

Exxon Valdez Oil Spill, Cleanup, and Litigation:
A Collection of Social-Impacts Information and Analysis

Final Report, Volume IV:
Introduction to the
Final Annotated Bibliography and Abstracts

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1.0 INTRODUCTION

The central focus of this Annotated Bibliography and Abstracts is to identify, examine, assign keywords, annotate, and selectively abstract the major sources regarding the oil spill, cleanup, and litigation for 1989 to date. By design, this work has focused on those sources that indicate the effects on the human environment in the spill affected area. Per our study plan, and discussions with MMS, we have defined the spill affected area as including the following communities:

<u>Kodiak Island</u>	<u>Alaska Peninsula</u>	<u>Kenai Peninsula</u>	<u>Prince Wm. Sound</u>
Kodiak	Chignik Bay Soldotna	Kenai Cordova	Valdez Akhiok Chignik Lagoon
Karluk	Chignik Lake	Seward	Whittier
Larsen Bay	Perryville	Homer	Chenega Bay
Old Harbor		Seldovia	Tatitlek
Ouzinkie		Port Graham	
Port Lions		Nanwalek	

In the development of this Annotated Bibliography and Abstracts, work proceeded through several stages. The stages of this process included:

- Development of a uniform bibliographic format
- Development of key words
- Development a data base structure and specification of reporting requirements
- Collecting, examining, coding, annotating, and selectively abstracting sources

This document is organized around a discussion of these stages in turn, with the final point illustrated by the annotated bibliography and abstracts themselves.

2.0 UNIFORM BIBLIOGRAPHIC FORMAT

In order to accomplish the end goals of this project, it is necessary to have a uniform bibliographic format that accommodates books, articles, and unpublished sources. The most important criterion for this format is that it allows any reader the ability to locate a source in a library, bookstore, or through computerized searches of Internet and other electronic sources. We have generally followed the bibliographic formats for sources as specified in the *Chicago Manual of Style* (CMS). For books, articles, and unpublished sources we have used an author and date format. Variations in source types have generally been recorded according to the formats specified in the CMS, although there may some instances where we have deviated from those formats. Further, it is important to note that there is not a 'single' CMS style for most types of entries but, rather, a range of options. For this project, we have made selections within these options, which are presented a following section. We would emphasize we are now at an early stage in the study process, and the choices we have made represent our best estimate of what will be the most useful for this project, i.e., there is no single 'right way' to fashion entries.

The format for specific components of the bibliography for books, articles, and unpublished entries is described in detail in Chapter 16 of the CMS. We have generally used this format, following what the CMS describes as a "type B" (University of Chicago Press: 439ff.) format which is generally followed by those in the natural and social sciences. This format (including our choices among the optional styles) has the following distinguishing characteristics: (1) the authors full names rather than initials are used; (2) the date of publication comes after the authors name(s); (3) a "down style" or small caps are used for all words in a title except the first word and proper nouns, and the same convention is used with journal and

popular article titles, while journal source titles (such as *Business Week*, and *Ecology Law Review*) are capitalized; (4) no quotation marks are used around article titles; (5) quotation marks are used around book titles when the chapters are abstracted; (6) abbreviations for journal names may be used; and (7) periods are used after each main segment of an entry.

2.1 BIBLIOGRAPHIC FORMAT EXAMPLES

Following are several examples of the bibliographic format that we propose for the final bibliography.

Books

Davidson, Art. 1990. In the wake of the *Exxon Valdez*: the devastating impact of the Alaska oil spill. San Francisco: Sierra Club Books.

Spencer, Page. 1990. *White silk and black tar: a journal of the Alaska oil spill*. Minneapolis: Bergamot Press.

Chapters in Books

Fall, James and L.J. Field. 1996. Subsistence uses of fish and wildlife before and after the *Exxon Valdez* oil spill. In "Proceedings of the *Exxon Valdez* oil spill symposium," eds. S.D. Rice, R.B. Spies, D.A. Wolfe, and B.A. Wright, 819-836. Bethesda, MD: American Fisheries Society.

Hirsch, William B. 1997. Justice delayed: seven years later and no end in sight. In "The *Exxon Valdez* disaster: readings on a modern social problem," eds. J.S. Picou, D.A. Gill, and M.J. Cohen, 271-303. Dubuque, IA: Kendall/Hunt Publishing Co.

Popular Articles

Drew, Lisa. 1990. Truth and consequences along oiled shores. *National Wildlife* 28(4):34 (9 pages).

Hodgson, Bryan. 1989. Alaska's big spill: can the wilderness heal? *National Geographic* 177(1):5-43.

Academic Articles

Dyer, Christopher L. 1993. Tradition loss as secondary disaster: long-term cultural impacts of the *Exxon Valdez* oil spill. *Sociological Spectrum*, 13(1):65-88.

Palinkas, Lawrence A., John S. Petterson, John C. Russell, and Michael A. Downs. 1993. Community patterns of psychiatric disorders after the *Exxon Valdez* oil spill. *American Journal of Psychiatry*, 150(10):1517 (7 pages).

Reports

Donald, Robert, Richard Cook, Rose Fong Bixby, Robert Benda, and Aron Wolf. 1990. The stress related impacts of the Valdez oil spill on the residents of Cordova and Valdez: a comparative study conducted by the Valdez counseling center. Valdez: Valdez Counseling Center.

Impact Assessment, Inc. 1990. Social and psychological impacts of the *Exxon Valdez* oil spill: for the economic, social and psychological impact assessment of the *Exxon Valdez* oil spill. Prepared for Oiled Mayors Subcommittee, Alaska Conference of Mayors. Interim Report Number 3. La Jolla, Calif.: Impact Assessment, Inc.

A Note on Newspaper Articles and Sources

There are a vast number of newspaper articles on the EVOS, and a variety of research resources that index and, in only a few cases store, these newspaper articles. It is beyond the scope of this project to annotate and abstract all these articles, and it would be difficult to determine the most significant or representative newspaper articles for inclusion. Most of Anchorage Daily News (ADN) coverage for the early period deals with the details of the spill, its chronology, the cleanup effort and its logistics. The ADN coverage (at least at this stage) does not seem to have much of a concern with the potential socioeconomic effects of the EVOS -- although their articles tend to be longer than those of the contemporary Anchorage Times (AT) coverage. For this CD-ROM, a limited number of newspaper stories or accounts have been annotated, primarily from the early period of the EVOS from the Anchorage papers. In addition, a database containing headlines from national newspapers was searched. This database contains over 1,020 references to the *Exxon Valdez* oil spill, from 1989 to 1997. Newspaper titles from 1995 through 1997 have been included here, and keywords provided. The rationale for focusing upon this time period is that articles and books about these years have yet to be published; focusing on this time-frame offers more recent information, especially on the litigation period, than is accessible through a review of other source types. The articles are listed chronologically rather than by author, since newspapers have different practices with respect to by-lines and the identification of authorship. Keywords have been attached to these references.

A limited number of organizations maintain newspaper archives related to the EVOS. Those of most potential importance are the Anchorage Daily News (Alaska's largest newspaper), the Alaska Resource Library and Information Service (ARLIS -- the collective library for federal agencies in Anchorage), and the Z.J. Loussac Public Library (in Anchorage). Each of these is "annotated" as a source in Volume V, the Final Annotated Bibliography and Abstracts. In sum, Volume V, the Annotated Bibliography and Abstracts, presents limited article annotations from the two major Alaskan newspapers during March and April of 1989, and limited annotations from national newspapers for the time period 1994 to 1997, along with brief annotations of the major Alaskan newspaper archives.

2.2 ANNOTATION/ABSTRACT EXAMPLES

In terms of format, in the bibliography a space and the word 'NOTATION' (in all caps) has been inserted between the citation and the annotations and abstracts, and the word 'SOURCE' precedes each source listing. In general, an abstract will override an annotation: there will not be both an annotation and an abstract for a single source. For our purposes, an annotation is one or two sentences that indicate the content of a source. An abstract is several sentences to a paragraph long that describes the major findings and issues in the source relevant to the purpose of this study. A two-column format and other layout features have been avoided in order to accommodate the formatting requirements of AskSam, the program that will allow searches of the bibliography on CD-ROM. The general format for recording information is indicated below.

Citation: Authors(s) date. Title. Volume. Series. City of publication: Publisher.

Annotation/Abstract

The following is an example of a more developed annotation/abstract as it appears in the draft final bibliography. (Please note that it does not contain keyword codes or social factor codes, which are discussed in a subsequent section.)

SOURCE[Fall, James and L.J. Field. 1996. Subsistence uses of fish and wildlife before and after the *Exxon Valdez* oil spill. In "Proceedings of the *Exxon Valdez* oil spill symposium," eds. S.D. Rice, R.B. Spies, D.A. Wolfe, and B.A. Wright, 819-836. Bethesda, MD: American Fisheries Society.]

NOTATION[In the year following the oil spill, the 2200 residents of 15 native Alaskan communities reduced their harvest of subsistence resources as well as the variety of resources harvested. In 10 villages harvests decreased by about 77% because of fears about oil contamination. In response to community concerns, the Oil Spill Health Task Force initiated a study of subsistence foods (finfish, invertebrates, and marine mammals) for aromatic contaminants. Findings indicated invertebrates were the most susceptible to contamination. Efforts to communicate findings to Native communities met with mixed results. Two and three years after the spill, contamination fears persisted, although subsistence harvests increased.]

The following provides an example of a brief annotation:

SOURCE[Drew, Lisa. 1990. Truth and consequences along oiled shores. *National Wildlife*, 28(4):34 (9 pages).]

NOTATION[This popular article represents an overview of local efforts to respond to the oil spill by Alaskans, including some inventions to aid in cleanup, and the formation of organizations.]

3.0 DEVELOPMENT OF KEY WORDS

Key words are intended to reflect the topics of entries in the bibliographic data base and thereby aid data base searches by specific topics or concepts. That is, a "key word" should reflect the topical content of a source that is relevant to the purpose of this study: determining the social effects of the *Exxon Valdez* oil spill, cleanup, and litigation.

3.1 BACKGROUND

Our draft work plan called for assessing either a free-form or structured approach to assignment of keywords. The latter type is structured to specify four to five predefined *key word fields* with entries (single or multiple) for each major category. This allows reasonably fine-grained key words while maintaining mutually exclusive categories for searching the bibliographic sources. Below is the structure we used as a starting point for developing the pre-defined fields and the particular listings for each.

Predefined Field - Definition and Example Key Words

Source Type Identifying the source type will aid in searching the bibliography by specific source types. Although not a key word in terms of content, this will help users to effectively search the bibliography. For example, source codes might include: newspaper, magazine, scientific publication, book, legal deposition, etc. We may also include a code indicating the affiliation of the information and/or author -- oil and gas industry, fishing industry, environmental group, local (spill area) official,

local (spill area) resident, journalist or reporter, academic, federal, Oil Spill Trustee Council, etc.

Geography/location Geography was among the important factors that affected community responses to the *Exxon Valdez* oil spill event (EVOS). Relationship of a community to the spilled oil or to available resources affected responses. Consequently, a key word field that designates the overall region and the specific municipality/community should be included as key words. For example, municipalities would describe specific communities (e.g., Cordova, Tatitlek, Perryville, etc.) and the region of each community (e.g., North Gulf Coast, Prince William Sound, etc.) Again, this will aid in searching the bibliography by region (e.g., all communities within Prince William Sound) or by a specific locality.

Social or Cultural Identifiers Sources that discuss social effects of the *Exxon Valdez* event often address specific populations or social/cultural groups. Consequently, key words that identify which groups/populations are discussed can be useful for data base searches and analysis. We expect to develop a list that addresses cultural populations, specifically Natives (Koniag, Aleut, etc.) and non-Natives as well as other social groupings that are discussed in the professional and popular literature (e.g., cleanup workers, fishermen, merchants, non-residents). These types of key words can be combined with geography codes for very specific searches of the bibliography.

Event Phase The scientific as well as some of the popular literature discusses the relationship between social effects and the phase of the *Exxon Valdez* event (e.g., IAI 1991). Some of this literature also focused on particular phases of the event such as the cleanup or the social effects that occurred immediately after the spill. It will be useful for searches and as well as for analysis to include an "event phase" key word such as: pre-spill, post-spill, spill, cleanup, litigation. We will develop specific definitions of the phases to ensure coding consistency.

Event Effects The effects of the EVOS were at the individual, family, and community levels of social organization. There were also important cultural effects for both Natives and non-Natives. The diversity of effects needs to be addressed by effect sub-categories. The following sub-categories are ones that should address the range of event effects. As we review a sample of sources, we will develop key words within these sub-categories for application to all sources.

social (disruption, family, etc.)
cultural (risk perceptions, etc.)
economic (reallocation, loss, etc.)
psychological (PTSD, Depression, anxiety, etc.)
municipal (fiscal, operational, etc.)
litigation (compensation, conflict, etc.)
Other

Subsistence Subsistence identifies a cultural complex, especially within Native communities, that was susceptible to effects from different phases of the EVOS. Subsistence activities (hunting, fishing, gathering) and their cultural context (sharing, role-relationships, enculturation) will be represented in the key words for this sub-category.

The other approach we evaluated was to develop a master key word list containing mutually exclusive terms for identifying source content, with no prior categorization.

3.2 CHOICE OF A KEYWORD APPROACH

After assessing the merits of either a free-form or structured approach to assignment of keywords, we settled on a combination of those approaches that should result in the most consistent assignment of keywords. We first selected a few articles and used a freeform approach to extract keywords. We then used the structured approach wherein we pre-defined categories and in some cases category content (e.g., “event phase” with content of: pre-spill, spill, cleanup, restoration, litigation). In other instances, we decided to allow the keywords to emerge from examination of the sources. This approach is essentially “coding” the content of the source. After assessing both approaches, we decided that using the pre-defined content approach has the advantage of keeping a common frame among the research team for examining sources, but it did not necessarily allow for identifying what might be unique keywords for a source. Consequently, we added to the pre-defined categories “Effects-Other” and a “Residual” category that allows for assigning unique keywords. The result is that we can code consistently across the predefined fields and accommodate unique items that may not fit within our predefined fields. This will ultimately give end users the capability to search the data base with a wide range of keywords that can be selected from the predefined and free-form fields.

As we have proceeded with different research staff assigning keywords within the pre-defined categories, we have encountered two issues. One, there is variation in how we code the same concept, for example “contaminated seafood” and “seafood contamination.” These variation issues are easily identified when we run “field content” reports in AskSam, and can be resolved. by determining a standard gloss for the keyword and then using AskSam or WordPerfect “search and replace” functions to make all entries consistent. The Second issue is that we continue to add content to pre-defined categories as we continue reviewing sources. That is, this is an iterative process of examining sources, discovering the most appropriate key words, adding them to the list, checking the list for consistency, modifying the list as necessary, and then ensuring consistency of all entries in the source entries. We expect that this will continue until all sources are reviewed and even through examination of the sources for social factors. Fortunately, the capabilities of AskSam makes for a relatively uncomplicated process of revising the field contents and replacing the keywords with revised entries.

Ultimately, we feel that the process of using a combination of pre-defined and free-form keywords will allow end users extensive search capabilities. The coding approach ensures that users will have extensive search capabilities while using the free-form approach that we retain all of the unique keywords that reflect content and key concepts within a source. This approach is more time consuming to implement, but our assessment that it will result in more refined search capabilities for the CD-ROM.

One of the larger issues to sort out following this decision was whether or not to attempt to code all categories or only those categories which apply in a particular source. Our decision was to only code relevant categories (that is, we do not have “does not apply” code that holds a place in the database). What resulted from this decision was coding that was done by numbering the keyword categories followed by the keyword itself. Immediately below we present our working keyword listing; using this

listing then, typical entries could include: ‘K1-Academic Book’ (for source type); ‘K2- Prince William Sound’ (for geography), and so on.

3.3 KEYWORD LISTING

The following listing represents the base keywords that we have used in preparing this bibliography. A full listing of keywords, by field, is presented in Section 6.0 of this report.

(K1) Keyword Source Type[What type of source?

Academic Book, Academic Book Chapter, Academic Journal, Popular Book, Popular Magazine, Newspaper, Report, Litigation Document, Unpublished Document, Project Description

(K2) Keyword Geography[What is the geographical region and community addressed by the source?

Prince William Sound, Kenai Peninsula, Alaska Peninsula, Kodiak Island, Southeast Alaska, Alaska-State (for sources that address more statewide issues than locale specific issues) Communities to include as keywords: Akhiok, Chenega Bay, Chignik Lake, Chignik Lagoon, Chignik Bay, Cordova, English Bay , Homer , Karluk, Kenai, Kodiak , Larsen Bay, Old Harbor, Ouzinkie, Perryville, Port Lions, Port Graham, Seldovia, Seward, Soldotna, Tatitlek, Valdez, Whittier, Lower Cook Inlet

(K3) Keyword Event Phase[What portion of the *Exxon Valdez* event is addressed by the source?

pre-spill phase (pre March 24, 1989)
spill phase (March 24-1997 April-1, 1989)
Cleanup Phase (April 1, 1989-July 1992)
Restoration
Litigation Phase (March 24, 1997-Present)

(K4) Keyword Social or Cultural Identifier[What are the sociocultural identifiers of the communities or groups addressed by the source?

Fishermen, Deckhands, Merchants, Outsiders/Non-Residents, Cleanup Workers, Natives, Local Government, U.S. Coast Guard, State Government, Subsistence Resource Users

(K5) Keyword Social Effects[What are the community/social effects addressed by the source?

community stability, social disruption, conflict, community leadership, local resources, crime rates, emergent groups, kinship, subsistence-based community, natural resource community, Multi-Agency Coordinating Group, response organization, demographic characteristics, alienation;

(K6) Keyword Cultural Effects[What are the cultural effects of the event? (note that there are a number of “cultural” effects that should be addressed by the subsistence keywords.)

perceived risk, sense of place, sense of community, lifestyle, ethics, pathology, dislocation, disruption, traditional knowledge

(K7) Keyword Family Effects[What are the family effects that have appeared in various sources?

Role relationships, stress, roles, children, sharing, domestic violence, health

(K8) Keyword Economic Effects[What are the economic effects addressed by the source?

economic boom, economic loss, economic diversification, money spill;

(K9) Keyword Psychological Effects[What psychological effects are addressed by the source?

chronic stress, PTSD, Depression, Anxiety, substance abuse, CESD, General Anxiety Disorder Scale, therapeutic community, Impact of Events Scale, stressor, mental health

(K10) Keyword Municipal Effects[What are the effects on municipal/local governments of the *Exxon Valdez* event?

increased service demands, fiscal loss, operational disruption, mayor, city council, oiled mayors,

(K11) Keyword Litigation Effects[What are the effects of litigation on communities addressed by the source?

court settlement, class action, damages, Robbins Dry Dock decision, punitive damages, plaintiffs, defendants, common property resource, maritime law.

(K12) Keyword Other Effects[

(K13) Keyword Subsistence Activities[What subsistence activities and harvest levels are addressed by the source?

hunting, fishing, gathering, clamming, decreased harvest, contamination fears, contaminated resources,

(K14) Keyword Subsistence Cultural[What cultural characteristics of subsistence are addressed by the source?

enculturation, sharing, symbolic expression of culture,

(K15) Keyword Remainder[

Alaska Native Claims Settlement Act (ANCSA), archeology, community involvement, community participation

3.4 APPLICATION OF KEYWORD CODING TO ANNOTATIONS/ABSTRACTS

Key words and social factors codes are found on separate lines following the annotation - abstract of a source. Building upon the format for citation and annotation/abstract entry (as illustrated in Section 2.2), the general format for recording information is indicated below.

Citation: Authors(s) date. Title. Volume. Series. City of publication: Publisher.

Annotation/Abstract

Keyword1 Keyword2 Keyword3 Keyword4 Keywordn

Social Factors Codes

At this stage of the research process, work is in progress within each of the first three entry areas (citation, annotation/abstract, keywords). In the next stage of the process, social factors codes will be developed and added to the entries following the key words.

3.5 EXAMPLES OF KEYWORD CODING

The following example abstract with key word coding continues the example of the Fall and Field article used as an example of annotation/abstracting in Section 2.2. This example represents the essential issues about “coding” versus a “keyword only” approach. We are essentially coding content in predefined categories plus we are also designating other essential keywords that do not fit within the predefined field format. We would emphasize this point in that it is ‘above and beyond the call’ of what was requested and previously discussed. However, after working with the materials, it is apparent this will make for a much better product in the end, particularly with respect to searches, and it is our belief that MMS will immediately recognize the advantages of codes plus other keywords rather than only keywords. This became apparent to our team when we considered that focusing on “mutually exclusive keywords” alone means essentially going to a coded approach since different sources may use different words or phrases to refer to the same thing. For instance, one source may refer to seafood contamination while another refers to contaminated seafood.

SOURCE[Fall, James and L.J. Field. 1996. Subsistence uses of fish and wildlife before and after the *Exxon Valdez* oil spill. In “Proceedings of the *Exxon Valdez* oil spill symposium,” eds. S.D. Rice, R.B. Spies, D.A. Wolfe, and B.A. Wright, 819-836. Bethesda, MD: American Fisheries Society.]

NOTATION[In the year following the oil spill, the 2200 residents of 15 native Alaskan communities reduced their harvest of subsistence resources as well as the variety of resources harvested. In 10 villages harvests decreased by about 77% because of fears about oil contamination. In response to community concerns, the Oil Spill Health Task Force initiated a study of subsistence foods (finfish, invertebrates, and marine mammals) for aromatic contaminants. Findings indicated invertebrates were the most susceptible to contamination. Efforts to communicate findings to Native communities met with mixed results. Two and three years after the spill, contamination fears persisted, although subsistence harvests increased.]

KEYWORDS: SOURCE_TYPE[Academic Book Chapter] GEOGRAPHY[Larsen Bay, Old Harbor, Ouzinkie, Perryville, Port Lions, Port Graham, Kodiak, Chenega Bay, Tatitlek, Nanwalek, Karluk, Lake, Port Graham, Ivanof Bay, Akhiok, Chignik Lagoon, Kodiak Island, Prince William Sound, Alaska Peninsula] EVENT_PHASE[pre-spill, spill, cleanup] SOCIAL_OR_CULTURAL_IDENTIFIER[Native Alaskans, Aleut] SOCIAL_EFFECTS[subsistence-based communities] CULTURAL_EFFECTS[risk communication] OTHER_EFFECTS[health risks] SUBSISTENCE_ACTIVITIES[hunting, fishing, gathering, clamming, decreased harvest, contamination fears, contaminated resources] SUBSISTENCE_CULTURAL[enculturation, sharing, symbolic expression of culture] REMAINDER[Alaska Department of Fish and Game, Oil Spill Health Task Force, aromatic contaminants].

Another example may be seen in the following:

SOURCE[Russell, John C., Michael A. Downs, John S. Petterson, and Lawrence A. Palinkas. 1996. Psychological and social impacts of the *Exxon Valdez* oil spill. In "Proceedings of the *Exxon Valdez* oil spill symposium," eds. S.D. Rice, R.B. Spies, D.A. Wolfe, and B.A. Wright, 867-878. Bethesda, MD: American Fisheries Society.]

NOTATION[This article uses quantitative and qualitative interview data from the Oiled Mayors study of 22 communities of Prince William Sound, the GOA, Kenai Peninsula, and The Alaska Peninsula to describe psychological and social impacts. Survey data are analyzed to describe the relationship between exposure measures and selected outcome measures including: family and child relations, social disruption, subsistence activities, depression, anxiety, post-traumatic stress disorder, substance abuse, and domestic violence. Analysis of the survey data indicates correlations between exposure to the oil spill and increased outcome measures. The interview data describe the social and community context of the psychological impacts, particular the relationship between the non-therapeutic community and social/psychological distress.]

KEYWORDS: SOURCE_TYPE[Academic Book Chapter] GEOGRAPHY[Kodiak Island, Prince William Sound, Kenai Peninsula, Native Communities] EVENT_PHASE[spill, cleanup, litigation] SOCIAL_OR_CULTURAL_IDENTIFIER[Natives, Koniag, Aleuts] SOCIAL_EFFECTS[community disruption, social bonds, social conflicts] CULTURAL_EFFECTS[sense of place, sense of community, moral discourse] FAMILY_EFFECTS[family relationships, child behavior, domestic violence] PSYCHOLOGICAL_EFFECTS[anxiety, depression, post-traumatic stress disorder, stress, substance abuse] SUBSISTENCE_ACTIVITIES[decreased subsistence activity, sharing, decreased use of subsistence foods] SUBSISTENCE_CULTURAL[sharing, enculturation, culture] REMAINDER[exposure index, Oiled Mayor's Study]

4.0 DEVELOPMENT OF DATA BASE STRUCTURE AND REPORTING REQUIREMENTS

We expended considerable effort on evaluating available software products and realistically assessing their actual capabilities which can be used for the purposes of this project. Following discussions with the manufacturer, MMS, and others in the field, we made the decision to obtain the Professional version of the AskSam Electronic Publisher to enhance the search and reporting capabilities of the CD-ROM that will be one of the end products of this research effort. This version of AskSam allows for full indexing of files which will make searches faster and more efficient for end-users.

5.0 FINAL ANNOTATED BIBLIOGRAPHIC LISTING

We have examined a range of library and on-line sources for information about the social effects on communities of the oil spill, cleanup, and litigation. We have compiled a working bibliography of journal articles, and academic books, articles in popular magazines, and reports from U.S. Government, State of Alaska, and private sources. We have also examined newspapers and subsistence sources, Trustee studies and biological summaries. Our examination of the litigation specific material has shown that there may be considerably less material in the public domain at this point than would be desirable. That is, there are works that mention the impact of litigation on the communities, but a large body of documents produced specifically for the litigation process itself (e.g., some expert reports on social and psychological impacts to communities) are still bound by legal confidentiality restrictions, and are likely to remain so at least through the appeals process, which, according to one attorney centrally involved with the case, may be another two years or so. There are some materials on damages to fishermen that are in the public domain, but much of those materials focus on the resources themselves; State court related materials focus primarily on resource and land damages and do not have a focus on social impacts.

The full annotated bibliographic listing is included on this CD-ROM as a separate document (Volume V). In this way, the file structure of this CD-ROM differs from the volumes submitted to MMS in hardcopy. In the hardcopy version, Volume IV of the Final Report (*Exxon Valdez* Oil Spill, Cleanup, and Litigation: A Collection of Social-Impacts Information and Analysis, Volume IV) contained both the introduction to the final annotated bibliography and abstracts, and the final annotated bibliography and abstracts themselves. For this CD-ROM based version, the bibliography and abstracts portion was broken out into its own volume to facilitate electronic search functions.

6.0 FULL KEY WORD LISTING

The following listing represents the printout of key words as they appear in the bibliographic annotations.

contents of field SOURCE_TYPE

=====

- academic article
- academic book
- academic book chapter
- academic conference news bulletin
- academic editorial
- academic letter
- academic paper
- academic report
- book of conference papers
- book, personal journal
- community outreach documents
- Congressional Hearing
- doctoral thesis
- EVTC Project Annual Report
- government report
- journalistic book
- master's thesis
- museum exhibition book
- news magazine article
- newspaper article
- newspaper editorial
- pamphlet
- popular article
- popular book
- progress report
- project description
- public outreach document
- public outreach radio/audio tape
- report
- report chapter
- report volume
- Senate Hearing
- taped radio program
- technical article

contents of field GEOGRAPHY

13 Alaska communities

Afognak Island

Akhiok

Alaska

Alaska Native Communities

Alaska Peninsula

Alaskan coastal villages

Alaskan Peninsula

Aleutian Chain

Aleutian Islands

Aleutian-Pribilof Islands

Aleutian Range

Alitak

Anchorage

Anchorage Bay

ANSCA communities

Anton

Anuktuvak Pass

ANWR

Arctic Circle

Arctic National Wildlife Refuge

Arctic region

Arey Lagoon

Barron Island

Barrow

Barter Island

Bearing Sea

Beaufort

Beaufort Sea

Beaufort Sea coast

Bethel

Bligh Reef

Block Island

Bolsa Chica wetlands

Borough

Bristol

Bristol Bay

Brooks

Busby Island

California

Calista

Canada

Cape Chiniak

Cape Thompson

Chalkyitsk

Chenaga Bay

Chenaga

Chignik

Chignik Bay

Chignik Lagoon

Chignik Lake
Chignik River
Chugach
Chugach Mountains
Chugach National Forest
Chukchi Sea
City
coastal village
Columbia Glacier
Colville River
Communities
Cook
Cook Inlet
Copper River Delta
Cordova
Corwin Lagoon
Culross
DeLong Mountains
Dillingham
Eastern and Northern Districts
English Bay
Evans Island
Eyak
Fairbanks
Florida
Fort Abercrombie State Park
Gambell
Glacier Bay
Graham
Green Island
Gulf of Alaska
Harrington Point
Herring Bay
Homer
Iliamna Lake
Ivanoff Bay
James Lagoon
Juneau
Kachemak Bay
Kaktovik
Kaktovik Lagoon
Karluk
Karluk Lagoon
Karluk River
Katmai
Katmai Coast
Katmai National Park and
Kayak Island
Kenai
Kenai Fjords National Park
Kenai Peninsula

Kenai Peninsula Borough
King Salmon
Kivalina
Kivalina Lagoon
Kizhuyak
Kizhuyak Bay
Knight Island
Kodiak
Kodiak Archipelago
Kodiak Archipelago Uyak Bay
Kodiak City
Kodiak Island
Kodiak Island Borough
Kotzebue
Kotzebue Sound
Kukak Bay
Larsen
Larsen Bay
Latouche Island
Lower Cook Inlet
Marmot Bay
Mars Cove
McCarty Fjord
Monashka Bay
Montague District
Montague Island
Mulgrave Hills
Naked Island
Naknek
NANA
Nanwalek
National Wildlife Refuge
Native villages
Nechelik Channel
New Stuyahok
New York
Noatak
Nondalton
North Gulf Coast
North Naknek
North Pacific Rim
North Slope
North Slope Borough
Northwest Arctic
Northwest Arctic Borough
Norton Sound
Nuiqsut
Nushagak Bay
Nushagak River
Old Harbor
Olga Bay

Ouzinke
Perryville
Petersburg
Point Hope
Port Angeles Washington
Port Graham
Port Heiden
Port Hobron
Port Lions
Port of Valdez
Port Valdez
Prince William Sound
Prudhoe Bay
Quartz Bay
Red Dog Mine
south Naknek
Saints Bay
Sand Point
Santa Barbara CA
Seldovia
Settlers Cove
Seward
Shelikof Strait
Sitkalidak Island
Sitkalidak Strait
Soldotna
Southcentral Alaska
Southeast Alaska
Southern Kenai Peninsula
Southwestern District
spill area
Spruce Island
State of Alaska
Tatitlek
three communities
Togiak
Tongass National Forest
Tugidak Island
Tyonek
U.S. states
Unalakleet
United States
upper Cook Inlet
Upper Alaska Peninsula
U.S. Congress
Valdez
Valdez Narrows
Vancouver Island
Wainwright
Washington State
West Cook Inlet

Whittier
Windy Bay
Women's Bay
Wulik River

contents of field EVENT_PHASE

1964 earthquake
1976 construction
cleanup
general
litigation
post-spill
pre-spill
restoration
spill

contents of field SOCIAL_OR_CULTURAL_IDENTIFIER

Admiral Paul Yost
adults
Advanced Environmental Technology
Alaska Area Native Health Service
Alaska Board of Marine Pilots
Alaska Department of Environmental Conservation
Alaska Department of Fish and Game
Alaska Department of Labor
Alaska Department of Natural Resources
Alaska Institute of Marine Science
Alaska Legislature
Alaska Oil spill
Alaska Oil Spill Commission
Alaska Regional Response Team
Alaska State
Alaska State government
Alaska Volunteer Independent Cleanup Effort
Alaska's Attorney General
Alaskan Native
Alaskan Natives
Alaskan officials
Alaskans
Aleut
Alutiiq
Alyeska
Alyeska president Hermiller
American Institute of Marine Shipping
American Institute of Merchant Shipping
Anchorage Daily News
ANCSA communities
AP wire service
Aquaculture Corporation

Arco
Arco Anchorage
Athapaskan Indians
author
author Jeff Wheelwright
authorities
bankers
boat owners
Bohannon
bond market
Bristol Bay Native Corporation
British Petroleum
bureaucrats
Bush Administration
business owners
business sector
cannery workers
Captain Dave Spade
Captain Hazlewood
Captain Ken Thompson
Captain Larrabee
Center for Marine Conservation
Chenega Corporation
Chevron
children
Chugach Alaska Corporation
Chugach Native Corporation
cleanup workers
clinics
Coast Guard Spill Coordinator
Coast Indians
commercial fishermen
Congress
consumers
Cordova District Fishermen United
Cordova mayor
corporations
court
Court of Appeals
courts
deckhands
Deckhands Association
Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Fish and Wildlife
Department of Health and Human Services
Department of Justice
Department of Labor
Department of the Interior

Department of Transportation
Division of Environmental Health
Doris Lopez
Earth First!
ecologist
economists
editors
educators
elderly
elders
Emergency Services Council
English Bay Corporation
environmental groups
Environmental Defense Fund
Environmental Protection Agency
environmentalists
Equitas
Euro Americans
Exxon Corporation
Exxon crew
Eyak Native Corporation
family
Far West Inc. Village Corporation
federal government
federal workers
Federal Aviation Administration
fish hatcheries
fish processors
fisheries
fisheries workers
fishermen
fishing industry
fishing permit holders
fishing sectors
Food and Drug Administration
Friends of the Earth
General Accounting Office
government
government workers
Governor Steve Cowper
guides
hatchery workers
Homer Area Recovery Coalition
Homer Area Recovery Commission
hospitals
households
Housing Authority
human subjects
hunters
independent contractors
individual

insurers
interest groups
International Bird Rescue and Research Center
interviewees
Inuit
Inupiat
Inupiat Eskimo
investors
Japanese
Joint Federal-State Land Use Planning Commission for Alaska
Joseph Jorgensen
journalistic sources
journalists
judge
Judge H. Russell Holland
jury
Kaktovik City Council
key informants
Kodiak Area Native Association
Kodiak Island Borough
L.G. Rawl CEO of Exxon
L.R. Raymond President of Exxon
Laborers International Union
landowners
Larsen Bay Tribal Council
lawyers
leaders
legislators
Lieutenant Governor of Alaska
litigants
Lloyd's of London
local government
long term residents
longshoremen
Los Angeles Times
Manual Lujan Secretary of the Interior
media
men
merchants
Minerals Management Service
mosquito fleet
Mount Sinai School of Medicine
Multi-Agency Coordinating Group
municipal workers
municipalities
Murkowski
National Academy of Sciences
National Audubon Society
National Marine Fisheries Service
National Marine Mammal Laboratory
National Marine Manufactures

National Oceanographic and Atmospheric Administration
National Park Service
National Research Council
National Resources Defense Council
National Response Center
National Response Team
National Science Foundation
National Toxicology Program of the NIEHS
National Transportation Safety Board
National Wildlife Federation
Native Association
Native Corporations
Native to Native Assistance Program
Natural Resources Defense Council
New York Times
Nixon Administration
non-Natives
Northwest Alaska Native Association
Nuiqsut City Council
Occupational Safety and Health Administration
Office of Management and Budget
oil companies
oil consumers
oil industry
oil industry employees
oil tankers
Oil Reform Alliance
Oil Spill Health Task Force
Oil Spill Trustee Council
Oiled Mayors
On Scene Coordinators
Ouzinkie Native Corporation
Pacific Area Coast Guard Strike Team
parents
Pilots Association
police
Port Graham Corporation
Port Pilots Association
President Bush
Prince William Sound Aquaculture Association
Prince William Sound Conservation Alliance
Protestant
public
public pension funds
Public Advisory Group
Public Broadcasting System
recreational resource users
Regional Citizen's Advisory Council
Regional Response Team
regulators
Rep. Bentley

Rep. Brennan
Rep. Carper
Rep. Clement
Rep. Coble
Rep. Curtis
Rep. Davis
Rep. Hughes
Rep. Inhofe
Rep. Jones
Rep. Laughlin
Rep. Lent
Rep. Lowey
Rep. Manton
Rep. Miller
Rep. Moore
Rep. Pickett
Rep. Schneider
Rep. Shumway
Rep. Tauzin
Rep. Weldon
Rep. Young
researchers
residents
resource users
rural residents
Russian
Russian Orthodox
Salmon Market Information Service
Samuel Skinner Department of the Interior
Scandinavian
scientists
seafood processors
Secretary of Commerce
Secretary of Labor
Secretary of Transportation
Senate
Senate Energy and Commerce Committee
Senator Adams
Senator Breaux
Senator Bryan
Senator Burns
Senator Gore
Senator Gorton
Senator Hollings
Senator Inoye
Senator Kerry
Senator Lott
Senator Packwood
Senator Pressler
Senator Stevens
service workers

Seward Life Action Council
Sierra Club
Sierra Club Legal Defense Fund
social scientists
Southeast Coast Indians
Southwest Pilots Association
Spiro Agnew
sportsmen
state government
state workers
State Legislature
State of Alaska
State Pilot Association
stockholders
subsistence resource users
Swedish Environmental Research Institute
tanker crew
tourists
Trans Alaskan Pipeline Liability Fund
tribal council
Trustee Council
Trustees for Alaska
U.S. citizens
U.S. Coast Guard
U.S. District Court
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Geological Survey
U.S. Navy
U.S. National Institute of Environmental Health Sciences
Under Secretary of Commerce for Oceans and Atmosphere
underwriters
unemployed
Unification Church
University of Alaska
University of Alaska Department of Forestry
University of California at San Diego
University of Washington College of Fisheries
Valdez Counseling Center
VECO
Village Council
volunteers
Walter Mondale
Washington College of Fisheries
Washington Post
Washington State fishermen
Wilderness Society
Wildlife Federation of Alaska
William E. Evans Undersecretary of Commerce for Oceans and Atmosphere
William Reilly
wire services

women
women's shelter
world community

contents of field SOCIAL_EFFECTS

absence of local services
alienation
breakdown of organizational planning
community disruption
community obligations
community resources
community stability
cooperative work
corrosive community
crime
crime rates
demographic change
demographic characteristics
disruption of Native communities
distrust
emergent groups
emigration
ethnic pride
Exxon's media response
factionalism
friendships
household size
immigration
increased competition
increased insularity
information sources
inter-generational discord
kinship
leadership
media coverage
natural resource community
political activity
political decisions
political power
population increase
racism
reduced crime
regulatory oversight
renewable resource community
response organizations
sharing
sociability
social cohesion
social conflict
social disruption

social organization
social organization of tankerships
social pathology
social support
social tension
subsistence-based community
support of the elderly
therapeutic community
vandalism
voting

contents of field CULTURAL_EFFECTS

archaeological resources
belief and cognition
belief in efficacy of spill cleanup
beliefs about technology
civic pride
cultural and social constructions of nature
cultural identity
cultural persistence
cultural values
culture loss
customs
distrust
enculturation
ethics
festivals
future risk
lifestyle
moral discourse
political attitudes
religion
rhetoric of risk
risk communication
risk perception
sense of community
sense of place
stewardship of the environment
subsistence traditions
technological risk
traditional culture
traditional knowledge
tranquility
trust in development

contents of field FAMILY_EFFECTS

adult absence
behavioral problems
child abuse

child neglect
childcare
children
divorce
domestic stress
domestic violence
enculturation
family disruption
family outreach
family relationships
family routines
family support
generational tension
household composition
household organization
inheritance
kinship
obligations
parent absence
parent-child conflicts
role relationships
separation anxiety
sharing
sharing with elderly
stress
unsupervised children
women's shelters

contents of field ECONOMIC_EFFECTS

Alaskan fisheries
Alyeska losses
banking industry
bankruptcy
basic economic activities
bond market
business losses
cash economy
claims process
cleanup contracts
cleanup employment
cleanup money
commercial fisheries
commercial fisheries losses
commercial fishermen
commercial fishing
commercial vs. traditional economy
compensation for damages
cost of living
debt service
decreased harvests

direct damages
distribution of cleanup money
economic diversification
economic gain
economic loss
economic sectors
employment
employment outside community
ex-vessel prices
ex-vessel value
exchange rate
Exxon costs
Exxon losses
federal costs
financial recovery
financial strain
fiscal gain
fiscal impacts
fiscal loss
fish hatchery industry
fish tax
fishery dependence
fishing industry
fishing industry sectors
fishing sector vs oil sector
foreclosures
fuel prices
government employment
government payments
harvest types
harvest volume
housing shortages
increased wealth
indirect damages
inflation
insurance rates
international market
Japanese yen
labor shortage
loans
lost passive use
low income
money spill
nonbasic economic activities
oil industry costs
per capita income
price impacts
property loss
public expenditures
reduced harvest
regional economic impacts

regional economy
resource loss
revenue impacts
revenue loss
service sector
shareholder losses
spending patterns
spillionaires
stock market
subsistence economy
taxation
temporary employment
tourism industry
traditional vs. commercial economy
unemployment
use of funds
value of subsistence losses
village economy
wage expectations
wage labor
work disruption
workmen's compensation

contents of field PSYCHOLOGICAL_EFFECTS

alcohol abuse
alcoholism
alienation
anger
anxiety
behavioral problems
child abuse
chronic psychological stress
coping mechanisms
corrosive community
counselors
crime
cultural identity
dazed
depression
depressive symptoms
despair
destructive behavior
dislocation
disruption
divorce
domestic violence
emotional expression
emotional problems
emotional response
fear

fear for future
fear for town
frustration
futility
generalized anxiety disorder
grief
impact of events scale
inter-personal conflict
isolation
loss of control
loss of innocence
mental health
mental health services
mental health services
mistrust
post-traumatic stress disorder
psychological outreach
PTSD
self- concept
self-image
self worth
sense of betrayal
sense of health
sense of the future
separation anxiety
shock
social disruption
social support
stress
substance abuse
suicide
therapeutic community
uncertainty
victim stress
violence
worry

contents of field MUNICIPAL_EFFECTS

arrests
chaotic claims process
city council
civic posts unfilled
crime
decreased household size
delayed work
emigration
employment
expenditures
fiscal impacts
fiscal losses

government overwhelmed
government services
grants missed
increased workloads
influx of outsiders
infrastructure
infrastructure as a variable
infrastructure demands
lost revenue
lost tax revenue
lost time
mayor
media
mitigation
municipal actions
municipal and State costs
municipal costs
Oiled Mayors
operational disruption
organizations
overcrowding
police overwhelmed
population
population decline
population turnover
preparedness plans revised
public expenditures
rumor control
service demands
service providers take cleanup employment
service sector
subsistence community
tourist sites shift
traffic
Village Council as VECO Coordinators

contents of field LITIGATION_EFFECTS

\$5 billion award
adequacy of settlement
Akau v. Olohana
Alaska National Interest Land Commission Act
Alaska Native Claims Settlement Act
appeal
assessment studies
award
CERCLA
claims
class action
Clean Water Act
cleanup

compensation
compensatory damages
contingent valuation
court settlement
Court of Appeals
damage awards
damage claims disallowed
damages
defendants
direct costs
failure of plaintiffs
federal common law
Federal District Court
Federal Water Pollution Control Act
first lawsuits filed
In re Steuart Transportation
In re the *Exxon Valdez*
indirect costs
insurance award
insurance claim
judgement
judicial criticism
judicial decision
jury
lawsuit
lawyers
liability
litigation
litigation and scientific research
litigation as a stressor
litigation as deterrent
litigation as secondary disaster
litigation research
litigation restricts information
lost passive use
Maine v. M/V Tamanol
Marine Mammal Protection Act
maritime law
Maryland v. Amerada Hess Corporation
Migratory Bird Act
Native claims
Native lawsuits
negligence
new trial
Oil Pollution Act
order
Order No. 190 Id at 10. dicta
overturn law
partial settlement
payments
plaintiffs

public trust resources
Public Trust Doctrine
punitive damages
recovery
Recovery Act
request new trial
Resource Conservation and Recovery Act
Rivers and Harbors Act
Robbins Dry Dock
Robins Dry Dock and Repair Co. v. Flint
Save Sand Key Inc. v. U.S. Steel Corp.
secret agreement
settlement
settlement expenditures
Sierra Club v. Exxon Corp.
Sierra Club v. Morton
spending of compensation
State of La ex rel. Onste v. M/W Test bank
sympathy for Exxon
tax deductibility of corporate litigation
Trans-Alaska Pipeline Liability Fund
trial process
Trustees for Alaska v. State
Union Oil Co v. Oppen
verdict
verdict upheld
voided
Water Pollution Control Act
win lawsuit

contents of field OTHER_EFFECTS

cancer risk
decline in perception of health
hazardous materials
health
health concerns
health effects
health of cleanup workers
health risks
increased diagnosis of medical problems
increased regulation
legislative change
liability standards
odor of oil
risk assessment
seafood safety policy
tourism

contents of field SUBSISTENCE_ACTIVITIES

amounts consumed
bidarkies
birds
bottomfish
change from subsistence foods to purchased foods
children's participation
chitons
clamming
clams
competition with sportsmen
contaminated resources
contamination assessment
contamination fears
contribution to diet
decreased harvest
decreased subsistence activity
decreased use of subsistence foods
deer
dependence on subsistence
favored locales
fin-fish
fish
fish contamination
fishing
fishing methods
food storage
gathering
gear types
halibut
harbor seals
harvest amounts
harvest disruption
harvest methods
herring
high subsistence levels
hunting
increased effort
increased harvest
increased reliance on subsistence
increased resource availability
land mammals
marine invertebrates
marine mammals
medicinal plants
mussels
no decrease after EVOS
no sustained recovery in harvests
octopus
participation in harvests
participation in processing
plants

preservation methods
processing methods
quantities
resource availability
restoration of subsistence
salmon
sea ducks
sea lions
seafood contamination
seals
sharing
shellfish
shift from mammals to fish
species
subsistence activity
subsistence concerns
subsistence consumption
subsistence foods
subsistence methods
subsistence resources
subsistence unaffected
travel to new areas
vegetation
wild game
wild plants

contents of field SUBSISTENCE_CULTURAL

absence of impact on culture
beliefs
change in attitudes towards subsistence foods
cognition
community ties
cooperation
cultural identity
cultural meaning of resources
cultural meaning of subsistence
culture
culture conflict
dependence on subsistence
economics
elders
enculturation
family and community responsibility
family ties
festivals
harvest methods
health beliefs
identity
knowledge
knowledge of species

lifestyle
meaning systems
medicinal plants
preservation methods
pride
religion
resource preferences
self reliance
sharing
significance of habitats
social patterning of subsistence
social structure
society
stewardship of the environment
subsistence culture
subsistence roles
subsistence traditions
symbolic expression of culture
symbolic value of locales
symbolic value of species
threat to subsistence culture
tradition loss
traditional harvest techniques
traditional knowledge
traditional locales
traditions
uncertainty about future
values

contents of field REMAINDER

=====

Alaska Native Claims Settlement Act
Alaska Pipeline
Alaskans
ANCSA
ANWR
Archaeological Resources Protection Act
archaeology
archaeology of spill area
aromatic compounds
aromatic contaminants
behavior
Bristol Bay
business ethics
causes of spill
CERCLA
CERES
cleanup-related damages
Congressional debate
contingency plans
contingency plans and preparation

corporate
corporate behavior
corporate credibility
coverage of Alaskans
coverage of wildlife
cultural resources
disaster planning
double hull tankers
ecological impacts
economic research methods
environmental concerns
environmentalist's response
essays
exposure index
federal oil policy
finance
financing of award
future oil exploration
health policies
health risks
historic sites
impacts of cleanup
incentives to pollute
increased environmental scrutiny
increased scrutiny of oil companies
insurance
insurance claim
inter-agency coordination
inter-agency relations hinders response
interview summaries
inventions
lack of use of volunteers
legislation
legislative change
legislative hearings
legislative oversight
liability laws
life of pilots
litigation constrains research
longitudinal study
media coverage
media sources
national energy policy
National Historic Preservation Act
National Interest
natural disaster
offshore drilling
oil company advertizing
oil spill
oil transport system
Oiled Mayor's Study

Outer Continental Shelf Lands Act
personal reactions
poetry
political economy
press releases
public land
public relations
recovered species
recovering species
recreation
regulation
regulatory change
reimbursement process
research methods
restriction of scientific information
rhetoric
risk
risk assessment
risk estimates
science
social problem theory
Sound Ecosystem Project
species not recovered
species recovery unknown
spill response
supertanker
survey
systemic power theory
talking circle
tax code change
technological disaster
tourism
trans-Alaska pipeline
vulnerability of traditional communities
who paid costs of spill