Exxon Valdez Oil Spill
Restoration Project Annual Report

Traditional Ecological Knowledge

Restoration Project 97052B(2) and 97052B(3)
Annual Report

This annual report has been prepared for peer review as part of the Exxon Valdez Oil Spill Trustee Council restoration program for the purpose of assessing project progress. Peer review comments have not been addressed in this annual report.

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Study History: Initially funded as Restoration Project 95052 (Community Interaction and Use of Traditional Knowledge) in FY95, the Traditional Ecological Knowledge project (97052B) was separated from the Community Involvement Project (97052A) in FY97. These projects were designed to facilitate the inclusion of traditional and local knowledge of spill area residents in the overall restoration program and to increase the interactions between researchers and area residents concerning ongoing research and dissemination of results from such research. Traditional Ecological Knowledge was added to the title in FY96 and specific tasks were added to bring TEK into the EVOS process. In FY97, TEK was made into a separate project. This report covers the first year of the Traditional Ecological Knowledge project on its own.

Abstract: The goal of this project is to facilitate the inclusion of traditional ecological knowledge in research projects funded by the *Exxon Valdez* Oil Spill Trustee Council and in the overall EVOS Restoration Program. The project involves assisting researchers in the collection and interpretation of traditional ecological knowledge, assisting communities in participating in such efforts, and developing products to support both activities. The goal is to make appropriate use of traditional ecological knowledge within the context of the EVOS Restoration Program and consistent with community interests.

Key Words: Chugach Regional Resources Commission (CRRC), community facilitators, community involvement, Kenai Peninsula, Prince William Sound, TEK, TEK Specialists, traditional ecological knowledge.

Project Data: (will be addressed in the final report)

Citation:

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INTRODUCTION

The *Exxon Valdez* oil spill caused severe disruption to the lives of many people living in the spill impact area. The spill also caused residents of the area to be concerned about the safety of their wild food sources and the integrity of the surrounding natural environment. While scientific studies aimed at restoring the resources and services damaged by the oil spill occurred throughout the spill area, most of the researchers worked for agencies or institutions based outside the spill area itself. Residents of the spill area felt that they were not adequately involved in the restoration process, either through regular communication with the researchers and the Trustee Council, or through participation in restoration activities, including the use of traditional ecological knowledge (TEK) of the region. At the same time, restoration researchers recognized that spill area residents have extensive traditional knowledge that could help them answer questions and interpret their findings in ways not possible through conventional scientific means or with existing documented data. This project was intended to enhance efforts made under Restoration Project 96052 (Community Involvement/Traditional Ecological Knowledge) to turn the common interest in traditional knowledge into a substantive contribution to the Restoration Program.

Background

The initial call for involving traditional ecological knowledge was made by a community representative in 1994, as described in the previous annual report on Restoration Project 96052. While the Community Involvement/Traditional Ecological Knowledge project had been underway for two years, many people involved in the project felt that it was making little progress to the goal of increasing the role of traditional ecological knowledge in the Restoration Program. The 1996 Restoration Workshop included traditional ecological knowledge as its theme, and one outcome was the recognition of the need for a set of protocols to guide the appropriate use of traditional ecological knowledge for restoration researchers. In April 1996, a workshop was held in Anchorage with the community facilitators and representatives of Trustee Council agencies, facilitated by Henry Huntington. This workshop developed draft protocols, which were then revised by the agencies and approved by the Trustee Council in December 1996.

A second outcome of the 1996 Restoration Workshop and of the protocols workshop was the idea to separate the traditional ecological knowledge component of project –052 from the community involvement component, and to hire a traditional ecological knowledge (TEK) specialist to carry out the work of the project. This approach was approved for FY97, to be done by the Chugach Regional Resources Commission with the assistance of the Alaska Department of Fish and Game, Division of Subsistence, with the Alaska Department of Fish and Game as lead trustee agency.

OBJECTIVES

The objective of the project is to facilitate the appropriate use of traditional ecological knowledge to help achieve the goals of the EVOS Restoration Program.

METHODS

This project was coordinated by the Chugach Regional Resources Commission through a cooperative agreement with the Alaska Department of Fish and Game. CRRC contracted with two TEK Specialists to provide assistance to communities and to researchers in using traditional ecological knowledge appropriately in the course of restoration research activities. A Traditional Ecological Knowledge Advisory Group was established to provide guidance to the project, and included all the Community Facilitators as well as agency representatives, researchers, a regional Native organization representative, and an outside expert in traditional ecological knowledge.

In consultation with the advisory group, the two TEK Specialists developed a project work plan (see Attachment 1). This work plan identified the objectives of the project from the Detailed Project Description, and specified who would be responsible for carrying them out, how they would do so, how much time would be required, and when the products would be finished. Since this document defined the scope and activities of the project, the results presented below follow the order of work items identified in the work plan.

RESULTS

Project Assistance

TEK Specialist Henry Huntington assisted Jody Seitz in her research on local and traditional knowledge of juvenile herring and feed fish in Prince William Sound and the lower Kenai Peninsula (97320T). Huntington traveled to Cordova (May 1997), Tatitlek (July 1997), and Homer (July 1997 and September 1997) to assist Seitz with interviews and initial data compilation and analysis. In addition, Huntington developed the idea of Synthesis Workshops or Information Workshops to help resolve concerns about the extraction of data from communities for use in other, perhaps inappropriate, contexts. With interest in such workshops from Dan Rosenberg (97427, harlequin ducks) and the Nearshore Vertebrate Predators project (97025-NVP), Huntington traveled to Chenega Bay in August to discuss the idea with community members and begin planning for such a workshop in FY98. Finally, Huntington also assisted in the preparation of proposals involving traditional ecological knowledge for FY98 funding. (Huntington's trip reports are Attachments 2-6.)

Community Assistance

TEK Specialist Pam Colorado traveled to Cordova, Tatitlek, and Nanwalek to discuss traditional ecological knowledge, the implications of its use, the appropriate ways to approach this field, and community recognition of the value of their expertise. Unfortunately, Dr. Colorado was

unwilling to share the results of her visits with the advisory group or others involved or interested in the project. In the summer of 1997, Dr. Colorado's involvement with the project ended, and the accomplishments of this component of the project, if any, are unknown. This component has been substantially revised for FY98, and initial results are promising.

Traditional Ecological Knowledge Handbook

The TEK Handbook was proposed to partially fulfill two objectives of the TEK Component identified in the detailed project description for the Community Involvement/Traditional Ecological Knowledge Project (Restoration Project number 96052); objective 1. "Develop guidelines, procedures and protocols for the systematic collection and analysis of TEK", and objective 5. Provide training for and assistance to EVOS researchers/scientists on the interpretation and potential application of TEK to their restoration projects". Miraglia started work on this product, originally called the TEK Training Manual, in the early Spring of 1996. Subsequently, a decision was made to hire TEK Specialists as part of the federal fiscal year 1997 TEK project (97052B). EVOS staff directed that the Training Manual be shelved until the TEK Specialists were brought on board, so they could be consulted on the content.

As proposed, the Training Manual would include discussion of the multi-faceted nature of TEK, terminology, and implication of its use for communities and scientists. It would also include a description of methodologies to help guide those who are interested in doing this type of research. Miraglia produced a first draft of the Training Manual, now re-titled the "Traditional Ecological Knowledge Handbook", and subtitled: "A Training Manual and Reference Guide on Method and Theory in Research on Traditional Ecological Knowledge from Research Design through Collection of Information and Analysis to Reporting," on February 24, 1997. This draft was distributed to a small group including some members of the TEK Advisory Group, one of the TEK Specialists, and the Executive Director of the Chugach Regional Resources Commission. Based on this review, a second draft was prepared on July 1, 1997. The second draft was distributed to the entire TEK Advisory Group, including all Community Facilitators, as well as to selected EVOS project principal investigators for review. Following this broader review, the Handbook was again revised. This third draft was submitted to the Chief Scientist for peer review on December 2, 1997.

This handbook is an ambitious undertaking, as with it we seek to assist both EVOS researchers and community residents in working with TEK. This means trying to simultaneously introduce the researchers to TEK, and the community residents to the scientific method. Some reviewers of earlier drafts of the Handbook recommended breaking it up into two separate documents, one for researchers, the other for community residents. However, project staff felt that this would serve to emphasize the divisions between these two groups, rather than bridge the gap. We thought it important that each group receive the same information. Additionally, in some cases EVOS project principal investigators are local residents, and not necessarily trained in the conventional western science mode.

We hope to be able to complete the review process and distribute the Handbook by June 1998.

TEK Database Reference Guide

A significant amount of data on TEK has already been collected by state and federal agencies, universities, regional Native organizations, and other entities. As part of this project, it was proposed that a reference guide to existing data be produced. The goal was to make this data more easily accessible and useable.

In consultation with Huntington, Miraglia designed a questionnaire for gathering information on existing sources of TEK on the EVOS area. On September 2, 1997, the questionnaire, along with an explanatory cover letter and a map showing the spill area, was sent to nearly 100 potential respondents, including communities in the spill impact area, Alaska Native associations, Native corporations and other Native organizations, state and federal agencies, libraries, archives, museums, and anthropologists (questionnaire, letter, and map are Attachment 7). The first question respondents were asked was: "Do you have any data on traditional ecological knowledge?" For the purpose of this survey, databases are defined as including everything from raw notes, photographs, audio tapes and video tapes, to formal databases organized on computer software. TEK was defined very broadly, to include indigenous, local, and experiential knowledge. We did not collect any TEK, as such. We instead gathered information on what data is out there, where it is, and what, if any, restrictions there are on access.

Some of the recipients of the questionnaire responded without additional prompting. However, many did not respond. Miraglia followed up with telephone calls, and where desired by the respondent, conducted interviews, either over the telephone or in person.
Information from the completed questionnaires was then entered into a computer file, which was subsequently converted into an askSam database. The finished product was titled the "*Exxon Valdez* Oil Spill Traditional Ecological Knowledge Database Reference Guide".

There are, at present fifty entries in the Reference Guide, in thirty-six of which the respondent stated that they did have data on TEK. We are continuing to accept responses to the questionnaire, as they trickle in. Updates to the Reference Guide will depend upon future funding.

The Reference Guide will be duplicated and distributed on computer diskette, free of charge, in April 1998.

EVOS TEK Database

Huntington and Miraglia reviewed the potential for compiling a database of traditional ecological knowledge gathered under the EVOS Restoration Program. They concluded in a report to EVOS Trustee Council Executive Director Molly McCammon that the costs of establishing and maintaining the database, as well as the concerns about access and confidentiality of information, outweighed its benefits. Instead, they recommended that information about the data collected under the EVOS Restoration Program be placed in the TEK Data Directory. In this way, the protections in place in the Data Directory will serve adequately for EVOS-generated data, and we avoid the complications and expense of a new database for which there is not yet an established need.

TEK Reading List/Bibliography

The Reading List/Bibliography was proposed as part of the work plan produced by the TEK Specialists, and approved by the TEK Advisory Group on January 10, 1997. As proposed the primary purpose of the list was for project participants to share relevant and enlightening materials with one another and with other interested persons. The goal was to help establish the common ground to allow the Advisory Group and project personnel to function together effectively. Participants in the project were encouraged to submit articles, book titles, videos or other material to Miraglia. Miraglia would compile and distribute the reading list to anyone who expressed interest in receiving it. As of this writing, very few items have been submitted for the reading list. However, Miraglia has pursued research, which led to the Bibliography appended to the TEK Handbook. As part of the Handbook, this Bibliography has been distributed to all project participants. As new references have been suggested, Miraglia has reviewed these and added them to revisions to the Bibliography as appropriate.

CONCLUSIONS

This project is making progress in involving spill area residents and their knowledge in the EVOS Restoration Program. While there are many concerns about the ways in which traditional ecological knowledge is used, there is strong support for the overall aims of the project in both the communities and among the researchers who have been involved. The FY97 project provided us with a great deal of experience to use in designing a more effective program for FY98, which is underway and has so far been successful in bringing scientists and community members together and in helping communities better understand the significance of their traditional ecological knowledge and the implications of its use. This project is breaking new ground in its attempt to bring traditional ecological knowledge into a major scientific undertaking. There are no models for how to do so, and much of our effort is thus experimental. The support of the communities and the researchers, as well as the Trustee Council and their staff, has been crucial to the success of the project. We are pleased at the progress being made, and look forward to continuing this important project.

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