the Katmai coast. Roy was impressed with the professional

attitude and genuine concern FOSC Clyde Robbins expressed. He credited Robbins with mobilizing Exxon cleanup crews to the area and making the Gulf of Alaska an official part of the cleanup.[40]

THE TRANSFER OF BOYD EVISON

The transfer of Boyd Evison from his position as Alaska Regional Director has become a hallmark of the conflicts, miscommunications, rumors, paranoia, and innuendos typified in the aftermath of *Exxon Valdez*. In June 1991 Evison left Alaska to assume a position as a Special Assistant to the Director. The position was a stopgap measure to give Evison time to find a science interface position with one of the many universities the federal government works with, or to locate a slot with another park service region in a management capacity. The rumors and speculation over his transfer within park service circles have been a matter of discussion ever since. The most common beliefs which have circulated, and even found their way onto the pages of major publications, charge that Evison was transferred as a direct result of his failure to adhere to Departmental spill directives.[41] One scenario held that Evison was demoted from his position as Regional Director to teach a lesson to any other would-be park service mavericks who wanted to challenge the system.

According to Evison, this scenario is a misguided interpretation of the reasons behind his transfer. Evison's transfer was the product of an accumulation of several factors. First, during his six year tenure as Regional Director for Alaska, Evison had initially, developed a good rapport with Alaska's Republican Congressional delegation. However, this relationship became more strained over time. The Alaska delegation, with help from the Republican controlled White House, had successfully garnered money for NPS projects in Alaska. Evison viewed some of these projects as detrimental to park service mandates. This was particularly true of a couple of the capital projects proposed for Alaska parks. Evison was able to delay or curtail these projects in favor of other park service spending priorities. This created tension with the Alaska delegation.[42]

When James Ridenour replaced William Mott as NPS Director in April 1989, shortly after the spill occurred, Evison told Ridenour (as he had Mott) that there would come a time in the future when his continuation as regional director would no longer serve the best interests of the park service. Evison and Ridenour agreed when either of them felt that point had been reached, arrangements would be made to appoint Evison to a new position of similar status.

About a year after the spill, Evison told Ridenour he believed the time had come to transfer. His effectiveness as regional director was becoming limited because of a series of run-ins with Congressional Committee staff, the Alaska delegation, and the State of Alaska. Issues of major conflict included capital projects on park land, wilderness set asides, and jurisdictional issues. Some of these, particularly with the state, were spill related. Evison also pointed out that he had received support from the Alaska delegation, especially from Senator Stevens, for much of ARO's early spill response efforts.[43]

In October 1991 Evison assumed the position of NPS Deputy Director for the Rocky Mountain Region. On the surface this seemed like a demotion. However, there were extenuating circumstances. Shortly after Evison requested the transfer his mother-in-law became involved in a car accident. The special care she required limited where Evison could go. Evison credited Director Ridenour and Constance Harriman, the Assistant Secretary for Fish and Wildlife, and Parks for supporting him. They saw to it that Evison retained his previous salary level, something they were not required to do. Evison felt that certain individuals within the Department, Vern Wiggins in particular, had done what they could to make Evison's transfer as uncomfortable as possible. Their overall effect, however, was fairly minimal.

In retrospect Evison felt his decision to request a transfer was the result of ongoing conflicts with other actors in the political arena. No single event brought him to the conclusion that he was no longer able to effectively represent park service interests in Alaska. The spill more than likely exacerbated the political conflicts which had already been occurring. But, to what degree is hard to say.[44] Basically, the spill served as a catalyst, aggravating a situation which had already been developing for some time.

RESOLVING THE BUREAUCRATIC CONFLICT

Given all of what has just been said regarding bureaucratic conflict, the question remains: What, if anything, can be done to mitigate this confrontation? With regard to the areas of conflict between NPS, the Department, and other agencies after the spill, park service presenters at the 1991 international spill conference offered several solutions to help alleviate these problems. First, was the recognition of the need for comprehensive contingency planning prior to an incident. During past spills, NPS had failed to integrate park service plans into the National Response System at the national, regional, and local levels. Park units must develop plans and integrate these plans into broader area plans. Park service personnel charged with planning and response roles must understand the National Response System and the NPS role within this system.[45] The park service must identify itself as a participating agency before a spill occurs. This will help assure that NPS resource protection priorities are properly understood and addressed during post-spill operations.

NPS planners have demonstrated their ability to mobilize park service resources in answer to catastrophe. However, *Exxon Valdez* clearly illustrated the difficulty NPS has in integrating park service efforts into the FOSC's overall response operation. With respect to the Department, NPS needs to define its relationship with Interior personnel for spill events. This means recognizing that the Secretary or his delegated representative, typically the REO, is the sole Trustee for the Department, and as such has final say regarding Interior involvement in spill events. The park service is therefore legally obliged to work with the REO, and through necessity to work with other participating agencies during all phases of spill activities.

Many of these points have been reiterated during NPS post-*Exxon Valdez* spill response and contingency planning courses. Instructors from the park service and other agencies, have repeatedly stressed the need for NPS to become actively involved in multiagency efforts. This means participating with Department representatives, sister agencies, the RRT, the Coast Guard, EPA, state and local entities. Without this involvement, NPS will only be minimally effective in its efforts to prevent and mitigate spill impacts.[46]

During *Exxon Valdez* the park service did initiate some positive steps in this direction. Park service participation in the Seward MAC Group and Kodiak Emergency Council proved what could be accomplished when groups join together in a concerted effort. Superintendents Castellina and Bane credited these groups with having sufficient political clout to overcome obstacles and get the response process moving forward. NPS would not have had the political might to do so acting alone. These groups were instrumental in helping the park service get its priorities addressed. However, the cooperation and good rapport coming out of these encounters, they believe, will be lost unless NPS takes the initiative to capitalize on it. One example Bane cited was the failure of NPS to remain active in the Kodiak community. Continuation of a park service field office in Kodiak would have built upon the good rapport established between NPS and local residents during the spill.[b] Bane felt that unless NPS takes these type of proactive steps the park service will never reach beyond the park boundaries.[47] Simply put, the old NPS fortress mentality no longer works. Today's threats require bureaucrats to take an integrated approach to planning.

Former Regional Director Evison agreed with the need for greater community involvement for all threats, not just oil spills. According to Evison, ARO took initial steps in 1985 to promote greater interaction between the park service and local communities. The program called for implementing nine general management plans for park protection and resource management. The program envisioned communities and parks coming together to develop a system for better management and mutual resource protection. Unfortunately, the plan did not move forward as hoped, in part, because of ARO's inability to secure sufficient funding for the multi-year science effort needed to support such a program.[48]

Two other examples of NPS involvement need to be mentioned with respect to positive integration efforts. The first happened in 1988 when the ARO Cultural Resources Division became involved in a large scale spill drill at the invitation of REA Pamela Bergmann. Bergmann had been a strong advocate of cultural resource representation during spill planning exercises and site protection after a spill occurrence. According to Division Chief Ted Birkedal, people involved in the drill were at first uncertain of how cultural resources fit into a spill response plan. In working through the drill, Coast Guard and other agency

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[b]On February 1, 1993 Denny Ziemann was assigned as a permanent staffer to the Kodiak field office. Ziemann's duties included community liaison functions, participation in coastal planning issues, and serving as the local contact person for Katmai affairs.

officials were made aware of the significant number of cultural sites in Alaska's coastal regions. In addition, they began to understand how many potential impacts to cultural resources could be avoided through preventative measures during cleanup operations. This resulted in the creation of the concept of cultural sensitivity zones--that is, areas where restraint would have to be exercised in operating equipment, off loading supplies, and general cleanup. When the *Exxon Valdez* spill occurred, park service cultural resource advisors were able to take advantage of this new understanding. Department personnel, knowledgeable of cultural concerns, were advocates rather than a hindrance to protection implementation. Exxon and Coast Guard personnel accepted NPS cultural protection stipulations as a legitimate part of the cleanup process. NPS cultural specialists in cooperation with other impacted federal agencies, Exxon, and the State Historic Preservation Office quickly developed and implemented a cultural resource protection system. The resulting system--based upon Section 106 protection provisions of the National Historic Preservation Act--provided a "fast track" method of ensuring cultural resource protection during cleanup.[49]

The second area worthy of mention is the previously discussed creation of an Oil Spill Coordination Office within ARO. Once spill operations were moved from Valdez to Anchorage in the fall of 1989, NPS needed a way to assure that park service priorities were being addressed during future planning operations. The ARO spill office fulfilled this function. Spill office personnel tracked the myriad of constantly shifting planning schemes and schedule changes, thereby keeping NPS involved in the ongoing cleanup process.[50] Spill office personnel likewise advocated park service priorities in what limited access NPS was able to garner in the damage assessment and restoration phases.

The mentioning of ARO Spill Office involvement in restoration activities draws attention to an additional area of contention between NPS and the Department, namely, the issue of ARO post-settlement cooperation. As discussed in chapter 3, ARO Regional Director John Morehead (Evison's replacement), in the spring of 1992, threatened to discontinue further NPS participation in restoration work groups unless Department Trustee representatives established better communication channels with NPS and established a more meaningful role for the park service. Subsequently, both sides took steps to mitigate Morehead's concerns. Sandy Rabinowitch remained as the ARO representative to RPWG. This provided NPS with a continued role in the restoration process and helped insure that NPS restoration priorities would be heard. In addition, the Department made adjustments to find a middle ground for greater information exchange and agency input. Weekly meetings, fax transmittals, and regular telephone information exchanges were implemented to augment earlier correspondence, in which memos had served as the principal communication mechanism.[51]

Still, Department Trustee representatives acknowledged that minor problems persisted and would likely continue. One factor Department personnel cited was the nature of the restoration decision making process the Trustee Council utilized. Arbitrary council deadlines limited sufficient opportunities for agency input and/or feedback. Unanticipated issues raised during Trustee Council or Restoration Team meetings often required on-the-spot decisions,

thereby preventing agency input. Furthermore, unlike the other Trustee participants, Interior spokespeople represent more than one agency. Department representatives were required to weigh the competing interests of NPS and other impacted Interior agencies. This was a time consuming process and often left somebody disgruntled.

With regard to communications, Department officials said the problems had not all been one-sided. Agency feedback was often slow in coming. Likewise, they were of the opinion that information conveyed to ARO was not always distributed to all concerned individuals. This created a perception that the Department was not communicating effectively, when in actuality the problem may have been with the agency.[52] This recalls the previously discussed criticisms field personnel directed at ARO, namely the need for effective communication within the region. Internal communication difficulties such as these require internal solutions.[c]

As for the park service, many felt that past difficulties between the Department and NPS-ARO could not be resolved until the Department opened the process up once again, to greater agency involvement. Park personnel have said that Department representatives were simply unable to see the situation from an agency perspective. Department personnel did not share agency mandates and aspirations, nor did they have the intimate understanding of NPS resources. Because of this, Department officials, despite their administrative expertise, had and would continue to misrepresent agency viewpoints during the restoration process.[53]

Whether these difficulties will continue to plague NPS and Department relations remains to be seen. Many park service proponents believed the turnover in Presidential administrations in January 1993 would provide opportunities for greater agency input at all levels. With respect to *Exxon Valdez* this does seem to have been the case. Assistant Secretary for Fish and Wildlife, and Parks George Frampton, and his staff assumed an active role in the restoration process. In September 1993 Frampton succeeded in getting ARO staffer Sandy Rabinowitch named as the federal co-chair for formulating a revised restoration draft plan. Frampton has been credited with opening the door to greater NPS access. Whether this increase access will ultimately result in the successful adoption of NPS restoration goals--particularly with respect to purchasing Kenai Fjords inholdings--remains to be seen. In any event, the two entities shall have to work together on post-spill restoration at least through

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[c]Communication difficulties have persisted between ARO and Alaska park units. During the spring 1993 regional Superintendent's Conference, several superintendents complained that personnel at the regional office were making decisions without soliciting the parks, or were not giving adequate consideration to park input. Complaints were not limited to any one subject. To solve the dilemma, Regional Director Morehead issued a policy on April 9, requiring park input on any ARO Division action affecting a park unit. Any ARO Division seeking Regional Directorate approval for an action, but failing to provide verification that the affected park had been consulted, would be declined.

the year 2001 (the final year of scheduled compensation payments), and beyond that on issues related to spill incidents.

TRACKING THE FATE OF SPILLED OIL

During the immediate aftermath of the spill event, tracking the spilled oil became an issue of major concern to spill respondents and land managers in the impact region. As discussed in chapter 2, NOAA, university scientists, fisherman, and various land managers (including NPS), all had an opinion on where the oil was, and where it would go next. Predicting the oil's whereabouts was a major source of rumor in 1989. According to Cochrane, this was not a unique occurrence. Rumors and speculation are a common manifestation of most technological disasters. They are symptomatic of the uncertainty associated with such calamities.

Offhand, one would think tracking the fate of a 10.8 million gallon spill would be a relatively easy task. Such, however, was not the case. Prince William Sound is a remote and largely uninhabited region. Access to the area is primarily limited to air and/or sea travel. Weather, particularly winter storms, can shut down travel for days at a time. During the first couple days of the spill these factors were of minor consequence. The spilled oil remained in a fairly continuous patch, clearly visible on the uncommonly calm waters of Prince William Sound. But, by day three, this began to change when a major storm with winds of up to 70 miles per hour began to whip the oil into a frothy water in oil emulsion, or mousse. As a result of this, the continuous slick broke into bands or streaks over a widely dispersed area.[54] Rumors began to fly over the direction the oil was taking and what areas were actually being impacted. False positive sightings were a major problem. Kelp beds, pollen, plankton blooms, cloud shadows, and guano washing off rocks were all reported as oil. The media generally treated all of these reports as actual sightings. As a result, much information, more sensational than factual, was passed on to the general public.[55] This only served to feed the rumor mill and cause greater anxiety.

The park service was not immune to these rumor problems. The park service became entangled in the controversy of whether oil was in fact impacting park areas, and the degree to which NPS lands were actually being oiled (see chapter 2). The subsequent confrontations between NPS, the Coast Guard, and other entities over the fate of spilled oil contributed to the overall chaos. No one really had a complete picture of where the oil was or where it was going.

Subsequent studies by NOAA, the University of Alaska, and several independent research firms have reconstructed the fate of the spilled oil. Their final conclusions are based on field observations and investigations, and computer hindcasting results from NOAA's Oil Spill Simulation Model. Their conclusions are as follows:

20%	evaporated by late April 1989
20-25%	dispersed naturally into water column
25%	carried out of the Sound
40-45%	beached within the Sound[56]

According to NOAA's hindcasting model, the leading edge of the oil moved beyond Montague Strait and into the Gulf of Alaska on March 29, 1989. By April 4 the leading edge of the slick was south of the Chiswell Islands.[57] Two percent of the spilled oil wound up in Shelikof Strait, most of which impacted the Katmai coast and surrounding areas between April 29 and May 2. Ultimately, most oil exiting Prince William Sound was deposited on shorelines in the Kenai and Kodiak regions.[58] These deposition areas included the Kenai Fjords and Katmai park coasts. Aniakchak, to the southwest of Katmai, was outside this heavier deposition zone.

The mousse impacting the Gulf region was both a blessing and a curse. Prior weathering and emulsification prevented the mousse from penetrating into the shoreline to the extent that fresh oil had in the Sound. This made it easier to clean up. However, the viscous mousse and tarballs in the Gulf also mixed with debris in continuous bands in the intertidal zone. Numerous bird species rafted on these offshore bands. This accounted for a majority of the large number of dead birds found along the Katmai coast.[59]

This reassessment of the fate of spilled oil provides a good picture of where the oil went and how heavily it coated areas within the spill zone. What it fails to answer is the larger question of how great was the actual impact to park lands from the oil. As discussed in chapter 2, the amount of oil to strike Katmai coast, using the ADEC's rating system, was generally rated as moderate to light. This would imply an impact of much less magnitude than in Prince William Sound. In absolute terms this assessment is certainly correct. However, from a park service perspective, any oiling of pristine park land, much of which was designated wilderness, or managed as wilderness, represented a significant impact.

Cochrane notes that 84 percent of park service employees polled in a mid-1980s survey, rated preservation as the principal mandate of NPS. Park service traditions, and a host of Congressional legislation (addressed in chapter 1), which place major emphasis on preservation backs up this presumption. In the eyes of park service employees the oiling of Kenai Fjords, Katmai, and Aniakchak represented a direct threat to their cherished mandate. When viewed in this context the NPS response provides new understanding. Unlike many of the other impacted land managers, the park service is not charged with a wide ranging multiple use mandate. Preservation of park resources is a principal pillar of the park service mission. The oiling of these park units was viewed as an act of physical aggression, tantamount to war. It threatened the heart and soul of park service stewardship responsibilities.

Former Regional Director Boyd Evison, cited these philosophical differences in mission interpretations as a primary reason for the aggressive NPS response and subsequent

assessment of impact. NPS, in responding to the spill, was only fulfilling park service mandates established in the 1916 organic act and subsequent enabling legislation. This legislation likewise compelled the park service to hold respondents to these higher standards for cleanup activities on impacted park land. By park service standards, even a sheen was enough to profoundly alter the pristine integrity of park units.[60] Park service personnel gauged the impact according to a higher or at the very least, a different set of values than other agencies. In contrast, many of the other spill participants seemed to be either unable or unwilling to accept NPS resource values. This created a legitimacy problem for the park service. NPS impact assessments and cleanup restrictions were not given the level of attention park service personnel felt they deserved.

In hindsight, the conflict over the degree of oiling is representative of other areas of contention between NPS and fellow spill participants. Conflict often occurred as a result of value choices and poor communication, not because of some diabolical plot to keep park service out of the process. Self interests, politics, and agency turf battles all contributed to the general conflict and chaos. But value choices and poor communication played an equally significant role. As Hamson noted, some of this could not have been avoided in the post-spill chaos. Weather, equipment breakdown, logistics, and the reality of numerous agencies interacting in a crisis situation resulted in misunderstandings.[61] However, greater NPS involvement in interagency preplanning efforts (as previously discussed in this chapter) would have helped to mitigate the frequent conflicts and misunderstandings which occurred during the spill's aftermath.

FINANCIAL RECONCILIATION

The financial dilemma which ARO and the entire park service experienced during *Exxon Valdez* was the product of two distinct factors. The first factor was the park service's chronic financial constraints during the years preceding the oil spill. The second and more obvious factor was the actual expenses NPS incurred as a result of the spill effort. A spill the magnitude of *Exxon Valdez* placed financial constraints on all of the participating federal and state agencies. Only the deep pockets of Exxon seemed capable of dishing out a continual flow of cash commensurate with the magnitude of the event.

The issue of chronic financial constraints within the park service would not, at first, seem to be a contributing factor to financial problems which the NPS experienced during the spill. However, a definite linkage exists. In 1985 Political Scientists Jeanne Clarke and Daniel McCool, wrote a book which provided a detailed analysis of seven federal agencies, one of which was NPS. The authors rated agency power based on the ability of each agency to expand its staff and financial resources and its jurisdiction for natural resource management and environmental control. The authors employed the methodologies of policy analysis, historical development, case study, and budgetary analysis to rate agency performance. Clarke and McCool categorized NPS as an agency that muddled through. They described

NPS as agency which had found a secure niche, but had realized only modest growth at best.[62]

According to Clarke and McCool, the park service's inability to move beyond muddling through has been hampered, in large part, because of an inability to secure funding commensurate with agency management responsibilities. As discussed earlier in this chapter, muddling through is not necessarily a bad method for conducting bureaucratic operations. Muddling through, as Charles Lindblom has pointed out, is the way much of the decision making and implementation in our political system takes place. However, in the case of the park service, the muddling has not applied evenly to all aspects of agency operations. Park service jurisdictional authority has experienced periodic bursts of expansion, while the subsequent operating budget to fund this expansion has muddled along. This is where the crux of the problem lies. For example, from 1916 until the Second World War NPS existed on a shoestring budget, with little financial growth.[d] During the Second World War funding for NPS was actually reduced. Then, in the immediate post-war era record numbers of visitors came to the national parks. However, because of years of fiscal frugality, NPS was unable to adequately service the growing demand. The situation became so bad that it prompted NPS Director Newton B. Drury's 1949 publication of a report entitled "The Dilemma of Our Parks." Drury's report said operational funding for staff and visitor support services was no longer able to meet public demand. Twenty-six years later a similar report, entitled "The Degradation of Our National Parks," concluded that NPS continued to suffer from inadequate funding levels relative to the operational demands placed on park management.[63]

Throughout the 1950s, '60s, and '70s, NPS budgetary allocations continued to lag behind operational needs. Many visitor accommodations went unserviced, physical plants were overtaxed, and park resources were not being adequately protected. From 1956 to 1966 park attendance grew from 55 million to 133 million annual visitors.[e] By 1968 annual attendance had increased to 145 million visitors. During this same period NPS budget growth was incremental at best, and even decreased during 1966 and '68.[64] An expansion of park units in the 1970s and early 1980s compounded the problem. The largest expansion, through

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[d]The park service received a temporary financial boost during the 1930s through its administration of the Civilian Conservation Corps, one of several New Deal work programs. The program enabled NPS to catch up on some badly needed construction and maintenance work in national park units. The program was discontinued with the onset of the Second World War.

[e]In 1956 NPS Director Conrad L. Wirth introduced Mission 66, a ten year budgetary proposal which would address many of the park service's operational needs. The proposal succeeded in getting much needed repair and maintenance money for several park units. Unfortunately, new growth during this period placed additional operational demands on the park system, thereby offsetting many of these accomplishments.

ANILCA, nearly doubled the NPS land management base. A host of new legislative and executive mandates directed at NPS, accompanied this growth (see chapter 1). NPS was unable to secure funding increases in proportion to these new management responsibilities.[65]

By the early 1980s the situation of inadequate funding to meet operational needs had become so acute that Secretary of the Interior James Watt issued a moratorium on further park expansion until existing units were adequately equipped and maintained. Several studies buttressed Watt's assertion. An Office of Science and Technology report identified the existence of some 4,345 threats to the integrity of the park system, most of which were directly linked to inadequate operational funding levels. A 1980 GAO report reiterated a similar theme when it cited serious health and safety problems in 113 park units. The GAO report estimated it would take $1.6 billion to correct these problems. But in 1981, Congress appropriated only $29.5 million to alleviate these operation and maintenance shortcomings.[66]

The authors of *The Vail Agenda*, produced in 1992, noted a continual Executive branch and Congressional willingness to earmark funds for new NPS initiatives. Both branches, however, were reluctant to appropriate sufficient funds to cover daily operating expenses.[67] In a 1992 editorial, the *Orlando Sentinel* criticized Congress for cutting $48 million out of the NPS operating budget while allotting $98 million for "pork barrel" capital projects in park areas. The editorial accused Congress of continuing its longstanding tradition of taking away money needed for basic park necessities, and funneling these funds into high profile undertakings in the home districts of influential members. Such activities, according to the editorial, were great for re-election campaigns but did little to meet the real needs of the nation's parks.[68]

As a result of this reluctance to adequately fund operational expenses, the park service has had to concentrate on meeting increased visitor needs and the maintenance of existing programs and facilities. Therefore, little money has been available for conducting primary long-term research or analysis which would result in a further understanding of park service resources, more efficient management, and improved resource protection.[69]

Under these conditions even minor emergencies can become major crises, simply because the available resources for dealing with an incident have already been stretched to capacity. In the case of *Exxon Valdez*, the park service was immediately faced with a technological disaster of unimaginable magnitude. The normal park service operating budget, already stretched to the limit from years of inadequate funding, was unable to accommodate the spill. Years of budgetary neglect were compressed and magnified in this one incident. The lack of baseline data and inadequate scientific staffing levels to oversee these much needed projects was starkly illuminated in the aftermath of *Exxon Valdez*. Operational shortcomings were revealed as the ARO scrambled to develop spill contingency plans and collect baseline data for the threatened parks. The park service had to bring in outside experts to assist in many of these activities because of a lack of qualified staff.

At the April 13, 1989 hearings before the House Subcommittee on National Parks and Public Land, Dave Duggins, a Marine Biologist with the University of Washington, and Stephen Leatherman of the University of Maryland discussed the implications of park service operational shortcomings with respect to technological disasters. Duggins had been recruited to help conduct the pre-inventory at Kenai Fjords. The lack of accumulated baseline data at the park appalled him. Duggins said he and other scientists were asked to conduct a job in eight days that should have taken months. This resulted in incomplete data. In Duggins' opinion, this resource information vacuum had severe implications for spill impacted areas and for overall resource management decision making.[70] Leatherman, who had served on a blue ribbon panel on "Research and Resource Management Policy in the National Park System," expanded on what Duggins said. Leatherman noted that at the time of the hearing, some 40 NPS units were located on coastal or inland waterways. Oil and other hazardous spills posed an increasing threat to natural and cultural resources in these and other park areas. The park service was not sufficiently staffed to inventory, monitor, and manage these resources. Park service resources would continue to suffer unless these inadequacies were addressed.[71]

According to Clarke and McCool, the problem of inadequate funding allocations for meeting these basic NPS operational needs also stemmed, in part, from the park service's inability to rally sufficient support from its two primary constituent groups, visitors and environmentalists. Most visitors fail to distinguish between park units, forest service land, and other federal land open to public use. Likewise, most of these people are unaware of the funding constraints NPS encounters, nor are they aware of how these constraints relate to services for park visitors. With respect to environmental groups, evidence suggests that these groups have provided some constituency support for the NPS preservation mandate. Unfortunately, this too has had negative implications. Environmentalists, particularly during the 1980s, were viewed as extremists, whose main objectives were narrow and restrictive.[72] Furthermore, visitors and administrative decision makers have viewed much of the environmentalists preservation mandate as contrary to the NPS public use mandate. This has created animosity and contention within the ranks of park proponents.

One possible solution to this dilemma, according to a former director of the Wilderness Society, is better communication. The park service must strive to close the communication gap between NPS and its constituencies.[73] By closing this gap NPS will be able to rally the constituent support needed to help overcome the numerous institutional obstacles discussed in chapter 1. This support, when utilized in conjunction with political considerations already discussed in this chapter, should help the park service realize the increased funding levels so necessary to operational needs. Granted, no amount of increased operational funding will fully meet the needs of combating an event the proportions of *Exxon Valdez*. It would, however, help fund basic resource inventorying which could be used to protect critical resources and identify potential threats. Likewise, most of the technological and natural threats the park service faces are not on the scale of an *Exxon Valdez*. Adequate facility and equipment maintenance, multi-year scientific initiatives, the implementation of quality resource management programs and hazardous spill plans are all reasonable goals, and all are

within the scope of park service operational activities. A failure to sufficiently fund and implement these programs will result in the continuation of the "management by crisis" which has so often plagued park service operations. Perhaps the old adage, "you can pay me now or pay me later," is appropriate here. During the onset of *Exxon Valdez* (see chapter 4), ARO was forced to conduct a hurried sampling of park resources prior to spill impact. A much more comprehensive and thorough baseline inventory of park resources would have been in place prior to impact, if as requested, the multi-year funding for this basic research had been provided.

The more obvious factor contributing to the NPS financial dilemma during the aftermath of *Exxon Valdez* was the high costs directly attributable to park service post-spill activities. As noted in chapter 2, NPS expenditures to combat the spill was an issue of heated debate between the Department and park service. Deputy Under Secretary Vern Wiggins was adamantly opposed to spending money on response unless it was absolutely certain these costs would be covered under the Coast Guard managed CWA 311(k) fund. In contrast, park service decision makers in Washington, D.C., such as Deputy Director Denis Galvin and the ARO directorate, were in agreement that the first priority of NPS was to protect the resources. According to Evison, a conscious decision was made to do what was perceived as right for the resources, not just what was reimbursable under CWA and CERCLA.[74] ARO Associate Director for Operations Dave Ames shared this opinion. Regional Environmental Officer Paul Gates, had forwarded the Department's spending concerns to the ARO. NPS could not afford to wait and see whether CWA and CERCLA interpretations applied to each and every park resource. The oil was fast approaching. A decision was made to attack the spill as if it were a fire or any other emergency. The ARO felt duty bound to protect park resources in compliance with the 1916 organic act and subsequent enabling legislation. The park service was willing to accept the financial burden if it was later determined that specific activities were not reimbursable.[75]

Despite the rhetoric, park service personnel were realistic in their understanding of the need to secure additional funding to support the spill response effort. NPS decision makers quickly realized that regional coffers were not up to the task of funding a park service response for a spill the size of *Exxon Valdez*. This necessitated the implementation of other funding mechanisms. Within 30 days of the spill, a notice went out from the NPS Directorate notifying all regions of a temporary funding freeze on certain discretionary programs in order to meet the Alaska crisis. This was done through the NPS Section 101 emergency reprogramming authority discussed in chapter 2.[76] ARO, in conjunction with the NPS Budget Office in Washington, established a special account for spill operations, the same as the park service would have done during a major fire incident. The final mechanisms NPS utilized to help cover spill related costs included the before mentioned Congressional supplemental appropriation package of $7.3 million, in conjunction with the approval of Section 102 (multi-year construction, and land and water funds) reprogramming authority, and the CWA 311(k) reimbursement provision.

FIGURE 5.1

National Park Service
Exxon Valdez Oil Spill Expenditure Summary

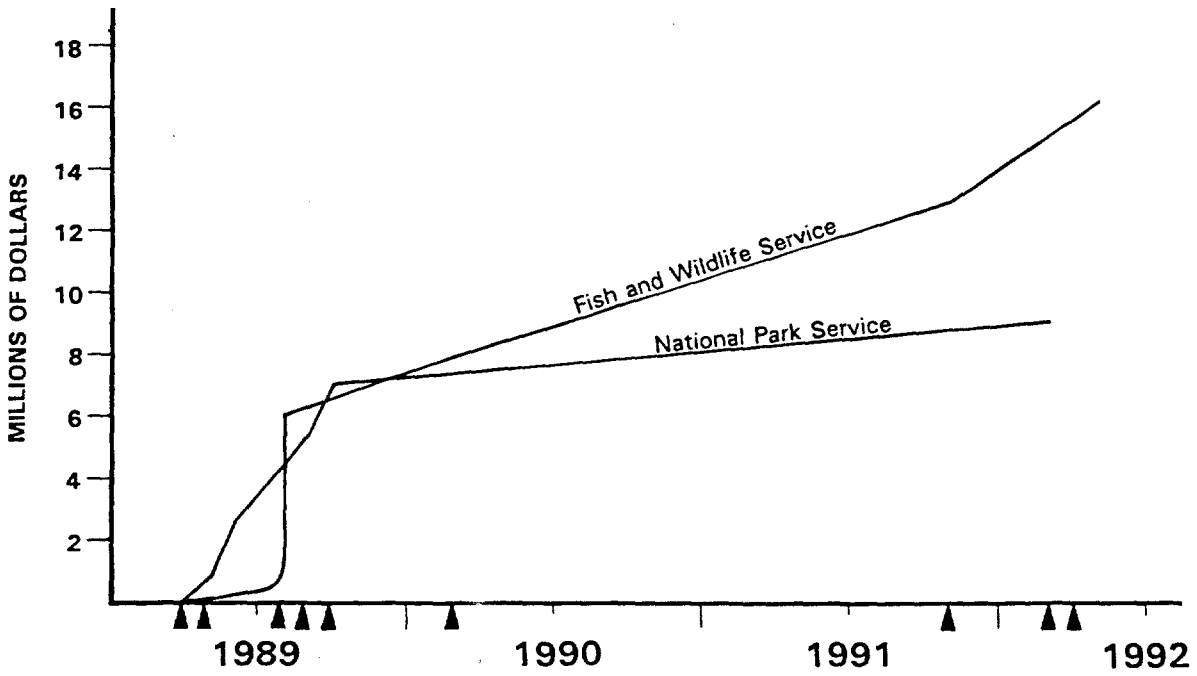
Response Expenditures	
Prior to January 1991	$7,216,153
2 January 1991 to 29 February 1992	$112,916
TOTAL	**$7,329,069**
Damage Assessment Expenditures	
Prior to 13 March 1991	$392,742
14 March 1991 to 29 February 1992	$80,112
TOTAL	**$427,854**
Tort and Litigation Related Expenditures	
Prior to 13 March 1991	$422,519
14 March 1991 to 29 February 1992	$127,141
TOTAL	**$549,660**
Restoration and Planning Expenditures	
Prior to 30 September 1991	$510,236
1 October 1991 to 29 February 1992	$115,720
TOTAL	**$625,956**
Total Expenditures	**$8,977,539**

Source: "NPS *Exxon Valdez* Oil Spill Expenditures Summary," 19 November 1992, Alaska Regional Office.

FIGURE 5.2

Exxon Valdez Expenditure Comparison, NPS and FWS

Date			NPS Expenditure Amount	FWS Expenditure Amount
13	April	1989	$0.8 million	---
12	May	1989	$1.7 million	---
	July	1989	---	$6.0 million
14	August	1989	$2.9 million	---
15	September	1989	$1.57 million	---
	February	1990	---	$2.1 million
	October	1991	---	$5.0 million
29	February	1992	$2.0 million	---
	April	1992	---	$3.2 million



Sources: "NPS *Exxon Valdez* Oil Spill Expenditures Summary," 19 November 1992, Alaska Regional Office; Exxon Oil Spill: Part II, 506; DOI Deputy Chief of Staff and Deputy Assistant Secretary for Policy to List memorandum of 17 October 1991, Alaska Regional Office; Trustee Council, *Exxon Valdez* Oil Spill Restoration, vol. II, 1992 Draft Work Plan (Juneau 1992), 9-119.

There was one other avenue for response reimbursement that ARO could have potentially utilized. This was the acceptance of assistance directly from Exxon. The Department, as discussed in chapter 2, opposed this provision for fear it might relieve Exxon of financial responsibility for the spill. Evison cited this reason during his official Congressional testimony on April 13, 1989. However, it was not spelled out as such in a Department guidance sent to Interior agencies on April 7. Item three of the guidance said agencies should not accept funds, equipment, or in-kind services directly from Exxon or its agents. Any requests or offers of support from Exxon would have to be made through the RRT.[77] The guidance seemed to imply that it was alright for NPS to accept assistance from Exxon so long as the assistance was routed through the RRT. This could have been construed as a Department attempt to manage park service spill activities through the RRT.

According to Gates, the principal problem in taking money directly from Exxon was that the Department lacked statutory authority to do so. The Department did not have a mechanism in place, at the time of the spill, for retaining any funds Exxon dispersed to Interior for spill response operations. Any Exxon money conveyed to the Department would have had to go directly to the U.S. Treasury's general fund.[78] The end result of this lack of statutory authority was that NPS did not secure any funding directly from Exxon.

Unlike Interior, the USFS did have a mechanism in place for accepting Exxon's support. Using authorities vested to the USFS in the Granger-Thye Act (16 USC 572) and the Cooperative Funds Act (16 USC 498), the Chugach National Forest Supervisor signed a collective agreement with Exxon on April 7, 1989.[79] This agreement meant USFS could accept the very type of assistance NPS and other Interior agencies were forced to forgo. In the opinion of Captain Roussel, Interior placed itself at a disadvantage vis-a-vis other federal departments because it did not have a prior mechanism for implementing the very type of response funding agreement the USFS was able to enter into with Exxon.[80] This dilemma was eventually resolved, when Exxon worked out a deal with the Coast Guard to funnel response reimbursement monies through the 311(k) account. This provided NPS with a method for recouping some of the expenditures the park service had allocated to spill response.[81]

As can be seen in figure 5.1, most of the money which the NPS spent on the *Exxon Valdez* spill was expended on the response effort. The park service spent over $7.3 million of its nearly $9 million in total spill expenditures on spill response activities. Furthermore, it should be noted that 1989 was the year of greatest NPS spill related expenditures. According to a September 15, 1989 ARO summary, total NPS spill expenditures to date were nearly $7 million.[82] In sum, the greatest concentration of NPS spill effort was directed towards response activities. Also, NPS spill related expenditures tapered off significantly after cessation of the 1989 cleanup effort.

This tapering off becomes especially significant when compared against damage assessment and restoration expenditures of NPS (figure 5.1). NPS began to significantly limit agency spill expenditures and involvement at a crucial point in post-spill activities. The park service

mobilization downsized just when the activities resulting in payment for injury to park lands were moving forward. Some downsizing of course, was inevitable. The cessation of cleanup activities in September 1989 meant fewer people were needed for post-spill activities. However, the park service's downsizing may have been particularly severe because of the agency's inability to become a greater part of the NRDA process.

The issue is further muddled when one considers the change in attitude of many park service employees after the cessation of cleanup in 1989. For many individuals within NPS and ARO, the oil spill ended in 1989.[f] The cessation of cleanup in September 1989 supplied respondents with an artificially imposed breaking off point for most post-spill operations. This was a convenient opportunity for many of the spill weary park service employees to put the event behind them. Cochrane describes this behavior as a self imposed method of coping with an incident which for many park service employees was otherwise uncontrollable. As a result of this, the NPS effort lost much of its fervor and drive with the cessation of the 1989 cleanup season.

In contrast to the park service, FWS spill operation expenditures progressed more slowly. Also, rather than spend money on response, the FWS focused primarily on damage assessment activities.[g] Departmental budgetary figures presented to the Senate Subcommittee on Merchant Marine support this assertion. According to the Department, FWS spill expenditures were estimated to exceed $8.1 million through the end of Fiscal Year 1989 (FY89) (September 30, 1989). Of this total, $6 million was targeted for the FWS damage assessment effort.[83] Other expenditures included contingency and/or preplanning, response, and miscellaneous administrative costs. Follow-up Department budgetary figures presented in March 1990 showed total Interior agency damage assessment spending to this date to be $6.24 million.[84] The park service spent a total (figure 5.1) of $427,854 on damage assessment.

The FWS expended the lion's share of the Department's damage assessment monies. In two respects this made sense. The FWS was acting as the Department's representative for damage assessment. The FWS also had jurisdictional responsibilities for natural resources

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[f]This conclusion is not based on any elaborate survey, but rather is the product of numerous casual conversations and interviews with park service employees who played a role in post-spill operations.

[g]Other federal agencies likewise concentrated on damage assessment. Speaking before Congress on April 4, 1991, Deputy Chief of the USFS James C. Overbay, placed USFS damage assessment expenditures at $23 million through FY91. It should be noted, however, that an undisclosed portion of this damage assessment money was spent on projects encompassing the entire spill zone, not just USFS land. USFS response expenditures for the same period totalled $2.5 million. Most of this $2.5 million paid for a 15 to 20 person team of scientific and other support personnel who assisted the FOSC in Valdez during 1989.

FIGURE 5.3

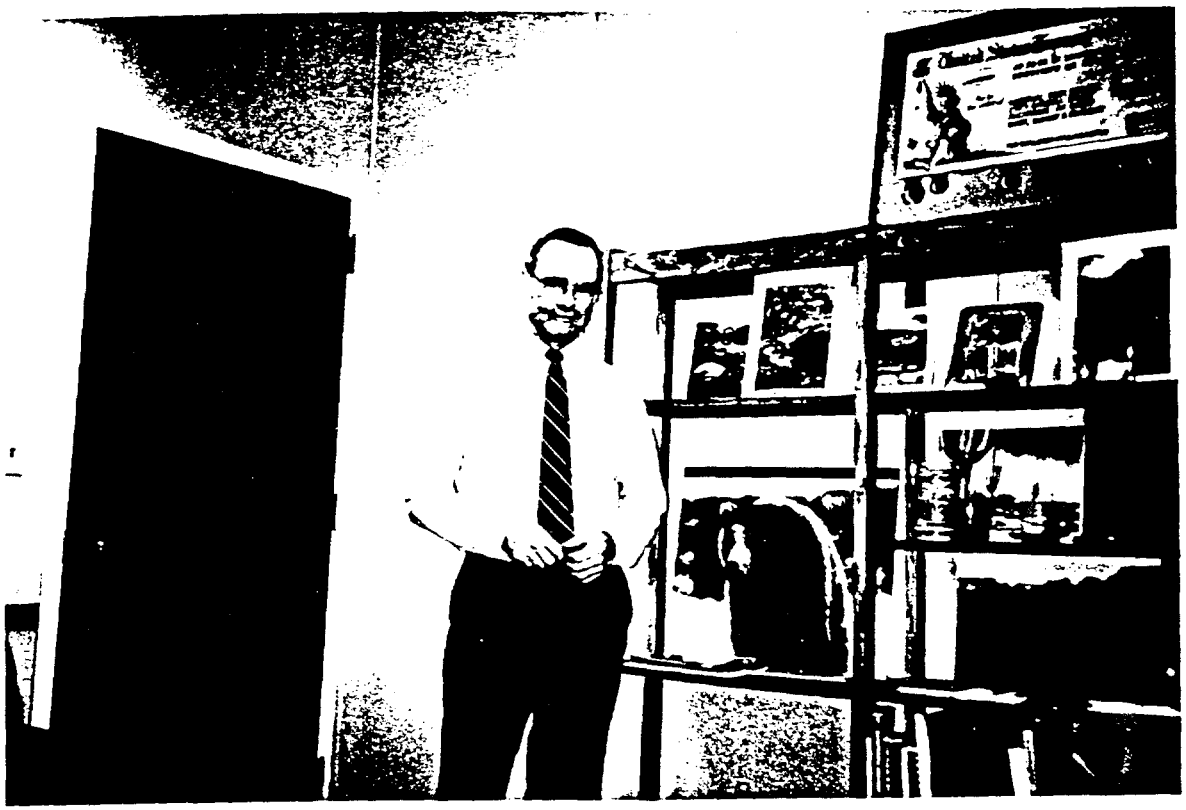
National Park Service
Exxon Valdez Oil Spill Reimbursements

Source	Amount
311(k) Reimbursement	$2,513,249
Exxon Damage Assessment Funds	$250,000
Oil Spill Emergency Fund*	
FY89	$1,207,400
FY90	$1,474,327
FY91	0
FY92	$830,000
Total Reimbursements to NPS	**$6,274,976**
Total NPS Expenditures**	$8,977,539
Net, Non-Reimbursed NPS Expenditures	**$2,702,563**

* Oil Spill Emergency Funds were reimbursement monies which Congress allocated to Interior Agencies for spill expenditures though FY92.

** Total expenditures amount derived form figure 5.1

Source: "NPS *Exxon Valdez* Oil Spill Expenditures Summary," 19 November 1992, Alaska Regional Office.



19. Former Alaska Regional Director Boyd Evison in his office at the Rocky Mountain Regional Headquarters. Several *Exxon Valdez* spill reminders are visible among the numerous mementos lining adjacent shelves.

Photo by author

20. The Trustee Council, during a 1994 meeting, debates another contentious issue. As the available project funds continue to shrink, competition for dollars has become more intense.

Photo by author

which extended beyond the impacted FWS refuge boundaries. These broader FWS jurisdictional responsibilities--and the NRDA costs associated with them--had no NPS equivalent beyond park boundaries. However, the disparate damage assessment spending patterns of FWS and NPS was also indicative of the park service's failure to become a full participant in the NRDA process. As a result of these differences in spending, NPS and FWS expenditure patterns became inverse (see figure 5.2). Park service spill related spending was quite heavy during the early response phase, and escalated quickly until summer's end. Additional NPS spending from 1990 to 1992 was much less extensive. FWS spending began more slowly and then progressed at an ever increasing rate well into post-spill operations. These expenditure patterns coincided with the emphasis of each agency's efforts. The park service concentrated on response, the bulk of which was completed in the spring and summer of 1989. The FWS chose to limit response, and concentrate on damage assessment and subsequent restoration activities. The FWS likewise benefitted from much greater Departmental support than NPS, and a secure source of spill activity funding, both from the Department and the Trustees.

Given ARO's spill related spending patterns and the park service emphasis on placing resource protection priorities before fiscal concerns, the question remains; how well did the park service fare in its attempts to secure reimbursement for spill expenditures? In total the park service received reimbursement from various sources in excess of $6.2 million from 1989 through calendar year 1992 (figure 5.3). This left the park service with a spending deficit of roughly $2.7 million. However, this $2.7 million in nonreimbursed expenditures does not tell the whole story.

According to former Regional Director Evison, NPS by no means received all the reimbursements the park service had initially anticipated. Evison had lobbied Congress to help secure the July 1989 $7.3 million (P.L. 101-45) Department supplemental appropriation (see chapter 2). When the appropriation was finally secured, Evison anticipated most of this money would be funneled directly to NPS in order to defray the escalating costs ARO had incurred while fighting the spill. This, however, was not the case. After being transferred to the Department, the money was handed over to Interior spill coordinator, Deputy Undersecretary Vern Wiggins, for dispersal.[85] The park service received only $1.2 million of the July supplement (figure 5.3, FY89). This money along with Congressional approval to reallocate $5 million of the Section 102 multi-year construction funds,[h] allowed NPS to release and restore funding from the servicewide spending freeze which had been invoked.[86] The FWS was allocated $4.6 million of the supplement to conduct damage assessment work. Of the remainder, the Department retained $1 million for contingencies and future costs.[87]

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[h]The Section 102 monies reallocated for spill needs were later reinstated, as Congress required, through a Departmental supplement request. This effectively returned Section 102 multi-year construction money back to the park service.

Reasons for the decision to appropriate funds in this manner remain unclear. Evison said that the Department was not very communicative on the matter. The situation was garbled because of the numerous filters ARO had to go through in its attempts to communicate with the Department. The ARO, according to Evison, would pass requests up to Director Ridenour's office, but could never be sure how things were being expressed to the Department. A succession of Acting Assistant Secretaries for Fish and Wildlife, and Parks during the early spill aftermath, likewise hampered communication on financial and other matters.[i] Many of the individuals temporarily filling this position knew little about Alaska. This caused them to rely on Wiggins and the State of Alaska's Washington D.C. liaison for much of their information.[88] This contributed to a misguided view of park service efforts in Alaska. It also did little to facilitate interaction between NPS and the Department.

The ARO, aside from the documented nonreimbursed NPS expenditures, suffered additional negative financial consequences from the spill effort. According to Evison, ARO diverted a lot of Alaska park resources to the response effort for which it was never reimbursed. After the ICT was disbanded, ARO continued operating and funding an ICS command structure for the remainder of the 1989 cleanup season. This caused a severe drain on funding and staff in both the parks and the regional office. Payment for this operation came directly out of the ARO budget.[89]

One other aspect which lent a degree of uncertainty to the subject of NPS expenditures was the park service's authority to expend the funds ARO was directing towards the spill effort. As mentioned previously ARO, with directorate concurrence, made an immediate decision to protect the resources first and then worry about reimbursement. According to Evison, this decision was based on faith more than anything. Even though Deputy Director Galvin had extended Section 101 reprogramming authority to the spill, its applicability was not certain. As previously noted, Section 101 had mainly been used for fire incidents. Furthermore, when Evison arrived in Washington, D.C., a few days after the spill, NPS Director Mott and Deputy Director Galvin had already received their marching orders. In mid-April, James Ridenour and Herb Cables, respectively, assumed these roles. Being new to their jobs, Ridenour and Cables chose a more cautious approach to ARO spill operations. They were supportive of ARO efforts, but not to the degree of their predecessors. Their caution was understandable given the influx of conflicting information they were receiving from the Department, the State of Alaska, the Alaska Congressional delegation, and ARO. This caused a slowdown in the ARO response effort and a feeling of further uncertainty regarding ARO spending authority. Coupled with this, were the tongue-in-cheek jokes (noted in chapter 2) about Evison doing time at Leavenworth for misappropriation of funds. Until the July 1989 supplemental package came through, Evison could not help but give these rumors some serious thought.[90]

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[i]According to the 1989-90 *U.S. Government Manual*, the position of Assistant Secretary for Fish and Wildlife, and Parks was still vacant when the manual was revised on July 1, 1989. It was late 1989 before the position was permanently filled.

Other disagreements over spill related expenditures and funding allocation continued between ARO and the Department beyond 1989. In light of the impact from the spill to Alaska park areas, the park service, in 1990, asked Congress for a $1.1 million operational appropriation for coastal resource management and research within the region. The park service succeeded in getting Congressional support for a recurring increase to the operations budget, beginning with an appropriation of $1.065 million in FY91. This funding success, however, was short-lived. The Department later decided (as of FY92) to consolidate all oil spill related funding into a single Department-managed account. This, according to the Department, would lead to more effective management of spill funds. As a result of this decision, the Department withdrew the $1.065 million base appropriation NPS had secured for coastal management and research.[91]

On February 4, 1991, the Department submitted its FY92 budget. As a part of this budget, the Department requested $7.8 million for the Secretary's Oil Spill Emergency Fund (OSEF). Fund money would be used to cover anticipated costs for the ongoing NRDA, restoration planning, and management expenses associated with these activities. The Department said money from the fund would be made available to Department Offices, FWS, and NPS based on a "Departmentwide assessment of requirements in 1992." Specific fund allocation figures for bureaus or functional categories as a part of the budget was not possible at the time of submittal, but would be decided after all 1991 damage assessment studies and analysis was completed.[92]

This action, coupled with the Department's decision to withdraw the park service's $1.065 million appropriation, was a potential source of alarm for NPS. These two actions if successful, would effectively consolidate all spill related funding in Department hands. Several individuals within ARO viewed this as another Department attempt to control park service post-spill activities. The Department's actions also made it impossible for NPS to plan and implement long-term coastal management programs within the region.

The park service fought to have Congress reinstate the recurring operational provision for NPS in the FY92 budget. NPS Congressional proponents failed to get the $1.065 million reinstated. However, they did succeed in getting language added to the Department's FY92 OSEF appropriation which set aside no less than $1.065 million for the park service. The controversy, unfortunately, did not end there. The Department argued that money could only be released to the park service for purposes directly associated with NRDA, restoration planning, or related management costs. This was a much narrower interpretation than the park service envisioned coastal management emphasis. After much haggling, the Department

ultimately allocated $830,000[j] (figure 5.3) from the fund to NPS for coastal resource programs in FY92.[93]

Park service personnel likewise feel they received less than their fair share of the CWA 311(k) funding Exxon made available for spill response activities. This does seem to be the case. Several factors, however, contributed to this problem. The Department was concerned with linking agency response costs to 311(k) reimbursement provisions (see chapter 2). To facilitate this effort, the Department sent out several memos during April and May of 1989 which provided budgetary tracking guidance for response and other spill related activities.[94] Despite this guidance, there was much initial confusion among park service ICT spill finance managers over the categorization of spill related expenses.[k]

Initial budgetary tracking information obtained from the NPS "Tort Investigation Case Summary" indicates that the park service ICT spill finance managers, prior to receiving the first Department directive, had been placing all NPS spill expenditures under the categories of preplanning and contingency planning. Park service response costs reimbursable under 311(k) were not being separately tracked. The finance managers likewise incorrectly categorized initial damage assessment and tort investigation costs. According to a May 12, 1989 NPS tort report, spill finance managers with park service guidance from Washington, were placing all costs except for spill contingency planning expenses under the category of damage assessment.[95] This was going on despite the before mentioned Departmental guidances, and an additional budgetary tracking clarification guidance which had been submitted to Interior agencies on May 5, 1989.[96] Together, these guidances provided a definition of contingency planning and preplanning, response (both 311(k) and other) damage assessment, and other costs. These guidances provided a means for separating and tracking spill related expenditures.

This early failure to distinguish between these cost categories can be attributed, in part, to the lack of expertise among park service personnel relative to spill incidents. Park service spill respondents were unable to distinguish between various spill phases and tasks. NPS budget managers likewise disagreed with the Department on the categorization of administrative and tort costs. This added to the confusion. Many of the individuals

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[j]The park service ran into similar difficulties with the Department in FY93. Of the roughly $1 million needed for coastal management operations, ARO succeeded in getting $216,000 in re-established base funding. The NPS FY94 budget proposal included a recurring increase for $700,000. The park service garnered $386,000, part of which was an allowable carryover from the previous fiscal year.

[k]According to Pat Phelan (5-8-93), the ARO Budget and Finance Division never assumed primary fiscal management responsibility for the spill. Once the ICT area command was disbanded, a succession of NPS administrative employees assumed fiscal management for post-spill operations. This process continued until the middle of FY91.

responsible for emergency procurement and cost tracking were inexperienced. Park service spill personnel at Kodiak and Seward used different accounting methods. The problem was further complicated because ICT cost tracking software did not dovetail with NPS software.[97] Each of these problems added to the financial chaos associated with the spill response. Because of all this, ARO and area command personnel assigned to 311(k) activities spent endless hours going back through old spill records, and breaking out costs reimbursable under 311(k), once it was determined that pursuing 311(k) was worthwhile.

As a result of this effort NPS was able to recoup in excess of $2.5 million in reimbursements from the 311(k) fund (figure 5.3). Despite this largely successful effort to sort out and eventually track down, submit, and receive payment for costs reimbursable under 311(k), NPS did not receive all of the money that the park service felt it deserved. According to former ARO Spill Office Division Chief Dan Hamson, and ARO Regional Director John Morehead, the Coast Guard was overly stringent in determining what costs were reimbursable from the Exxon-financed 311(k) monies. Because of this NPS received less than $678,000 of a nearly $1.2 million 311(k) submittal for FY90 response activities. One major area of NPS activity the Coast Guard largely denied included the park service's spring shoreline cleanup assessment. According to the FOSC, shoreline assessment reimbursement would only be allowed on beaches with recoverable amounts of oil, primarily those beaches which had been treated the previous summer. The park service argued that only a thorough survey of all beaches would result in the identification of all recoverable oil. In taking such a conservative view, the FOSC effectively denied NPS reimbursement for legitimate expenses and unduly burdened American taxpayers.[98]

A General Accounting Office report submitted to Congress in March 1991, agreed with the park service's assessment of Coast Guard reimbursement stipulations. According to the report, the federal government as of June 30, 1990 had spent almost $154 million on the spill. Of this amount it was predicted that the government would recover only about $123 million. A major contributing factor to this problem was the Coast Guard's unwillingness to approve agency cost submittals for many response activities, as noted above. The report chastised the Coast Guard for taking an overly restrictive view of the broad interpretations allowed under 311(k).[99]

In addition, the 1991 GAO report blamed the Coast Guard for some of the previously mentioned confusion over tracking 311(k) costs. The report said several agencies lost opportunities to recover costs because of problems in tracking, billing, and receiving reimbursement for spill expenditures. In at least four cases, the Coast Guard failed to notify federal agencies of the proper procedures for tracking and documenting spill costs until four to seven weeks into the spill. Even in several of the cases where agencies did track costs, the Coast Guard failed to provide appropriate and consistent standards for computing spill costs. Confusion erupted over charges for equipment, overtime, and employee benefits. As a result, agencies inadvertently understated or overstated their 311(k) reimbursement submittals.[100]

According to REO Paul Gates, the CWA 311(k) provision was never intended for a catastrophic event. Rather, the process was established to deal with small scale, routine spill incidents. Because of this, some adaptation was required to make the process mesh with the *Exxon Valdez* spill. Gates also said there were several sparsely attended classes offered on 311(k) prior to the spill. Likewise, there was additional education about the process which should have been offered but was not. These factors contributed to the information void regarding the implementation of 311(k). Coupled with these shortcomings was the influx of top-level decision makers who were eager to get involved, but knew very little about 311(k) or the other major components of response operations. In Gates' opinion, all the participating agencies to some degree, encountered these problems.[101]

Since the publishing of the GAO report in 1991, the federal and state governments have implemented an additional mechanism for recovering spill expenditures. This was the settlement provision (chapter 4) which allowed for the recouping of *Exxon Valdez* spill expenditures through the settlement fund.[1] Whether this provision will result in the further Departmental disbursement of funds to NPS remains problematic. In October 1992, the Department requested that Interior agencies which had not received full reimbursement for past spill expenditures submit a reimbursement request to the Department. On December 3 ARO Regional Director Morehead submitted a request for $2.5 million in unrecovered spill expenditures.[102] This figure represented the amount of money ARO felt the park service was entitled to under the Court-approved settlement reimbursement provisions for *Exxon Valdez*. If the Department and other Trustees ultimately agree that all or part of this NPS request meets settlement stipulations, the money will be reimbursed to the Department. The Department will decide whether the funds should be disbursed to NPS. Any money the Department appropriates to NPS would remain available for obligation without fiscal year limitation.[103] Given previous park service successes in garnering spill funds from the Trustee Council or the Department, it would be highly optimistic to assume that NPS will ever recover all of the $2.5 million reimbursement submittal.

FINAL COMMENTS

No one can predict what the long-term outcome or repercussions will be from the political infighting associated with *Exxon Valdez*. Still, some general observations can be made. First, the removal of the Bush Administration in the 1992 general elections pleased most national park proponents. Environmentalists, and park advocates within the federal government, believe the park service preservation mandate, and park units in general will benefit from policies of the Clinton Administration. Vice President Gore is a known supporter of environmental protection. Secretary of the Interior Bruce Babbitt likewise

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[1]In FY92 the Department's OSEF received $6.1 million in reimbursement from Exxon through this settlement provision. The Department's anticipated reimbursement from Exxon's 1993 scheduled settlement payment was placed at $10.6 million.

expressed concern for the perceived short shrift which NPS had received in recent years, and he is considered a strong advocate of natural and cultural resource protection. This could provide the park service with a stronger hand when engaging in resource protection activities resulting from a technological disaster, or from any of the numerous other threats to park integrity.

Whether this support will result in additional restoration funding for the three impacted Alaska park units or for meeting chronic operational shortcomings typical of most park units, remains uncertain. Any increases in park service operational funding, to meet resource management and related priorities, must contend with the Clinton Administration's efforts to bring deficit spending under control. The combination of implementing Vice President Gore's National Performance Review and a Republican controlled 104th Congress, sworn to downsize government and balance the budget, present further impediments. Still, there are indications that the impacted Alaska parks and other park units could benefit from decisions of the Clinton administration. In his January 27, 1993 welcome address to the Department of the Interior, Secretary Babbitt said he would push for additional funding for national parks. He specifically mentioned the need for increased funding to meet basic operational requirements.[104] Park service base funding requests for FY95 and FY96 reflected this shift. Depending on the amount and duration of this funding, it could conceivably free up dollars for much needed basic inventorying and resource protection monitoring on park land. The federal Trustees 1993 decision to allocate part of Exxon's $25 million dollar criminal fine to inholding purchases at Kenai Fjords represented a further sign of commitment.[105] Assistant Secretary Frampton's involvement in the spill restoration process opened the door to greater park service access. In conclusion, NPS proponents are guardedly hopeful that the Clinton Administration will provide the much needed boost essential for effectively managing and protecting NPS resources. Without these needs being met it is unlikely that NPS will be any better prepared to meet the challenge of an *Exxon Valdez* or the multitude of other threats encroaching upon park boundaries.

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CHAPTER 6

EPILOGUE

SPILL PREPAREDNESS TODAY

Previous chapters provide examples of the numerous shortcomings of the response mechanisms in place prior to the *Exxon Valdez* spill. As the May 1989 NRT report to the President clearly demonstrated, neither government nor industry plans, individually or collectively, were up to the task of controlling a spill the magnitude of *Exxon Valdez*. In light of that inadequacy, the report recommended the development of new strategies for preventing and responding to spill incidents in Prince William Sound and the Gulf of Alaska.

One of the key points noted in the report was the realization that "some oil spills may be inevitable." There is no fail-safe prevention, preparedness, or response system. The chances of accidents, however, can be greatly reduced. Likewise, the potential impact from a spill can be limited through comprehensive response planning and preparedness. To help implement these goals, the 1989 NRT report called for the passage of legislation to address these issues as well as spill liability and compensation.[1]

Congress passed The Oil Pollution Act of 1990 (OPA 90) in reply to recommendations of the NRT, environmentalists, federal agencies, and a concerned citizenry. The act was a landmark piece of legislation, going well beyond the scope of previous legislation and international protocols on spill prevention, response, and liability.

Because cleaning up all of the oil from a spill is impossible even under the best of circumstances, OPA 90 sought to place major emphasis on spill prevention. Title IV of OPA 90 requires the phase-in of double hull tankers, by the year 2015, for all tankers operating in U.S. waters. It has been estimated that the amount of oil spilled during the *Exxon Valdez* incident could have been reduced 60 to 80 percent if the ship had been outfitted with a double hull.[2] Older tankers will be phased out under a timetable based on a ship's age and tonnage. The Coast Guard, in recent years, has also stepped up requirements for the inspection of older tankers plying U.S. waters. This should reduce the likelihood of structural failure incidents.

Title V of the act places stricter requirements on tanker escorts, and more extensive placement of certified pilots on the bridges of tankers operating in Prince William Sound. The certified pilot had departed *Exxon Valdez* at 11:24 p.m. on March 23, after the ship cleared Valdez Narrows. At 12:04 a.m. on March 24, the tanker ran aground on Bligh Reef. Today a certified pilot must remain aboard a laden tanker operating in Prince William Sound to a point beyond Bligh Reef. In addition, a ship's officer licensed for the Sound

must be on the bridge.[a] In Prince William Sound, two specially equipped escort and response vessels escort all laden tankers. In the event that a tanker becomes disabled, the escort tugs can come to its assistance. The escort vessels likewise act as a first line of defense should there be a spill. The Coast Guard has extended tanker escort provisions to other heavily trafficked U.S. waters.[3]

If a spill occurs, OPA 90 has instilled provisions which would help ensure that the response is not another fiasco as was the case during *Exxon Valdez*. Shippers are required to have Coast Guard approved contingency plans in place for responding, "to the maximum extent practicable, to a worst case discharge."[4] Plan holders must also provide evidence that response personnel are being trained, and adequate equipment is available for mobilization in the event of a spill. Tankers plying the most heavily traveled shipping lanes will need to have equipment pre-positioned and personnel available to respond to a spill within 12 hours. The maximum response time in other U.S. waters is 24 hours. Prior to OPA 90, contingency planning requirements were minimally enforced and were generally implemented on a voluntary basis. Tanker operators must now have their Coast Guard approved response plans in place prior to shipping or they will not be allowed to transport oil in U.S. waters.[5]

In Prince William Sound, the major tanker owners and operators have contracted with Alyeska Pipeline Service Company to continue providing spill response management during the first 72 hours after a spill. At the end of 72 hours, spill response management can be transferred to the spiller, with Coast Guard and ADEC approval. Alyeska has significantly upgraded its equipment and training to meet the provisions of OPA 90 and related state requirements. The system employs about 200 people with trained response crews on duty around the clock. Alyeska has also contracted with and trained a fleet of local fishing vessels for response activities. Alyeska has coupled this with the pre-positioning of cleanup equipment and defensive boom at locations in Prince William Sound and the Gulf of Alaska.[6]

One additional aspect regarding response, which has been implemented since the spill, is the adoption of a single unified ICS for spill response in Prince William Sound. During the response phase of the *Exxon Valdez* spill NPS was the first agency to successfully utilize this system. The present system, as adapted for spill response, brings together federal agencies, state agencies, and the spiller in an integrated command structure. The ICS is flexible enough to respond to small routine incidents, or can be quickly expanded to accommodate a large scale spill. Common ICS type terminology has been adopted to avoid the confusion and misunderstandings which plagued *Exxon Valdez*. The ICS has been utilized extensively during subsequent spill drills and has proven to be a valuable spill response asset.[7]

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[a]On March 10, 1993, the Coast Guard issued a modification to these requirements (58 FR 13360). A second ship's officer licensed for Prince William Sound may be substituted for the certified pilot when treacherous waters make it impossible for a pilot to board the tanker.

OPA 90 stipulations have not relieved NPS and other federal land managers of their spill preparedness responsibilities. Federal agencies that transport petroleum products must comply with OPA 90 contingency requirements. This includes coastal park units which transport fuel as a primary or secondary cargo aboard NPS owned vessels. Compliance will be a challenge because of the remote location of some park units.[b] Cooperation with similarly effected agencies, private shippers, or one of the existing non-profit spill response organizations could provide a viable solution.

Revisions brought about in the National Response System through OPA 90, have placed other demands on federal agencies. Federal land managers in cooperation with state and local land management agencies, have been tasked with developing local area response plans to protect economically and environmentally valuable resources under their jurisdiction.[8] The NPS has participated in this process for coastal park units in Alaska. Important factors considered in this process include the potential for damage caused from direct oiling; the feasibility of protecting critical resources; and the potential cleanup costs, both direct and indirect (see chapter 4) if a resource is impacted. The NPS implementation of incomplete and hastily formed response plans at the Kenai Fjords, Katmai, and Aniakchak park units failed to adequately incorporate many of these considerations.

OPA 90 has also clarified the issue of liability in the event of a spill. Title I has raised the legally established strict liability cap of a spiller about eight-fold from what it was prior to *Exxon Valdez*. This means the strict liability cap for an *Exxon Valdez*-size super tanker, which was previously $14 million, is now about $100 million. If a spill results from the violation of federal law, such as the captain's alleged intoxication during *Exxon Valdez*, the new regulations authorize unlimited liability. Under OPA 90 the spiller's liability extends to cleanup costs, damage assessment, loss of subsistence resources, and costs to local governments. Title I likewise established a $1 billion Oil Spill Liability Trust Fund, financed through a five-cent per barrel fee on oil which is domestically produced or imported into the U.S. The National Pollution Funds Center, under Coast Guard auspices, manages the fund. The fund replaces the previous CWA 311(k) reimbursement provision. The mechanism's principal advantages over 311(k) is the size of the fund and a replenishment provision which Congress controls. The fund can be accessed if a spiller's liability cap has been reached, if the spiller is unknown, or if there is a delay in post-spill settlement. Federal agencies wishing to access the fund for response purposes, as with 311(k), still need prior approval from the FOSC. Complete documentation is essential for receiving full reimbursement. Trustees can utilize the fund for initiating NRDA procedures. If the NRDA process involves more than one trustee, a single trustee will be assigned to act as the lead trustee. This requirement formalizes the arrangement which the *Exxon Valdez* Trustee Council adopted in 1990 (see chapter 3).[9]

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[b]Several coastal national park units in Alaska and in the lower 48 states, such as Isle Royale National Park located in the middle of Lake Superior, fall within this category.

OPA 90 has introduced other changes regarding damage assessment. In previous chapters it was noted how damage assessment guidelines contained in 43 CFR 11 failed to accommodate the intrinsic values of resources which were not normally traded in the market place. This placed park service resources at a further disadvantage during the NRDA phase of *Exxon Valdez*. OPA 90 charged NOAA with the task of revising NRDA regulations for oil spills involving navigable waters. As a part of these revisions, NOAA has investigated the practicality of applying contingency valuation methodology to suitable resources having intrinsic value. The concept, as envisioned, would use random surveys to determine how much the public would be willing to pay to restore such resources to their baseline condition. During the aftermath of *Exxon Valdez*, the State of Alaska conducted a contingency valuation study to determine the total costs of damage from the spill. The controversial nationwide study assigned a price tag of $2.8 billion to injured resources. NOAA created a contingency valuation panel chaired by two Nobel Laureate economists, which reviewed the state's study, and other alternatives for implementing contingency valuation during NRDA.[10] NOAA has adopted the panel's recommendations and submitted them for review.

One shortcoming of the OPA 90 damage assessment revisions was its failure to make provisions for the inclusion of cultural resources. As previously noted, cultural resource studies were incorporated into the Trustees' *Exxon Valdez* damage assessment. The court settlement likewise recognized cultural resources as a resource category impacted during the spill. Subsequent restoration projects have been implemented on NPS' and other agencies' land for impacted cultural resources. However, at no time were cultural resources recognized as falling under CERCLA authorized NRDA provisions.

NPS participation in spill planning and response has been expanded nationwide, since the *Exxon Valdez* incident. The park service has correctly realized that park units are no longer insulated from oil spills and other external threats. Park personnel must be prepared and trained to respond, should a spill threaten park land. The park service now sponsors an oil spill response and contingency planning course. Park unit and regional office decision makers and key personnel with spill responsibilities who attend this course, receive training in oil and hazardous spill planning and response. The course also covers applicable federal legislation, the National Response System, ICS, damage assessment, and restoration. The NPS Environmental Quality Division in Washington, D.C. is developing an updated and expanded servicewide oil spill contingency plan. The plan will include indepth information on much of the material covered in the above discussed training course. The document will serve as a resource guide for response planning at park units and during an actual spill. The park service has participated in the development of a computer generated oil spill decision support system with the University of Virginia. NPS personnel will be able to use this system to aid spill incident contingency planning. The system should prove a valuable aid for spill planning and response in high risk regions.[11]

NPS has augmented these efforts through the creation of two national all-risk Incident Management Teams (IMTs). The IMTs are made up of experienced park service ICS personnel. Team members are trained to manage extremely large and complex non-fire

catastrophes (hurricanes, floods, oil spills, and related disasters) and preplanned events. The IMT concept goes beyond the traditional incident response role of ICS. Rather than responding to a catastrophe after the fact, IMT members may be called upon to organize and manage a major event in order to prevent an incident from developing. So far, the system has been extremely successful. The park service's IMTs have been used for managing situations as diverse as the 1991 observance of the 50th anniversary of the bombing of Pearl Harbor to the 1992 Hurricane Andrew relief efforts at Everglades National Park. The interagency ICS, headquartered in Boise, Idaho, has adopted several park service IMT components. The Department of the Interior has assumed a lead role in this effort. Efforts have focused on developing job descriptions and training qualifications for personnel. When complete the revised system will be fully capable of managing preplanned events or responding to large scale disasters, including oil spills.[12]

Overall, the mechanisms in place today are vastly superior to what was in place prior to the 1989 *Exxon Valdez* spill. Potential problems, however, still exist. Time delays are preventing OPA 90 stipulations from moving forward as planned. Required revisions to the National Contingency Plan for spill response have been running a year behind schedule. The aging tanker fleet remains a concern, despite Coast Guard oversight. Stress cracks in hulls and mechanical or other equipment failure, coupled with poor weather and human error can all result in a spill incident. Mechanical failure and bad weather contributed to the 1993 grounding of the Tanker Vessel *Braer* off Scotland's Shetland Islands. A March 1994 cracked hull incident on the British Petroleum chartered *Eastern Lion*--while loading at the Port of Valdez--spilled an estimated 8,000 gallons into Prince William Sound. The final report of the Alaska Oil Spill Commission said "that excessive work hours (sleep deprivation) contributed to an overall impact of fatigue, which in turn contributed to the *Exxon Valdez* grounding" on Bligh Reef.[13] Federal law now limits the number of hours tanker crew members can work. However, a recent Prince William Sound Regional Citizens' Advisory Council (PWSRCAC) study--a citizen oversight group recognized under Title V of OPA 90--cited other factors which may contribute to human error. Chief among these factors has been the U.S. failure to ratify international protocols for crew certification and training. The Coast Guard is currently studying the issue and is expected to release its findings before the end of 1995.[14]

The park service can likewise take additional steps to improve its approach to spill preparedness and response. Coast Guard officials have stressed the need for greater park service participation in interagency spill planning, particularly at the local level. This involves continued participation in relevant spill drills and fostering positive relationships with counterparts in other agencies. Furthermore, even though both the Department and the Coast Guard have emphasized an interagency approach to spill planning, NPS must remember that the FOSC is in charge of spill incidents.[15] This could have implications for park lands when setting resource protection and cleanup priorities after a spill. Working in cooperation with the Department's REO can help to mitigate potential conflicts with the FOSC and help to ensure that NPS priorities are heard.

THREATS TO NATIONAL PARK LANDS

The grounding of the Tanker Vessel *Exxon Valdez* upon Bligh Reef was an unprecedented event in North American waters. The size and scope of spill impact resulted in injury on a scale of unimaginable magnitude. Such catastrophic technological disasters, however, are not the norm. The majority of technological threats to the environmental integrity of individual NPS units occur on a much smaller scale and are less perceptible. Many of the lessons learned from the *Exxon Valdez* spill can be applied to these other threats.

National park units face a multitude of threats, both internal and external. A 1980 NPS "State of the Parks" report identified over 4,000 threats to park resource integrity.[16] Several of these threats were internal, often resulting from the previously discussed chronic underfunding which has plagued park service operations (see chapter 5). Internal threats identified in the report included dilapidated physical plants, unsafe structures, private inholdings, and excessive visitor use.[c]

More ominous external threats augment the internal threats to the integrity of national parks. In a 1988 National Parks and Conservation Association survey, 99 park units reported environmental damage from nearby energy development. An NPS study conducted the same year listed 636 individual external activities which threatened to negatively impact some 198 park units.[17] Today, air pollution threatens view sheds and the long-term viability of park wilderness. Over the past 40 years sulfur dioxide emissions from eastern power plants and other sources, have caused a 50 percent drop in visibility at Shenandoah and Acadia National Parks. Streams running through parks carry pesticides, improperly treated sewage, and industrial wastes from sources outside park units. Ongoing and proposed mineral extraction and timber clear cutting near park units in western states, is predicted to have negative consequences on wildlife, streams, view sheds, and fauna.[18] Furthermore, many of today's parks are interlaced with, or lie adjacent to, major transportation corridors. Highway, railroad, and water transportation routes are all sources of potential spills. Over time, the cumulative effects of these threats could be more devastating to park lands than the *Exxon Valdez* spill.

External threats to park service resources are not a new phenomena. A 1932 park service *Fauna Series* report said that encroaching urbanization and industrialization threatened many park units. More remote units at the time suffered because park boundaries failed to embrace surrounding natural boundaries.[19] Follow-up reports produced in the 1960s said many units were not large enough to protect entire ecosystems. This left the units vulnerable to the effects of development activities on neighboring land. According to the National

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[c]In 1993, NPS Alaska park units at Katmai and Glacier Bay, were confronted with the prospect of cleaning up fuel large leaks from underground storage tanks in use at the two parks. Suspected causes of the leakage included broken fuel lines, tank seepage, overfilled tanks, and improper installation.

Academy of Science, park units during the 1960s were likewise suffering from the effects of external threats because of a lack of sufficient park service planning. The academy cited poor coordination, inadequate resource management planning, and a failure to set long-term goals as major deficiencies of NPS resource protection efforts.[20] A 1987 GAO report for the House Subcommittee on National Parks and Recreation echoed the earlier academy findings. The GAO said that most park resources were not well documented or understood. Many park units lacked the scientific expertise needed for implementing or maintaining threat mitigation and management plans. Former NPS Assistant to the Director for Policy William C. Everhart, expressed similar criticisms. According to Everhart, NPS resource planning and threat mitigation had habitually suffered because of an agency reluctance to embrace science and research specialists within the park service ranks.[21] The repercussions from this failure became apparent during NPS *Exxon Valdez* spill operations. NPS spill plans were incomplete or non-existent; as was knowledge of coastal resources at the stricken parks.

According to John C. Freemuth, a Professor of Political Science and Public Affairs at Boise State University, today's external threats to park lands are primarily the result of competing land holder objectives on adjacent lands.[22] Freemuth believes that for too long national park proponents have been concerned with fighting the conflicting mandate battle between visitor access and preservation. Instead, park proponents should have been focusing their attention on external threats.

Taking steps to mitigate or prevent external threats from adjacent use activities will be a difficult task. Other federal agencies with multiple use mandates, state and local governments in search of tax dollars, and private developers do not have the same priorities as NPS. Such conflicting use values can result in political confrontations. Success will depend, in part, upon the park service's ability to identify common interests with these entities. It will likewise hinge upon the park service's ability to convince adjacent land users of the uniqueness of park lands and the NPS mission. Once this is done, NPS will then be in a better position to suggest mutually acceptable solutions for mitigating threats to ecosystem integrity.

Freemuth credited the park service for taking a step in this direction through recommendations contained in the 1981 NPS "State of the Parks" report. The report said NPS should participate in the political process in order to create positive relationships between park units and their neighbors. A 1988 NPS follow-up plan called for the identification of "zones of concern" around park units as a means of protecting resources within park boundaries. The zones would be created through cooperative ventures with adjacent land holders. Steps would be taken to assist private land holders to develop compatible land use programs.[23]

Failing in its attempts to identify common interests as a mechanism for mitigating external threats, the park service may have to rely upon federal legislation for protection. The NPS presently has limited authority to act against many potential external threats. Current federal legislation simply does not provide the park service with adequate mechanisms for preventing

external activities which could harm park lands. Department solicitors, in recent years, compounded this problem through their reluctance to suggest new protective legislation or innovative applications of existing statutes.[d] However, according to the Conservation Foundation, a Washington, D.C. think tank, much of today's environmental legislation provides models for statutes which could offer protection to threatened park units.[24] Such legislation does not have to be a zero-sum game. In the words of National Parks and Conservation Association Staff Counsel Elizabeth Fayad, "Protecting parks does not mean that industry should be prevented from ever locating near a national park."[25] Rather, such legislation would ensure the best use of available technology to protect the integrity of park units.

Even with cooperative agreements and protective legislation, the park service still needs to implement changes in internal operations if it hopes to prevent or mitigate external threats. As witnessed during *Exxon Valdez*, NPS attempts to combat the spill suffered from a lack of adequate baseline data and specific expertise among park service personnel. The 1987 GAO report said that the level of baseline data available at most parks was insufficient for creating viable threat mitigation systems. Evidence presented in the 1992 *Vail Agenda* identified the development of a solid base of scientific information as a critical requirement for mitigating external threats. The agenda further urged the park service to deal with external threats more aggressively through long-range strategic planning, visitor education programs, and stronger educational requirements for park service staff, coupled with better training and higher levels of pay.[26]

NPS failure to adopt and implement these type of recommendations will result in a continued inability to sufficiently document baseline resource information. Freemuth contends that without this critical information the park service will be unable to adequately demonstrate that an external threat has caused injury to park land. This was a problem which continually plagued NPS during the aftermath of *Exxon Valdez*. In addition, Freemuth contends that the park service's ability to prevent and mitigate threats depends on more than just good science. Resource management and land use issues involve value laden decision making. Ultimately, the battles over external threats are fought and won in the political arena. Therefore, like Charles Lindblom (see chapter 5), Freemuth believes agency decision makers must be trained and encouraged to participate in the political process at all levels.[27] Park service personnel must reach beyond the park boundaries and become proactive communitywide advocates of the NPS mission. This will require a conscious effort on the part of park unit managers who have traditionally been inclined to focus on in-park matters to the detriment of external threat mitigation.

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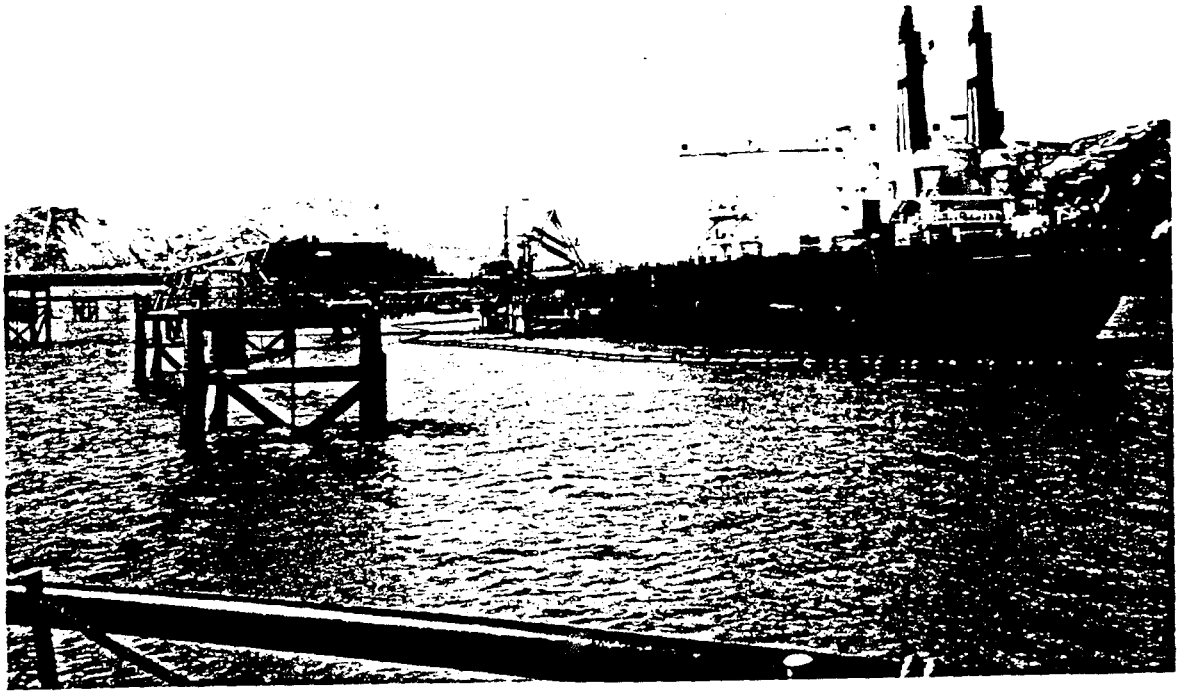
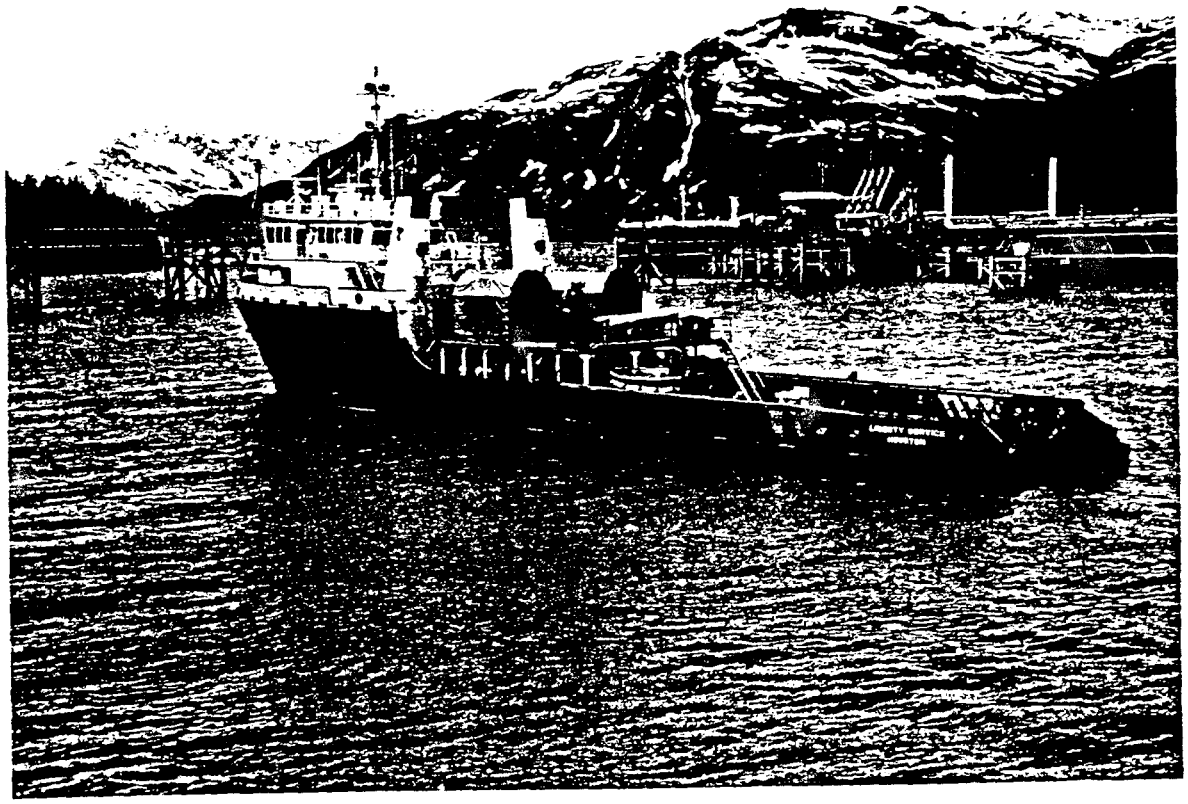
[d]According to NPS Environmental Quality Division Chief Jacob Hoogland, a primary example of an existing statute which the Department and NPS have failed to fully utilize is NEPA. NEPA's impact assessment provisions provide NPS with a tool for participating in the evaluation of other federal agencies adjacent use proposals which could injure park resources.



21. The tanker *Arco Independence* being loaded with North Slope crude at the Alyeska terminal in Valdez.

Photo by author



22. A Ship Escort Response Vessel prepares to accompany a laden tanker leaving the Alyeska terminal. Escort vessels can provide assistance should a tanker becomes disabled and serve as a first line of defense during a spill incident.

Photo by author

23. *Yorktown Clipper*, a 257 foot tour boat, struck Geikie Rock on August 18, 1993 at Glacier Bay National Park and Preserve in Southeast Alaska. NPS staff supplied dewatering pumps which helped prevent the disabled craft from sinking. *Yorktown* was carrying 134 passengers and 23,000 gallons of diesel fuel when it ran aground. This incident represents just one of the many potential hazards which threaten the integrity of national parks.

Russ Wilson, NPS

24. Abandoned fuel drums at the Lava Lake weather station, a World War II military site in northwest Alaska's Bering Land Bridge National Preserve, litter the ground. The NPS is working with the Army Corps of Engineers to remove contaminated drums and other toxic materials from the site.

Douglas Beckstead, NPS

Contributors to the *Vail Agenda* have also called upon NPS to become more politically active. The Vail participants chastised the park service for failing to actively enlist and become involved with citizen advocates, senior administrators, sister agencies, and organized interests having mandates and goals complementary to park service agendas. The formation of such cooperative alliances were identified as a key component of Vice President Gore's National Performance Review. Vail contributors further suggested that NPS forge stronger ties with Congressional oversight committees, the OMB, and the administration's domestic policy advisors responsible for park service activities. Strengthening these ties would provide NPS with allies in the policy arena and would help prevent misunderstandings when interacting with other participants.[28]

One final ingredient--money--must be included if NPS is going to successfully meet the challenges external threats pose. As discussed in chapter 5, the park service has suffered from a chronic underfunding of basic operations, while being overwhelmed by political pork-barreling. Former House Subcommittee Chairman on National Parks Bruce Vento said the situation has reached a point where "we're going to turn the park service into a spoils system rather than steward of our most important natural and cultural resources."[29] In sum, the situation has resulted in an inability to provide adequate facilities for park visitors and insure the protection of park resources. For example, during the period from 1983 to 1992, the core operating budget for NPS rose 12 percent in real dollars. During this same period, recreational visits increased 25 percent and 27 new parks were added to the system.[30] These increases placed additional strain on the system, which according to the *Vail Agenda* (chapter 5), still need to be remedied. Multi-year funding will have to be made available if resource management and threat mitigation are to be properly addressed. At present, there simply is not enough money in the operations budget to adequately fund these programs.

FULFILLING THE NPS POLICY MANDATES

Throughout the course of *Exxon Valdez* post-spill operations, the park service repeatedly cited its 1916 organic act and subsequent enabling legislation (see chapter 1) as justification for many of the actions NPS was implementing. It was these statutes which remained at the heart of NPS spill management. However, the park service generally failed to convince other spill participants of the legitimacy of NPS management priorities. The park service also failed to place its spill activities within their proper political context. Other, more politically skilled opponents, repeatedly eclipsed NPS during the power struggle which occurred in the spill's aftermath. NPS response actions were often out of step with other federal agencies and at odds with political appointees within the Department.

According to the authors of the *Vail Agenda*, park service decision makers at various levels have often taken actions independent of directions from the administration.[31] Such actions are often justified by citing legislation which in the park manager's opinion overrides orders from above, or are the result of what has been called the "my park" mentality among park unit decision makers.

The my park mentality can be traced back to the days when U.S. Cavalry troops patrolled Yellowstone and other early parks. These hardy troopers and their ranger successors brought with them traditions of independent action and initiative which in turn, fostered a park service culture of decentralized management. Living in remote, often isolated locations, park service rangers were encouraged to assume personal responsibility for resources in their respective park units. Unfortunately, this tradition has become a hinderance in today's interdependent world.[e] National park superintendents often tend to define issues in terms of what they mean to my park. Too many park unit decision makers engage in insular thinking. They adopt policies which may be advantageous for an individual park but are detrimental to the national park system as a whole.[32] These independent actions can likewise result in serious political ramifications.

Contributors to the *Vail Agenda* cited strained relations with the administration as one of the casualties. They also believe that the placement of political appointees, rather than careerists, to top positions within NPS is a direct result of park service contravention. Presidents want appointees who are loyal to the administration, not to an agency. In order to overcome this backlash, park service managers must learn to recognize and anticipate the changing political climates in which agencies operate. Policy decisions must fit into the Constitutionally defined political environment as it currently exists. Any agency in a democratic society that chooses to ignore these changes in the political landscape does so at its own peril.[33]

Former NPS Director George B. Hartzog Jr., in his book *Battling for the National Parks*, acknowledged the my park mentality as a contributing factor to the independence many NPS careerists exhibit. According to Hartzog, a common myth endures that the park service "alone" preserves the parks. This, in Hartzog's opinion, is an unrealistic aspiration which many park service personnel hold. The reality is that the American citizenry owns and preserves the national park system through their elected officials.[34] Former NPS Director Conrad L. Wirth shared Hartzog's opinion. In his book *Parks, Politics and the People*, Wirth notes that:

> government career people are charged with the responsibility of carrying out policies, sometimes against their personal inclinations, and they must understand that basic policies are established by the elected or duly appointed representatives of the people.[35]

These statements imply several things. First, the park service ultimately serves the American citizenry. The will of this citizenry is ideally expressed, in part, through legislation which

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[e]This assessment does not constitute a condemnation of decentralized management. The delegation of discretionary authority can result in more efficient and cost saving means of reaching goals. Problems arise when local managers choose to seize or are abdicated the authority over what goals to pursue.

their elected representatives in Congress have passed. The citizenry's will is also expressed through the election of a President, who carries into office a mandate he has promised to implement. This mandate may not necessarily be complementary to the NPS interpretation of statutes governing national parks. Still, the President is the chief executive and through his appointees, he demands agency compliance when lawful orders are given. Finally, within the citizenry, there are as discussed in chapter 1, constituencies which take a special interest in the national park system. They too have an agenda.

FINAL REFLECTIONS

Each of the above political concerns places demands upon park service decision makers. How, then, is NPS supposed to successfully address these often competing demands and still remain loyal to its basic mandates? Obviously, an agency's first obligation is to the implementation of the statutes with which it is charged. NPS made this point repeatedly during NPS *Exxon Valdez* post-spill activities. Problems, however, during this incident and on other occasions have arisen when administration appointees give orders which, in the opinion of park service personnel, countermand NPS mandates. Typically this is the point where park service managers have run into conflict with the administration. Orders from political appointees go unheeded or get circumvented at the local level. The administration's response is to exert greater control and pressure upon the agency in order to gain compliance. This can ultimately result in bureaucratic gridlock or agency ostracism. As manifested in *Exxon Valdez*, the ultimate outcome of this confrontation was the park service's inability to become an equal participant in damage assessment and its subsequent failure to secure restoration dollars.

Such outcomes are not preordained. By implementing the *Vail Agenda's* recommendations of placing policies and goals within the context of the current political environment, such outcomes can often be avoided. To do this, NPS must first accept the reality that the President or his appointees application of park enabling laws may not always agree with park service interpretations. But rather than engaging in outright dissension, park service decision makers must, as Lindblom recommended, actively employ the strategies of persuasion, coalition building, and compromise to meet these challenges.[36] The system provides legitimate avenues for utilizing these strategies. Congressional subcommittees, sympathetic constituent groups, departmental channels, and other sources offer opportunities to be heard. Granted, decisions resulting from this process may not always be to the park service's liking. Agency participation in the political arena does not guarantee an NPS policy victory. In contrary cases, NPS must accept the political outcome and comply with administrative mandates. By employing these methods, NPS will be in a better position to implement park service mandates and ensure the perpetuation of a viable national park system.

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28. Vail Agenda, 41-42.

29. "NPCA News," May/June 1992, 12.

30. "NPCA News," July/August 1992, 12-13.

31. Vail Agenda, 112.

32. Ibid., 45-47.

33. Ibid., 104, 112.

34. Congress, House of Representatives, Subcommittee on National Parks and Public Lands, National Park System Review Board, 101st Cong., 1st sess., 18 May 1989, 43.

35. Conrad L. Wirth, Parks, Politics, and the People (Norman: University of Oklahoma Press, 1980), 382-383.

36. Jay M. Shafritz and Albert C. Hyde, ed., Classics of Public Administration (Pacific Grove: Brooks/Cole Publishing Co., 1987), 123-125.

APPENDIX

BY TIMOTHY COCHRANE

A REVIEW OF AGENCY TRADITIONS AND ACTIONS DURING THE SPILL

NPS OCCUPATIONAL CULTURE

The impact of *Exxon Valdez* oil on Alaska parklands caught the park service, and other federal and state agencies, unprepared. Because the park service was unprepared for an event of this magnitude its staff did not have established protocols, experience, or policy to guide their efforts. Even the application of relevant laws such as Clean Water Act and Comprehensive Environmental Response Compensation and Liability Act left much in the way of firm directions. Rather staff had to devise on the spot operational and managerial mechanisms, and policy. Much of what the park service did during the spill, during the response, damage assessment and restoration phases, was "made up as they went." When faced with one of the many new "predicaments," the main participants had to resort to their internalized sense of what NPS mandates should be in this instance, and thus, how they should respond. This was even more true, as the NPS had little overall strategy to guide efforts, especially in the response and early damage assessment phases. In other words, the oil spill removed the bureaucratic rind, or typical park service ways of doing things, to expose a core of NPS values, beliefs, and ways of viewing the world that are unique to park service employees. It was a sense of who we are, and our past that helped participants make decisions on what should or should not be done.[a]

Our experience on the spill exposed much of the occupational culture of the park service. This is a significant base to draw on as the occupational culture of NPS is distinctive and rich. As an agency with strong traditions, we have occupational traditions which are well recognized and others which are not, some traditions which are explicit and others which are implicit.[1] To understand how this occupational culture worked during the spill, it is first necessary to characterize relevant aspects of this informal culture of park service employees and family members. There are numerous evidence or "footprints" of a distinctive NPS occupational culture, easily recognizable to insiders once they pause and reflect on their experience. For example, park service employees have their own language and metaphors such as references to whether someone is a "green blood," or being "green." To be green is

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[a]Throughout this appendix, my conclusions stem from numerous conversations with oil spill personnel over a six month period, review of NPS oil spill documents, and selected tape interviews. The conclusions drawn, however, are entirely my own. My view is that of an NPS "insider" with field experience, but who did not participate in oil spill activities.

to be a trusted, experienced, career NPS employee who strongly identifies with the park service mission and cadre of employees. To be a green blood is to have ungrudgingly given extra time to some mainstream park cause. Ideally identification is thus decentralized to park units, rather than with growing administrative structures such as regional offices or Washington, D.C. Further, ranger ethos highly values "independence and adaptability."[2] Identification with the park service and park service ideals typically overshadow other occupational allegiances such as membership in professional societies, political persuasion, or even local allegiances to a particular park resource. Further, to be a green blood typically means you have rangering experience working in parks. Park service employees also share a congruence of values, perhaps better stated as cherished values, illustrated by one poll in which 84 percent of employees said, "...preservation is the major purpose of the NPS."[3] In Alaska, another revealing example of distinctive NPS culture is the slang phrase "hard park." A hard park is the highest status park (Denali, Glacier Bay, Katmai), characterized by its pristine nature unencumbered with the subsistence or mining uses allowed in Alaska preserves and newer park units. A hard park is the Alaska version of a traditional wilderness or natural areas park in the lower forty-eight. Stories and oral history also play a part in constructing and renewing shared values and allegiances. One NPS genesis myth, likely apocryphal, of the evening campfire creation of the Yellowstone Park idea, memorializes the seminal position of Yellowstone and natural area parks with the NPS system.[4]

Another "peculiarity" or real example of the unique park service culture is the attention NPS employees place on "park genealogies." An individual develops a genealogy of the parks he or she has worked at, who he or she has worked with, and noted projects they created or supervised. Each park, boss or peer, and project has a degree of status. A connection to high status parks, or to recognized park service "stars," endows an individual's genealogy. A genealogy also might highlight a significant park accomplishment which both appreciates and works with local resources and people without being absorbed by them. The frequent moves from one park to another (and in this value system parks are ideally more preferable than regional offices, centers, or Washington) create the opportunities to develop park genealogies, which serve much like academic credentials. The emphasis on park genealogies and the Service "family" affirms the importance of friendships and networks within the NPS. NPS occupational culture or the Service culture "... is an emergent property of personal relationships."[5] These relationships and their incumbent occupational culture were often, in hindsight, a major factor of the NPS strategy during the first phase of the NPS response to the *Exxon Valdez* oil spill. There are many more examples of occupational culture that illustrate the potency of the park service way of perceiving and being in the world. Park service ceremonies, such as the special occasions when years of service are recognized, behavioral norms, beliefs, heroes, and myths of the founders like Mather and Albright, all perpetrate a unique park service outlook on many matters.

A high degree of socialization to park service occupational culture is nourished at the park level. "Seasonals," summer employees or apprentice green bloods, learn about the park service culture in the relative isolation of parks, where they often live together and by choice

are isolated from mainstream society. This socialization continues after an individual becomes "permanent," and leads to friendships and networks, emotional investment, commitment, and a more sophisticated understanding of the informal culture of the park service. Newcomers learn that the NPS culture has an operational bias, or way of "doing things" thus affirming the ranger "track" as the principal means of advancement to high career levels. Being a "rock solid" ranger is an inestimatable help in moving along the park service ranks. There is also a ranger behavior ideal of a modest yet outgoing, neat, experienced outdoorsman which helps define and weed out top rangers. There are a core of these values which extend from field rangers to top management, making those who are "green" at the center of NPS concerns. The paperwork and politics of the upper echelon is viewed as suspect by young rangers, but an unavoidable chore that must be confronted as they move upward. This operational or managerial bias predisposes the NPS towards certain managerial outcomes. During the spill, this bias or institutional "enthusiasm," was manifest in the hundreds of RPOs who worked Katmai and Kenai Fjords beaches. This enthusiasm and commitment to the mission of the park service was held to the degree that it provided the basis for the ARO to defy the wishes of Department officials to downplay Service involvement in the spill response. The park service invested great quantities of money, effort, and time in having RPOs on beaches protecting bears from cleanup workers and vice versa. However, when compared with the small scale of investment in the damage assessment or restoration phase, a clear picture of park service priorities emerges. Or, in real terms of manpower available, the park service was able to muster an intensive RPO program in-house, but had little resources to "throw" at damage assessment or restoration. The willingness to defy DOI on the initial response phase was never duplicated in damage assessment or restoration phases. Overt, on the ground resource protection and stewardship values were paramount to the degree of outweighing the threat of DOI punishment, while the "paperwork," politics, and "bureaucratic arena" of damage assessment, restoration, and Trustee Council were abhorred.

The lack of a well established and available science "arm" within the park service handicapped NPS participation in the damage assessment, and restoration process.[6] Fiscal constraints and Service priorities have retarded a strong science tradition. Further, the science tradition supported by NPS managers is typically directly tied to resource management problems. The endeavors of the few active park scientists have also been curtailed by limited time, collateral managerial responsibilities, and an applied science bias. If the NPS had a proactive research arm, and one not constrained by "immediate and narrow needs," it could have responded more meaningfully to the questions of resource injuries.[7] Or, even more difficult, but not impossible, if the NPS desired to play a more active role in damage assessment science, it could have "imported" the scientific know-how and capabilities through university researchers.

Complicating the lack of a well developed science function, was the begrudging awareness that the NPS did not have statutory responsibility for many "park" creatures--birds, fish, marine mammals--injured or killed because of the spill. Other agencies asserted their charges, thus, instead of the NPS, the Fish and Wildlife Service was responsible for

endangered species, migratory birds, and sea otters; National Marine Fishery Service for sea mammals; the State of Alaska for migratory fish while inland and most resources below mean high tide. The NPS problem, still plaguing our efforts today, was that we did not have an "engaging" and demonstratable natural resource injury that could be easily defined and focus attention on as did other oiled agencies. The preferable natural resource injury being a charismatic fauna species that could arouse court room sentiment, if the criminal and civil charges actually went to trial. Further, rather than trying to stretch our responsibilities to include "park" species for which we were not statutorily responsible, the Alaska Region Chief Scientist made a practical choice to focus attention on other park resources which were clearly park service's responsibility and for which there was already existing funding, staff, and project design.[8] This decision, very logically defensible today, frustrated many participants, especially during the response and early damage assessment days.

With little science staff to call upon and no "engaging," injured species to focus attention on, the park service was essentially at the mercy of other agencies to do work that would be applicable to parklands. This hope often proved to be naive and unfulfilled as many research projects were "captured" by the partisan interests and conditions of the lead agency.[9] The attractiveness of a study to a lead agency on occasion included interests other than the effects of the spill on select animals. Being a lead agency allowed the agency to contour the study to provide spill data which was also useful in other contexts, develop research capabilities, and further focus Trustee interest on resources of particular interest to the lead agency. Staff of the ARO oil spill office found themselves outflanked and overpowered by other agencies with a scale of magnitude of research resources larger and more opportunistic than the park service. And other than in the oil spill office, there was little interest in pursuing damage assessment work. In one sense, the damage assessment study phase became a funding windfall for other state and federal agencies. Damage assessment studies became one means of enlarging staff, augmenting administrative funds, and extending influence by defining what is known about oil injuries. Select agencies, such as the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service became "spillionaire agencies," while the park service and the Alaska Department of Environmental Conservation had little success securing science studies, and thus, monies.[b]

Up to this point, we have talked about NPS as if it were a monolithic culture. The internal differentiation of park service sub-cultures in the normal course of affairs (rangers, interpreters, maintenance, natural resources staff, cultural resources staff, superintendents, etc.) was set aside to respond to the early phases of the spill. One attempt by Exxon and its sub-contractor to "mine" the internal differences between natural and cultural resources staff

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[b]"Spillionaire" was a term coined during the spill response denoting select individuals who profited massively from clean-up activities and contracts. Spillionaires were also thought by some to unfairly profit, while others received little or no compensation, contract, or employment opportunities. I am extending the usage here, from an individual context to that of agencies.

failed. McArthur Pass in Kenai Fjords (discussed in chapter 3) is an archeological site which Exxon contract archeologists discovered in 1989. Exxon subsequently argued to not clean up the site because it might damage sensitive archeological resources. NPS staff could have fought over the issue, but after some time and coordination, park service staff came up with a plan which would protect existing cultural resources, while not precluding clean up efforts that were important to preventing further damage to local natural resources.[10] This effort, intentional or not, failed to "divide and conquer," proving that NPS was internally strong enough to not indulge in derisive behavior between staff while the spill was ongoing. Later, the differences, and different perspectives, reemerged. But for the response disaster phase each groups' ambition "to claim centrality to the organization" was deferred.[11]

The issue of control is a hallmark of any disaster aftermath and appears to be a natural part of communities reestablishing order and community relationships. Or, as one disaster researcher states:

> The issue of control over future events is a significant one... The issue of control often becomes a focus in the aftermath of technological disasters, and this issue can serve as a source of continued stress.[12]

The NPS tradition of decentralized management and physical protection of resources stresses control at the superintendent level. NPS culture affirms the desirability of a superintendent's control to the degree that it becomes a high virtue. The desirability of control and what one park service scholar calls the preservation of "managerial discretion," influences NPS actions. For example, superintendents seek to consolidate decision making at the park level, preserve managerial discretion, and especially control internal threats such as in-holdings.[c] A standard leave taking phrase between park superintendents, "hold the fort," perhaps best expresses this desire for control and keeping the status quo.[13] Internalized control is also a highly desirably quality in NPS culture. For example, esteemed rangers appear to be "rock solid," or in control of emotions and other evidence of "weakness."

Internal control, both emotionally and cognitively, became a necessary precondition for working on the spill. Former Katmai Superintendent Ray Bane noted this phenomenon when he said, "you had to turn a part of yourself off.... the spill didn't bother me until they asked me, 'how I felt." Then I had to turn and walk away."[14] One atypical allowance on the spill among deeply involved employees was the tolerant acceptance of staff being overcome

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[c]Joseph L. Sax and Robert B. Keiter in "Glacier National Park and Its Neighbors: A Study of Federal Interagency Relations," (*Ecology Law Quarterly* 14: 207 (1987): 259) rightly note: "...Glacier (National Park) management's commitment to discretion generates a serious problem for them: It makes impossible consistent solutions for problems." Further, the preservation of this managerial discretion retards attempts at reaching a uniform position within the agency which is a necessary prerequisite step prior to presenting NPS views to other agencies.

by the magnitude of the event, of animals dying "not pretty," beaches fouled, and pristine seascapes dramatically changed. In other contexts, the outburst of "emotions" would be a sign of weakness, but in the course of the spill it was accepted and demonstrates the severity of the injury as park employees perceived it. The tradition among rangers to control their emotions aids them in the line of duty, but is also a behavioral norm within the park service. Park service traditions, the close association of rangering with male, outdoor occupations also contributes to an ideal of controlling duress and pain in an outwardly effortless demeanor. This issue of control among rangers is similar to what an anthropologist noted among cowboys.[15] On control before the oil hit, Cordell Roy said, "I had a real comfortable oil spill in my mind."[16] After it hit employees could only control the spill cognitively. Again, Ray Bane said it best, "The only way you could control the spill was in your head."[17] Some degree of control was found to be necessary otherwise the magnitude of the injury, the failure to protect park resources, and the insignificance of human 'redemptive' efforts would have overcome employees.

Park Service culture, as well as mandate, tended to amplify the impact of the spill on Service personnel. Katmai and Kenai Fjords are highly esteemed parks within the system, as much esteem as is placed on natural area parks. Or, restated the qualified preservationist values of many Service employees take their fullest expression in large and wild parks. Preservationist sentiment is often enjoined with a personal sense of responsibility toward park resources that often approaches a sense of territoriality. The NPS tradition of physical protection coupled with pride in our work can lead to a singular sense of ownership, not stewardship, of resources held in trust. The oil spill smeared this sense of responsibility for the highly treasured wildness of Katmai and Kenai Fjords. Even when the hand of management on back-country Katmai and Kenai Fjords was particularly light, when threatened a pandora's box of sentiment, of park territoriality came rushing to the fore. The oil spill experience strongly jarred one sense of park territoriality. Suddenly with the onset of the oil, resources that were thought to be a part of the park, were, from a park service perspective, reclaimed by the legally responsible, but largely not on site, agency. After these statutory responsibilities were established, NPS had to recognize on a daily basis that many of the "park resources" were not the responsibility of the National Park Service. This recognition was difficult from the territorial (and ecosystem) perspective of many Service employees.[18]

Other traits of an unofficial NPS culture, that of resource optimism and a "can-do" attitude made the spill impacts particularly strongly felt. The resource optimism tradition in the NPS is exemplified in one oil spill story told both by Cordell Roy and Dan Hamson about their response work in Kodiak. The story details how with little or no warning, the USGS asked them to decide in twenty minutes where the "oil hit" was to be directed on the Katmai coast.[19] Dan and Cordell made clear, that they, and few other NPS staff, had ever been faced with the question of where to destroy pristine park resources (to save others). Besides it being an "unnatural" situation for most Service employees, the story also documents the still operative naivete which assumed that human technology could yet control the oil. The story illustrates the absurd, inverted, events of the spill by presuming an optimistic view of protecting Katmai resources. External threats particularly pique the high ideals of the park

service. The response to threats is highly emotional and morally charged, or what one impartial observer called a "religious response."[20] It is the difference in character of response between USCG and NPS personnel, in part, which often lead to a widening communication gulf between agencies. NPS views that parklands were different than other lands and deserved further protective measures fell on deaf ears among USCG personnel. And sadly, we were not able to prove this point to other Trustee agencies to the point that the difference counted in damage assessment or restoration.

Disasters often prompt a strong desire to control what has been uncontrollable. This desire was reinvigorated by the NPS penchant for control. To control the spill, the NPS sent what it considers its best: rangers as RPOs. Indeed, rangers are the vehicle for agency control. Later, after the 1989 response phase, many regional employees exercised mental control by presuming the spill to be over. In effect, keeping the "bad news" story in the forefront of NPS attention was difficult, especially for an agency which prides itself on control, pride of resources, and of resource optimism. In the end, the uncontrollable nature of the physical event of the spill and the wild fluctuations of spill bureaucracy, Trustees, and political machinations were most easily controlled through attention placed elsewhere and agency silence.

One clear lesson of the spill, that NPS management must look beyond the borders of the parks to protect park resources was demonstrated repeatedly during the spill. This lesson is contrary to one NPS inclination within parks, namely, attention to in-park matters to the detriment of external forces which may eventually impact the park. 'Holding the fort,' did not keep oil from park beaches.[21] An effective means of controlling oil and other external threats precludes insular thinking. An internal preoccupation doesn't work ecologically or politically in an event like the *Exxon Valdez* spill. In hindsight, one initial park service idea to base the Katmai response out of Kukak Lake Lodge (on the west side of the Alaska Range) illustrated the propensity of the park service to think and respond internally, even in the face of a radical external event. This inertia to look beyond boundaries, to mitigate transboundary threats is also noted in the *Vail Agenda* and the *Gordon Report* or *National Parks: From Vignettes to a Global View*. Clearly, the way in which business is sometimes run in the park service downplays or ignores that parks are increasingly modified and influenced from afar. This predilection to think atomistically about parks and not about the political and ecological regions in which they lie has had, and will have in the future, disastrous consequences.

Some of the notable park service successes during the spill were successes because they leapt over the tendency to think and act within park boundaries and traditional forums. For example, the success of the MAC group in Seward in which the NPS played a primary part were built upon a multi-agency group, momentarily suspending ownership boundaries and thus extending and amplifying their voices and political clout. The ICS system in Seward functioned well because its members could draw on diverse resources whenever opportune. The same coordinated group effort occurred in Kodiak, in fact, without the Kodiak Emergency Council, NPS concerns for clean up efforts for Katmai and Aniakchak would

have been of much lower priority.[22] The NPS belated discovery that they shared many concerns and like mindedness of Kodiak Island residents strengthened and eased the task of clean up. These successes were due to the NPS willingness to jump over its tradition of independence in lieu of multi-agency cooperation. Unfortunately, a few seminal incidents early in the spill event reinforced for some, that the NPS was better off "going it alone." The independent realizations of Dan Hamson and Cordell Roy in ARO and Bud Rice at Kenai Fjords that oil was going to move out of Prince William Sound and hit national parks, and that what National Oceanic and Atmospheric Administration's officials were saying: 'that it was not going to leave the Sound' was wrong, was a seminal experience.[23] Thus, before the oil had even hit Kenai Fjords, the NPS had learned to suspect some official assertions. This tendency for some, was reinforced in another incident in Kodiak in which the Service and the USCG disagreed on whether oil had struck the Katmai coast. NPS investigators had personally seen the oil but the Coast Guard would not acknowledge these reports. A mysterious phone call from Washington to the Kodiak command center, pushed the Coast Guard to immediately helicopter over to the coast with NPS officials and resolve whether oil had hit Katmai.[24] These experiences, an environment rife with rumors and incomplete news (as discussed later) sometimes eroded trust in other agencies, reinforcing a go it alone approach that manifested itself particularly in the tort investigation.

The agency did, however, frequently cross over traditional communication barriers during the 1989 response phase. Frequent "crossing over" did not persist, however. Instead, the NPS institutionally confined this atypical business of talking with admirals, the State of Alaska, on-scene coordinators, Trustees, and the like to the ARO oil spill office. This office became the buffer between the on-going unpredictableness of the event and the normalcy seeking impetus within NPS. Spill office personnel did not have a clear channel to upper management in Washington. Instead, they often became the terminus or pocket of information, rather than a conduit. After the 1989 response, the NPS frequently resumed a more insular way of doing business, ignoring the multiple successful lessons of the benefits derived from crossing traditional boundaries whether they be park boundaries or methods of doing business.[d]

DISASTER BEHAVIOR

Much of the behavior of NPS personnel responding to the *Exxon Valdez* oil spill fits in well with behavior described by social science disaster researchers. In other words, the extensive disaster literature can serve as a virtual "guidebook" to much of NPS staff behavior and larger context in which they occurred. However, disaster literature only has cursorily looked at agency behavior, in contrast to a tendency to focus on individual behavior. Yet what the

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[d]One exception to this return to insularity was the involvement of ARO archeological staff in the Cultural Resource Working Group formed under the State of Alaska Historic Preservation Office chair.

available literature and evidence suggests is that the marks of surviving and making sense of a disastrous situation have affected both individuals and agencies, the latter at minimum in a general sense.

Disaster experts debate on a precise definition of a disaster, but the major contours of what a disaster means are agreed upon. One expert writes of disasters as

> a basic disruption of the social context within which individuals and groups function, or a radical departure from the pattern of normal expectations.[25]

Another scholar defines a disaster as

> an event, concentrated in time and space which threatens a society or a relatively self-sufficient subdivision of a society with major unwanted consequences as a result of the collapse of precautions which had hitherto been culturally accepted as adequate.[26]

The threat of a disaster has two quite different components: "degree of danger (perceived or real) and degree of control."[27] Uncertainty, fear, desire for control and reestablishing normalcy, and chronic stress further characterize technological disasters. Some scholars are quick to note that there is much variation in the response to disasters, but several generalized themes do exist. These same experts make a qualitative distinction between a disaster and an emergency. Basically, a disaster is larger than an emergency, thus, capable of overwhelming well organized emergency services. This distinction is important for the NPS to acknowledge, as we are typically prepared for many emergency scenarios, but like other agencies are poorly equipped for a disaster. Further, the Service should take care to not treat a disaster such as an oil spill as a large emergency. A disaster threat is more fundamental, it challenges many overall assumptions and obviously it wreaks havoc in a scale of magnitude much greater than an emergency. The chronic nature of an oil spill further creates a dynamic much different than an episodic emergency.

A key distinction in disaster literature is the difference between a "natural" and a "technological" disaster. A natural disaster is caused by "an act of god" (such as an earthquake), is very sudden and powerful, and highly visible. Humans have been affected by, and responded to, natural disasters for eons and the response often produces social cohesion in the process of "remaking" an affected community. Technological disasters such as Three Mile Island and Love Canal, are new occurrences and pose new problems. Technological disasters also are powerful and unpredictable, but can be "invisible" to the eye (toxic wastes), and often stimulate social strife, rather than social cohesion. Behavior in effect, "adaptive" to meet the exigencies of natural disasters may produce the opposite result when people face an oil spill, toxic waste dump, or the like. Conflict and contentiousness, rather than a sense of community spirit, characterizes the outplay of technological disasters like the *Exxon Valdez* oil spill. Or, as disaster experts state, "there is no real parallel to this syndrome of anger and blame for natural disasters."[28] An event like the *Exxon Valdez* oil

spill, "... reflects failure by systems that once were under control." What is obvious now is that the expansion of technology and our appetite for oil overshadows our ability to control technology or to foresee those problems that it will create.[29] The magnitude of the threat by its size alone interlinks provinces of daily life such as ecological zones, political structures, economic endeavors, and national parks, which we tend to assume are distinct and separate. Assumed borders of daily life ran together in the oil spill.

Responding to technological disasters is often humbling. Often the magnitude of the disaster and its many unknowns make decisive actions very difficult to identify and then implement. Yet many people responding to events like the *Exxon Valdez* spill assume they are fixable, especially with new technology.[30] The pre-spill presumption in most people's minds that there are technological safeguards to mitigate large spills were shattered. As in the *Exxon Valdez* oil spill the magnitude, many unknowns, legal complexities, and partial knowledge of many participants stifled the identification and implementation of decisive actions.

Other characteristics of the spill such as an atmosphere of "chronic stress" match those of human induced disaster. This chronic stress precludes "a return to the familiar as rapidly as possible..." aggravating feelings of alienation and emotional disturbance.[31] This statement is particularly pertinent towards Alaska Regional Office personnel reaction to the spill. As long as a "return to the familiar" was impossible the spill was deemed "ongoing." But later, when normalcy reigned, the "spill was deemed over." In this context, closure of the event began when the emergency visibly ceased for most people. The psychological need and desire for closure overran the reality of the situation, which was a strong presence of the NPS in post-response phases of the overall spill event.

Disaster researchers also note "the nature of threat (duration, magnitude) and its perceived controllability, irreversibility, selectivity, and effects may help explain coping behavior."[32] Both the staggering magnitude and the chronic, 'when will it ever stop,' nature of the spill delayed coping behavior. Further efforts to stage the clean up and remedy the spill often took place outside the spill area, raising question of whether such efforts were indeed, coping behavior. Or as one expert writes: "Political conflict should be expected in technological disasters because of prolonged duration and sustained, perhaps unabated, distress."[33] Acknowledging this likelihood and preparing for a sustained political atmosphere will help the Service in similar tragic events.

Disaster literature suggests that the NPS response to the unsettling effects of the spill should be understood, on one level, as a behavioral response to a disaster. The urge to protect and then clean up park beaches needs to be understood as both an attempt to mitigate biological effects of the spill and a socio-psychological response to a disaster. This socio-psychological response "to do something" is part of an effort to heal the wounds of the spill. Perhaps most important to recognize for similar future events is that managers understand that there is this human urge "to do something" which may stem more from a human desire as much as an ecological necessity. For example, in the early days of the spill very few people even dared to suggest that the best thing to do was nothing. Later reflections on what course should

have been pursued makes this "tabooed" option more desirable than what was admitted in the heat of the battle. The scientific literature on the spill is equally naive about this human urge to do something in the face of a disaster. For example, the scientific-ecological literature makes a constant assertion that 'if only left to a rationale decision making process' planning would function much better. The unrecognized problem being that disasters call for much more than "rational thought," indeed the urge to do something is the first step in a community working to remake itself. This drive to do something must be acknowledged and measured, rather than blindly assuming NPS actions were simply efforts to preserve ecological well being.

Like many technological disasters, uncertainty was/is a trademark of the spill. There was uncertainty which prompted questions such as: What will happen tomorrow? What are toxic levels? Will park beaches ever be pristine again? Will it happen again? Will ARO managers be sacked? And who is going to pay for it? Like virtually all agencies, most attention was placed on the biological effects of the spill on wildlife. The sociological or psychological effects of the spill on personnel was never given the attention that effects on animals was given. Sadly, the event hurt a few NPS participants, despite an ARO staff awareness of the traumatic nature of the event and the availability of counseling for NPS employees. Further it appears the "wounds" are quite different and derive from diverse sources.[34]

One source of the conflict in a technological disaster is the human propensity to ask, 'why did this happen?' and 'why me?' These questions are less forcefully asked after an earthquake, volcanic eruption or other natural disaster events. Following a natural disaster:

> community members engage in acts of mutual helpfulness and cooperatively take part in beginning the return to normalcy, they actively demonstrate to themselves and others that it is possible to create a sense of community even though taken-for-granted institutional resources have been destroyed or at least temporarily disrupted.[35]

In contrast, a sense of shock and unfair selectivity characterize technological disasters.

Often there is conflict between the "victims" and the "non-victims" or in the spill arena between the victims and the "spillionaires." Aggravating this inter-community conflict is a frequent reaction to a technological disaster to relocate or a pervading sense that a community cannot be rebuilt. Without this commitment to rebuilding a community the "traditional patterns of social support may not develop in technological disasters."[36] Within Service ranks, discord was highly localized between a select number of immediate participants. Within the larger Service community there is little evidence of discord, and more strong evidence of the NPS family sympathy and helpfulness in the form of volunteering staff time and effort, and incurring budgetary losses and threats. Further distancing community members from one another is a dependence on scientific and regulatory personnel to interpret and manage the ongoing disaster relief. Like community

members of the oil spill area, Service employees were cut off from much first hand knowledge of damage assessment and restoration research and activities. Strikingly, this feeling of being cut-off was rarely voiced by Service personnel. This behavior does not square with the predictions of disaster behavior. Its aberration may be explained, in part, by the overriding desire on many Service participants to be over with the spill to the degree that they were less interested in "lingering science." In sum, the oil spill, like a technological disaster, creates an environment rife with conflict, especially between agencies, but also localized within the ranks of Service employees.

Disasters create atypical social situations. The disaster creates a social "climate" or atmosphere of uncertainty, ambiguity, often an unsatisfied need for information not forthcoming from official channels, and a collective excitement. This climate is fertile ground for the proliferation of rumors.[37] Or, restated, "...rumors are a concomitant of virtually every disaster situation."[38] Rumor substitutes for information and contrary to its vernacular meaning equivocating rumor with error, it may or may not be true. In a social science sense rumor is:

> communication through which men caught together in an ambiguous situation attempt to construct a meaningful interpretation of it by pooling their intellectual resources.[39]

Rumors are a collective transaction in which participants try to make sense of the event from their perspective, often severely handicapped through a lack of information and intimately knowing only about one segment of the disaster. As during the *Exxon Valdez* oil spill, rumors often are pessimistic and occur when something bad has occurred. Further, the vagueness of rumors may stem from a lack of information or a need to express a general attitude. And rumors often take as their topic non-normative subjects which might be ignored by official information sources.

The 1989 response phase of the spill was often cloaked with rumors. Service personnel heard and swapped rumors such as: at Kenai Fjords dispersants were being dropped in Pony Cove, and one variant of this maintained that helicopters were dropping dispersants at night.[40] Another rumor swirled around the origin and peculiar circumstances of white foamy stuff which was sampled in a strict chain of custody via the Coast Guard and then lost in route. Later, the state ADEC sent in another sample of this foamy stuff and it was diagnosed as "fish fat." More important than the factual accuracy of these particular rumors is the attitude expressed towards the Coast Guard. These and other rumors infer that the Coast Guard was not acting impartially, but rather were bedfellows with Exxon and Veco. This perception, whether real or fallacious, demonstrated a key interest of NPS personnel in the spill, namely, figuring out who were park service allies and who couldn't be trusted. Perhaps the most frequent rumor was that submerged "patches" of oil were drifting with the current and which official sources refused to recognize.[41] These rumors and others also suggest a degree of mistrust towards the stated positions and "facts" of other agencies.

What is unexpected in the NPS involvement in the spill is that rumor creation and transmission were not confined to the 1989 response phase as one might expect. Rather, new rumors were generated to meet the ambiguous situation of Trustee management of the spill aftermath, potential court cases, and post-settlement restoration planning. Its not that the older, response phase rumors persisted, but that new ones were created. For example, rumors flew in trying to explain the sudden White House decree that in late February 1990, damage assessment studies would be completed and restoration begin. Some tellings attribute the source of this demand to former White House Chief of Staff, John Sunuunu. This unrealistic decree actually set back damage assessment work, with principal investigators having to spend some time contemplating how to "hurry-up" their studies. Rather than being able to follow the course of their study design they had to alter it for some not well understood political change. For the limited participants in damage assessment, rumors became a necessary tool kit in the absence of authoritative information and because Trustee agency middle managers naturally tried to make sense of a very ambiguous situation.

Other rumors included an explanation for former Regional Director Boyd Evison's "move" to Denver to become Deputy Regional Director at Rocky Mountain Region.[e] The rumor asserts that Boyd was removed because of his strong advocacy for the park resource which was looked upon with disfavor in Washington, D.C. The message here is easy to discern from a NPS perspective, namely, the "long arm" of Washington politics can reach deep into NPS affairs. Further, the rumor perfectly encapsulates ARO and impacted park employees assessment of the estranged relationship between Evison and senior DOI officials. A final cyclone of rumors surround the fall 1991, "reorganization" of the Department of Interior staff working on the spill.[f] The post-settlement reorganization resulted in the replacement of Walt Stieglitz as Interior Trustee, with Curt McVee. The reorganization went further, with the replacement of the Interior Management Team members Paul Gertler and later Cordell Roy with Interior OEA staffer, Pamela Bergmann. Like the rumor about "Boyd's removal," these rumors exemplify what NPS employees found extremely distasteful, the degree of political meddling and non-control park service employees had over what matters most, NPS stewardship of their resources. These last three "latter day" rumors were based upon a similar concern, or condition, namely, that they, the NPS employees, were blocked from a full telling of what was occurring. The rumors were directed at filling in the blanks over what upper echelon Department staff were thinking about, and doing to, the Service. In the lingo of rumor research, there persisted enough ambiguity and unsatisfied need that rumors thrived in the spill bureaucracy. This is doubly ironic, as many of the very tellers of these rumors were far more knowledgeable about the inside story of the litigation enshrouded machinations of the Trustees than the general public. Yet even, and especially, from their

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[e]This rumor was and is pervasive in ARO. It is the working presumption of many, perhaps most, regional staff who worked on the spill and under Boyd Evison.

[f]This rumor group was primarily contained within the staff of the Oil Spill Office, Alaska Region.

perspective there was a need to know, to understand the nuances of each decision that rumors and unofficial information were much sought after. Oil Spill Office staff worked whatever information conduits and networks they could to piece together as whole of a picture of a particular event as they could. Or, in Sandy Rabinowitch's apt words, "Networking was all we had."[42] Unfortunately, even with expending much energy on networking, the oil spill office was often working with very fragmentary knowledge of who made what decision, why, and exactly how that would eventually impact the Service. The ability to have an extended information network was an underrated, but critical, part of the damage assessment and restoration process.

Long after the emergency response phase was over, staff of the NPS oil spill office were regularly engulfed in a climate of emergency machinations created by the trustee process. Like rumors which persisted after the 1989 response phase, involved NPS staffers worked in an atmosphere of immediate action, change, and episodic, but sweeping intervention of strong political and legal forces. The bureaucratic spill created a mood of "presumptive priority" over park and select region staffs. Thus, for example, paperwork prepared by the Cultural Resources Division for archeological mitigation would typically be modified, remodified, and demanded under extremely short time frames. One indirect function of this atmosphere of presumptive priority was drawing boundaries. Those who were participating in the spill could easily identify others, and be identified by, the lingering emergency climate in which they had to operate.

Technological disasters such as the *Exxon Valdez* spill also had distinct effects on agency behavior. One immediate effect was that agencies were suddenly "forced into more and different kinds of interactions with other groups."[43] More critical to understanding NPS interactions with the FOSC was the insight that "during disasters, organizations will lose some of their autonomy, (e.g., direct control over their own functioning)."[44] This is exactly what happened when the FOSC attempted to circumscribe NPS actions and even challenge NPS mandates during the 1989 response phase. There was an homogenization of resource values during the response phase in which the FOSC, and in the damage assessment phase in which the Trustee, derived values became the norm. In both phases, the NPS did not share these norms. And, worse, in many instances the Service stood outside of this normative process. We bordered on being a Trustee misfit. To better advocate our position, the key question became how could the NPS become a more effective role player given their resource philosophy and values? It is highly unlikely that the NPS could convince other Trustee agencies to see it our way. It would be more realistic to try and create tolerance for our "dissenting" values. To help create tolerance for our viewpoint, it behooved us to emphasize only a few, absolutely critical views in the most succinct fashion possible. Other mitigating possibilities such as well established networks and interagency working relationships are one course of action. Negotiation of values in an interagency context should also not hang upon peripheral matters. It is clear that after a disaster commences there is little time to find or create mutual interests, develop close interagency friendships or understanding which can moderate differences.

During a disaster different kinds of organizational performance were needed once regular daily activities become problematical. A common belief or misunderstanding, that people are overwhelmed and thus respond chaotically to disasters in general, may have influenced staff to characterize behavior at Valdez, Homer, and perhaps Kodiak as "chaotic." Chaotic perhaps compared with regular activities and pace, but not without reason. Clearly the speed at which events unfolded and receded was chaotic by any standard. But much response behavior was not confused, but clear headed in the context of a frenzied pace and partial knowledge. Important to note in this regard is what disaster research asserts that:

> disaster victims are unusually quite frightened, but this does not mean that they will act selfishly or impulsively. They do not become irrational, but instead (one could argue) they tend to show greater rationality under stress than they do normally, if by rationality we mean the conscious weighing of alternatives in performing most of our daily routine functions.[45]

Behavior of NPS staff during the 1989 response phase, during the most clear cut emergency phase, reaffirms the above conclusion. The weighing of alternatives and overtly discussed decision making are hallmarks of the ICT experience in Seward and at the Kodiak Command Center.

Research only cursorily suggests organizational vulnerabilities to disasters. These vulnerabilities include: communication (intra-organizational and inter-organizational), personnel burnout, organization authority conflict (NPS-USCG), organizational domain conflicts, and the development of coordination. Concerning the problem of personnel burnout, one scholar writes, "This problem stems from the strong tendency on the part of key officials in positions of authority to continue working too long..."[46] There is a need for others to know what is going on, otherwise when replacement becomes necessary there is a total loss of knowledge and period of starting over which erodes overall performance. Burnout during the early 1989 response phase and in later times in the spill bureaucracy phase did effect NPS efforts. Despite strict adherence to rotation for RPOs and ICT staff, developing an effective means to "pass the baton" from one employee to another plagued the NPS, particularly during the latter "spill bureaucracy" stage. Lodging so much responsibility and institutional memory in the ARO Spill Office--with essentially a three person professional staff--increased the likelihood of future burnout. Rather than developing relief for the spill staff, the inverse case developed, in which their knowledge and abilities made them more and more irreplaceable.

The park level experience demonstrated that management efforts to "contain" the effects of the spill only on select staff, bore poor results. Those not participating did not feel as much ownership in the event, and felt ignored by senior management leading to strife within park staffs. Participation in the disaster event helped develop an institutional memory and nurtured a sense of stewardship towards park resources at a critical time.[47]

One unfortunate assumption among some NPS managers, especially those involved in response operations, was that they have learned through hard nose experience how to effectively handle the next disaster. Often these people evoke the successes of the ICS and propose this as an antidote to the next disaster.
The "knighted" successes of the ICS provoke the comment:

> the fundamental belief of the emergency management community... is ...that catastrophic events can be managed by organizations that conform to predefined structures and operate according to predefined plans. We believe the current approach is simplistic and the problem of organizing for response remains unsolved.[48]

The same authors argue for flexibility, decentralization, and not totally predefined plans as most effective. Another respected disaster scholar writes: "A general conclusion is that a direct personal or organizational disaster experience is less useful for disaster planning purposes than is often recognized."[49] The claim that personal experience is the only or best teacher is further discredited when one realizes that the ICT phase was only the beginning to a very long and complicated event. Even a shining effort in response may not keep beaches unoiled, or yield agency standing and effectiveness in damage assessment and restoration. It is simply one aspect of the overall event, certainly not its conclusion.

One peculiarity of the spill is that within the impacted area, the NPS and other agencies, were not castigated as unresponsive government workers, rather the Service, and the parklands, became fellow victims. Big business, Exxon and Veco, and to some degree the State of Alaska, became villains, not the NPS. Indeed, in a perverse way, NPS actions reaped public relations benefit in both Seward and Kodiak. The polarization of community sentiment towards major actors was so dominant, for example, that differences between NPS and the Kodiak Island community about the citing of a barge borne incinerator at Kukak Bay at Katmai or at Kodiak Island did not produce a lasting bitterness between us.[50] Past working relationships, a sense of common purpose, and an agreed upon dramatic bad guy--Exxon--kept the not-in-my-backyard syndrome from overwhelming a sense of mutual resources at stake. The sense of being in it together, although an ephemeral in one sense, has created lasting relationships and good will in both communities. For example, NPS Kodiak contact, Bill Miller, wrote in one report: "He [a Kodiak Fisherman] re-emphasized the fact that all the owners he talked to would rather work for the NPS than Exxon or Veco because they respected what we tried to do on the spill.[51] This same realization has not persisted among Trustee agencies, however, as competition has overwhelmed cooperation in many group endeavors.

NPS ORGANIZATION AND ADAPTATION

"Stay Flexible but Don't Go Limp"[g]

Being organizationally adaptive--or nonadaptive--to a fast paced, politicized, technological disasters can have a snowball effect on future agency options, effectiveness, and position. Effective adaptability must stem past the oiled parks and field personnel, but also include Washington, D.C. and DOI officials, as well as the ARO. For example, not taking a substantive part in the injury studies had dramatic repercussions. Those species selected for injury study by a consortium of lawyers, biologists, and agency managers became the defacto species at which restoration was and will continue to be aimed. Species selected for their prominence, obvious injury, and appeal to prospective jurors if there had been court proceedings were the species to which restoration efforts were targeted. Thus species which might show injury in the long term, were of less appeal to jurors (microscopic, intertidal organisms, or complicated relationships between organisms), were bypassed by injury studies and subsequent restoration efforts. In the park service context, this meant that our ability to not participate in the injury study phase would likely severely restrict our ability to have material benefits directed at park resources during the restoration phase. The lack of park service clout and will during the defining stages of injury studies meant there were no completed investigations which studied impacts to park wilderness, ecosystem integrity, intrinsic values of parks, or the perception of injury which might affect prospective park visitors. Other notable park service actions and especially organizational structures proved to be much more adaptable however.

In order to meet the trying, often ambiguous atmosphere of the spill, and later to what Dan Hamson called "the spill bureaucracy," the park service needed assistance beyond the typical options of overtime and staff dedication to the task at hand. The demands of managing disaster response led the park service to augment and even experiment with "normal" organizational structure. It became clear in the first two weeks of NPS involvement that the spill created more work and daily crises which consumed the attention of many regional office staff. For quite a number of Alaska Region employees this meant that other necessary tasks were put aside and delayed. Clearly the demands of the disaster called for additional help and for a streamlining in the regional office structure.

In the early phases of the spill two "alternative" organizational structures were devised. One structure was consciously imported, the ICS. The timely effectiveness of the ICS came from its uniformity in organizational structure, training, certification, and procedures.[52] The ICS

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[g]This jesting adage became a de facto motto for Oil Spill Office personnel, explaining the every day need to adapt to survive but also to be true to the NPS mission and values.

became relatively well known and rightly acknowledged as one success story within the spill. Or, as one NPS spill participant stated, "All the ICS needs is money and a purpose, and it goes."[53] Basically, the ICS used during the spill was grafted onto the existing region and park structure, the ICS employing a highly articulated chain of command, clearly differentiated functions, and a team approach to solve the logistics, financial, and personnel problems arising from the crisis. Designed to respond to the exigencies of forest fires, the all risk ICS was now being applied to other crisis contexts. The ICS methods bypassed the inevitable delays, lethargy, and red tape of standard government business. It did not, however, offer a different model of centralization within the park service, rather it presented a turbo-charged version of an existing, but latent structure. The ICS "graft" onto the existing structure and the quickness in which it moved raised frequent questions and concerns about the chain of command which otherwise might not be raised.

This concern for the chain of command and its clear articulation in function and personnel, was exemplified by the daily organizational flow chart issued by each spill ICT. During the response phase, no other NPS document rivaled in numbers the daily issuance of the ICS flow chart. It became the document most relied upon to stem off the chaos of the event, frequent staff changes, and provided a sense of order. The ICS imported the consistency of agreed upon rules, paperwork, and support from fire services. But the ICS could not resolve questions of ultimate authority, for example, whether the ICT reported to a park superintendent, ARO Area Command, or to a lesser degree, the regional director. The scrutiny the spill brought to bear on individual parks and park service actions, created an interest and need for responsiveness that overran the normative Service assumption of park superintendent as the "captain" of his or her park. The status quo of divisional labor, and the normally accepted borders between positions were in a state of flux to meet the exigency of the hour. The constant threat of chaos lead to a strong drive for order, organization, and uniformity. The consistent drive for uniformity in the face of a disaster, for example, the FOSC system of evaluating the level of oiling on all beaches, coupled with the magnitude of the spill (and most disasters) takes its handling into higher levels of decision making. The numbers of agencies involved in the oil spill and the Trustee process also created a need for interagency uniformity. This "drive" for uniformity inherently clashed with the Service's structure of decentralized control of superintendents. How best to resolve this structural dilemma needs further attention from high level Service managers and policy makers. The ICS worked well being primarily responsive to one agency or in one environmental/political enclave such as Seward. However, an ICS, responding to a diversity of agencies and contexts would be hard pressed to satisfactorily meet the needs of all or most of the involved agencies.

The second alternative and adaptive structure the park service used to combat the spill was more intrinsic to the existing structure than the ICS. Apparently it was also less consciously devised than the ICS. The second "alternative" organizational structure evolved out of the given regional structure and function, but chain of command became more articulated and further streamlined. Basically, the latent hierarchy of the ARO became manifest and divisions with more critical functions in the spill response and status, such as the Ranger

Division, became more pivotal in the overall process. During the disaster there was a much more explicit acknowledgment and exercise of power and rank. In less extreme circumstance, many NPS employees downplay this paramilitary structure, indeed the metaphor frequently evoked is of the "NPS family." During less stressful periods, the "family" model is evoked, informality pervades and a high degree of egalitarian behavior is presumed as normal.

There is a trade off to periods of full structural articulation, when the institutional pecking order is front and center, as occurred during the 1989 response phase of the spill. A number of employees were "hurt" during these crises periods, in that their role and status became subsumed to tasks at hand, or others simply rebelled at the paramilitary structure. Other employees, and divisions, "profited" from a momentary "elevation" in function and status. What is important to note about this second form of "adaptation" is that it is not well known and appears to be a potential adaptive structure for any sizable park service unit, be it in a park or region. In other words, there is an available organizational "latitude" within the park service that is useful in times of crisis and disasters. Short-term efficiency, however, is ultimately played off against a long-term result of clogged communication channels, bruised egos, and employee dissatisfaction. For some adversely affected by this organization adaptation, the result was their loss of idealized notions of how "the Service really works."

A radically different organizational structure later evolved after the 1989 summer response effort. The Office of Oil Spill Coordination operated very effectively as a decentralized structure which grew organically out of the incident. However, the structure of the spill office was not consciously designed or readily acknowledged, rather it was considered a tolerated "cell" within the regional office. It came about more as a product of personalities which by nature were collegial, egalitarian and extremely committed to the NPS and reducing the effects of the spill on parklands. It also was allowed to flourish because there was no day-to-day chain of command communication between the Alaska NPS through to the upper echelon of the Department of the Interior. Estranged from Washington policy makers such as the Washington Policy Group, the oil spill office was allowed to grow on its own accord. Rather than the hierarchial structure of the ICS or the 'structurally articulated region,' the spill office operated on a consensual basis. The atypical situations staff confronted were accommodated well in a relatively structureless office in which constant brainstorming was almost a daily occurrence. Structure was occasionally imposed upon the office by the regional directorate, but within the office rank was ignored among the professional staff. Further, the division of labor was only articulated in the broadest of categories, or really primary responsibilities. The mercurial events of the spill bureaucracy were interpreted in a forum in which all members opinions were sought out and respected. Working in an arena with little or no protocol the spill office professional staff had to "make it up as they went." The structure and character of the office made it extremely efficient in working with the resources at hand and when NPS operations were essentially in a reactive mode. The small size of the office, at best a handful, made consensual decision making possible. Communicating and working with professionals in other agencies far senior in rank and with other agencies with much larger labor forces the spill office mustered its resources

effectively, if opportunistically. The adaptive capabilities of the office, while ultimately ephemeral, were effective and need recognition. It is a safe assumption, that had an orthodox structure been put in its place, it would not have been as responsive or creative to the ever changing conditions of the oil spill bureaucracy.

Primary to the success of NPS efforts during all phases of the *Exxon Valdez* incident was access to information. Since events, policy changes, and organizational structures changed so quickly access to information became a prerequisite to effective decision making. The oil spill office staffers understood this and used whatever techniques such as professional networks and exchange of information with other participants from other agencies to stay abreast of changes. If the NPS had solely relied on official channels our efforts would have been too slow to have even been effectively reactive and our decision making severely compromised. Informal access to information meant the difference between being prepared for or overtaken by a deadline or having an opportunity to guide decision making rather than being engulfed by it. The need for good and timely information grows in importance with the level of chaos and complexity of an event such as *Exxon Valdez*. The NPS must pay attention to mechanisms and opportunities to "hearing" and gathering information. This requires a continued interest in external communications and involvement with other agency personnel, private citizens, and elected officials. Unfortunately, the NPS interests were hurt by our lack of interest in being part of the interagency "action." For example, when opportunities such as stationing an NPS official in Valdez during the early spill response phase present themselves, we need to find an individual, or two, who are suited for that type of policy making role. And the critical need for information, and the shape shifting nature of the event, should lead to double checking key policy calls such as what is and isn't accepted as damage assessment protocol.

Three quite different types of organization structure--discussed above--proved to be most useful in their time. Clearly one type of structure such as the oil spill office structure would not have worked in the early emergency phases of the spill. And this is the point where different types of structures, as well as personalities and skills are needed for the different, shape-shifting conditions of a technological disaster such as the *Exxon Valdez* oil spill.

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GLOSSARY

acquisition - outright purchase of land or protection of resources similar to those injured in terms of ecological value, function, or use

Area Command - operational unit created within ARO to manage the various NPS orchestrated field operations and personnel combating the *Exxon Valdez* oil spill

baseline data - basic inventorying and sampling of resources found in a geographic locale

boom - containment apparatus designed to deflect or prevent further dispersion of oil on water's surface

bioremediation - chemical applications designed to further enhance the presence and effects of oil eating microbes; two major brand names used during *Exxon Valdez* operations were Inipol and Customblen

Clean Water Act (CWA) - officially known as the Federal Water Pollution Control Act; 1972 Act established the basic language which currently applies to oil discharges; Act was amended in 1977 and augmented through OPA 90 provisions

cleanup - actual physical removal of oil from impacted areas; see type A and type B cleanup

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - statute addresses hazardous substance releases into the environment and cleanup of inactive hazardous waste disposal sites; provides broad federal authority to respond directly to substance releases which may endanger public health or the environment

contingency valuation - method of setting a price for resources not normally sold or traded in the market place; considered a viable method for fixing prices on resources having intrinsic value (ie: the value of a pristine coast)

COREXIT 9580 - an Exxon chemical dispersant designed to physically breakdown oil

cultural resource - aspects of a society both past and present, valued by or representative of a given culture (ie: historic structures, artifacts, sacred sites)

Customblen - bioremediant agent approved for controlled use on NPS lands impacted during spill

damage assessment - litigation driven post-spill operation to identify, quantify, and gauge spill impact to resources; end product of damage assessment is restitution from responsible party

external threats - adjacent land use activities and development outside park boundaries which pose a threat to park unit resources

Federal On-Scene Coordinator (FOSC) - a pre-designated Coast Guard officer in charge of spill response operations for navigable waters within U.S. boundaries; for inland spills an EPA official serves as FOSC

fiscal year - yearly period established for budgetary purposes; federal government's fiscal year runs from October 1 through September 30 of the following calendar year

hydrocarbons - organic based compounds in oil falling into two groups: aliphatic or aromatic; aromatics are the more toxic of the two

Incident Command System (ICS) - an interagency structure that was originally designed for training personnel in managing wildfire incidents, but is now considered all risk; system utilizes a common organizational structure to manage incidents

Incident Command Team (ICT) - individuals trained under the ICS who are assigned to manage a specific incident

Incident Management Team (IMT) - NPS initiated concept which draws upon NPS personnel with ICS expertise to manage extremely large and complex non-fire catastrophes, and preplanned events
having implications for park units

Inipol - bioremediant agent; NPS disallowed use of this product on park lands

intertidal zone - area below the mean high tide line which is repeatedly washed over during high tides and reexposed during low tides

intrinsic values - intangible uses and perceptions of worth which are not bought and sold in the market place

Management Team - working group formed to assist the Trustee Council in planning, implementing, and evaluating NRDA effort

mean high tide line - average highest level that water rises to along a shoreline

memorandum of agreement (MOA) - signed document defining the relationship between bureaucratic entities for a specific issue or operation

mousse - a frothy water in oil emulsion, generally quite viscous

multiple use - wise use and management of natural resources on public land for the greatest good of the greatest number of people over the longest time

natural cleansing - breakdown and dispersion of oil through storm surges, wave action, and related weathering

natural resource - non-living resources such as air, land, sediments, surface, groundwater; living resources including fish, wildlife, other biota

Natural Resource Damage Assessment (NRDA) - CERCLA defines what natural resources are, and outlines procedures for documenting natural resource damages; NRDA does not include provisions for damage to cultural resources

Oil Pollution Act of 1990 (OPA 90) - landmark U.S. spill statute for oil spill prevention, response, and liability

Oil Spill Liability Trust Fund - a $1 billion dollar spill fund created under Title I of OPA 90; fund is financed through a five cent a barrel fee on oil domestically produced or imported into the United States

pre-inventory - gathering of resource samples prior to spill impact

preservation - a primary mandate of NPS; protection of the scenery, wildlife, natural and historic objects by such means as will leave them unimpaired for the enjoyment of future generations

Regional Response Team (RRT) - 13 regional entities formed under the National Response System; charged with making recommendations, providing advise and support to FOSC during spill events; the Department's Regional Environmental Officer serves on the RRT

response - initial spill operational phase focusing on spill containment and recovery

restoration - actions undertaken to return an injured resource to its baseline condition, as measured in terms of injured resource's physical, chemical, or biological properties or services a resource previously provided

Restoration Planning Work Group (RPWG) - under Management Team guidance would develop restoration planning activities for resources impacted by the spill

risk politics - theory which says society fails to adequately plan for low probability-high risk technological disasters because chances of such events occurring are so remote

special interest group - aggregation of like minded individuals who organize for the purpose of securing benefits and achieving goals through participation in the political process

Technical Advisory Group (TAG) - an interagency team established during *Exxon Valdez* to survey oiled beaches and make recommendations for cleanup

technological disaster - human made catastrophes resulting from modern society (ie: oil spills, nuclear accidents, abandoned toxic waste sites)

311(k) - mechanism within CWA which establishes procedures for the recovery of legitimate spill response costs from the Coast Guard managed fund; provision has been superseded by OPA 90 Oil Spill Liability Trust Fund

Trustee Council - Trustee representatives tasked with overseeing the damage assessment and restoration processes relevant to *Exxon Valdez* spill

Trustees - CERCLA provisions authorize the designation of federal and state officials with appropriate jurisdiction to act as trustees for spill impacted public land

type A cleanup - a cleanup method relying primarily on the use of hand tools to scrape, scrub, and physically remove oily debris

type B cleanup - use of mechanized equipment, high pressure washing, and repeated applications of chemicals to remove oil

Washington Policy Group (WPG) - the day-to-day administrative Trustees in Washington, D.C., acting on behalf of federal Department Secretaries with trustee responsibilities

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INDEX

Acquisition:
- Kachemak Bay: 104, 108
- Kenai Fjords: 107, 109, 136, 152

Ahlstrand, Gary: 69, 105
Alaska Department of Environmental Conservation (ADEC): 15, 16, 25, 26, 30, 51-55, 138, 186
Alaska Native Claims Settlement Act (ANCSA): 40, 56, 107
Alaska National Interest Lands Conservation Act (ANILCA): 9, 11, 23, 92 141
Ames, Dave: 16, 17, 19, 20-23, 27, 51, 88, 89, 90
Archeological Resources Protection Act: 38, 39, 56, 66, 99
Arctic National Wildlife Refuge (ANWR): 23, 128
Alyeska Pipeline Service Company: 15, 16, 84, 85, 87, 88, 161
Area Command: 28, 29, 34, 41, 50, 51, 87, 88, 91, 92, 125-127, 192

Babbitt, Bruce: 107, 151, 152
Bane, Ray: 25, 26, 29, 87, 88, 90, 81, 96 126, 134, 179, 180
Baseline data: 21, 38, 91, 127, 141, 142, 167
Bergmann, Pamela: 18, 19, 73-76, 98, 108, 128-130, 134, 187
Betts, Frank: 29, 50, 91
Birkedal, Ted: 107, 134
Bioremediation:
- Customeblen: 54, 55, 60, 131
- Inipol: 54, 55, 60, 131

Bligh Reef: 14, 16, 86, 160, 164, 165
Bonnicksen, Thomas: 123, 124
Boom:
- Defensive booming: 20, 21, 88-91, 127, 161

British Petroleum America (BP): 87, 164
Bureau of Land Management (BLM): 19, 73, 76, 129, 130
Bush, Administration: 22, 23, 33, 61, 100, 127, 128, 151

Cables, Herb: 33, 127, 147
Castellina, Anne: 17, 19-21, 25, 28, 52, 55, 89-91, 93, 96, 105-107, 126, 127, 131, 134
Chugach Alaska Corporation: 56, 57
Chiswell Islands: 23, 138
Clarke, Jeanne: 139, 140, 142
Clean Water Act (CWA): 30-35, 38-40, 66, 71, 89, 95, 143, 149, 151, 162
Cleanup:
- Direct costs: 111
- Indirect costs: 111
- Natural cleansing: 52, 52, 59, 111

Cleanup:
- Type A: 52, 30, 111
- Type B: 30, 31

Clinton Administration: 107, 108, 151, 152
Cochrane, Timothy: 93, 121, 122, 124, 125, 137, 138, 145, 175
Code of federal regulation (CFR):
- 43 CFR 11: 36, 67, 95, 97, 98

Cole, Charlie: 104
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): 30, 32-36, 39, 66-68, 95-97, 99, 106, 143, 163, 175
Conflict:
- Bureaucratic: 121-123, 133-136
- Intra-agency: 124-127, 189
- Interjurisdictional: 128-131, 188

Contingency valuation: 105, 106, 163
Cowper, Steve: 16, 67

Dawson, Rick: 34, 39, 96
Damage assessment: see NRDA

Department of Justice (DOJ): 39, 63, 65, 66, 70, 96, 99, 106
Department of Transportation (DOT): 84, 85
Discretionary authority: 2-4
    Decentralized management: 169
    My park: 169
Duggins Dave: 142

Eliason, Alan: 59
English Bay Village Corporation: 56
Environmental Protection Agency (EPA): 36, 67-69, 84, 85, 99, 134
External threats: 130, 163, 165-168, 181
Evison, Boyd: 17, 19, 21-24, 27-33, 37, 51-55, 57, 68, 86, 88, 91, 92, 100, 106, 110, 126, 127, 130-134, 138, 143, 144, 147

Federal On-Scene Coordinator (FOSC):
    Ciancaglini, D.E.: 52, 52, 55, 84, 92, 94
    Robbins, Clyde: 27, 52, 85, 131
    McCall, Steven: 15, 16, 27
Fitzmaurice, Peter: 17-19
Frampton, George: 136, 152
Freemuth, John: 166, 167

Gates, Paul: 18, 19, 22, 23, 30, 31, 34, 51, 53-55, 57, 59, 73, 89, 128-130, 143, 144, 151
Galvin, Denis: 22, 24, 32, 33, 89, 127, 143, 147
General Accounting Office (GAO): 85, 150, 151, 166, 167
Gertler, Paul: 65, 96, 187
Gilman, Don: 20, 21, 87
Gore, Albert: 151, 152
Gould, Rowan: 37, 61, 62, 64, 65, 68, 69, 99, 100

Hallo Bay: 26
Hamson, Dan: 17, 18, 26, 36, 37, 50, 59, 61, 75, 93, 96, 97, 110, 125, 127, 130, 131, 139, 150, 180, 182, 191
Haertel, Paul: 37
Heymann, Philip: 121, 122
Hickel, Walter: 67, 104
Holland, H. Russel: 71, 75
Hydrocarbons: 58

Incident Command System (ICS): 19, 20, 86-88, 92, 126, 127, 147, 161-164, 181-193
Incident Command Team (ICT): 19-21, 24, 26, 28, 29, 32, 38, 50, 51, 86-88, 112, 126, 147, 149, 150, 189, 190, 192
Incident Management Team (IMT): 163, 164
Interest groups (constituent, special): 3, 5, 62, 72, 103-107, 121, 122, 142, 168, 170

Intertidal zone: 26, 31, 37, 56-58, 68, 94, 138
Intrinsic values: 62, 63, 70, 72, 105, 106, 163, 191

Kodiak spill region: 25-27, 29, 51-53, 59, 90, 125, 131, 134, 138, 182, 189, 190
Lawrence, Bill: 18, 19, 39, 86, 129
Leatherman, Stephen: 142
Leopold, Aldo: 6
Liebersbach, Dave: 19, 20, 25
Lindblom, Charles: 123, 140, 167, 170
Lovaas, Al: 37, 124
Lujan, Manuel: 24, 33, 40, 68, 72, 73, 97, 99, 108, 128
Luthi, Randall: 39, 64

McArthur Pass: 56, 60, 179
McCool, Daniel: 139, 140, 142
McVee, Curtis: 73-76, 107, 108, 187
Mean high tide line: 31, 56
Memorandum of Agreement (MOA): 33, 35-37, 97, 100

Miller, William: 52, 53
Morehead John: 74-76, 127, 132, 135, 147, 150, 151,
Mott, William: 22, 33
Mousse: 15, 25, 26, 29, 56
Muddling through: 123, 140
Muir, John: 6, 7
Multi-Agency Coordination Group (MAC Group): 20, 21, 25, 52, 87, 88-90, 93, 131, 134
Multiple use: 4, 128, 138, 166
National Environmental Policy Act (NEPA): 108
National Historic Preservation Act (Section 106): 39, 50, 56, 135
National Marine Fisheries Service (NMFS): 66
National Oceanic and Atmospheric Administration (NOAA): 16-18, 25, 26, 29, 30, 36, 49-52, 54, 55, 59, 65, 98, 99, 112, 137, 138
National Parks and Conservation Association (NPCA): 122, 123
National Response Team (NRT): 18, 36
Natural Resource Damage Assessment (NRDA):
    Cultural resources: 37, 39, 41, 66, 68, 94, 106, 107, 112, 163
    Management Team: 36, 50, 60-68, 73-75, 96, 99, 100, 187
    Natural resources: 35, 37, 39, 63, 66, 67, 94, 145
    Trustees: 35-36, 39, 60-67, 69, 70, 71, 72, 75, 95, 97-103, 129, 146
    Trustee Council: 35-37, 60, 61, 63, 65, 67, 69, 73, 74, 177

Office of Environmental Affairs (OEA): 73, 76, 105
Office of Management and Budget (OMB): 24, 26
Office of Oil Spill Coordination (OOSC-NPS): 50, 51, 54, 75, 92, 93, 112, 125, 127, 135, 178, 182, 187, 188, 189, 193, 194
O'Guin, Richard: 19, 20, 38, 124
Oil Pollution Act of 1990 (OPA 90): 160-164
Oil Spill Emergency Fund (OSEF): 148, 162
Oil Spill Liability Trust Fund: 162
Organic Act 1916 (NPS): 8, 128, 139, 143, 168

Phelan, Pat: 124
Pinchot, Gifford: 6, 7
Political administrative dichotomy: 122
Politics of risk:
    Risk politics: 121, 129
Pony Cove: 55
Pork barrel: 144
Port Graham Village Corporation: 56, 107
Pre-inventory: 21, 25, 26, 38, 91-92, 95, 96, 111
Preservation: 6-9, 39, 50 56, 85, 135, 138, 142, 166, 176, 179, 180
Prince William Sound Regional Citizens' Advisory Council (PWSRCAC): 164
Rabinowitch, Sandy: 69, 74, 105, 108-110, 135, 136, 188
Regional Environmental Assistant (REA): 18, 73, 98, 128, 134
Regional Environmental Officer (REO): 18, 31, 34, 51, 99, 128, 133, 151
Regional Response Team (RRT): 17-19, 23, 30, 36, 39, 53, 55, 86, 89, 98, 129, 134, 144
Resource Protection Officers (RPOs): 28, 29, 52, 54, 55, 57, 90, 91, 93, 112, 125, 177, 181, 189
Resource Recovery Coordination Team (RRCT): 75
Restoration Planning Work Group (RPWG): 68-70, 74, 75, 104, 105, 108, 135

Rice, Bud: 17, 18
Ridenour, James: 33, 37, 68, 127, 132, 133, 147
Roussel, Rene: 31, 89-91, 131, 144
Roy, Cordell: 17, 25-26, 30, 34, 37, 39, 50, 61, 65, 66, 68, 74, 86, 90, 93, 96, 97, 100, 125, 127, 131, 180, 182, 187
Royer, Thomas: 16, 20

Shackelton, Lee: 38, 39
Shackelton, Steve: 38
Shelikof Strait: 138
Spencer, Page: 130
Stevens, Ted: 16, 20, 29, 33, 89, 132
Stieglitz, Walt: 24, 30, 36, 37, 69, 73, 97, 99, 100, 187
Suuberg, Martin: 39
Swikshak Bay: 26

Technical Advisory Group (TAG): 54, 60, 93
Technological disaster: 121, 122, 125, 137, 141, 142, 152, 165, 179, 183-186, 188, 191, 194
311(k): 33-35, 40, 50, 89, 125, 143, 144, 149-151, 162
Tort investigation (NPS): 37-40, 51, 52, 64, 95-99, 126, 129, 182
Trans Alaska Pipeline System (TAPS): 14, 15

United States Forest Service (USFS): 66, 129, 142, 144

Vail Agenda: 91, 92, 141, 167-170, 181
Vento, Bruce: 168

Washington Policy Group (WPG): 63-67, 73, 74, 99
Watt, James: 141
Wiggins, Vern: 23, 24, 31, 33, 73, 74, 123, 129, 133, 143, 146, 147
Wilson, Woodrow: 122, 124
Winter Interagency Monitoring Program (WIMP): 52, 59
Wirth, Conrad: 169