



# EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL POLICIES AND PROCEDURES

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## EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL INTRODUCTION TO PROCEDURES

1. *Purpose*. Define the Policies and Procedures of the *Exxon Valdez* Oil Spill Trustee Council (Trustee Council) and provide guidance regarding the authorities and responsibilities of entities that receive funds approved by the Trustee Council.

2. Supersession. These procedures supersede the Procedures adopted by the Trustee Council August 3, 2000 and August 29, 1996, the Operating Procedures adopted by the Trustee Council January 10, 1992, and the Financial Operating Procedures adopted by the Trustee Council September 21, 1992.

3. *Relationship*. The Procedures of the Trustee Council augment state and federal procedures. State and federal agencies receiving funds approved by the Trustee Council are responsible for ensuring that the procedures described in this document and the appropriate state or federal procedures are followed.

4. *Amendments*. These procedures may be modified by unanimous agreement of the Trustee Council.

5. *Authority*. The principles and processes stated herein are established pursuant to the Memorandum of Agreement and Consent Decree entered as settlement of United States of America v. State of Alaska, No. A91-081 Civil, U.S. District Court of Alaska. The Joint Trust Fund is comprised of all payments received in settlement of State of Alaska v. Exxon Corporation, el al., No. A91-083 CIV, and United States of America v. Exxon Corporation, el al., No. A91-082 CIV.

6. *Restoration Plan.* The *Exxon Valdez* Restoration Plan provides long-term guidance for restoring the resources and services injured by the 1989 *Exxon Valdez* oil spill. It contains policies for making restoration decisions and describes how restoration activities will be implemented. The Restoration Plan was adopted by the Trustees in November 1994 after completion of the Final Environmental Impact Statement. By unanimous consent, the Trustee Council may change the plan if the Trustee Council determines that the plan is no longer responsive to restoration needs.

# EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL GENERAL OPERATING PROCEDURES

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### EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL GENERAL OPERATING PROCEDURES

#### **TRUSTEE COUNCIL**

1. *Basic Governing Procedures*. The current edition of *Roberts Rules of Order* will govern the Trustee Council. All provisions of these rules of order will apply to Trustee Council deliberations unless the Trustee Council unanimously decides to proceed differently.

2. *Trustee Council Membership*. The following officials act on behalf of the public as trustees: the Attorney General of the State of Alaska; the Commissioner of the Alaska Department of Environmental Conservation; the Commissioner of the Alaska Department of Fish and Game; the Secretary of the United States Department of Agriculture; the Secretary of the United States Department of the Interior; and the Administrator of the National Oceanic and Atmospheric Administration, United States Department of Commerce. Each Trustee may designate a representative to serve on the Trustee Council. Any such designation shall be in writing and the designation shall be maintained in the official record. In the event a Trustee Council member is precluded from attending a meeting or must be excused during a meeting, an alternate may exercise voting privileges on behalf of the Trustee Council member. Alternates shall be designated in writing and the designation shall be maintained in the official record or an alternate may be identified at the meeting and so stated for the record.

3. Quorum. A quorum of two-thirds (2/3) of the total Trustee Council membership including at least two state members and two federal members shall be required to convene a meeting. All decisions shall be made by unanimous agreement of the six Trustee Council members, their designee or their alternate, except that a quorum may approve the agenda, take public testimony and adjourn a meeting.

4. *Chair*. The Trustee Council shall designate a chair to preside at each meeting. The chair shall alternate meeting-to-meeting between the state and federal trustee members. The chair may participate in discussion and debate at the meetings and shall vote on all questions before the Trustee Council.

5. *Trustee Council Action*. All matters before the Trustee Council which require a vote, make a recommendation, approve or disapprove an item, or otherwise render a decision shall require the unanimous agreement of the six Trustee Council members, their designee or their alternate. All actions by the Trustee Council shall be taken at duly convened meetings except as provided in Section 10, Emergency Action.

6. *Recusal*. In the event a Trustee Council member believes he or she must recuse himself or herself from voting, the Trustee Council member may request the decision be deferred until a designated alternate is available to vote.

7. *Meetings*. Meetings shall be held at times and locations determined by the Trustee Council. The Executive Director shall provide a proposed agenda and appropriate briefing materials to the Trustee Council members in advance of the meeting. The final

agenda for the meeting will be determined by the Trustee Council and shall include a reasonable opportunity for public comment.

8. *Executive Sessions*. Executive sessions shall be kept to a minimum and shall be used only for discussion of matters concerning confidential personnel issues, litigation or legal advice, habitat acquisition negotiations, confidential archaeological information, confidential fisheries information or other matters included under AS 37.14.430, AS 44.62.310 (c) or other applicable State or Federal laws.

9. *Minutes of Trustee Council Meetings*. All meetings shall be recorded electronically or by a court reporter, and said records shall, along with the written, approved meeting notes, constitute the official record of the Trustee Council's actions.

10. *Emergency Action*. In the event of an emergency requiring Trustee Council action before a meeting can be held in accordance with the procedures described herein, the Executive Director shall poll the Trustee Council and take action by unanimous agreement. Any decisions of the Trustee Council shall be reflected in the official record of the Trustee Council along with justification regarding the need to take emergency action. In addition, any emergency action taken shall be ratified at the next meeting of the Trustee Council.

#### **ORGANIZATIONAL STRUCTURE**

1. *General.* Pursuant to the agreement between the State of Alaska and the United States, the Trustee Council has created the position of Executive Director to manage the day-to-day administrative functions of the Trustee Council and the overall restoration program.

2. *Trustee Council Office*. Under supervision of the Executive Director, the Trustee Council Office is responsible for: (1) facilitating communication between the federal and state governments, the Trustee Council members, the Scientific and Technical Advisory Committee, and the Public Advisory Committee; (2) maintaining the official record of the Trustee Council's actions; (3) soliciting project proposals and administering the proposal process, including supporting the Scientific and Technical Advisory Committee and any additional subcommittees and working groups that are formed to advise on the scientific development of the program; (4) preparing and analyzing financial and project status information; (5) developing and implementing procedures to achieve the goals and objectives of the Trustee Council; (6) performing and/or overseeing special and ongoing projects; and (7) public outreach and public participation.

3. *Trustee Agencies*. Under supervision of the agency's Trustee Council member, each Trustee agency is responsible for administrative oversight of projects funded to or through their agencies. This oversight shall include (1) ensuring that the procedures described herein, and the appropriate state or federal procedures, are followed, including compliance with the National Environmental Policy Act and (2) ensuring that projects funded meet their stated objectives and schedules, and are accomplished consistent with the funds authorized.

#### PROPOSAL SOLICITATION AND REVIEW

1. *Invitation*. At least annually the public, private sector, non-profit groups, and government agencies will be invited to submit proposals for funding based on identified restoration priorities and needs.

2. *Review*. Proposals received will be subject to independent scientific review, as well as policy, budget, and legal review. Based on these reviews, the Executive Director shall make a recommendation to the Trustee Council on which proposals should be funded.

3. *Public Review and Comment.* Prior to Trustee Council action, a reasonable period of time shall be provided for the public to review and comment on the project proposals.

4. *Approval.* After expiration of the period for public review and comment, the Trustee Council, in open session and with additional opportunity for public comment, shall review the Executive Director's recommendation on which proposals should be funded. The Trustee Council may make changes to the recommendation or include terms and conditions of funding as the Trustee Council deems appropriate. Upon unanimous approval, the recommendation shall be adopted by the Trustee Council.

5. *Multi-Year Projects*. For multi-year projects, the Executive Director's recommendation shall include the number of years of funding to be provided for each project. The Trustee Council may approve funding a project for a single year or for multiple years.

#### **PROJECT REPORTS**

1. *Quarterly Project Status Reports*. Within thirty days following the end of each quarter, the investigator for each project approved by the Trustee Council shall submit a status report to the Executive Director. The report contents, format, and review procedures shall be determined by the Executive Director.

2. Annual Project Reports. Annually, the investigator for each continuing project approved by the Trustee Council shall submit a report to the Executive Director. A continuing project is one that was initiated with the expectation that it was multi-year. The report deadline, contents, format, and review procedures shall be determined by the Executive Director. A copy of each report shall be placed in the Trustee Council's official record.

3. *Final Project Reports.* Upon completion of each project approved by the Trustee Council, or a determination by the Trustee Council to no longer fund a project, the investigator shall submit a report to the Executive Director. The report deadline, contents, format, and review procedures shall be determined by the Executive Director. A copy of each report shall be placed in the Trustee Council's official record and at ARLIS (Alaska Resources Library & Information Services).

#### PROJECT DATA

1. *Metadata and Data*. During the course of the project and at its completion, the investigator shall submit metadata ("data about data") and project data according to Trustee Council approved data policies. The metadata and project data contents, format, and review procedures shall be determined by the Executive Director.

#### **HABITAT PROTECTION AND ACQUISITION**

1. *General.* Habitat Protection and Acquisition is an important means of restoring injured resources and the services that are dependent upon those resources. Habitat Protection and Acquisition may include the purchase of lands or interests in land such as conservation easements, mineral rights, or timber rights.

2. *Parcel Nomination*. Only those parcels nominated by a willing seller shall be considered for purchase. The Executive Director shall prepare and maintain written procedures regarding nomination of parcels.

3. *Parcel Evaluation*. Nominated parcels shall be evaluated based on their importance to the conservation and protection of marine and coastal resources, ecosystems, and habitats in order to aid in the overall recovery of, and to enhance the long-term health and viability of, those resources injured by the oil spill and the spill area ecosystem.

4. *Terms and Conditions*. By unanimous agreement of the six Trustees, their designee or their alternate, a resolution shall be adopted authorizing the purchase of land or ownership rights. The resolution shall set forth the terms and conditions appropriate for the identified parcel(s).

5. *Title and Management*. The title of any lands or ownership rights shall be specified in the resolution adopted by the Trustee Council. All land acquired shall be managed in accordance with the terms and conditions of the Trustee Council.

6. *Public Review and Comment*. Prior to final Trustee Council action, reasonable public notice shall be given and the public shall be provided an opportunity to comment.

7. Application or Notification for Disbursement. Upon certification from the Executive Director that the terms and conditions set forth in a resolution have been satisfied, the Alaska Department of Law and the United States Department of Justice shall be requested to provide notice to the United States District Court for the District of Alaska regarding the expenditure of funds. Concurrently, as appropriate, the Executive Director shall provide the custodian of the Investment Fund(s) with payment instructions.

#### **PUBLIC PARTICIPATION**

1. *General*. The Trustee Council recognizes that public participation in the restoration program is an integral part of the process. To that end, the public is invited to review, comment on and participate in the development and implementation of the restoration program.

2. Exxon Valdez Oil Spill Public Advisory Committee. By order of the District Court for the District of Alaska, the Public Advisory Committee is to advise the Trustees, appointed to administer the fund established in settlement of United States v. Exxon Corporation, Civil Action No. A91-082, and State of Alaska v. Exxon Corporation, Civil Action No. 091-083, both in the United States District Court for the District of Alaska, in all matters described in Paragraph V.A.1 of the MOA referenced above. The overall procedures for the Public Advisory Committee are contained in a Charter unanimously approved by the Trustee Council and signed by the Secretary of the United States Department of the Interior. The Public Advisory Committee consists of members recommended by the Trustee Council and appointed by the Secretary of the United States Department of the Interior.

3. *Public Notice*. Reasonable public notice shall be given for all meetings of the Trustee Council. The notice shall include, when possible, publication in one or more newspapers of general circulation in the following communities: Anchorage, Cordova, Homer, Juneau, Kenai, Kodiak, Seward, and Valdez and distribution of the public notice to radio stations broadcasting to these communities as well as in Chenega Bay, Tatitlek, Whittier, Seldovia, Port Graham, Nanwalek, and Kodiak area villages. To the maximum extent possible, reasonable public notice shall also be provided to other communities within the spill area. The public notice shall identify the purpose of the meeting and include a reasonable opportunity for public comment.

4. Access to Information. Except where documents are confidential under state or federal law, the public shall have access to the official record of the Trustee Council's actions and information regarding proposed or completed projects or other activities funded by the Trustee Council.

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### EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL FINANCIAL PROCEDURES

#### SETTLEMENT FUNDS

1. Joint Trust Funds. The Joint Trust Funds consist of all payments received or to be received by the United States and the State of Alaska pursuant to the Agreement and Consent Decree issued in United States v. Exxon Corporation, et al. (No. A91-082 CIV) and State of Alaska v. Exxon Corporation, et al. (No. A91-083 CIV), including any interest accrued thereon.

2. Court Registry Investment System. Pursuant to Court Order and in accordance with the Terms of the Memorandum of Agreement and Consent Decree, from December 1991 through October 5, 2000, the Joint Trust Funds were placed in an interest-bearing account in the Court Registry Investment System (CRIS) administered through the United States District Court for the Southern District of Texas. The CRIS established two accounts – the *Exxon Valdez* Oil Spill Settlement Account and the CRIS – *Exxon Valdez* Reserve Fund to receive and hold the Joint Trust Funds. Although the Joint Trust Funds were moved in October 2000 from the Court Registry System to the Alaska Department of Revenue, Division of Treasury, the Court Registry Investment System is still an investment option for the Trustee Council.

3. Investment Fund(s). The Governments sought and obtained Congressional approval to expand options for investment of the settlement proceeds. Public Law 106-113, the Consolidated Appropriations Act, 2000, was enacted November 29, 1999. Section 350 of H.R. 3423, authorizes deposit of all or a portion of the Joint Trust Funds previously received, or to be received, by the Governments in the Natural Resource Damage Assessment and Restoration Fund or accounts outside the United States Treasury or both. See section on Investment Fund.

4. *CRIS Disbursement*. Upon joint application of counsel for the United States and the State of Alaska, the United States District Court for the District of Alaska orders the disbursement of funds for purposes consistent with the Memorandum of Agreement and Consent Decree. The joint application shall consist of legal documents required by the Court and documentation demonstrating the unanimous agreement of the Trustee Council. When appropriate, interest earned on the federal and state accounts and/or unobligated balances from prior years' Work Plans shall be subtracted from the disbursement.

5. Investment Fund(s) Disbursement. Upon unanimous approval of the Trustee Council, the Alaska Department of Law and the United States Department of Justice shall be requested to notify the United States District Court for the District of Alaska. The notification shall consist of legal documents required by the Court and documentation demonstrating the unanimous agreement of the Trustee Council. Concurrently, the Alaska Department of Law and the United States Department of Justice shall be requested to provide the custodian(s) of the Investment Fund(s) with payment instructions. When appropriate, interest earned on the federal and state accounts and/or unobligated balances from prior years' authorizations shall be subtracted from the disbursement.

6. Authority to Spend. No obligations shall be incurred until such time as a Court Order is entered by the United States District Court for the District of Alaska or a notification is filed with the United States District Court for the District of Alaska and any terms and conditions placed on the funding by the Trustee Council have been met.

7. *Federal Account*. In accordance with federal law, funds required for federal project implementation are deposited in the Natural Resource Damage Assessment and Restoration (NRDA&R) Fund managed by the Department of the Interior.

8. *State Account*. In accordance with state law, funds required for state project implementation are deposited in the *Exxon Valdez* Oil Spill Settlement Fund.

#### **INVESTMENT FUND**

1. General. Under Public Law 106-113 (1999), some or all of the joint trust funds may be deposited in the Natural Resource Damage Assessment and Restoration Fund or accounts outside the United States Treasury, or both. Where the Trustee Council exercises this authority, it is responsible for the prudent investment of the settlement funds in income-producing obligations and other instruments or securities that have been determined by unanimous vote of the Trustee Council to have a high degree of reliability and security.

2. *Policies*. The Trustee Council shall adopt written investment policies to protect and manage an Investment Fund(s).

3. *Asset Allocation*. The Trustee Council recognizes that strategic asset allocation is the single most important policy decision affecting investment return and risk for an Investment Fund. At least annually, the Trustee Council shall evaluate its strategic asset allocation.

4. *Reporting*. Revenues and disbursements associated with the Investment Fund shall be reported to the Trustee Council on a monthly basis. Fees assessed by the Alaska Department of Revenue for the Investment Fund shall be paid on a quarterly basis.

#### **PROJECT AUTHORIZATION**

1. *General*. Authorization to expend personal services, travel, contractual, commodities, equipment and general administration funds shall be consistent with the project budgets approved by the Trustee Council.

2. *Fiscal Year*. Unless otherwise approved by the Trustee Council, the fiscal year begins on October 1 and ends on September 30. In the event the Trustee Council approves a project with a different fiscal year, the fiscal year must be clearly stated in the approval motion. In the event the Trustee Council approves a capital project, the designation as a capital project must be clearly stated in the approval motion.

3. Adjustments. As long as an adjustment does not alter the underlying scope or objectives of the affected projects, agencies have the authority to move funds into or out of projects up to the cumulative amount of \$10,000 or up to 10% of the authorized level of funding for each affected project, whichever is less. In addition, as long as an adjustment does not alter the underlying scope or objectives of the project, agencies are authorized to move, within a single project, budgeted funds between line items and may change detailed items of expenditure to accommodate circumstances encountered during budget implementation. Justification and supporting documentation as to the reason for all such adjustments (both between projects and line-items) shall be maintained by the agencies. All adjustments between projects shall be reported to the Executive Director in the Quarterly Financial Report. For further information regarding the Quarterly Report, refer to the Accounting section of these procedures.

4. *Revisions*. Trustee Council action is required to move amounts greater than that authorized in section 3 above. Trustee Council action is also required if the revision changes the scope or objectives of a project, establishes a new project, or terminates an approved project during the fiscal year. In the event the proposed revision changes the scope or objectives of a project, establishes a new project, or terminates an approved project during the fiscal year, the public shall be given a reasonable opportunity to review and comment on the proposed change prior to action of the Trustee Council.

#### PROJECT COSTS

1. Direct Project Costs. Direct costs are those costs that can be identified with or linked to a specific project.

2. Indirect Project Costs. Indirect costs are those costs that are incurred for common or joint projects and therefore cannot be identified readily and specifically with a specific project. In the case of governmental agencies, indirect costs are covered through a general administration formula. The appropriate indirect rate for contractors shall be approved on a case-by-case basis.

3. General Administration Formula. The general administration formula is used to reimburse governmental agencies for indirect project costs incurred in implementing the restoration program. The general administration formula is nine percent of each project's direct costs. General administration funds may be spent at the agency's discretion provided they are spent on indirect costs incurred in implementing activities funded by the Trustee Council. Agencies are entitled to 100% of their budgeted general administration funds regardless of how much of their budgeted direct project funds have been expended.

4. Unallowable Costs. Restoration funds shall be used only for costs that directly benefit Trustee Council approved projects with the exception of reimbursement of general administration (i.e., indirect) costs that are calculated in accordance with the general administration formula.

5. *Bonuses*. Bonuses for personnel working on Trustee Council funded activities are allowable costs. Agencies shall follow their standard operating procedures in determining bonus awards. Bonuses shall be considered an indirect project cost and, if awarded, shall be paid with General Administration funds.

#### ACCOUNTING

1. *General*. It is the responsibility of agency personnel and certifying officers to make certain that all actions are based on sound accounting and budgetary practices.

2. Source Documentation. Adequate justification and supporting documentation shall be maintained for each project.

3. Appropriateness. Expenditures charged to a project shall be directly attributable to or allocated to the project benefiting from the activity. Salaries and benefits may be charged for the time an individual is working directly on a project, when supported by time sheets and when work performed by such individuals is necessary to the project.

4. *Reasonableness*. Costs attributable to a project shall be necessary and reasonable to achieve the objectives of the project and be consistent with the policies and procedures governing other activities of the agency.

5. Segregation. Accounts shall be properly designed and maintained to ensure that funds are expended in accordance with Trustee Council approval.

6. *Expended (Outlays)*. The term expended shall be defined as the actual outlay of funds through the issuance of checks or warrants, the disbursement of cash, or the electronic transfer of funds. The term expenditure shall be defined as the act of expending.

7. Obligations (Encumbrances). The term obligations shall be defined as a commitment to acquire goods or services during the fiscal year, or to accommodate contracts where the length of time for completion of the service extends into the following fiscal year. An obligation is a commitment to pay and should not be considered an expenditure until the goods or services have been received and the invoice paid. Funds approved for contracts in which the length of time for completion of the service extends into the following fiscal year may be obligated at year end. To be valid, the length of time to complete the service should be identified in the proposal approved by the Trustee Council. As a general rule, agencies shall have one year from the end of a project's approved fiscal year to satisfy all obligations.

8. Reporting: Quarterly Financial Reports. Within thirty days following the end of each quarter, agencies shall report expenditures and obligations recorded at the end of the quarter to the Executive Director. The report shall include the total amount authorized for each project, any revisions approved by the Trustee Council, any adjustments between projects, the total expended by project, and the total of any outstanding obligations by project.

9. *Reporting: Annual Financial Reports.* By January 31 of each year, agencies shall report to the Executive Director the total expended for each project, plus any valid obligations relating to the fiscal year just ended. The report shall reflect the total amount authorized by line-item, any revisions approved by the Trustee Council, any adjustments between projects, and any adjustments between line-items.

#### **LAPSE**

1. *General*. The unexpended and unobligated balance of a project shall lapse on September 30 of the fiscal year for which the project was approved. However, an undisclosed obligation may be established and/or paid during the Close-Out Period.

2. *Capital*. The unexpended balance of a capital project shall be carried forward for two subsequent fiscal years. At the end of the three year period, the unexpended and unobligated balance shall lapse. Trustee Council action is required to extend the project lapse date beyond the three year period.

3. *Close-Out Period*. During the months of October, November and December (through December 31) agencies may pay from funds from the fiscal year just ended on September 30 an expense that was undisclosed during that fiscal year. In addition, agencies may establish obligations to accommodate an expense that was undisclosed during that fiscal year. By January 31 of each year, agencies shall report to the Executive Director the total expended for each project, plus any valid obligations relating to the fiscal year just ended. For further information regarding the Annual Financial Report, refer to the Accounting section of these procedures.

4. *Reimbursement for Prior Year Expenses*. Expenses discovered after the Close-Out Period (i.e., after December 31) may be charged to the subsequent year's project budget if the project has multiple years of funding and sufficient funds are available. In the event the agency determines that insufficient funds are available to charge the expense to the subsequent year's budget, or the expense relates to a completed project (i.e., there is no subsequent year's budget), authority to adjust a prior year Annual Financial Report is required. During the months of January through June, authority to adjust a prior year Annual Financial Report may be provided by the Executive Director. For expenses discovered after June, authority to adjust a prior year Annual Financial Report may be provided by the Trustee Council.

#### EQUIPMENT

1. *Definition*. Equipment shall be defined as non-expendable items having an estimated life of more than one year and a unit value greater than \$1,000.

- 2. *Title and Use.* Equipment shall be used for the project for which it was acquired.
  - a. Items with an original per unit cost of under \$5,000 shall belong to the acquiring agency. At the end of a project, if the equipment was purchased

by a contractor, the agency may, at its discretion and if agency regulations allow, transfer the title to the contractor.

b. Items with an original per unit cost of \$5,000 and over shall belong to the acquiring agency on behalf of the Trustee Council. At the end of a project that has equipment with an original per unit cost of \$5,000 or more, the Executive Director shall determine if the equipment item shall be used for another Trustee Council project or if the item shall remain with the acquiring agency. If the equipment shall be used for another Trustee Council project administered by an agency other than the acquiring agency, the title for the equipment shall be transferred to the agency administering the new project. If the equipment shall remain with the acquiring agency, and it was purchased by a contractor, the agency may, at its discretion and if agency regulations allow, transfer the title to the contractor.

This section shall apply to all equipment purchased under the restoration program, for projects already in progress or completed as well as for projects funded in the future.

3. *Surplus*. Equipment that belongs to the acquiring agency shall be surplused in accordance with agency procedures.

4. *Inventory*. Property records shall be maintained in accordance with agency procedures.

5. *Repair, Maintenance and Safeguarding*. The repair, maintenance and safeguarding of equipment purchased with joint funds shall be accomplished in accordance with agency procedures.

6. *Disposal*. Equipment that ceases to function shall be disposed of in accordance with agency procedures.

7. *Reporting*. By December 31 of each year, agencies shall report all equipment with an original per unit cost of \$5,000 or more to the Executive Director. The report shall include a description of the equipment (make and model), date the equipment was purchased, the purchase price, where the equipment is located and the condition of the equipment. The report shall also identify the project that is using the equipment.

#### **CONTRACTS**

1. *General*. Agencies shall ensure that contracts for professional and non-professional services are accomplished in accordance with the terms, conditions, and specifications of the project approved by the Trustee Council and in accordance with applicable Federal and State laws.

2. *Definitions*. Professional services means contracts for professional, technical, or consultant services that result in the production of a report or the completion of a task, and includes analysis, evaluation, prediction, planning, or developing a recommendation. Non-professional services means contracts for services that are primarily manual in

nature, and includes boat charters, printing, and other. Non-professional services . contracts usually provide a service rather than resulting in a product or report.

3. Named Recipient. In the event the Trustee Council determines that, in order to carry out its mandate under the Memorandum of Agreement and Consent Decree, a particular person or entity should implement all or a portion of a project through a state Trustee agency, the Trustee Council may, by unanimous vote, name a contract recipient. The approval motion shall include the reason for selecting the contract recipient. If the contracting agency determines that an award to an entity different than that named by the Trustee Council would better serve the program, the basis of that determination shall be stated in writing to the Executive Director and forwarded to the Trustee Council for approval.

4. *Indirect Rates.* The appropriate indirect rate for contractors shall be determined on a project by project basis or through a memorandum of understanding with a contractor that provides for a consistent rate and methodology.

5. *Equipment*. Equipment purchased by the contractor shall remain the property of the contracting agency unless other conditions prevail. See section on Equipment, Title and Use, for specific details.

6. *Special Considerations*. All notes and other data developed by the contractor shall remain the sole property of the contracting agency.

#### **GRANTS**

1. General. Grants may be used as a procurement mechanism, but only to the extent they are permitted under existing state and federal laws. Federal Trustee agencies were given grant authority specific to the Trustee Council's program under Public Law 106-113 (1999).

#### AUDITS

1. *General*. The purpose of an audit is to ensure public trust and accountability regarding the use of settlement funds. An audit provides credibility to the information reported by or obtained from management by independently acquiring and evaluating the evidence.

2. Definition. The term audit includes both financial and performance audits.

3. *Readiness*. When an agency receives funding from the Trustee Council, the agency assumes certain responsibilities with respect to those funds. These include ensuring that source documentation is organized and available for review, internal controls are documented and individuals knowledgeable about the projects are available to answer questions.

4. Contracts. Contractors who receive funding for professional or non-professional

services are not automatically subject to an annual audit. However, this does not preclude the Trustee Council or the agency from making a determination that an audit is required in addition to an agency's review of expenditure documentation and work produced by a contractor.

5. *State and Federal Audits*. Each Federal agency and the State of Alaska have audit functions. In the event an audit is performed on a Trustee Council funded activity, a copy of the audit shall be provided to the Executive Director.

6. *External Audits*. All external audits shall be conducted in accordance with Governmental Auditing Standards. In addition, the firm and the staff assigned to conduct the audit shall be independent of the Trustee Council, the funding agencies, the Alaska Department of Revenue, the Court Registry Investment System, Exxon Corporation, Exxon Shipping Company and Exxon Pipeline Company.

#### APPENDIX A: FEDERAL INTERNAL PROCEDURES

#### NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION FUND

1. Segregation. All principal and interest shall be accounted for separately by the Department of the Interior, Office of the Secretary. Each disbursement shall be assigned an appropriate account, sub-activity and/or project number when deposited to the aggregate Natural Resource Damage Assessment and Restoration Fund within the Federal Reserve Bank. Confirmation of the deposit shall be provided to the Treasury Department, which reconciles the deposit with the Federal Reserve Bank.

2. Investments. By law, the funds may only be invested in Treasury Securities and all ownership is maintained in the name of the Natural Resource Damage Assessment and Restoration Fund. Based on an estimate of cash flow requirements, the Department of the Interior, Office of the Secretary generates instructions for investment and forwards the instructions to the National Business Center. The National Business Center develops and submits an Investment Confirmation Letter that indicates which account investments are being purchased, the scheduled maturity dates and the investment type(s) to the Department of Treasury, which purchases the securities. At maturity, interest income is paid directly to the account.

3. *Reports*. Quarterly, the Department of the Interior shall report interest income to the Executive Director. In addition, all disbursements to the federal agencies shall be reported to the Executive Director. By March 31 of each year, the Department of Interior shall report to the Executive Director all lapsed funds returned to the Natural Resource Damage Assessment and Restoration Fund by the federal agencies.

#### **AUTHORIZATION**

1. *General*. Congress permanently appropriated funding approved by the Trustee Council in Section 207 of Public Law 102-227. However, all authorization is subject to compliance with any terms and conditions imposed by the Trustee Council.

2. Budget and Reports. Under Section 207, agencies are required to comply with directions published by the Federal Office of Management and Budget. This includes submitting a budget for the upcoming fiscal year and documentation associated with the current and prior fiscal year.

3. *Obligation Authority*. Prior to the obligation of any funds, agencies must first complete the allocation process required by their respective budget offices to establish codes for each project. The allocation process provides the authority, amount of funding and the guidance with which to obligate funds.

4. Instructions for Transfer. Federal agencies are required to submit an annual cash flow plan to the United States Department of the Interior, Office of the Secretary, Natural Resource Damage Assessment and Restoration Office, and instructions regarding the transfer of settlement funds. The instructions shall specify the purpose of the transfer, which account the funds are to be transferred to, and an estimate of cash flow requirements. Unless the transfer represents a one-time payment, the cash flow estimate shall be structured on a quarterly basis. Any change in cash flow requirements that occurs during the fiscal year shall be communicated to the United States Department of the Interior, Office of the Secretary, Natural Resource Damage Assessment and Restoration Office, in writing. A change is defined as a decrease in the cash flow requirement due to an unanticipated delay in a project or an increase in the cash flow requirement due to an unanticipated change in the schedule, or subsequent Trustee Council action.

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5. *Fund Transfers*. The vehicle used for transfers is a SF1151, a non-expenditure transfer. The SF1151 is initiated, prepared, and approved by the Natural Resource Damage Assessment & Restoration Office, Office of the Secretary and then sent to Treasury where the funds are transferred within the Treasury system.

6. *Return of Unobligated Balances*. On March 15 of each year, federal agencies shall return to the Natural Resource Damage Assessment and Restoration Fund the unobligated balance for the fiscal year just ended. Concurrently, the agencies shall return any recovery of prior year obligations. Agencies are required to submit to the United States Department of the Interior, Office of the Secretary, Natural Resource Damage Assessment and Restoration Office, a report reflecting the total unobligated balance for the fiscal year just ended and the amount of funding recovered from prior year obligations. The report submitted shall also indicate the date the agency intends to return the funds. The vehicle used for transfers is a SF1151, non-expenditure transfer. The Department of the Interior shall report the total unobligated balance for the fiscal year just ended and the amount of funding recovered from the funds to return the funds. The vehicle used for transfers is a SF1151, non-expenditure transfer. The Department of the Interior shall report the total unobligated balance for the fiscal year just ended and the amount of funding recovered for the fiscal year just ended and the amount of funding recovered form prior year obligations to the Executive Director by March 31 of each year.

#### **APPENDIX B: STATE INTERNAL PROCEDURES**

#### EXXON VALDEZ OIL SPILL SETTLEMENT FUND

1. Segregation. All principal and interest shall be accounted for separately by the Alaska Department of Revenue, Division of Treasury. Each disbursement shall be deposited in a Department of Law sub-account, *Exxon Valdez* Oil Spill Settlement Fund. Confirmation of the deposit shall be provided by the bank to the Alaska Department of Revenue.

2. *Investments*. The Alaska Department of Revenue, Division of Treasury shall calculate the daily income amount and provide for daily compounding (including weekends and holidays). The income shall be credited to the fund and posted in the Alaska State Accounting System on a monthly basis.

3. *Reports*. The Alaska Department of Revenue, Division of Treasury shall report income earned to the Executive Director on a monthly basis.

#### **AUTHORIZATION**

1. General. Pursuant to Alaska Statute 37.14.405(a), a state agency may not expend money received from the trust unless the expenditure is in accordance with an appropriation made by law. However, prior to the expenditure of funds, Trustee Council approval must be obtained, the notice filed, any terms and conditions placed on the funding by the Trustee Council met, and the funds transferred from the Investment Fund to the *Exxon Valdez* Oil Spill Settlement Fund, if necessary.

2. *Budget and Reports*. To meet the requirements of Alaska Statute 37.14.415, agencies are required to comply with directions published by the State Office of Management and Budget, Division of Budget Review. Alaska Statute 37.14.415 states: The state trustees shall

- a. submit to the governor and the legislature by December 15 of each year a report setting out, for each object or purpose of expenditure, the amounts approved for expenditure from the trust during the preceding fiscal year and the amounts actually expended during the preceding fiscal year;
- b. prepare and submit, under AS 37.07, a budget for the next fiscal year setting out, for each object or purpose of expenditure, the Trustees' estimate of the amounts that are, during the next fiscal year, to be funded by the trust and expended by state agencies; and
- c. prepare and submit to the legislature, at the same time the budget for state agency expenditures is submitted under (b) of this section, a proposal setting out, for each object or purpose of expenditure, the trustees' estimate of the amounts that are to be funded by the trust in the next fiscal year and that are not included in the budget submitted under (2) of this section.

3. Legislative Budget and Audit Committee. Alaska Statute 37.14.405(b) allows agencies to meet the requirements of an appropriation conditioned on compliance with the program review provisions of AS 37.07.080(h). In accordance with the procedures of

the Alaska Office of Management and Budget (OMB), agencies are required to submit a request to OMB for transmittal to the Legislative Budget and Audit Committee.

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4. *Expenditure Authority*. Authorization to receive and expend shall be recorded in the Alaska State Accounting System within the *Exxon Valdez* Oil Spill Settlement Fund. Following legislative action, OMB will record the authorization by approving an Authorized Budget Transaction (AB).

#### **APPENDIX C: INVESTMENT FUND(S)**

1. General. The Trustee Council, through appropriate state and/or federal agencies, may contract for investment, custodial or depository services on a discretionary or nondiscretionary basis, with the State and Federal governments, or with independent investment management firms, banks, financial institutions or trust companies by designation through appointments, contracts or letters of authority.

2. Segregation. All principal and interest shall be accounted for separately by the custodian.

3. *Reports.* The custodian shall provide to the Executive Director financial reports on a monthly basis. The monthly report shall reflect all activity associated with the Investment Fund(s) including the date and amount of each transaction, any pending transactions, interest received, purchases, sales and other transactional data on a day-to-day basis. In addition, the custodian shall provide a monthly report which sets forth the opening balance in the Investment Fund(s), associated transactions and a reconciliation to the final balance. The investment manager shall provide to the Executive Director a suite of financial and performance reports on a monthly basis. The monthly financial report shall contain an asset appraisal which sets forth all of the assets held by the Investment Fund(s). The report shall provide detailed information such as cost and market value, current yield and percentage of each investment and sector. In addition, the investment manager shall provide monthly and cumulative performance reports. The performance reports shall include a comparison to the benchmarks approved by the Trustee Council.

4. *Investments*. By unanimous consent, the Trustee Council shall determine the strategic asset allocation and bands. The Executive Director shall have discretion to move assets among asset categories provided that such actions are consistent with movement of the actual asset allocation within the variability bands of the Trustee Council's strategic asset allocation policy. The Executive Director shall make the necessary adjustments to the initial target allocation within 30 calendar days. The Executive Director shall report any asset shifts at the next Trustee Council meeting. Such reports shall include a description of the rationale for the shift.

5. *Performance*. The Trustee Council shall identify benchmarks to evaluate Investment Fund(s) performance. Performance shall be evaluated relative to the identified benchmarks and also relative to an appropriate peer group of competitive alternatives. On a biannual basis, performance shall be presented to the Trustee Council.

6. *Fees.* No fees shall be assessed by the custodian except as approved in advance by the Trustee Council.

# EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL DATA POLICY

#### Effective October 1, 2002

#### **PURPOSE**

The purpose of this policy is to facilitate full and open access to, and confident use of, the data and information used in and produced by programs of the *Exxon Valdez* Oil Spill Trustee Council, including the Gulf of Alaska Ecosystem Monitoring and Research (GEM) Program.

The *Exxon Valdez* Oil Spill Trustee Council/GEM Data Policy has the following objectives, to:

1. Make information from projects available to other scientists and to the general public in a well documented and understood form in a timely manner.

2. Protect the right of investigators who collect data, develop models, or who apply models to generate significant new insight to be cited whenever the data, models or insights are used. Description and interpretation of the results of investigations are the privilege and responsibility of those who collect data or develop and apply models. However, investigators must not unreasonably impede the exchange of information essential to comparative and interdisciplinary research, interpretation, and synthesis.

3. Ensure that data and samples are collected in a manner that will yield accuracy and precision sufficient for the objectives of each project, and for anticipated comparisons and syntheses between projects. It is fundamental to any science-based program that high-quality data be collected. While the primary responsibility for this always belongs to the Principal Investigator, this policy must provide guidance, coordination and monitoring, particularly for situations where the level and type of data management appropriate for an individual project may not be the same as that required by an interdisciplinary program of large geographic and temporal extent.

4. Preserve all data collected under Trustee Council funding (except that specifically exempted by program administration) in an archive accessible to the scientific community in a timely manner. Data to be archived include compilations, analyses and syntheses of previously recorded data, even though the data themselves may be in the public domain. The archive and the means for retrieving data must foster both disciplinary and interdisciplinary data syntheses.

5. Preserve models developed with Trustee Council funding in an archive accessible to the scientific community. The inputs and results of key numerical experiments employing models should also be archived if they have been the basis for publications. Including models in the archive is necessary to realize maximal benefits from the considerable investment anticipated for modeling.

6. Encourage the voluntary release of data and other products of Trustee Councilfunded research by Principal Investigators at any time before the deadlines given in this document.

The policy has been developed in accordance with known current guidelines and/or standards for environmental data collection activities. In practice, the data policy must comply with federal and state law and be consistent with that of sponsoring agencies. If any material differences exist between the data policy and federal or state law, or policies of a sponsoring agency, the Principal Investigator must identify the differences to Trustee Council program administration for resolution.

To ensure that these policies will be followed for all projects:

1. All Principal Investigators will agree to follow Trustee Council/GEM data policies as a condition of receiving funding.

2. The Trustee Council Executive Director will be notified of any instances where Trustee Council/GEM data policies are not being followed, and which cannot be resolved by the parties directly involved. The Trustee Council's Executive Director will review the situation and recommend a course of action, which could include notification of parent agencies of principal investigators who have not complied with the data policy and/or preclude funding for future projects.

#### DATA MANAGEMENT PLAN

Once the Trustee Council approves project funds and the Trustee Council's Executive Director provides spending authorization, the Trustee Council/GEM Data Systems Manager will contact the principal investigator (PI) to establish a Data Management Plan (DMP). The DMP will supplement information in the project proposal developed by the PI. The DMP will include procedures to process, format, document, and migrate all data to archives identified by the Data Systems Manager, and identify a schedule for delivery.

The PI must address the following considerations in describing the methodologies for collection and analysis:

1. Identification of measurements to be made and the anticipated precision and accuracy of each measurement.

2. A description of the sampling equipment sufficient to permit an assessment of the anticipated raw-data quality. Typical descriptions will include where appropriate: navigation, timekeeping, sensor make and model, net opening and mesh size, rate of retrieval, mooring configuration, and similar information appropriate to the types of samples to be collected. Where the data collection equipment is well known or documented in generally available technical reports or the published literature, the need for documentation will be substantially reduced and may be satisfied by identifying the system or referring to the appropriate documentation.

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3. A description of the analysis methodology sufficient to permit an assessment of the anticipated analyzed-data quality. Typical descriptions will include where appropriate: filter size and type, sample preservation technique, counting method, numerical algorithm, incubation procedure and similar details as appropriate to the measurements planned.

4. A discussion of the means by which the measurements to be taken could be compared with historical observations or with regions which are thought to have similar ecosystems. Measurement techniques should be consistent with techniques used to collect the existing data unless there is significant scientific justification for change. When new techniques are adopted, methods for relating the new data to existing data should be developed.

DMPs will be updated yearly for continuing projects, and for the year following completion of data acquisition, until all data resulting from the project enters the archive(s).

#### **DATA PROCESSING POLICY**

The PI(s) responsible for collecting data must apply approved quality assurance/quality control (QA/QC) protocols to these data sets.

Within 60 days after data or sample collection is completed, the PI must submit to the Data Systems Manager a detailed inventory of measurements made or samples collected. This inventory will include the time and location of each measurement or sample, as well as the nature of the measurement or planned analyses of the sample.

#### **DATA PRESERVATION POLICY**

By court order, all samples and documents collected as part of any Trustee Councilsponsored restoration program, including GEM, must be retained. All data normally must be preserved, and requests to destroy samples and documents must follow the Trustee Council's "*Procedures for and Federal State Agencies and Their Contractors for Destroying Documents or Physical Evidence Related to the Exxon Valdez Oil Spill.*" Documents (including written, electronic, photographic and magnetic) or physical evidence (such as tissue samples) must be preserved, unless authorization is given by the Alaska Department of Law and the U.S. Department of Justice to destroy items no longer necessary for restoration or other purposes.

#### POLICY FOR DATA SUBISSION TO THE TRUSTEE COUNCIL'S DATA ARCHIVE

Some data from routine monitoring activities will be available to the archive regularly and in real or near-real time. The PI should submit results of measurements that do not require time-consuming analyses within six (6) months after the completion of data collection. All other measurements should be made within 12 months after field collection, or submitted with the final report for the project, whichever occurs first. Categorization of data and identification of an applicable schedule will be identified in the DMP. The PI will advise the Data Systems Manager if these schedules cannot be met.

No data file, data set, data layer, or database be accepted by or made available via the data archive without appropriate supporting metadata ("data about data"). The metadata format will be compliant with the Federal Geographic Data Committee (FGDC) standards. In coordination with the Data Systems Manager, the PI(s) will include, at a minimum, the following information with each data set archived:

- 1. collection dates and times (Greenwich Mean Time [GMT]);
- 2. precise location (decimal degrees longitude and latitude, depth(s))
- 3. data collection methods;
- 4. data format (e.g., ASCII, Excel spreadsheet, ARC/INFO coverage, etc.);
- 5. data collection problems, data processing problems, bad data flags, data dropouts, and other quality control factors identified by the PI(s);
- 6. instrument descriptions and calibrations;
- 7. collection site descriptions and conditions; and
- 8. conditions for use and citation

Data sets may have specific additional guidelines; the PI(s) will accommodate whatever special considerations are necessary. The Data Systems Manager will provide data information sheets to help the PI to encapsulate this information and include it with the data when migrated to the data archive. The PI(s) will be required to submit metadata information to other appropriate data clearinghouse(s) identified by the Data Systems Manager.

The Federal Ocean Data Policy requires that appropriate ocean data and related information collected under federal funding be submitted to and archived by designated national data centers within specified time periods. PI(s) will be required to submit their data sets to appropriate national data center(s) identified by the Data Systems Manager.

### **DATA MODEL ARCHIVE POLICY**

The Trustee Council's data archive will also include data models, and products or results of modeling. Such products will be chosen by the Trustee Council's Scientific and Technical Advisory Committee (STAC) for archiving if they are central to achieving the large-scale goals of a Trustee Council study, and/or if they will be useful to a substantial group of PI's for Trustee Council-funded projects. The products will be identified in the DMP. The DMP will also specify deadlines for submission and the length of the proprietary period. Other models and/or model products can be submitted to the data archive if they are likely to be useful to other investigators and the scientific community. Archived computer models should include source code in a commonly used scientific language. Documentation, sufficient to allow use of the model by persons having the knowledge and abilities typical of numerical modelers, must be submitted. Model products must include sufficient explanation so that persons having knowledge and abilities typical of Trustee Council-funded investigators can understand them.

### **DATA DISSEMINATION POLICY**

Data collected under Trustee Council funding is considered public information. Data from routine monitoring activities will be available regularly and in real or near-real time. The PI retains exclusive analysis and publication use of the non-routine data and developed models during the first year following data collection or model development. Such information will be available to other Trustee Council-funded investigators after that period. All data will be made available to other users within two (2) years after data collection or model development. However, if data or models are requested pursuant to the Freedom of Information Act or the Alaska Public Records Act, the Trustee Council is required to release this information. The release of data or models to third parties will stipulate that the PI and the Trustee Council program will be fully acknowledged in any subsequent publications in which any part of the data or models are used.

The PI may own a copyright on the publication of the processed data developed or bought under Trustee Council funding. The Trustee Council reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for Trustee Council purposes, the copyright in any work developed under an award, or any rights of copyright purchased by the PI with Trustee Council funding. Any such publication will include a notice identifying the award and recognizing the license rights of the Trustee Council program under this clause. This paragraph will have no force and effect for the processed data not published by the PI.

### **DATA CITATION POLICY**

The Trustee Council retains the right to analyze, synthesize and publish summaries of the data. The PI retains the right to be fully credited for having collected and processed the data. Following academic courtesy standards, PI(s) publishing manuscripts in open literature, including refereed scientific journals, or making other public presentations, will acknowledge that the research was conducted with Trustee Council funding.

Persons who acquire data, models, or model products from the Trustee Council's data archive are responsible for communicating with the originating investigator(s). If a substantial use of the data is planned, collaboration and co-authorship with the originating PI(s) is expected for any resulting publications. However, originating PI(s) may not unreasonably impede use or publication of archived data, models, or model applications, provided that they receive due credit for their contribution.

#### **DATA LIABILITY POLICY**

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The data sets are only as good as the quality assurance and quality control (QA/QC) procedures applied to each project. The user bears all responsibility for its subsequent use or misuse in any further analyses or comparisons. The Trustee Council does not assume liability to the recipient or third persons, nor will the Trustee Council reimburse or indemnify the recipient for its liability due to any losses resulting in any way from the use of this data set.

# EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL PROCEDURES FOR THE PREPARATION & DISTRIBUTION OF REPORTS

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### Effective July 9, 2002

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Attachment A	Example - Final Report Cover Page and Title Page Study History, Abstract, Key Words, Project Data and Citation
Attachment B	Example - Annual Report Form
Attachment C	Distribution List for Final Reports
Appendix 1	Ratti, J. and L. Smith. 1998. Manuscript guidelines for the Journal of Wildlife Management, 62 (1. Supplement), The Wildlife Society

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# EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL PROCEDURES FOR THE PREPARATION & DISTRIBUTION OF REPORTS

Effective July 9, 2002

#### INTRODUCTION

These *Procedures for the Preparation and Distribution of Reports* provide instructions regarding the preparation, peer review, printing and distribution of final and annual reports for projects funded by the *Exxon Valdez* Oil Spill Trustee Council.

Unless otherwise specified by the Trustee Council Office, each project funded by the Trustee Council shall ultimately produce a final report subject to approval through the Trustee Council's peer review process. In the case of multi-year projects, an annual report shall also be prepared each year until the project is completed, at which time a final report shall be prepared. Subject to the approval of the Trustee Council Office, on a project-by-project basis, journal articles or manuscripts may be used to fulfill requirements for the preparation of final reports (see below, page 7).

These Procedures for the Preparation and Distribution of Reports update and supersede earlier versions of this document and should be read together with the report writing guidelines published by the Journal of Wildlife Management (Ratti, J. and L. Smith, 1998). (Appendix 1)To the extent that there are any inconsistencies between these Procedures for the Preparation and Distribution of Reports and the guidance provided by Ratti, J. and L. Smith (1998), the instructions provided in these Procedures shall be followed.

The primary changes in these *Procedures*, as compared to the previous version of this document (October 1998), are a new format and review process for annual reports (see page 12) and the addition of review procedures for Gulf Ecosystem Monitoring and Research (GEM) project final reports (see page 10).

NOTE: For purposes of identification, <u>GEM projects</u> each have a six-digit project number preceded by the letter G (e.g., G-030204, G-042362). The letter G signifies GEM; the first two digits identify the fiscal year in which the project was authorized; and the last four digits provide a specific project identifier. <u>Restoration projects</u> each have a five or six-digit project number (e.g., 95225, 034520--those funded before FY 03 have five digits; those funded for FY 03 and after have six digits). The first two digits identify the fiscal year in which the project was authorized; the last three or four digits provide a specific project identifier. <u>Natural Resource Damage Assessment (NRDA) projects</u> are designated by alpha-numeric project numbers (e.g., MM6 for "Marine Mammal Study 6" or FS2 for "Fish/Shellfish Study 2").

Adopted 7-9-02
# FINAL REPORTS: NRDA, RESTORATION & GEM PROJECTS

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**Purpose**. A final report for a project must be a comprehensive report addressing all the objectives identified over the course of the entire study. The final report shall address the original objectives of the study as identified in the approved proposal and account for any changes in the objectives. Final NRDA reports shall be viewed as both the first and last word on the subject for the purpose of damage assessment under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and its amendments. The principal investigator for a project is responsible for the submission and production of a final report.

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# I. Preparation: NRDA, Restoration & GEM Project Final Reports

1. <u>Final Report Format</u> - Authors shall follow the format set out below to prepare final reports. Reports shall meet normal scientific standards of completeness and detail that shall permit an independent scientific reader to evaluate the reliability and validity of the methods, data and analyses.

- A. <u>**Report Cover**</u> An example of a final report cover is provided. Quality cover stock shall be used and, to ensure consistent appearance, color shall be goldenrod. (Attachment A) A final report cover shall:
  - identify the report as either a<sup>1</sup>
    - $\sqrt{}$  Natural Resource Damage Assessment final report,
    - $\sqrt{}$  Restoration Project final report, or
    - $\sqrt{}$  Gulf Ecosystem Monitoring and Research Project final report;
  - provide the report title;
  - include the project identification number;
  - identify the author(s) with appropriate affiliation(s);
  - include the date (month and year) of publication; and
  - include the following non-discrimination statement toward the bottom of the page on the inside front cover:

I Include on the Report Cover and the Title Page the following uniform titles. For NRDA reports: *Exxon Valdez* Oil Spill State/Federal Natural Resource Damage Assessment Final Report. For Restoration Project final reports: *Exxon Valdez* Oil Spill Restoration Project Final Report. For GEM Project final reports: *Exxon Valdez* Oil Spill Gulf Ecosystem Monitoring and Research Project Final Report. See Attachment A.

The *Exxon Valdez* Oil Spill Trustee Council administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The Council administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972. If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information, please write to: EVOS Trustee Council, 441 West 5<sup>th</sup> Avenue, Suite 500, Anchorage, Alaska 99501-2340; or O.E.O. U.S. Department of the Interior, Washington D.C. 20240.

- B. <u>**Title Page</u>** The Title Page of the report shall immediately follow the report cover page on white bond paper and be identical in terms of content and format to the front of the report cover page. (Attachment A)</u>
- C. <u>Study History, Abstract, Key Words, Project Data and Citation</u> -Following the Title Page, the report shall include, on not more than two pages: (1) a study history; (2) an abstract; (3) key words; (4) summary of data gathered during the project; and (5) a recommended citation for the final report. (Attachment A)
  - Study History. A brief study history shall include reference to any prior project numbers; changes in the title of the project or report over time; annual reports or other reports which contributed to the final report; and citation of publications that have preceded publication of the final report.
  - Abstract. An abstract, with a maximum length of 200 words,<sup>2</sup> shall enable readers to quickly identify the basic content of the report, determine its relevance to their interests and thus decide whether to read the document in its entirety. If the final report consists of several chapters or manuscripts (see Use of Manuscripts for Report Writing below, page 7), the abstract shall summarize the entire report. Do not use abbreviations or acronyms in the abstract.
  - Key Words. A short list of key words (up to 12 in alphabetical order) shall be provided. Include words from the title and others that identify: (1) common and scientific names of principal organisms, if

<sup>2</sup> A limit of 200 words is needed so that the abstract can be processed through the National Technical Information Service.

any; (2) geographic area or region; (3) phenomena and entities studied (e.g., behavior, reproduction, etc.); (4) methods (only if the report describes a new or improved method); and (5) other words not covered above but useful for indexing.

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- **Project Data**. A summary of the data collected during the project shall be provided in order to preserve the opportunity for other researchers and the public to access this data in the future. The summary shall: (1) *describe* the data; (2) indicate the *format* of the available data collections; (3) identify the *archive* in which the data have been stored or the *custodian* of the data (including contact name, organization, address, phone/fax, e-mail, and web address where data may be acquired); and (4) indicate any *access limitations* placed on the data. Limiting access requires pre-approval by the Trustee Council Office.
- **Citation**. A recommended citation for the final report shall be provided.
- D. <u>**Remainder of Report</u>** After the Study History, Abstract, Key Words, Project Data and Citation, the report shall continue as follows:</u>
  - Table of Contents, including Lists of Tables, Figures and Appendices.
  - **Executive Summary.** The executive summary shall:
    - $\sqrt{}$  consolidate principal points of the report in one place and provide enough detail for the reader to digest the significance of the report without having to read it in full;
    - $\sqrt{}$  be written so that it can stand independently of the report (i.e., it must not refer to figures, tables or references contained elsewhere and all acronyms, uncommon symbols, and abbreviations must be spelled out);
    - $\sqrt{}$  not exceed four single-spaced pages;
    - $\sqrt{}$  concisely state the objectives, methods, results and conclusions of the report; and
    - $\sqrt{}$  be organized in the same manner as the report it summarizes.
  - Introduction. The introduction shall:

- $\sqrt{}$  present first, with all possible clarity, the nature and scope of the problem investigated, including the general area in which field activities were conducted; and
- $\sqrt{}$  review pertinent literature, state the method(s) of investigation and briefly state principal results.
- **Objectives**. The statement of objectives shall be the same as the objectives identified in the approved proposal. If the objectives have changed, describe what has changed and why.
- Methods. The discussion of methods shall include a clear description of the study area. To the extent the methodology differs from that described in the proposal, explain the reason for the deviation.
- **Results**. The presentation of results shall:
  - $\sqrt{}$  provide an objective and clear presentation of the data collected; and
  - $\sqrt{}$  in the case of damage assessment studies, present information in a manner that will make clear to the reader: (1) evidence of injury found, and (2) evidence that the injury found was or was not caused by the *Exxon Valdez* oil spill.
- **Discussion**. The discussion section shall:
  - $\sqrt{}$  interpret the study results and explore the meaning and significance of the findings, including alternative interpretations of the results;
  - $\sqrt{}$  discuss whether the study hypotheses were upheld or disproven;
  - $\sqrt{}$  note where there are unanswered questions; and
  - $\sqrt{}$  where appropriate, cite relevant findings from other *Exxon Valdez* oil spill restoration studies, including GEM studies, and published literature.
- **Conclusions**. This shall be a brief, clear statement of the conclusions that are apparent from the discussion. Major unanswered questions shall be identified.
- Acknowledgments.

• Literature Cited.

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• Other References. If there is a need to list references other than the literature cited (for example, personal communications), these references shall be identified in this section.

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2. <u>Technical Format</u> - The following guidelines shall help provide consistent formatting:

# A. Word Processing Conventions

# • Standard Settings.

single		
off (i.e., do not hyphenate at right		
left (i.e., do not right-justify margins)		
1 inch at top, bottom		
1 inch left, right		
every 0.5"		
yes		
bottom center		
none		
12 point		
available, some other serif font shall		
be used (e.g., Palatino, Bookman or New Century		

• Literature Citations. In the Literature Cited section, start each citation with a hanging indent as shown below:

Byrd, G.V., D. Gibson, and D.L. Johnson. 1974. The birds of Adak Island, Alaska. Condor 76:288-300.

# B. Other Conventions

- Use italics, rather than underlining, for Latin names and for *Exxon Valdez*.
- Use good quality white paper 8.5 x 11" (215 x 280mm) or metric size A4.

- Do <u>not</u> use dot matrix printers to print the report.
- When referring to the oil spill that occurred because the *Exxon Valdez* ran aground, use *Exxon Valdez* oil spill. After the first mention of the *Exxon Valdez* oil spill, refer to it simply as the spill.
- Clearly define any acronyms. Avoid the use of acronyms completely in the Abstract and Executive Summary.
- Use the terms "damages" and "injury" as defined by CERCLA regulations (see 43 CFR 11.14):

"Damages" means the amount of money sought by the natural resource trustee as compensation for injury, destruction or loss of natural resources.

"Injury" means a measurable adverse change, either long or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil. Injury encompasses the phrases "destruction" and "loss."

"Destruction" means the total and irreversible loss of a natural resource.

"Loss" means a measurable adverse reduction of a chemical or physical quality or viability of a natural resource.

3. <u>Use of Manuscripts for Final Report Writing</u> - The Trustee Council expects principal investigators to publish the results of their work in peer-reviewed journals. Manuscripts or journal articles may be used to help satisfy project final report writing requirements. Principal investigators shall contact the Science Director at the Trustee Council Office to request authority to use a manuscript(s) as the body of a final report.

Because final reports are the primary and permanent record of how Trustee Council funds have been spent and what has been accomplished with those funds, it is necessary that these reports address all of the objectives for which the Trustee Council has provided funds. If all of the project's objectives are completely described within one or more manuscripts being prepared for publication, then a copy of the manuscript(s) may be submitted as the entire body of the report. If a project's objectives are not all described completely within one or more manuscripts, the manuscript(s) may serve as a portion of the report. For example, if only two of five project objectives are addressed in a manuscript, the report shall include—in addition to the manuscript—information on the three objectives not covered in the manuscript. The two objectives covered by the manuscript shall be referenced in the report as appropriate (e.g., in the Methods and Results sections) and substantially integrated into the Discussion section, where there shall be an overall discussion of the project. In such cases, the combination of the manuscript and additional report material shall present an organized, integrated and complete account of project activities and results.

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In addition, every report, regardless of whether it is in the standard format or includes manuscripts, shall adhere to the formatting prescribed for the Report Cover, Title Page, Study History, Abstract, Key Words, Project Data and Citation (see above, Final Report Format, page 2).

Please note that when a manuscript is used to fulfill report writing requirements, it must be in a form that can be duplicated freely. This may require obtaining a release of copyright restrictions.

Investigators seeking to publish the results of Trustee Council sponsored projects shall include the following statement with all manuscripts:

The research described in this paper was supported by the *Exxon Valdez* Oil Spill Trustee Council. However, the findings and conclusions presented by the author(s) are their own and do not necessarily reflect the views or position of the Trustee Council.

Investigators who publish the results of Trustee Council sponsored projects shall provide the Trustee Council Office (attn: Science Director) 3 reprints of any published manuscript. The Trustee Council Office shall provide 1 of the reprints to the Alaska Resources Library and Information Services (ARLIS).

4. <u>Due Date</u> - Final reports shall be *submitted for peer review by April 15 of the year following the fiscal year in which project work was completed* unless a different date is specified in the approved proposal or contract. If this due date cannot be met, the principal investigator shall notify the Trustee Council Office in writing. With the approval of the Executive Director, an alternative final report due date may be identified.

II. Review Process: NRDA & Restoration Project Final Reports See III below (page 10) for review process for GEM final reports.

1. <u>Submission of Draft Final Report for Peer Review</u> - The principal investigator shall submit 4 paper copies and 1 electronic copy of the draft final report for peer review, as follows:

Report Procedures

- √ 3 paper copies and 1 electronic copy of the draft final report to the chairman of the Trustee Council's Lingering Oil Effects Subcommittee. The electronic copy shall be submitted as a word processing document (Microsoft Word 2000 for Windows or lower or WordPerfect 9.0 or lower) with any figures and tables imbedded; and
- $\sqrt{1}$  paper copy of the draft final report to the Trustee Council's Science Director.

Dr. Robert Spies Chair, Lingering Oil Subcommittee 4749 Bennett Drive, Suite L Livermore, California 94550	phone: (925) 373-7142 fax: (925) 373-7834 <u>spies@amarine.com</u>
Science Director	phone: (907) 278-8012
Frustee Council Office	fax: (907) 276-7178

Trustee Council Officefax:(907) 276-7178441 W. 5<sup>th</sup> Ave., Suite 500phil\_mundy@oilspill.state.ak.usAnchorage, Alaska 99501

2. <u>Final Report Peer Review and Acceptance Process</u> - Under the guidance of the chairman of the Lingering Oil Effects Subcommittee, draft final reports shall be peer reviewed by one or more qualified reviewers who provide comments, identify questions and suggest revisions as appropriate.

- Peer review comments shall be provided in writing by the chairman of the Lingering Oil Effects Subcommittee to the principal investigator(s).
- Final reports shall be revised by the principal investigator to address peer review comments and resubmitted for final acceptance, as above (3 paper copies and 1 electronic copy of the revised final report to the chairman of the Lingering Oil Effects Subcommittee and 1 paper copy of the revised final report to the Science Director).
- Once the final report is accepted, the chairman of the Lingering Oil Effects Subcommittee shall notify the principal investigator in writing and send a copy of the letter of acceptance to the Science Director.

3. <u>Final Report Review as to Form</u> - Once accepted by the chairman of the Lingering Oil Effects Subcommittee, the principal investigator shall prepare the final report for publication.

• Within 30 days of the date on which the chairman of the Lingering Oil Effects Subcommittee accepts the final report, the principal investigator shall submit the first several pages of the approved final report to ARLIS for format review (i.e., Cover, Title Page, Study History, Abstract, Key Words, Project Data and Citation). These pages can be mailed, faxed, or e-mailed to ARLIS (attention: Carrie Holba):

Carrie Holbaphone (907) 272-7547ARLISfax (907) 271-47423150 C Street, Suite 100carrie@arlis.orgAnchorage, AK 99503serrie@arlis.org

- Within 15 days of receipt of the first several pages of the final report, ARLIS staff shall review it for compliance with the report format standards and notify the principal investigator in writing regarding any changes that need to be made.
- To be certain that format revisions are made correctly, the principal investigator shall fax a copy of the corrected version to ARLIS. The principal investigator shall not reproduce the report until format approval is confirmed in writing by ARLIS.

# **III. Review Process: GEM Project Final Reports**

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See II above (page 8) for review process for NRDA and Restoration final reports.

1. <u>Submission of Draft Final Report for Peer Review</u> - The principal investigator shall submit 3 paper copies and 1 electronic copy of the draft final report to the Science Director for peer review. The electronic copy shall be submitted as a word processing document (Microsoft Word 2000 for Windows or lower or WordPerfect 9.0 or lower) with any figures and tables imbedded. (See address page 8.)

2. <u>Final Report Peer Review and Acceptance Process</u> - Under the guidance of the Science Director, draft final reports shall be peer reviewed by one or more qualified reviewers who provide comments, identify questions and suggest revisions as appropriate.

- Peer review comments shall be provided in writing by the Science Director to the principal investigator(s).
- Final reports shall be revised by the principal investigator to address peer review comments and resubmitted for final acceptance, as above (3 paper copies and 1 electronic copy to the Science Director).

• Once the final report is accepted, the Science Director shall notify the principal investigator in writing.

3. <u>Final Report Review as to Form</u> - Once accepted by the Science Director, the principal investigator shall prepare the final report for publication.

- Within 30 days of the date on which the Science Director accepts the final report, the principal investigator shall submit the first several pages of the approved final report to ARLIS for format review (i.e., Cover, Title Page, Study History, Abstract, Key Words, Project Data and Citation). These pages can be mailed, faxed, or e-mailed to ARLIS (attention: Carrie Holba; see address page 9).
- Within 15 days of receipt of the first several pages of the final report, ARLIS staff shall review it for compliance with the report format standards and notify the principal investigator in writing regarding any changes that need to be made.
- To be certain that format revisions are made correctly, the principal investigator shall fax a copy of the corrected version to ARLIS. The principal investigator shall not reproduce the report until format approval is confirmed in writing by ARLIS.

# IV. Printing and Distribution Process: NRDA, Restoration & GEM Project Final Reports

1. <u>Reproduction and Number of Copies</u> - Within 60 days of the date of the written confirmation from ARLIS indicating approval of the final report format, the principal investigator shall remove all references to "draft" from the report and produce final copies as follows:

- **Two-sided Pages**. The body of the report shall be printed in two-sided format to reduce the space needed to store reports.
- Number of Copies. The principal investigator shall provide a total of 21 paper copies and 1 electronic copy, as follows:
  - $\sqrt{1}$  bound copy of the approved final report to the chairman of the Lingering Oil Effects Subcommittee;
  - $\sqrt{18}$  bound copies and 2 camera ready copies of the approved final report to ARLIS, which shall include a copy for the Science

Director and a copy for the Trustee Council's official record. A camera-ready copy is an unbound copy of the report as it will appear in its final format, except that it is single-sided with blank pages inserted as appropriate; and

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√ 1 electronic copy to the Science Director. The electronic copy may be submitted either as an Acrobat Portable Document Format (PDF) file or word processing document (Microsoft Word 2000 for Windows or lower or WordPerfect 9.0 or lower) with all figures and tables imbedded. Acrobat PDF 4.0 or above file format shall be used, preferable in 'formatted text with graphics' (called "PDF normal" under Acrobat PDF 4.0) format. Minimally, "PDF searchable image" (called "PDF original image with hidden text" under Acrobat PDF 4.0) may be used if preapproved by the Trustee Council Office. In either case, the PDF file shall not be secured or locked from future editing, or contain a digital signature from the principal investigator.

2. <u>Binding</u> - Copies of final reports shall be bound using PERFECT binding. Smaller reports may be bound with black tape or comb binding. Very small reports may be bound with staples in three places along the spine, but only when other binding options are not available. Questions regarding binding shall be directed to ARLIS (attention: Carrie Holba; see address page 9).

3. <u>Distribution of Final Reports</u> - ARLIS shall distribute the bound and cameraready copies of final reports to the appropriate individuals and libraries. (Attachment C) Final reports shall be posted on the Trustee Council website at <u>www.oilspill.state.ak.us</u>

# **ANNUAL REPORTS: RESTORATION & GEM PROJECTS**

**Purpose**. In the case of multi-year projects, an annual report shall be prepared each year until the project is completed, at which time a final report shall be prepared. All NRDA annual reports have been completed, and so are not addressed in this section of the *Procedures*. The principal investigator for a project is responsible for the submission and production of an annual report.

# I. Preparation of Annual Reports

1. <u>Annual Report Format</u> – Annual reports shall be brief documents (2-3 pages) that include the information listed below. An example of the annual report form, available for downloading from the Trustee Council's web site (<u>www.oilspill.state.ak.us</u>) or from the Trustee Council Office upon request, is provided. (Attachment B)

- Project Number
- Project Title
- Principal Investigator's Name(s)
- Time Period Covered by the Report
- Date of Report
- Summary of Work Performed This section shall include a brief summary of work performed during the reporting period, including any results available to date and their relationship to the original project objectives. Any deviation from the original project objectives, procedures or statistical methods, study area, or schedule shall be included. Any known problems or unusual developments, and any other significant information pertinent to the project, shall also be described.
- Summary of Future Work to be Performed This brief summary shall describe work to be performed during the upcoming year, <u>if</u> changed from the original proposal. A description of any proposed changes in objectives, procedural or statistical methods, study area, or schedule shall be included.
- **Coordination/Collaboration** This section shall describe efforts undertaken during the reporting period to achieve the coordination and collaboration provisions of the proposal, if applicable.
- **Community Involvement/TEK and Resource Management Applications** This section shall describe efforts undertaken during the reporting period to

achieve the community involvement/TEK and resource management application provisions of the proposal, if applicable.

- Information Transfer This section shall list (1) publications produced during the reporting period, (2) conference and workshop presentations and attendance during the reporting period, and (3) data and/or information products developed during the reporting period.
- **Budget** This section shall explain any differences and/or problems between actual and budgeted expenditures, including any substantial changes in the allocation of funds among line items on the budget form. Any new information regarding matching funds or funds from non-Trustee Council sources for the project shall be included.

2. <u>Due Date</u> – Annual reports shall be *submitted by September 1 of each fiscal year for which a project receives funding*, with the exception of the final funding year in which a final report shall be prepared. The information in the annual reports shall be a key component in the Trustee Council's annual decision to continue funding a project. Failure to submit an annual report by September 1 of each year, or unsatisfactory review of an annual report, will result in withholding of additional project funds, and may result in cancellation of the project or denial of funding for future projects.

# **II. Review Process: Annual Reports**

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1. <u>Submission of Annual Report for Review</u> – The principal investigator shall electronically submit the annual report to the Science Director, care of <u>katharine\_miller@oilspill.state.ak.us</u>. The subject line of the e-mail transmitting the report must include the project number and the words "annual report" (e.g., "035620 Annual Report"). Electronic reports shall be submitted either as an Acrobat Portable Document Format (PDF) file or word processing document (Microsoft Word 2000 for Windows or lower or WordPerfect 9.0 or lower) with any figures and tables imbedded. Acrobat PDF 4.0 or above file format shall be used, preferably in 'formatted text with graphics' (called "PDF normal" under Acrobat PDF 4.0) format. Minimally, "PDF searchable image" (called "PDF original image with hidden text" under Acrobat PDF 4.0) may be used if pre-approved by the Trustee Council Office. In either case, the PDF file shall not be secured or locked from future editing, or contain a digital signature from the principal investigator.

2. <u>Annual Report Review Process</u> – Annual reports shall be reviewed by the Science Director. Under the guidance of the Science Director, annual reports may also be reviewed by qualified outside peer reviewers. The review process shall be used to determine whether continued funding of the project is warranted and to guide further work on the project. Any written comments on annual reports shall be provided to the principal investigator and kept on file at the Trustee Council Office, available upon request.

# III. Distribution of Annual Reports

Annual reports shall be kept on file as public documents at the Trustee Council Office, available upon request. Annual reports shall also be posted on the Trustee Council's website at <u>www.oilspill.state.ak.us</u>.

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# ATTACHMENT A

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*Exxon Valdez* Oil Spill Restoration Project Final Report

Responses of River Otters to Oil Contamination: A Controlled Study of Biological Markers

> Restoration Project 99348 Final Report

> > NOTE: The Report Cover must be quality cover stock, goldenrod in color.

Merav Ben-David R. Terry Bowyer Lawrence K. Duffy

Institute of Arctic Biology 311 Irving Building University of Alaska Fairbanks Fairbanks, Alaska 99775

for:

Alaska Department of Fish and Game Habitat and Restoration Division 333 Raspberry Road Anchorage, Alaska 99518

September 1999

NOTE: The statement below must be printed on the back of the goldenrod Report Cover.

The *Exxon Valdez* Oil Spill Trustee Council administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The Council administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Action of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972. If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information, please write to: EVOS Trustee Council, 441 West 5<sup>th</sup> Avenue, Suite 500, Anchorage, Alaska 99501-2340; or O.E.O. U.S. Department of the Interior, Washington, D.C. 20240. *Exxon Valdez* Oil Spill Restoration Project Final Report

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Responses of River Otters to Oil Contamination: A Controlled Study of Biological Markers

> Restoration Project 99348 Final Report

> > NOTE: The Title Page must be on white bond paper.

Merav Ben-David R. Terry Bowyer Lawrence K. Duffy

Institute of Arctic Biology 311 Irving Building University of Alaska Fairbanks Fairbanks, Alaska 99775

for:

Alaska Department of Fish and Game Habitat and Restoration Division 333 Raspberry Road Anchorage, Alaska 99518

September 1999

# Responses of River Otters to Oil Contamination: A Controlled Study of Biological Stress Markers

# Restoration Project 99348 Final Report

**Study History:** Project 99348 originated from the need to better understand the effects of contamination by crude oil on biomarkers in river otters (*Lontra canadensis*). Previous studies demonstrated elevated levels of biomarkers in river otters from oiled areas compared with those from non-oiled areas throughout Prince William Sound, Alaska, shortly following the *Exxon Valdez* oil spill (EVOS). Although the data collected to date strongly indicated a correlation between oil contamination and physiological stress in river otters, this evidence required verification through controlled experiments as identified by the EVOS Trustee Council review process (1997). This 2-year project was conducted at the Alaska SeaLife Center in Seward, Alaska, USA, between April 1998 and March 1999. Additional funding was provided by the Council for completion of 3 manuscripts in FY 2000 for publication in a peer-reviewed journal.

Abstract: In this study, we experimentally determined the effects of oil contamination on river otters. Fifteen wild-caught male river otters were exposed to 2 levels of weathered crude oil (i.e., control, 5 ppm/day/kg body mass, and 50 ppm/day/kg body mass) under controlled conditions in captivity at the Alaska SeaLife Center in Seward, Alaska. Responses of captive river otters to oil ingestion provided mixed results in relation to biomarkers. Although hemoglobin, white blood cells, alkaline phosphatase, and possibly interleukin-6 immunoreactive responded in the expected manner, other parameters did not. Aspartate Aminotransferase Alanine Aminotransferase haptoglobin did not increase in response to oiling or decrease during rehabilitation. In addition, although expression of P450-1A increased in captive river otters during oiling, several inconsistencies in the data complicated data interpretation. Nonetheless, we were able to establish that reduction in hemoglobin led to increase in energetic costs of terrestrial locomotion, decrease in aerobic dive limit, and potential increase in foraging time due to a decrease in total length of submergence during each foraging bout. We offer a theoretical physiological model to describe interactions between the different biomarkers and advocate the exploration and development of other biomarkers that will be independent of the heme cycle.

Key Words: Aerobic dive limit, Alaska, captivity, CYP1A, crude oil, hemoglobin, immuno-histochemistry, liver enzymes, *Lontra canadensis*, lymphocytes, oxygen consumption, quantitative RT-PCR.

**Project Data:** Description of data – data was collected from live animals held in captivity at the Alaska SeaLife Center. Blood and other tissues were sampled and processed in different laboratories. Additional samples are archived at the Institute of Arctic Biology, UAF. Format – All data were entered as Excel spreadsheets. Custodian – contact Merav Ben-David, Institute of Arctic Biology, 311 Irving Building, University of Alaska Fairbanks, Fairbanks, Alaska 99775.

# Citation:

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Ben-David, M., R.T. Bowyer, and L.K. Duffy. 1999. Responses of river otters to oil contamination: A controlled study of biological stress markers, *Exxon Valdez* Oil Spill Restoration Project Final Report (Restoration Project 99348), Alaska Department of Fish and Game, Habitat and Restoration Division, Anchorage, Alaska.

# ATTACHMENT B

# **EVOS ANNUAL PROJECT REPORT**

All recipients of funds from the *Exxon Valdez* Oil Spill Trustee Council must submit an annual project report in the following format by September 1 of each fiscal year for which project funding is received, with the exception of the final funding year in which a final report must be submitted. Satisfactory review of the annual report is necessary for continuation of multi-year projects. Failure to submit an annual report by September 1 of each year, or unsatisfactory review of an annual report, will result in withholding of additional project funds and may result in cancellation of the project or denial of funding for future projects.

**PLEASE NOTE:** Significant changes in a project's objectives, methods, schedule, or budget require submittal of a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.

**Project Number:** 

**Project Title:** 

PI Name:

**Time Period Covered by Report:** 

#### Date of Report:

1. Work Performed: Summarize work performed during the reporting period, including any results available to date and their relationship to the original project objectives. Describe and explain any deviation from the original project objectives, procedural or statistical methods, study area, or schedule. Also describe any known problems or unusual developments, and whether and how they have been or can be overcome. Include any other significant information pertinent to the project.

2. Future Work: Summarize work to be performed during the upcoming year, if changed from the original proposal. Describe any proposed changes in objectives, procedural or statistical methods, study area, or schedule. [PLEASE NOTE: Significant changes in a project's objectives, methods, schedule, or budget require submittal of a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.]

3. **Coordination/Collaboration:** Describe efforts undertaken during the reporting period to achieve the coordination and collaboration provisions of the proposal, if applicable.

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4. **Community Involvement/TEK & Resource Management Applications:** Describe efforts undertaken during the reporting period to achieve the community involvement/TEK and resource management application provisions of the proposal, if applicable.

5. Information Transfer: List (a) publications produced during the reporting period,
(b) conference and workshop presentations and attendance during the reporting period, and (c) data and/or information products developed during the reporting period.
[PLEASE NOTE: Lack of compliance with the Trustee Council's data policy and/or the project's data management plan will result in withholding of additional project funds, cancellation of the project, or denial of funding for future projects.]

6. Budget: Explain any differences and/or problems between actual and budgeted expenditures, including any substantial changes in the allocation of funds among line items on the budget form. Also provide any new information regarding matching funds or funds from non-EVOS sources for the project. [PLEASE NOTE: Any request for an increased or supplemental budget must be submitted as a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.]

Signature of PI: \_\_\_\_\_\_ Project Web Site Address: \_\_\_\_\_\_

SUBMIT ANNUAL REPORTS ELECTRONICALLY TO <u>katharine miller@oilspill.state.ak.us</u>. THE REPORTS WILL BE POSTED ON THE TRUSTEE COUNCIL'S WEB SITE AND SHOULD ALSO BE POSTED ON THE PI'S WEB SITE. The subject line of the e-mail transmitting the report must include the project number and the words "annual report" (e.g., "035620 Annual Report"). Electronic reports must be submitted either as an Acrobat Portable Document Format (PDF) file or word processing document (Microsoft Word 2000 for Windows or lower or WordPerfect 9.0 or lower) with any figures and tables imbedded. Acrobat PDF 4.0 or above file format must be used, preferably in 'formatted text with graphics' (called "PDF normal" under Acrobat PDF 4.0) format. Minimally, "PDF searchable image" (called "PDF original image with hidden text" under Acrobat PDF 4.0) may be used if pre-approved by the Trustee Council Office. In either case, the PDF file must not be secured or locked from future editing, or contain a digital signature from the principal investigator.

#### ATTACHMENT C

# **Distribution of Final Reports**

The Alaska Resources Library and Information Services (ARLIS) receives and distributes 18 bound copies and 2 camera-ready copies of the final reports as follows:

ARLIS collection (6 bound and 1 camera-ready copy)\*
Alaska State Library (4 bound copies)\*\*
Holmes Johnson Library (Kodiak) (1 bound copy)
National Marine Fisheries Service Auke Bay Laboratory (1 bound copy)
National Library of Canada (Ottawa) (1 bound copy)
National Technical Information Service (1 bound copy and 1 camera-copy for reproduction upon request)
University of Alaska Anchorage (1 bound copy)
University of Alaska Southeast (Juneau) (1 bound copy)
University of Washington Library (1 bound copy)
Valdez Consortium Library (1 bound copy)

The chairman of the Lingering Oil Effects Subcommittee receives 1 bound copy of each final report.

\*ARLIS distributes its 6 bound copies as follows:

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1 to the Trustee Council's Science Director

1 to the Trustee Council's official record

4 to the ARLIS permanent collection

 \*\* The Alaska State Library distributes its 4 copies as follows: Alaska State Library Alaska Historical Library
 E. Rasmuson Library (University of Alaska Fairbanks) Library of Congress

# MANUSCRIPT GUIDELINES FOR THE JOURNAL OF WILDLIFE MANAGEMENT



#### By

John T. Ratti and Loren M. Smith 1998 Journal of Wildlife Management 62 (1, Supplement) The Wildlife Society, Inc., Bethesda, Maryland

Note: Making photocopies for personal and educational purposes is permitted and encouraged.

1 September 1997 John T. Ratti Department of Fish and Wildlife Resources University of Idaho Moscow, ID 83844-1136 208-885-7741; FAX 208-885-9080; E-mail jratti@uidaho.edu

RH: JWM Manuscript Guidelines • Ratti and Smith

# MANUSCRIPT GUIDELINES FOR THE JOURNAL OF WILDLIFE MANAGEMENT

JOHN T. RATTI,<sup>1,2</sup> Department of Fish and Wildlife Resources, University of Idaho, Moscow, ID 83843, USA

LOREN M. SMITH, Department of Range, Wildlife, and Fisheries Management, Mail Stop 2125,

Texas Tech University, Lubbock, TX 79409, USA

*Abstract:* This guide provides information for preparing manuscripts submitted to the *Journal of Wildlife Management (JWM)* for publication consideration. Authors should submit manuscripts in the format and style presented in these guidelines, i.e., your manuscript format should be identical to this example. Proper preparation increases the probability and speed of acceptance.

JOURNAL OF WILDLIFE MANAGEMENT 00(0):000-000

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Key words: author, format, guidelines, instructions, manuscript, style, Journal of Wildlife Management.

These guidelines update Gill and Healy (1980), Ratti and Ratti (1988), and those on the back cover of some issues of *JWM*. This update was prepared to make the guidelines more available to authors, to include basic format and style changes, and to provide additional examples. Authors should review a recent issue of the *JWM* but should understand there are

<sup>1</sup>Present address: (Use this format to give present address of an author if it differs from the address during the time research was conducted).

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differences between articles in final printed form and correct format of submitted manuscripts (e.g., key words, text columns, placement of tables and figures, line spacing). Check recent *JWM* issues for instructions that may supersede these guidelines, and for the name and address of the current Editor in Chief. Papers that clearly deviate from *JWM* format and style may be returned for correction before review.

#### HIGHLIGHTS OF GUIDELINES CHANGES

For those authors with experience and knowledge of *JWM* Guidelines, it may be helpful to identify and review significant changes in this manuscript. Fundamental changes include (1) most abbreviations have been eliminated from the LITERATURE CITED section; (2) spell out country names at the end of author and publisher addresses, except for United States use "USA;" (3) no use of underlined words to indicate italic type, i.e., use italic fonts where appropriate; and (4) ACKNOWLEDGMENTS are a separate section preceding LITERATURE CITED. Please review this document for additional changes.

#### POLICY

Referees and editors judge each submitted manuscript on data originality, concepts, interpretations, accuracy, conciseness, clarity, appropriate subject matter, and contribution to existing literature. Prior publication or concurrent submission to other refereed journals precludes review or publication in *JWM* (additional information in section on Transmittal Letter and Submission). The *JWM*, *Wildlife Society Bulletin*, and *Wildlife Monographs* have similar quality standards. Fisheries manuscripts are discouraged unless information is part of an account that mainly concerns terrestrial vertebrates.

#### PAGE CHARGES AND COPYRIGHTS

Current policies regarding page charges offer alternatives and are explained to authors after manuscripts are submitted, and when they are accepted for publication. Page charges may change annually; for members of The Wildlife Society in 1997, they were \$65/page for the first 8 pages

plus \$125 for each succeeding page (for nonmembers the rate was \$125/page for all pages). Authors pay for alterations to page proofs (in 1997, \$3.25/reset line), except for typesetting errors and editorial errors. If a manuscript not in the public domain is accepted for publication, authors or their employers must transfer copyright to The Wildlife Society. Publications authored by federal-government employees are in the public domain. Manuscript submission implies entrusting copyright (or equivalent trust in public-domain work) to the Editor in Chief until the manuscript is either rejected, withdrawn, or accepted for publication. If accepted, The Wildlife Society retains copyright.

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#### COPY

Use quality white paper,  $215 \ge 280 \text{ mm} (8.5 \ge 11 \text{ inches})$  or metric size A4. Do not hyphenate words at the right margin, and do not right-justify text. Manuscripts produced on dot matrix printers are not acceptable.

Margins should be 3 cm (1 3/16 inches) on all sides. Do not violate margin boundaries to begin a new paragraph or the LITERATURE CITED at the top of a new page; i.e., do not leave >3 cm of space at the bottom of a page (except to prevent a widow heading). Type the senior author's last name (upper left) and page numbers (upper right) on pages 2 through the LITERATURE CITED, on tables and figure title pages, but not on the first page, figures, or illustrations. Do not underline words or use bold or italic font in the text to indicate emphasis. Scientific names should be in italic font. Keep the original manuscript and submit 4 quality copies. Submit a transmittal letter (see below) with your manuscript.

#### **RUNNING HEAD, TITLE, AND AUTHORS**

Page 1 of the manuscript should begin with the date (update with each revision), corresponding author's name, address, and telephone, FAX, and E-mail numbers (if available), single-spaced in the upper left corner. Thereafter, all text is double-spaced, including tables.

The running head (RH) is the first line following the correspondent's address. The RH is limited to 45 characters, left-justified, and typed in upper- and lower-case letters followed by a dot (or raised period) and the last name(s) of  $\leq 2$  authors. For  $\geq 3$  authors, use the name of the first author followed by "et al." Type the author's name(s) in italic font. The RH is used in final printed form as an abbreviated title at the top of each page following the title page.

The title follows the RH, is also left-justified in bold font, all upper-case letters, should not include abbreviations, acronyms, punctuations, and should not exceed 10 words (unless doing so forces awkward construction). In such cases, use #13 words. The title identifies manuscript content. Do not use scientific names in the title except for organisms that do not have, or are easily confused by, common names. Do not use numbers in titles or the RH.

Author's names are left-justified in upper-case letters followed by affiliation and address in upper- and lower-case letters (usually where the author was employed during the study). The second and third lines of the author's address are indented 5 spaces. Use available U.S. Postal Service (USPS) abbreviations (Appendix A), zip codes, and the country abbreviation (e.g., USA), in each address. Write out words like Street, Avenue, and Boulevard but abbreviate directions (e.g., N. and N.W.). For multiple authors with the same address, repeat the address after each author's name.

#### FOOTNOTES

Footnotes appear at the bottom of the first page to reference present address of an author when it differs from the by-line address, and for E-mail address of the corresponding author. Footnotes also may be used to indicate a deceased author. The footnote appears immediately below a left-justified solid line of 10 characters, and each footnote is indented 5 spaces and starts with a numerical superscript; subsequent lines are left-justified. The footnote origin corresponds to the superscript number following the author's name. Endorsement disclaimers and pesticide warnings should be incorporated in the text. For table footnotes, see the TABLES section.

#### ABSTRACT

Begin with the word "Abstract" in italic and bold fonts followed by a colon, and leftjustified. The Abstract text begins after the colon on the same line, and should be a single paragraph not exceeding 1 line/page of text, including LITERATURE CITED. The Abstract should include:

Problem Studied or Hypothesis Tested.--Identify the problem or hypothesis and explain why it was important. Indicate new data, concepts, or interpretations directly or indirectly used to manage wildlife.

*Results.*--Emphasize the most important results, positive or negative, but keep the methods brief unless a new or much-improved method is reported.

*Utility of Results.--*Explain how, when, where, and by whom data or interpretations can be applied to wildlife problems or contribute to knowledge of wildlife science.

On the line following the Abstract, type "JOURNAL OF WILDLIFE MANAGEMENT 00(0):000-000" right-justified and in capital letters, bold font, and italics (see page 1 of this manuscript).

#### **KEY WORDS**

Key words follow the Abstract. The phrase "Key words" is typed in italic and bold fonts followed by a colon, left-justified, and followed by 10-12 key words in alphabetical order. Include some words from the title and others that identify (1) common and scientific names of principal organisms in the manuscript; (2) geographic area, usually the state, province, or equivalent, or region if its name is well known; (3) phenomena and entities studied (e.g., behavior, populations, radiotelemetry, habitat, nutrition, density estimation, reproduction); (4) methods-only if the manuscript describes a new or improved method; and (5) other words not covered above but useful for indexing. Type a solid line from the left to the right margin beneath the key words; begin the text below this line.

#### **HEADINGS AND MAJOR SECTIONS**

#### Headings

Three levels of headings may be used and examples of each appear in this manuscript. First-level headings are in upper-case letters, are left-justified, and in bold type. Second-level headings also are bold type and left-justified, but only the first letter of each word (except articles, conjunctions, and prepositions) is upper-case. Third-level headings have the first letter of each word upper-case, but are indented 5 spaces, italicized, and followed by a period and 2 hyphens. Although short papers ( $\leq$ 4 pages) may not require any headings, most require at least first-level headings. Under a first-level heading, use only third-level headings if all subsections are short ( $\leq$ 2 paragraphs; e.g., see Abstract section of this manuscript). Avoid repeating exact wording of the heading with second- and third-level headings. Do not leave first- or second-level headings standing alone on the last line of a page (i.e., as a "widow line"), and avoid 1-sentence paragraphs.

#### Major Sections.

The introduction (no heading) starts below the line under key words and is a concise synthesis of literature specific to the manuscript's main topic. The latter part of this section states objectives or hypotheses tested.

Most *JWM* manuscripts have 8 major sections: introduction, STUDY AREA, METHODS, RESULTS, DISCUSSION, MANAGEMENT IMPLICATIONS, ACKNOWLEDGMENTS, and LITERATURE CITED. It is permissible to combine STUDY AREA and METHODS, but do not combine RESULTS and DISCUSSION. Merging these sections so that results can be interpreted when first presented leads to superfluous wording, unnecessary discussion, and confusion.

Most study-area descriptions should be presented in past tense; e.g., "average annual precipitation was 46 cm," "habitat was primarily grass." Exceptions include geological formations that have been present for centuries. Methods should be brief and include dates,

sampling schemes, duration, research or experimental design, and data analyses. Previously published methods should be cited without explanation. New or modified methods should be identified as such and explained in detail. Many research projects require animal-welfare protocols, and these should be cited here. If an approval number for the protocol was necessary, list it parenthetically following the statement.

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Present results in a clear, simple, concise, and organized fashion. Avoid overlapping text with information in tables and figures; do not explain analyses that should be presented in the METHODS section. Results should be presented in past tense (e.g., body-mass loss occurred during winter). Reserve interpretation comments for the DISCUSSION section.

The discussion provides an opportunity for interpreting data and making literature comparisons. Reasonable speculation and new hypotheses to be tested may be included in the DISCUSSION. Do not repeat results and comment only on the most important findings. Systematic discussion of every aspect of the research leads to unnecessarily long manuscripts.

The MANAGEMENT IMPLICATIONS section should be short and direct, but explain issues important to conservation. This section may include speculation, but should address specific management opportunities or problems.

#### STYLE AND USAGE

Manuscripts with publishable data may be rejected because of poor writing style (e.g., long and complex sentences, superfluous words [Table 1], unnecessary information, and poor organization). Most editors are patient with this problem and are willing to offer helpful suggestions. However, referees are less tolerant of poor writing, and this problem may lead to negative reviews. Many of these problems can be corrected by having your manuscript critically reviewed by colleagues before submission for publication. Authors are urged to review Chapters 3 and 4 in the "CBE Style Manual" (CBE Style Manual Committee 1994) and "Writing with Precision, Clarity, and Economy" by Mack (1986). Manuscripts should be direct and concise.

Many common problems may be avoided by use of a carefully prepared outline to guide manuscript writing. Other helpful suggestions are presented by Strunk and White (1979), Day (1983), and Batzli (1986). Use first person and active voice whenever appropriate to avoid superfluous wording. Review the list of commonly misused words (Table 2) before preparing your manuscript (e.g., use the word "mass" rather than "weight" to conform to international standards).

Numbers and Unit Names.--Use digits for numbers (e.g., 7 and 45) unless the number is the first word of a sentence, where it is spelled out. Use symbols or abbreviations (e.g., % and kg) for measurement units that follow a number unless the number is indefinite (thousands of hectares), is a "0" (zero) standing alone, or is the first word in a sentence. In such cases spell out the number and unit name or recast the sentence. Avoid using introductory phrases such as "A total of ... ." Spell out numbers used as pronouns (i.e., one) or adverbs and ordinal numbers (e.g., first and second). However, use digits for cases such as 3-fold and 2-way. Convert fractions (1/4, 1/3, etc.) to decimals except where they misrepresent precision.

Hyphenate number-unit phrases used as adjectives (e.g.,  $3-m^2$  plots and 3-year-old males), but not those used as predicate adjectives (e.g., plots were  $3 m^2$ ). Insert commas in numbers  $\geq 1,000$  (except for pages in books, clock time, or year dates). Do not insert a comma or hyphen between consecutive, separate numbers in a phrase (28  $3-m^2$  plots). Do not use naked decimals; i.e., use 0.05, not .05.

*Time and Dates.--*Use the 24-hr system: 0001 through 2400 hr (midnight). Date sequence is day month year, without punctuation. Do not use an apostrophe for plural dates (e.g., 1970s). Spell out months except in parentheses, tables, and figures, in which 3-letter abbreviations are used with no period (e.g., 31 Mar 1947, Appendix B).

Mathematics and Statistics.--Use italic font for Roman letters used as symbols for quantities (e.g.,  $n, \overline{x}$  F, t, Z, P, and X). Do not underline or italicize numbers, Greek letters, names of trigonometric and transcendental functions, or certain statistical terms (e.g., ln, e, exp, max, min, lim, SD, SE, CV, and df). Use bold font for items that should be set in boldface type.

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Insert a space on both sides of symbols used as conjunctions (e.g., P > 0.05), but close the space when used as adjectives (e.g., >20 observations). Where possible, report exact probabilities (P = 0.057, not P > 0.05). A subscript precedes a superscript ( $X_i^3$ ) unless the subscript includes >3 characters. Break long equations for column-width printing (67 mm) if they appear in the main body of the manuscript; long equations and matrices can be printed page-width (138 mm) in appendices. Swanson (1974) or the CBE Style Manual Committee (1994:206-218) should be followed for general guidance, and MacInnes (1978) for advice on presentation of statistics. Authors are urged to read Tacha et al. (1982) and Wang (1986) for reviews of common statistical errors. Authors should consider statistical power when judging their results (*JWM* 59:196-198).

*Abbreviations and Acronyms.--*Metric units, their appropriate prefixes, and abbreviations identified by an asterisk in Appendix B may be used in the text. All other abbreviations or acronyms (except DNA) used in the Abstract or text must be defined the first time used; e.g., Bureau of Land Management (BLM). Acronyms established in the Abstract should not be reestablished in the text. Do not start sentences with acronyms; do not use an apostrophe with plural acronyms (e.g., ANOVAs). All abbreviations in Appendices A and B may be used within parentheses.

*Punctuation.--*Use a comma after the next-to-last item in a series of  $\geq 3$  items (e.g., red, black, blue). Do not hyphenate prefixes, suffixes, or combining forms unless necessary to avoid confusion. Common hyphenation errors occur in 3 cases: (1) a phrase containing a participle or an adjective is hyphenated as a compound when it precedes the word modified, and is written

without a hyphen when it follows the word modified (e.g., a small-bird study vs. a study of small birds); (2) a modifier containing a number is usually hyphenated (e.g., a 6-year-old mammal); and (3) a 2-word modifier containing an adverb ending in *ly* is not hyphenated (e.g., a carefully preserved specimen).

Closing quotation marks are placed after periods and commas, but may be placed either before or after other punctuation (CBE Style Manual Committee 1994:177-181). Fences must appear in pairs, but the sequence varies. Use ([]) in ordinary sentences, use {[()]} in mathematical sentences, and use (()) only in special cases such as chemical names. Brackets are used to enclose something not in the original work being quoted (e.g., insertion into a quotation or a translated title [CBE Style Manual Committee 1994:58-59]).

*Enumerating Series of Items.*--When enumerating series, a colon must precede the numbered items unless preceded by a verb or preposition. Place numbers within parentheses for presentation of a simple series (e.g., Key words section of this manuscript). When enumerating lengthy or complexly punctuated series, place the numbers at the left margin, with periods but no parentheses, and indent run-on lines (see example in Tables subsection below).

#### COMMON AND SCIENTIFIC NAMES

Do not capitalize common names of species except words that are proper names (e.g., Canada goose [*Branta canadensis*], Swainson's hawk [*Buteo swainsoni*], white-tailed deer [*Odocoileus virginianus*]). Scientific names should follow the first mention of a common name, except in the title. If a scientific name is given in the Abstract, do not repeat it in the text or tables. Scientific names following common names should be in italic font in parentheses with the first letter of the genus upper-case and the species name in lower-case letters. Abbreviate genus names with the first letter when they are repeated within a few paragraphs, provided the meaning is clear and cannot be confused with another genus mentioned in the manuscript with the same first letter; e.g., we studied snow geese (*Chen caerulescens*) and Ross' geese (*C. rossii*).

Do not use subspecies names unless essential and omit taxonomic authors names. Use "sp." (not italicized) to indicate unknown species. Use "spp." for multiple species; e.g., the field was bordered by willow (*Salix* spp.). Use the most widely accepted nomenclature where disagreement occurs. Use the most current edition of The American Ornithologists' Union Check-list (e.g., 1997) and periodic supplements published in *Auk* as general references for North American birds. For mammals, use Nowak (1991) or Whitaker (1996). There is no single reference for North America plants; we recommend citing the most widely accepted regional flora reference (e.g., in northwestern states, Hitchcock and Cronquist 1973). Omit scientific names of domesticated animals or cultivated plants unless a plant is endemic or widely escaped from cultivation, or is a variety that is not described adequately by its common name.

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#### **MEASUREMENT UNITS**

Use Systeme Internationale d'Unites (SI) units and symbols. Use English units (or another type of scientific unit) in parentheses following a converted metric unit only in cases that may misrepresent (1) the statistical precision of the original measurement or (2) the correct interpretation of the results. However, these non-SI units are permitted:

area -- hectare (ha) in lieu of  $10^4 \text{ m}^2$ ;

energy -- calorie (cal) in lieu of Joule (J);

temperature -- Celsius (C°) in lieu of Kelvin (K);

time -- minute (min), hour (hr), day, etc. in lieu of seconds (sec);

volume -- liter (L) in lieu of dm<sup>3</sup>.

The CBE Style Manual Committee (1994:200-205) provided definitions of SI units and prefixes. The American Society of Testing Materials (1979) included many conversion factors.

# CITING LITERATURE IN TEXT

In most cases, reference citations parenthetically at the end of a sentence; e.g., mallardbrood survival was higher in the wettest years (Rotella 1992). Published literature is cited by

author and year; e.g., Jones (1980), Jones and White (1981). With  $\geq 3$  authors use "et al."; e.g., (Jones et al. 1982). Do not separate the author and date by a comma, but use a comma to separate a series of citations and put these in chronological order; e.g., (Jones 1980, Hanson 1986). If citations in a series have >1 reference for the same author(s) in the same year, designate the years alphabetically (in italics) and separate citations with semicolons; e.g., (Jones 1980*a,b*; Hanson 1981; White 1985, 1986). For citations in a series with the same year, use alphabetical order within chronological order; e.g., (Brown 1991, Monda 1991, Rotella 1991, Allen 1995). Do not give more than 6 citations in the text to reference a specific issue or scientific finding. For a quotation or paraphrase, cite author, year, colon, and page number(s); e.g., we used Neyman allocation to minimize variance (Krebs 1989:216). Use the same style for a book or other lengthy publication unless the reference is to the entire publication; e.g., Odum (1971:223).

Cite documents that are cataloged in major libraries, including theses and dissertations, as published literature. These citations include symposia proceedings and U.S. Government reports that have been widely distributed. However, cite such references as unpublished if they are not easily available. Cite unpublished information in the following forms: (J. G. Jones, National Park Service, personal communication), (D. F. Brown, Arizona Game and Fish Department, unpublished data), (D. E. Timm. 1977. Annual Waterfowl Report, Alaska Department of Fish and Game, Juneau, Alaska, USA).

A manuscript accepted for publication is cited as a published manuscript in the text using the anticipated publication year. In the LITERATURE CITED, show the year after the name(s) of the author(s) and "In Press" after the volume number (see below). Do not cite manuscripts that are in review; use the unpublished style.

#### LITERATURE CITED STYLE

Type the citations double-spaced immediately following the text, not necessarily on a new page. Spell out all words in cited literature, i.e., do not use abbreviations. However, the

following 3 exceptions are allowed: Washington D.C.; "U.S.," e.g., U.S. Department of Agriculture, and "USA" in author and publisher addresses. Alphabetize by author's surname(s), regardless of the number of multiple authors for the same publication. Within alphabetical order the sequence is chronological. Use upper- and lower-case letters (typing all capital letters complicates editing names such as DeGraaf and vanDruff). Use 2 initials (where appropriate) with 1 space between each initial. For multiple citations with the same author(s), use a 5-spaced line to replace the author's name(s) after the first citation. For serial publications, show the issue number only if the pages of each issue are numbered separately. As in the text, spell out ordinal numbers (e.g., Third edition). Use the word Thesis to denote Master of Science (M.S.) or Master of Arts (M.A.), and Dissertation for Doctor of Philosophy (Ph.D.). Do not write the total page number of books at the end of citations. Omit unnecessary words, but do not remove a conjunction if the meaning may be changed (e.g., Game and Fish vs. Game Fish). For publishers, do not include words like Company, Incorporated, Limited, or Publishing (e.g., Macmillan, not Macmillan Publishing Company). Please review the following examples.

#### Book -- More than 1 Edition

Smith, R. L. 1974. Ecology and field biology. Second edition. Harper & Row, New York, New York, USA.

#### Book -- More than 1 Volume

Palmer, R. S. 1976. Handbook of North American birds. Volume 2. Yale University Press, New Haven, Connecticut, USA.

#### **Book** -- Editor as Author

Temple, S. A., editor. 1978. Endangered birds: management techniques for preserving threatened species. University of Wisconsin Press, Madison, Wisconsin, USA.
### **Chapter Within Book**

Zeleny, L. 1978. Nesting box programs for bluebirds and other passerines. Pages 55-60 in S. A. Temple, editor. Endangered birds: management techniques for preserving threatened species. University of Wisconsin Press, Madison, Wisconsin, USA.

### **Theses or Dissertations**

Tacha, T. C. 1981. Behavior and taxonomy of sandhill cranes from mid-continental North America. Dissertation, Oklahoma State University, Stillwater, Oklahoma, USA.

### Journals - General Format

Miller, M. R. 1986. Molt chronology of northern pintails in California. Journal of Wildlife Management 50:57-64.

### Journals in Press -- Year and Volume Known

Zelenak, J. R., and J. J. Rotella. 1997. Nest success and productivity of ferruginous hawks in northern Montana. Canadian Journal of Zoology 75:in press.

### Journals in Press -- Year and Volume Unknown

Giudice, J. H., and J. T. Ratti. In Press. Biodiversity of wetland ecosystems: review of status and knowledge gaps. BioScience.

### Symposia and Proceedings - Complete Volume

DeGraaff, R. M., technical coordinator. 1978. Proceedings of workshop on management of southern forests for nongame birds. U.S. Forest Service General Technical Report SE-14.

### Symposia and Proceedings -- Individual Article

Dickson, J. G. 1978. Forest bird communities of the bottomland hardwoods. Pages 66-73 in R.
M. DeGraaf, technical coordinator. Proceedings of workshop on management of southern forests for nongame birds. U.S. Forest Service General Technical Report SE-14.

### Symposia and Proceedings -- Part of a Numbered Series

Palmer, T. K. 1976. Pest bird control in cattle feedlots: the integrated system approach.Proceedings of the Vertebrate Pest Conference 7:17-21.

### Multiple Citations of the Same Author(s)

- Peek, J. M. 1963. Appraisal of a moose range in southwestern Montana. Journal of Range Management 16:227-231.
- \_\_\_\_\_. 1986. A review of wildlife management. Prentice-Hall, Englewood Cliffs, New Jersey, USA.
- \_\_\_\_\_, and A. L. Lovaas. 1968. Differential distribution of elk by sex and age on the Gallatin winter range, Montana. Journal of Wildlife Management 32:553-557.
- \_\_\_\_\_, \_\_\_\_, and R. A. Rouse. 1967. Population changes within the Gallatin elk herd, 1932-
  - 1965. Journal of Wildlife Management 31:304-316.
- \_\_\_\_\_, and R. A. Rouse. 1966. Preliminary report on population changes within the Gallatin elk herd. Wildlife Science 82:1298-1316. (Note: fictitious citation used for example only.)

### **Government Publication**

Lull, H. W. 1968. A forest atlas of the Northeast. U.S. Forest Service, Northeastern Forest Experiment Station, Upper Darby, Pennsylvania, USA.

### **Government Publication -- Part of a Numbered Series**

Anderson, D. R. 1975. Population ecology of the mallard: V. Temporal and geographic estimates of survival, recovery, and harvest rates. U.S. Fish and Wildlife Service Resource Publication 125.

### **Government Publication - Agency as Author**

National Research Council. 1977. Nutrient requirements of poultry. Seventh edition. National Academy of Science, Washington, D.C., USA.

*Note*: Cite in text as National Research Council (1977). For additional examples, see the LITERATURE CITED section of this manuscript.

### TABLES AND FIGURES

Submit only essential tables and figures. Often tables overlap with presentation in the text, or the information can be easily printed in the text with less journal space. Do not present the same data in a table and a figure. Number tables and figures independently. In the text limit reference of tabular data to highlights of the most important information. Reference tables and figures parenthetically, and avoid statements such as "The results are shown in Tables 1-4." Prepare line drawings only for data that cannot be presented as clearly in a table. For general guidance follow CBE Style Manual Committee (1994:677-693).

Tables and figures should be able to stand alone (e.g., self-explanatory). Avoid reference to the text, and be sure the title includes the species or subject of the data, and where and when data were collected. In rare cases, titles or footnotes of tables and figures may be crossreferenced to avoid repeating long footnotes or the same data. However, this violates the "selfexplanatory" rule and should be avoided.

#### Tables

Do not prepare tables for small data sets, those containing many blank spaces, zeros, repetitions of the same number, or those with few or no significant data. Put such data or a summary in the text. Day (1983) presents a practical discussion of tables.

For data that must be shown in a table, items that provide the most important comparisons usually read vertically, not horizontally. Construct tables for column-width (67 mm) printing. If the table will not fit in 1 column width, construct it for page-width printing not wider than 23 cm

(9 inches). Some extra-wide tables can be printed vertically (e.g., *JWM* 50:192, 51:461), but such tables usually waste space. Extra-long and extra-wide tables require justification from the author.

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Table titles may vary, but we recommend this sequence: (1) name of the characteristic that was measured (e.g., mass, age, density), (2) measurement unit or units in parentheses (e.g., cm, No./ha, M:100 F, or %), (3) name of organism or other entity measured (e.g., "of Canada geese"), and (4) location and date. Each part of the sequence can include >1 item (e.g., "Carcass and liver fat [%] and adrenal and kidney weight [mg] of white-tailed deer in Ohio and Michigan, 1975)."

Avoid beginning the title with superfluous words (e.g., The, Summary of, and Comparisons between) and words that can be presented parenthetically as symbols or abbreviations (e.g., %). Symbols such as n and % in the title seldom need repetition in table headings. Do not use abbreviations in table title, except within parentheses. However, use standard abbreviations and symbols (Appendix B) in the table body and in footnotes.

The lines printed in tables are called "rules," and JWM standards are

1. None drawn vertically within the table.

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- Three rules across the entire table: below the title, below the column headings, and at the bottom. Type each as a single, continuous line.
- 3. Use rules that straddle subheadings within the column heading (e.g., *JWM* 50:48).
- 4. None to show summation; use "Total" or equivalent in the row heading.
- 5. Do not use rules to join the means in multiple-range tests. Use Roman upper-case letters instead of rules (e.g., 12.3A<sup>a</sup>, 16.2A, 19.5B) where the superscript "a" references a footnote such as "<sup>a</sup>Means with the same letters are not different (P > 0.10)" (e.g., JWM 50:22). Upper-case letters may be used in a similar fashion to reference the relationship of data among columns (e.g., JWM 50:371).

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In column headings use straddle rules liberally to join related columns and reduce wordage (e.g., *JWM* 50:31). Label columns to avoid unnecessary print in the data field. For example, instead of " $\overline{x} \pm SE$ ," label  $\overline{x}$  and SE separately so that  $\pm$  need not be printed. Similarly, label sample size columns "*n*" instead of using numbers in parentheses in the data field.

Keep column- and row-heading words out of the data field. Type main headings flush left, and indent their subheadings (e.g., *JWM* 50:86). In the data field, do not use dashes (often misused to mean "no information") or zeros unless the item was measured, and 0, 0.0, or 0.00 correctly reports the precision. Similarly, respect digit significance in all numbers, particularly percentages. Do not use percentages where *n* is <26, except for 1 or 2 samples among several others where *n* is >25. Where the number of significant digits varies among data in a column, show each datum at its precision level; i.e., do not exaggerate precision. For *P* values only use 3 digits past the decimal and do not list P = 0.000; the correct form is  $P \le 0.001$ .

For footnote superscripts use asterisks for probability levels and lower-case Roman (not italic) letters for other footnotes. Use this sequence for placing letters alphabetically: in the title, then left-to-right, and then down. Make certain that each footnote character in the title and table matches an explanation that is indented below the table. Left justify run-on lines of footnotes. Footnotes may be used to reduce cluttering the title and table with details. The most common errors in tables are single spacing, incomplete titles, naked decimal points, and ambiguous or unnecessary characters in the data field.

### Figures

Most figures are either line (or computer) drawings or pictures ("picture" is used to distinguish scene or object photographs from photos of drawings). If possible, photographic prints should not exceed 20 x 25 cm. Submit 4 prints of a picture; for drawings submit either 4 prints or 1 print and 3 photographic copies. Retain original drawings to guard against loss or

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damage. Consult Allen (1977), Day (1983), and the CBE Style Manual Committee (1994:693-699) for additional guidance.

Type all figure captions on 1(or more) page(s). On the back of each figure lightly print (in soft pencil) the senior author's name, figure number, and "Top." Figure titles tend to be longer than table titles because figures are not footnoted. The title may be several sentences and include brief suggestions for interpreting the figure content.

*Pictures.*--Few pictures are accepted. They must have sharp focus, have high tonal contrast, a reference scale if size is important, a glossy finish, and must be unmounted. Letters, scales, or pointers can be drawn on the prints, but they must be of professional quality. Sets of 2-4 related pictures can be mounted as 1 figure if prints are the same width and will fit in a space 67 x < 170 mm when reduced for printing. Label prints A, B, C, D or use "Top," etc., for reference in the figure title. Cropping improves composition of most pictures, but do not put crop marks on prints. Instead, put them on xerographic copies or sketches. Do not submit color prints unless you are able to pay for printing at approximately \$1,200/plate (as of 1997).

*Line Drawings.--*Consider whether a drawing can be printed column width (67 mm) or is so detailed that it must be printed page width (138 mm). The difference depends mainly on size of characters and lengths of legends drawn on the figure. If page width is necessary, consider omitting some of the detail and look for ways to shorten legends. Column-width figures are preferred (e.g., *JWM* 50:145).

Before revising the first sketch, determine the minimum height for letters, numbers, and other characters, which must be  $\ge 1.5$  mm tall after reduction for printing. Determine width in millimeters for the revised sketch. To determine the minimum height (mm) for characters, multiply the width by 0.0224 for column-width printing or 0.0109 for page-width printing. If in doubt as to printed width, use the column-width multiplier. The product is the minimum height in millimeters. Plan to use at least the next larger character height available. Hand-drawn lines and

lettering and typewriter characters are not acceptable. We recommend professionally prepared line drawings. Lettering from modern personal computer graphics software and printers is acceptable.

For axis labels, use lower-case or italic letters where they are essential to the meaning, as in mathematical terms and most metric units (see subsection on Mathematics and Statistics and Appendix B). Otherwise use upper- and lower-case letters, which are more legible when reduced. Identify arbitrary symbols by legend within the figure (preferred) or, for those normally available to the printer (e.g., CBE Style Manual Committee [1994:693-699]), in the figure title.

### TRANSMITTAL LETTER AND SUBMISSION

Check the most recent issue of the *JWM* for the name and address of the Editor in Chief. Send the manuscript with a transmittal letter that indicates you are submitting exclusively to the *JWM* and that no part of the manuscript has been published or is being considered for publication elsewhere. If any portion of the manuscript has been published or reported elsewhere, or if the manuscript relates to but does not duplicate other publications or manuscripts by the same authors, send 4 copies of each to assist referees and editors in assessing the submitted manuscript.

Theses and Dissertations do not constitute prior publication and need not be mentioned in the letter, but they should be cited in the manuscript. Similarly, abstracts of talks given at meetings do not constitute prior publication. Generally, unpublished reports that were required by sponsors and that were not distributed as part of a numbered series (or in other ways that might result in accession by libraries) do not constitute prior publication. Symposia proceedings are considered publications. Provide information that bears on ethical and copyright considerations and any other information that might facilitate review and editing.

### **REVIEW PROCESS**

Manuscripts are submitted to the Editor in Chief who selects a minimum of 2 referees from *JWM* files and personal knowledge. The *JWM* has a board of Associate Editors (AE), each with

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specialized knowledge of subject areas. The manuscript is mailed to the referees and an appropriate AE. Referees are instructed to return their comments to the AE, who usually takes 1 of 2 actions after assessing the manuscript and review comments: (1) the manuscript is returned to the author(s) with suggestions for revision, or (2) the manuscript is rejected and the file is returned to the Editor in Chief (in both cases the author receives a copy of the review comments). If the manuscript was returned to the author(s) for revision, the revised manuscript is reviewed again by the AE and either rejected, or returned to the Editor in Chief with a recommendation for acceptance. Sometimes the revision process requires several iterations before the AE makes a final decision.

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A third referee may be selected if the editors feel it is necessary, (e.g., if referees differ widely in their opinions). Manuscripts returned to authors for revision must be returned to the AE within 6 months or the manuscript will be rejected, requiring resubmission. Final acceptance of manuscripts is decided by the Editor in Chief. Typically, the Editor in Chief follows the AE recommendation. However, the Editor in Chief may reconsider manuscripts that have been rejected or recommended for acceptance by an AE. Reconsideration of a rejected manuscript usually requires a convincing rebuttal letter from the authors.

For accepted manuscripts, authors are required to submit the final draft on diskette in word processor format (include text, followed by tables, and figure titles). Allen Press will typeset directly from the diskette; thus, incorporation of all final editorial changes is essential. Most word processor formats are acceptable; please label your diskette with operating system name and word processor format, including the version number.

The time between submission and final decision to accept or reject a manuscript averages 3-6 months, but varies from 3 to 20 months depending upon the number of revisions required and the time manuscripts are held by referees and authors. Manuscripts seldom are delayed in either

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editorial office more than 2-3 weeks during the review process. After acceptance, manuscripts usually are printed within 9-12 months.

## ACKNOWLEDGMENTS

This section appears immediately before the LITERATURE CITED, should be brief, and include both initials (where appropriate) and the last name of individuals acknowledged. Acknowledgments should be straightforward without qualifying adjectives. We thank G. A. Baldassarre, M. S. Boyce, C. E. Braun, H. E. Hodgdon, R. L. Lee, and M. M. Kirsch for review comments. G. C. White assisted with revision of the mathematics and statistics subsection. Portions of this manuscript have been extracted from Gill and Healy (1980) and Ratti and Ratti (1988) with permission of The Wildlife Society. This is Contribution 836, University of Idaho Forest, Wildlife, and Range Experiment Station. L. M. Smith was supported by the Caesar Kleberg Foundation for Wildlife Conservation.

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(Note: Many citations that were used in the guidelines text as examples do not appear in the LITERATURE CITED section above.)

(Immediately below the LITERATURE CITED section type the following in italics:)

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Received

Accepted

Associate Editor:

Table 1. Common expressions with superfluous words.<sup>a</sup>

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Superfluous wording	Suggested substitute
the purpose of this study was to test the hypothesis	l (or we) hypothesized
in this study we assessed	we assessed
we demonstrated that there was a direct	we demonstrated direct
were responsible for	caused
played the role of	were
on the basis of evidence available to date	consequently
in order to provide a basis for comparing	to compare
as a result of	through, by
for the following reasons	because
during the course of this experiment	during the experiment
during the process of	during
during periods when	when
for the duration of the study	during the study
the nature of	(omit by rearrangement)
a large (or small or limited) number of	many (or few)
conspicuous numbers of	many
substantial quantities	much
a majority	most
a single	one
an individual taxon	a taxon

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Table 1. Continued.

## Superfluous wording Suggested substitute seedlings, irrespective of species all seedlings all of the species all species evidence various lines of evidence they do not themselves possess they lack were still present persisted, survived the analysis presented in this paper our analysis indicating the presence of indicating despite the presence of despite checked for the presence of checked for in the absence of without a series of observations observations may be the mechanism responsible for may have caused it is reasonable to assume that where light is not limiting with light not limiting in a single period of a few hours in a few hours occur in areas of North America are in North America adjacent transects were separated by at least 20 m ≥20 m apart in the vicinity nearby separated by a maximum distance of 10 m and a minimum distance of 3 m 3-10 m apart

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Table 1. Continued.

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Superfluous wording	Suggested substitute
the present-day population	the population
their subsequent fate	their fate
whether or not	whether
summer months	summer
are not uncommon	may be
due to the fact that	(omit by rearrangement)
showed a tendency toward higher survival	had higher survival
devastated with drought-induced desiccation	killed by drought

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<sup>a</sup>Mack (1986:33). Reprinted with permission from the Ecological Society of America.

Table 2. Words that commonly need correction in *Journal of Wildlife Management* manuscripts.<sup>a</sup>

Word and proper usage

accuracy (see precision): extent of correctness of a measurement or statement.

affect (see effect): verb, to cause a change or an effect; to influence.

among (see between): use in comparing >2 things.

between (see among): use in comparing only 2 things.

cf.: compåre

circadian: approximately 24 hours.

continual: going on in time with no, or with brief, interruption.

continuous: going on in time or space without interruption.

diurnal: recurring every 24 hours; occurring in daylight hours.

effect (see affect): usually a noun, the result of an action; as an adverb (rare), to

bring about or cause to exist, or to perform.

e.g. (see i.e.): for example.

enable (see permit): to supply with means, knowledge, or opportunity; to make possible.

ensure (see insure): to make certain or guarantee.

farther: more distant in space, time, or relation.

further: going beyond what exists, to move forward.

Table 2. Continued.

Word and proper usage

i.e. (see e.g.): that is.

incidence (see prevalence): number of cases developing per unit of population per unit of time.

insure (see ensure): to assure against loss.

livetrap: verb.

live trap: noun.

logistic: symbolic logic.

logistics: operational details of a project or activity.

mass (see weight): proper international use for measures of mass.

ovendry: adjective.

oven-dry: verb.

percent: adjective, adverb, or noun. Spell out only when the value is spelled out or when used as an adjective. Use "%" with numerals.

percentage: noun, part of a whole expressed in hundredths; often misused as an

adjective, e.g., percent error, not percentage error.

permit (see enable): to allow, to give formal consent.

precision (see accuracy): degree of refinement with which a measurement is made or stated; e.g., the number 3.43 shows more precision than 3.4, but is not necessarily more accurate.

prevalence (see incidence): number of cases existing per unit of population at a given time.

Table 2. Continued.

### Word and proper usage

sensu: as understood or defined by; used in taxonomic reference.

since: from some past time until present; not a synonym for "because" or "as."

presently: in the future, not synonymous with "at present" or "currently."

that (see which): pronoun introducing a restrictive clause (seldom preceded by a

comma).

usage: firmly established and generally accepted practice or procedure.

utilization, utilize: avoid by using "use" instead.

various: of different kinds.

varying: changing or causing to change. Do not use for different.

very: a vague qualitative term; avoid in scientific writing.

weight (see mass): should seldom be used.

viz: namely.

- which (see that): pronoun introducing a nonrestrictive clause (often preceded by a comma or preposition [for, in, or of which]); the word most often misused in *JWM* manuscripts.
- while: during the time that. Use for time relations but not as synonym for "whereas," "although," and "similarly," which do not imply time.

<sup>a</sup>Adapted in part from CBE Style Manual Committee (1994:123-125); also see Day (1983:123-125).

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Appendix A. Abbreviations for United States and Canadian political units. Spell out geographic locations given parenthetically in the text or in the LITERATURE CITED, but use ANSI abbreviations in tables, figures, and footnotes. Use U.S. Postal Service (USPS) abbreviations only in addresses with zip codes (e.g., author addresses). A blank means do not abbreviate.

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Unit	ANSI	USPS	Unit	ANSI	USPS
U.S. and territories	I.S. and territories (continued)				
Alabama	Ala.	AL	Oklahoma	Okla.	OK
Alaska	Alas.	AK	Oregon	Oreg.	OR
American Samoa	Am. Samoa	AS	Pennsylvania	Pa.	PA
Arizona	Ariz.	AZ	Puerto Rico	P.R.	PR
Arkansas	Ark.	AR	Rhode Island	R.I.	RI
California	Calif.	CA	South Carolina	S.C.	SC
Canal Zone		CZ	South Dakota	S.D.	SD
Colorado	Colo.	CO	Tennessee	Tenn.	TN
Connecticut	Conn.	СТ	Texas	Tex.	ТΧ
Delaware	Del.	DE	Trust Territory Trust	Territ.	TT
District of Columbia	D.C.	DC	Utah	Ut.	UT
Florida	Fla.	FL	Vermont	Vt.	VT
Georgia	Ga.	GA	Virginia	Va.	VA
Guam		GU	Virgin Islands	V.I.	VI
Hawaii	Haw.	HI	Washington	Wash.	WA
Idaho	ld.	ID	West Virginia	W.Va.	WV
Illinois	111.	IL	Wisconsin	Wis.	WI
Indiana	Ind.	IN	Wyoming	Wyo.	WY
lowa	la.	IA			
Kansas	Kans.	KS	Canadian provinces and	territories	
Kentucky	Ky.	KY	Alberta	Alta.	AB
Louisiana	La.	LA	British Columbia	B.C.	BC
Maine	Me.	ME	Manitoba	Manit.	MB
Maryland	Md.	MD	New Brunswick	N.B.	NB
Massachusetts	Mass.	MA	Newfoundland	Newf.	NF
Michigan	Mich.	MI	Northwest	Northwest	
Minnesota	Minn.	MN	Territories	Territ.	NT
Mississippi	Miss.	MS	Nova Scotia	N.S.	NS
Missouri	Mo.	MO	Ontario	Ont.	ON
Montana	Mont.	MT	Prince Edward	Prince Edward	
Nebraska	Nebr.	NE	Island	lsl.	PE
Nevada	Nev.	NV	Quebec	Que.	PQ
New Hampshire	N.H.	NH	Saskatchewan	Sask.	SK
New Jersey	N.J.	NJ	Yukon Territory	Yukon Territ.	ΥT
New Mexico	N.M.	NM			
New York	N.Y.	NY	Other		
North Carolina	N.C.	NC	United States	USA	
North Dakota	N.D.	ND	New Zealand	N.Z.	
Ohio	Oh.	OH	United Kingdom	U.K.	

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Appendix B. Abbreviations commonly used in *Journal of Wildlife Management* tables, figures, and parenthetic expressions. Only those metric units and their appropriate prefixes (CBE Style Mananul Committee 1994:202-205, 206-218) identified with an asterisk may be abbreviated in the text. A blank means do not abbreviate.

Term	Abbreviation or symbol	Term	Abbreviation or symbol
			or symbol
Adult	ad	Logarithm, base e	*In or log,
Amount	amt	Logarithm, base 10	*log <sub>10</sub>
Approximately	approx	Male	M
Average	$\overline{x}$	Maximum	
Calorie	*cal	Meter	*m
Celsius	*C°	Metric Ton	t
Chi-squared	$\gamma^2$	Minimum	
Coefficient	coeff	Minute	*min
Coefficient of		Month	
correlation, simple	r	Month names	Jan, Feb, etc.
multiple	R	More than	*>
determination, simple	$r^2$	Number (of items)	No.
multiple	$R^2$	Observed	obs
variation	CV	Outside diameter	o.d.
Confidence interval	Cl, a ≤ x̄ ≤a	Parts per billion	*ppb
	Or $\overline{x} \pm a$	Parts per million	*ppm
Dav		Percent	*%
Degrees of freedom	df	Population size	N
Diameter	diam	Probability	P
Diameter, breast height	dbh	Range	
Equation(s)	eq(s)	Sample size	n
Expected	Exp	Second	*sec
Experiment	exp.	Spearman rank correlation	ľ.
Female	F	Square	sq
F ratio	F	Standard deviation (s)	SD
Gram	*g	Standard error (s <sub>0</sub> )	SE
Gravity	g	Student's t	t
Hectare	*ha	Temperature	temp
Height	ht	Trace <sup>a</sup>	tr
Hotelling's $T^2$	$T^2$	Versus	VS.
Hour(s)	*hr	Volt	*V
Inside diameter	i.d.	Volume: liquid, book	vol, Vol.
Joule	*J	Watt	*W
Juvenile	juv	Week	
Kilocalorie	*kcal	Weight	wt
Lethal dose, median	LD <sub>50</sub>	Wilcoxon test	Т
Less than	*<	Year	yr
Limit	lim	z-statistic	Z
Liter	*L		

<sup>a</sup>Define in a footnote (e.g., tr = <1%).

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## *EXXON VALDEZ* TRUSTEE COUNCIL PROTOCOLS FOR INCLUDING INDIGENOUS KNOWLEDGE IN THE *EXXON VALDEZ* OIL SPILL RESTORATION PROCESS

## **INTRODUCTION, PURPOSE AND OBJECTIVES**

Indigenous knowledge, including traditional ecological knowledge (TEK), provides an important perspective that can help the *Exxon Valdez* Oil Spill (EVOS) restoration effort by providing information and analysis of the environment and resources affected by the oil spill. Fishers, hunters, and gatherers have detailed descriptions of animal behavior and ecology. For many species, subsistence harvesters possess the following information:

- where it is found in any season
- what it eats
- how it moves from place to place
- when it mates
- where its young are born
- what preys on it
- how it protects itself
- how best to hunt for it
- population cycles

As astute observers of the natural world and as repositories of knowledge on the long term changes in their biophysical environment, practitioners of TEK can provide western biologists and ecologists with systematic and analytical observations that cover many years. While the differences between indigenous and scientific ways of knowing must be understood, restoration projects which successfully incorporate both perspectives will improve our collective understanding of the natural processes involved in the EVOS-affected region.

Working in and with Alaska Native communities requires sensitivity to their cultures, customs, traditions, and history. Successful working relationships are built on mutual respect and trust. The people of the communities of the oil spill area have experienced severe dislocations in their lives due to the Exxon Valdez Oil Spill. Subsistence and commercial fishing activities have been interrupted. Researchers and agency personnel have used the communities as logistical bases. Disruptions related to the clean up, litigation, and increased bureaucratic demands have impacted the people's ability to conduct their daily business. As a consequence of these stresses to their privacy and out of concern to preserve respect for their traditions, the Alaska Native communities of the area affected by the spill, assisted by EVOS staff, the Chugach Regional Resources Commission, and staff from Trustee Council agencies, have developed a series of protocols formalizing their relationship with outside researchers. These protocols provide a set of guidelines that will facilitate collaboration between Alaska Natives and scientists in meeting the goals of EVOS restoration. The protocols describe the major elements of a research partnership, but their application depends on common sense and courtesy. For those researchers planning to collaborate with local respondents in the collection of indigenous knowledge or whose proposed research directly affects subsistence activities, the EVOS Trustee Council requires consideration of these protocols prior to the initiation of research.

The objectives of these protocols are:

1. Provide guidelines for restoration project planning and review

2. Identify a set of ethical principles that establishes the parameters for a research partnership between Alaska Native communities and restoration scientists

3. Establish procedures for facilitating the collection of indigenous knowledge in restoration projects

4. Provide guidance on the development of research agreements between Alaska Native communities and researchers.

## **PROTOCOLS**

1. Project planning and review.

- a. In developing projects that include the collection and use of indigenous knowledge, researchers and community residents should keep in mind how this information will be used in improving restoration, management, education, and future research.
- b. In designing restoration projects that include indigenous knowledge, researchers should recognize that local communities' knowledge of and interest in natural resources extends beyond the physical boundaries of the communities themselves to their harvest areas and beyond.
- c. All research proposals involving indigenous knowledge will be reviewed by the TEK Specialist, the Community Facilitators, and village councils, and their recommendations will be forwarded to the Executive Director. The overall program of research involving indigenous knowledge will be reviewed annually.
- d. Costs for incorporating TEK in a restoration project should be reflected in the project's budget.

2. <u>Ethical principles</u>. EVOS research which involves the collection and use of indigenous knowledge should follow the ethical principles for research listed below, which are based upon guidelines adopted by the Alaska Federation of Natives (AFN) Board of Directors in May 1993 (attached).

- e. Advise Alaska Native communities and people who are to be involved in or affected by the study of the purpose, goals, and time-frame of the research, the proposed data-gathering techniques, and the potential positive and negative implications and impacts of the research.
- f. Obtain the informed consent of the appropriate governing bodies and of individual participants
- g. Protect the knowledge and cultural/intellectual property of the Alaska Native people
- h. Seek to hire local community research assistants, and provide meaningful training to Alaska Native people to develop research skills, as appropriate
- i. Use the local Alaska Native language in oral communications whenever English is the second language
- j. Address issues of confidentiality of sensitive material
- k. Include Alaska Native viewpoints in the final study report
- 1. Acknowledge the contributions of local research assistants and respondents in project reports

- m. Provide the communities with a summary of the major findings of the study in non-technical language.
- n. Provide copies of the annual and final project reports and related publications to the local library

The AFN Guidelines also include establishing and funding a ANative Research Committee. (a) This may not be necessary in most EVOS Restoration Projects, depending upon the scope of the collection of indigenous knowledge and the wishes of the local community. Also, a new entity may not be necessary. For example, the traditional council may serve as such a review body. This point should be addressed in a Aresearch agreement, (a) as discussed in #4, below.

- 3. Facilitating the collection of indigenous knowledge.
  - Initial contacts should be made through the TEK Specialist hired under Project 97052B to discuss the potential collection of indigenous knowledge in a project. The TEK Specialist will then pass the requests on to the communities concerned, and assist in establishing contact between the researcher and the Community Facilitator. The TEK Specialist will also inform the Spill Area Wide Coordinator of such requests.
  - p. Once contact has been established through the TEK Specialist, researchers should use the Community Facilitator or designee as the primary community contact.
  - q. The Community Facilitator or designee will arrange for the researcher to meet with the Village Council (or other appropriate body authorized by the Village Council) to discuss the project's goals, scope, methods, expectations, benefits and risks. The Facilitator or designee will help orient the researcher to the community and its customs.

4. <u>Research agreements</u>. The researcher and the Village Council (or other appropriate body authorized by the Village Council), assisted by the Community Facilitator, will work together to set up a research agreement. In developing the agreement, the following topics should be considered: the nature of the research, the form of consent that will be required, the need for local research assistants, compensation of participants, acknowledgments, anonymity and confidentiality of personal and other sensitive information, project monitoring, project review, final disposition of data, and provision of study results. The agreement may take one of several forms, such as a binding contract, a memorandum of agreement, a letter of agreement, or a village resolution. In any agreement, the responsibility and expectations of the researcher and the community should be spelled out. Terms and conditions should be clear and understandable to all parties, should not place unreasonable or unfair burdens on the participants, and must be consistent with applicable laws.

## AFN BOARD ADOPTS POLICY GUIDELINES FOR RESEARCH

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At its quarterly meeting in May 1993, the AFN Board of Directors adopted a policy recommendation that includes a set of research principles to be conveyed to scientists who plan to conduct studies among Alaska Natives.

The principles will be sent to all Native organizations and villages in the hope that compliance by researchers will deter abuses such as those committed in the past which lately have come to light.

Alaska Natives share with the scientific community an interest in learning more about the history and culture of our societies. The best scientific and ethical standards are obtained when Alaska Natives are directly involved in research conducted in our communities and in studies where the findings have a direct impact on Native populations.

AFN recommends to public and private institutions that conduct or support research among Alaska Natives that they include a standard category of funding in their projects to ensure Native participation.

AFN conveys to all scientists and researchers who plan to conduct studies among Alaska Natives that they must comply with the following research principles:

- Advise Native people who are to be affected by the study of the purpose, goals, and time-frame of the research, the data-gathering techniques, the positive and negative implications and impacts of the research.
- Obtain the informed consent of the appropriate governing body.
- Fund the support of a Native Research Committee appointed by the local community to assess and monitor the research project and ensure compliance with the expressed wishes of Native people.
- Protect the sacred knowledge and cultural/intellectual property of Native people.
- Hire and train Native people to assist in the study.
- Use Native language whenever English is the second language.
- Guarantee confidentiality of surveys and sensitive material.
- Include Native viewpoints in the final study.
- Acknowledge the contributions of Native resource people.
- Inform the Native Research Committee in a summary and in non-technical language of the major findings of the study.
- Provide copies of studies to the local library.

## EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL PROCEDURES FOR STATE AND FEDERAL AGENCIES AND THEIR CONTRACTORS FOR DESTROYING DOCUMENTS OR PHYSICAL EVIDENCE RELATED TO THE EXXON VALDEZ OIL SPILL

When a state or federal agency, or a contractor for such an agency, determines that documents in any form (including written, electronic, photographic and magnetic) or physical evidence (such as tissue samples) which are related to the *Exxon Valdez* oil spill (EVOS) are no longer necessary for restoration or other purposes, there are certain requirements imposed by state and federal courts that must be met before the items can be destroyed. These requirements will vary depending upon the nature of the item, the date on which it was created or collected and whether it is unique. There are certain significant legal consequences if items are destroyed other than as prescribed by the courts. Please follow the procedures described below before you destroy one of these items.

1. Create an inventory of the items you wish to destroy that contains the following information for each item:

- a. A description of the item;
- b. The date the item was created or obtained by the governments or their contractors;
- c. A description of any analyses of the item, including the location of those analyses;
- d. Whether the item is unique or is a copy of a still existing original item.

 Transmit the inventory to:
 The Anchorage Environmental Section of the Alaska Department of Law at: Environmental Section
 Department of Law
 1031 West 4<sup>th</sup> Avenue, Suite 200
 Anchorage, Alaska 99501

or via Facsimile: (907) 278-7022

and to the U.S. Department of Justice, Environment & Natural Resources Division at: 801 B Street, Suite 504 Anchorage, AK 99501-3657

or via facsimile: (907) 271-5827

3. Attorneys for the State and United States will coordinate as necessary with the EVOS Trustee Council Science Director and the person wishing to destroy the item to determine what steps need to be taken to permit destruction and, where required, to confer with Exxon and other parties or submit applications for relief to the Court.

EXXON VALDEZ OIL SPILL TRUSTEE COUCNIL REVIEW PROCESS FOR RESEARCH PROJECTS THAT INVOLVE COLLECTIONS

The Trustee Council is appropriately sensitive to the collection (i.e., killing) of birds or mammals as part of any research project, for the Council's ultimate aim is to restore the health of the injured ecosystem. At the same time, it is recognized that in order for certain research projects to achieve their objectives, certain collections may be required to gather information that could not otherwise be obtained. As stated in the *Restoration Plan*, "... possible negative effects on resources and services must be assessed in considering restoration projects." (Policy #7)

Any scientific project that proposes a take of birds or mammals should be allowed to proceed only if the advantages of doing so outweigh the disadvantages. The general health of the population being sampled needs to be assessed and a finding made that proposed collection(s) would not result in further injury to the health of the population being investigated.

In order for the Science Director to recommend whether a proposed collection is necessary and appropriate to further restoration objectives, investigators should address each of the questions listed below. This information should be provided as a part of the project proposal.

- 1. How many individuals are proposed to be collected and at what approximate times and locations? How do these numbers compare with the total population in the general collecting area?
- 2. How is the general health of the population? Is the population increasing, decreasing or holding steady in the proposed sampling area? Is reproduction and young survival normal?
- 3. Is the proposed take likely to affect any population trends?
- 4. Is the proposed method of take humane? Are there any effective, alternative means to obtain the data?
- 5. What will be lost if there is no take allowed?
- 6. What can we realistically hope to learn that will justify this collection?
- 7. Have federal and/or state permits been secured? If not, why not?

The Science Director will review the proposed collection and consult with others with appropriate expertise. If appropriate, the Science Director could conduct this review concurrent with a federal and/or State permit review. The Science Director will then make a recommendation to the Executive Director. The Executive Director will inform the Program Advisory Committee and the Trustee Council of this recommendation in writing prior to final approval of a project proposal. All federal or State permits will be required prior to implementation of a project.

## EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL SUPPLEMENTATION CRITERIA

## **DISCUSSION**

Supplementation describes artificial techniques that provide on-site survival benefits to natural fish populations. By this definition, supplementation must provide benefits to natural populations in the localities where they complete their life cycle. Examples of supplementation include constructing spawning channels to increase spawning habit, using rearing pens to increase marine survival, or providing remote-release salmon runs for the purpose of drawing fishing pressure away from injured wild stocks.

The Trustee Council recognizes that supplementation techniques are important tools for restoration of certain fish stocks. However, supplementation also has the potential to injure stocks of fish. Because of this potential, each supplementation proposal must show that it does not carry unacceptable risks.

Supplementation Criteria. To explore the opportunities and potential risks of supplementation, the Trustee Council sponsored a workshop on the subject in January 1995. The criteria and guidelines developed in the workshop will be used by the Trustee Council when considering supplementation projects for possible Trustee Council funding. They are summarized below.

*Benefits of Supplementation.* To be considered for Trustee Council funding, a supplementation proposal must demonstrate that its benefits outweigh its risks. Examples of benefits are rehabilitating of wild populations, providing additional population for harvest, or protecting subpopulations that may be in danger of extinction.

*Genetic Risk.* Genetic risk involves risk to the natural stocks being targeted, or to other non-targeted stocks. Genetic risk operates through the forces of natural selection, genetic drift, gene flow and mutation. The risks may have the effect of decreasing the adaption of natural populations to their environment, or making them more vulnerable to natural and human changes. The risks include: loss of genetic variation within natural breeding populations; change in genetic composition of the population through natural selection; or hybridization of the natural stock with supplemental stock of a different genetic character. All of these can lead to poor survival in future generations and loss of production. They can also make a local population less able to rebound from a change such as a year of overharvest, or a year of poor survival at sea. If a population or subpopulation has not been reduced from historic population levels, and is not in danger of extinction, supplementation proposals that involve significant genetic risk are not likely to be funded by the Trustee Council

*Mixed-stock Fisheries*. Supplementation proposals must not create or exacerbate problems in mixed-stock fisheries. Mixed-stock fisheries, like those of Prince William Sound, create the potential for additional risk and benefits. In some circumstances, the pressure for additional harvest that accompanies successful supplementation may cause

overharvest of an unsupplemented stock. For example, pink salmon returns to the Coghill District of Prince William Sound have not always met escapement goals. Fish returning to this district must "run the gauntlet" of fishing vessels in the southwest and western parts of Prince William Sound at the time when the fleet is focused on the large hatchery return in these areas. Thus, supplementation that increases the concentration of fishing vessels in this district has the potential to exacerbate this problem. Conversely, supplementation efforts, including techniques such as establishing alternative remoterelease runs, which draw the fleet from these areas, may have the effect of allowing the Coghill District stocks to more regularly meet escapement goals.

*Monitoring and Evaluation*. Because of the potential for significant risk, an evaluation program is necessary to assess the likelihood of success and potential for risk. Once a proposal is implemented, monitoring is necessary to assess whether the program succeeded and whether significant harm was avoided. The degree of evaluation and monitoring should be dependent upon the level of risk. Those proposing higher risk projects should be willing to incur higher monitoring and evaluation costs than those proposing projects with lesser potential risk.

*Economic Criteria*. To the extent it is available, information regarding the economic costs and benefits of a project must be provided for the Trustee Council to evaluate a project. However, quantifiable economic data may not capture intangible values, such as the value of preventing the extinction of a subpopulation of a resource, and the Trustee Council may elect to approve a project with a quantified benefit/cost ratio of less than one after considering these non-quantified values.

*Procedural Criteria.* The State of Alaska requires permits for some types of supplementation—for example, a fish transport permit—or approval by the Regional (Salmon) Planning Team. These permits bring the substantial expertise of Alaska fisheries managers to the evaluation of supplementation projects. Proposals for Trustee Council funding should have cleared these requirements before the Council is asked to approve a project. Federal law requires an evaluation of potential environmental effects according to the standards of the National Environmental Policy Act. Because of the potential for risk, the analysis may require significant cost or time, but it must be completed before a final decision is made concerning funding a supplementation project.

## EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL INVESTMENT POLICIES

## **INTRODUCTION**

The purpose of these policies is to provide the *Exxon Valdez* Oil Spill Trustee Council (the "Council") with a comprehensive set of guidelines for the proper management of its investment decisions. Pursuant to its responsibilities to administer natural resource damage recoveries from the Exxon Valdez oil spill, the Council must follow a procedurally prudent process when investing the Joint Trust Fund assets. Prudence is based on the conduct of the Council in managing the assets, and is evaluated by the *process* through which risk is managed, assets are allocated, custodians and managers are chosen, and results are supervised and monitored.

Today's standard of prudence places the emphasis on responsibilities related to the investment portfolio and its purpose, rather than on investment performance. The Council has the responsibility for the general management of the Joint Trust Fund's assets. It is responsible for setting and managing the Joint Trust Fund's investment policy. The Council is not an investment manager or investment specialist and is not responsible for the ultimate investment results. Although it is not possible to guarantee investment success, following the process outlined herein will significantly improve the odds of structuring an investment portfolio which will stand up to public scrutiny and benefit the Joint Trust Fund by providing an acceptable long-run return.

### **COUNCIL RESPONSIBILITIES IN GENERAL**

Through a 1991 settlement of natural resource damage claims in *State of Alaska v. Exxon Corporation, et al., No. A91-083 CIV,* and *United States of America v. Exxon Corporation, et al., No. A91-082 CIV,* the State of Alaska and the United States, acting through trustees for natural resources injured by the Exxon Valdez oil spill ("Trustees"), are to jointly receive \$900,000,000 in damages payable over a term of years. A substantial portion of these damages are required to be segregated and used by the governments for purposes of restoring, replacing, enhancing, rehabilitating or acquiring the equivalent of natural resources and services lost or injured as a result of the oil spill. These monies, and the interest earned on them, are to be placed in a "Joint Trust Fund" administered by the Trustees. An integral part of this responsibility is to provide prudent and productive investment management of Joint Trust Fund assets and any other receipts as provided either by law or a decision of a Court of law.

A separate Memorandum of Agreement and Consent Decree (the MOA) entered into by the State of Alaska and the United States in *Civil Action No. A91-081*, described the comanagement of these natural resource damage recoveries. The MOA specifies that the following officials act on behalf of the public as Trustees:

## State of Alaska Members:

- Attorney General, State of Alaska;
- Commissioner, Alaska State Department of Environmental Conservation;
- Commissioner, Alaska State Department of Fish and Game;

## U.S. Government Members:

- United States Secretary of Agriculture;
- United States Secretary of the Department of the Interior; and
- Administrator of the National Oceanic and Atmospheric Administration, United States Department of Commerce.

Subsequently the Council was created by the Trustees to manage the co-trustee relationship required under the MOA. The authority of the Council is governed by a 1992 Memorandum of Understanding ("MOU") between the state and federal Trustees. Under the terms of the MOA and MOU, all matters before the Council which require a vote, make a recommendation, approve or disapprove an item, or otherwise render a decision shall require the unanimous agreement of the six Council members or their designees.

The Council is responsible for the management of the Joint Trust Fund's assets. The Council has broad authority to engage experts and to delegate its investment responsibilities, as it deems appropriate. The Council, when formulating investment policies, has obligated itself to review the recommendations from the Executive Director. The Executive Director will consult with the Investment Working Group (IWG) and such other consultants as the Council may retain from time to time. The IWG consists of one state and one federal Council member or designee, as determined by the Council, and appropriate state and federal officials and at least two investment experts, who are selected by the Executive Director. At least two members of the IWG must have experience and expertise in financial management and the management of institutional investment portfolios.

The Joint Trust Fund is currently held in the registry of the United States District Court and invested by the Court Registry Investment System. In 1999 Public Law 106-113 was enacted, allowing the Joint Trust Fund to be invested in accounts outside the United States Treasury. Under that legislation, such outside investments are limited to incomeproducing asset classes, including debt obligations, equity securities, and other instruments or securities that have been determined by unanimous vote of the Council to have a high degree of reliability and security. The Joint Trust Fund is also to be managed and allocated consistent with the Resolution of the Council adopted March 1, 1999 concerning the Restoration Reserve.

## **MISSION STATEMENT**

The Council shall establish policy, set direction, and provide oversight and stewardship for the prudent investment and management of the Joint Trust Fund.

## **INVESTMENT OBJECTIVES IN GENERAL**

1. Achieve superior administrative and investment performance on a consistent basis when measured against a national universe of public funds.

2. Actual returns will equal or exceed target returns over time while limiting total risk to that which is appropriate to the investment time horizon.

3. Use the best known processes consistent with the Council goals and objectives, specifically but without limitation:

- Good financial reporting;
- Good custodian selection and evaluation;
- Good manager selection and evaluation;
- Asset allocation; and
- Awareness of new investment alternatives.

4. Use excellent management practices, as evidenced by:

- Staff longevity;
- Independence; and
- Education and training.

5. Regularly communicate the investment goals, objectives and performance results with the public.

### **STATUS**

Section 311(f) of the Federal Water Pollution Control Act, as amended 33 U.S.C. 1321 (f) establishes liability to the United States and to States for injury, loss, or destruction of natural resources resulting from the discharge of oil or the release of hazardous substances or both and provides for the appointment of State and Federal Trustees.

The Memorandum of Agreement and Consent Decree (MOA) entered into by the State of Alaska and the United States in Civil Action No. A91-081, governs the use of the natural resource damages, paid by Exxon. The State and Federal Governments act as co-trustees in the collection and joint use of all natural resource damage recoveries for the benefit of natural resources injured, lost or destroyed as a result of the 1989 *Exxon Valdez* oil spill.

The terms of the settlement are contained in the Agreements and Consent Decrees entered into by the State of Alaska and Exxon Corporation Civil Action No. A91-083, and United States of America and Exxon Corporation Civil Action No. A91-082.

The United States Congress in Public Law 102-229 recognized the MOA and Consent Decree. Alaska State Legislature recognized the MOA and Consent Decree in AS 37.14.400.

Pursuant to Public Law 106-113, Joint Trust Funds may be deposited in the Natural Resource Damage Assessment and Restoration Fund and/or accounts outside the United States Treasury. The law requires that the funds are invested only in income-producing obligations and other instruments or securities that have been determined unanimously by the Council to have a high degree of reliability and security.

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Guidance regarding the authorities and responsibilities of agencies that receive Joint Trust Funds is incorporated in the Procedures of the *Exxon Valdez* Oil Spill Trustee Council, adopted August 29, 1996.

## **ADMINISTRATION**

The Executive Director and the Trustee Council Office manage the day-to-day administrative functions of the Council, and report directly to the Council. The 1993 Agreement between the State of Alaska and the *Exxon Valdez* Oil Spill Trustee Council requires that the State create and assign an exempt position, designated as the Executive Director of the *Exxon Valdez* Oil Spill Trustee Council, to be responsible to the Council. The State is further required to create and assign exempt positions from the State service to be responsible to the Executive Director for such senior positions under the Executive Director as are approved by the Council.

Any person appointed to the position of Executive Director to the Council shall serve at the pleasure of the Council and may be removed from the position only upon the unanimous vote of all members of the Council. Any person appointed to a senior staff position by the Executive Director shall serve at the pleasure of the Executive Director. Removal of any of these individuals, including the Executive Director, need not be based on cause and no property or other interest in continued employment is or may be created. An organization chart of the Trustee Council Office is shown on Table 1.

The Executive Director of the *Exxon Valdez* Oil Spill Trustee Council shall engage experts and contract for investment services, as the Council deems appropriate. This may involve entering into 'reimbursable services agreements' with State and/or Federal agencies (*e.g.*, the Alaska Department of Revenue and/or the United States Department of the Interior) for personal services costs and associated contractual costs.

## **GENERAL RESPONSIBILITES FOR THE PARTIES**

Without limitation of any fiduciary, administrative, or other responsibilities, implied or expressed herein, the parties shall have the following responsibilities for the proper management and administration of the Joint Trust Fund. The parties shall include:

- Trustee Council
- Executive Director/Trustee Council Office Staff
- Investment Working Group
- Auditor
- Legal Counsel

- Bank Custodian(s)
- Investment Consultant(s)
- Investment Managers

## Trustee Council

- Adopt prudent investment goals and objectives;
- Adopt an appropriate asset allocation strategy;
- Select one or more consultants, bank custodians, external investment managers, and legal counsel who may include the Alaska Department of Law and the United States Department of Justice;
- Control investment and administrative expenses, and incur only those costs that are reasonable in amount and appropriate to the investment responsibilities of the co-trusteeship;
- Provide for an annual, independent audit of the Joint Trust Fund's financial statements;
- Provide for an independent review of investment performance;
- Develop an annual budget;
- Adopt and implement an investment education policy;
- Report financial and investment policies and performance to the public; and
- Avoid conflicts of interest, and conform to the fundamental fiduciary duties of loyalty and impartiality.

## Executive Director/Trustee Council Office Staff

- Maintain responsibility for the administration and management of the Trustee Council Office;
- Facilitate staff, which performs the administrative functions of the Council and ensures compliance with State and Federal law, the Memorandum of Agreement and Consent Decree, and the Memorandum of Understanding;
- Recommend budget strategies and proposals to the Council;
- Coordinate all administrative matters of the Council, including meeting agendas;
- Make recommendations concerning policies, investment strategies, and procedures in consultation with the Investment Working Group;
- Advise the Council regarding the selection of custodians, an investment consultant, and investment managers in consultation with the Investment Working Group;
- Account for and report on the investment activity of all funds under the investment responsibility of the Council;
- Advise the Council on the evaluation of investment policies and performance of the portfolios in consultation with the Investment Working Group;
- Develop, recommend and implement internal control policies and procedures in consultation with the Investment Working Group to ensure all investment assets are safeguarded;
- Monitor investment managers and custodians for compliance with investment policies established by Council; and
- Recommend and maintain the information systems adequate to fulfill the accounting, monitoring, investing, cash management and other information needs of the Council, in consultation with the Investment Working Group.

## Investment Working Group

- Review investment policies, strategies and procedures;
- Make recommendations to the Executive Director concerning policies, investment strategies and procedures;
- Advise the Executive Director regarding the selection of custodians, an investment consultant, and investment managers;
- Provide other advice as requested by the Executive Director;
- Attend the asset allocation and investment manager performance review meetings of the Council;
- Brief the Council at the Executive Director's request and/or at the request of a member of the Investment Working Group;
- Act as "prudent expert" on behalf of the Executive Director;
- Develop and recommend investment policy and strategy to the Executive Director;
- Develop and recommend internal control systems and procedures to the Executive Director to ensure all investment assets are safeguarded;
- Recommend to the Executive Director information systems adequate to fulfill the accounting, monitoring, investing, cash management and other information needs of the Council; and
- Advise the Executive Director on the evaluation of investment policies and performance of the portfolios.

## Auditor

• Measure and validate financial statements and management of the Joint Trust Fund;

## **Background Note:**

The auditor is selected by the Council. However, the Council does not have a direct say over the work of the auditor because audits are based upon an independent review of financial statements consistent with the standards prescribed by the American Institute of Certified Public Accountants in conformance with generally accepted accounting principles and Government Accounting Standards Board guidelines.

## Legal Counsel

• Provide legal assistance and advice to the Council as required.

## Bank Custodian

- Provide safekeeping and custody of all securities purchased by managers on behalf of the Council;
- Provide for timely settlement of securities transactions;
- Maintain short-term investment vehicles for investment of cash not invested by managers;
- Check all manager accounts daily to make sure that all available cash is invested;
- Collect interest, dividend and principal payments on a timely basis;
- Process corporate actions on a timely basis;
- Price all securities at least on a monthly basis, preferably on a daily basis contingent on asset class and types of securities;
- Lend securities at the direction of the Council;
- Value and monitor derivatives and the trades from which they emanate;

• Provide monthly, quarterly and annual reports;

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- The Custodians generally are asked to provide data and reports directly to the Council and service providers on a regular basis; and
- Provide continuing education programs for the Council.

## Investment Consultants

- Recommend strategic procedures and process;
- Identify problems, issues and opportunities and makes recommendations;
- Upon the request of the Council, prepare an asset allocation study together with alternatives;
- Assist with manager structure, selection, monitoring and evaluation;
- Monitor and evaluate the overall performance of the portfolio;
- Carry out special projects at the request of Council; and
- Provide continuing education to the Council and staff, as appropriate.

## **Background Notes:**

The Council selects and appoints investment consultants to provide objective, independent third-party advice on specific investment classes, including debt and equity securities, real estate, alternative investments, and other areas where focused attention is needed. Investment consultants do not accept discretionary decision-making authority on behalf of Council. Investment consultants function in a research, evaluation, education and due diligence capacity for Council and are fiduciarily responsible for the quality of the service delivered.

## Investment Managers

- Act as a "prudent expert" on behalf of the Council;
- Develop a portfolio strategy within the specific mandate and asset size determined by the Council;
- Manage, purchase and sell assets for the portfolio; and
- Act as a co-fiduciary for assets under its management.

## **RESPONSIBILITES OF THE COUNCIL**

The statutory responsibility of the Council is to invest Joint Trust Fund monies in income-producing obligations and other instruments or securities that have a high degree of reliability and security. Although it is a matter of debate whether the Joint Trust Fund is a true trust or simply a misnomer for public money restricted to a particular use, the statutory responsibilities of the Council in the management of the Joint Trust Fund are best defined through analogy to the Restatement (Third) of Trusts which indicates that trust property shall be made productive with primary emphasis on the preservation of capital and due consideration for the maximization of income. When investing trust

property, the trustee has a duty to conform to the terms of the trust, and to conform to applicable law in the absence of provisions in the trust. In the absence of contrary law or trust provisions it imposes the standard of the "prudent investor" which

"... requires the exercise of reasonable care, skill, and caution, and is to be applied to investments not in isolation but in the context of the trust portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the trust."

Restatement (Third) of Trusts, §277

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The standard of the "prudent investor" has been viewed as approving a portfolio theory of investments but does not impose a duty to maximize income. Indeed, the standard gives primary emphasis to preservation of the trust estate, while receiving a *reasonable* (emphasis added) amount of income rather than incur undue risks. Only where all else is equal should the trustee choose the investment that produces the greater return. In addition, the trust must be invested in such a way that the purpose of the trust is not thwarted. It is therefore imperative that investment policies and asset allocation strategies adopted by the Council reflect the underlying purposes and intent of the Joint Trust Fund.

Looking to the Restatement (Third) of Trusts, therefore, the responsibilities of the Council can be summarized as follows:

1. Take all actions for the sole benefit of the Joint Trust Fund.

2. Prepare written investment policies and document the process. In doing so the Council shall:

- Determine the mission and objectives of the Joint Trust Fund;
- Choose an appropriate asset allocation strategy;

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- Establish specific investment policies consistent with the Joint Trust Funds' objectives; and
- Select investment managers to implement the investment policy.

3. Diversify assets with regard to specific risk and return objectives appropriate to the intended use of the Joint Trust Fund.

- 4. Use "prudent experts" to make investment decisions.
- 5. Control investment expenses.
- 6. Monitor the activities of all investment managers and investment consultants.
- 7. Avoid conflicts of interest.

The Council and staff should regularly undertake continuing education relevant for their duties. Specifically, all Council members and key staff should participate in an educational program, which provides basic instruction on the four primary components of the investment management process:

- Investment responsibility and procedural process;
- Developing investment policy guidelines and designing optimal investment manager structures;
- Implementing investment policy; and
- Monitoring and controlling an investment program.

### **INDEMNIFICATION**

State law, [AS 37.10.071(e)] provides that the State shall indemnify fiduciaries of a state fund or an officer or employee of the state against liability under AS37.10.071(d) for breach of a statutory duty in exercising investment, custodial, or depository powers or duties to the extent that the alleged act or omission was performed in good faith and was prudent under the applicable standard of prudence. However, actions which do not fall within the area of good faith and prudent practices are not statutorily entitled to indemnification. Indemnification language consistent with AS 37.10.071(e) as well as the desire of State trustees to hold retained investment managers and other retained fiduciaries to high standards are included in contract language with such retained consultants.

The Trustee Council may wish to ensure that trust assets and its own services are protected and in that respect may purchase insurance or provide for self-insurance to cover the acts including fiduciary acts, errors and omissions of its members and agents.

As a general matter, the Attorney General has advised members of State boards analogous to that of the Council that it would act in defense of such board member actions consistent with the provisions of AS 37.10.071(e), or would retain counsel to act in that regard. There are no comparable indemnification provisions under federal law. Federal employees are normally represented by the United States Department of Justice in litigation arising out of their official duties.

A fiduciary of a state fund under Alaska law relating to the Council would be each person provided by law to manage investments in an account invested by the State of Alaska (AS 37.10.071(f)(3)). In this respect, the consultants retained by State trustees are not fiduciaries per se and as such are not entitled to the cross-indemnification for acts which were taken in good faith or within the scope of prudent behavior under AS 37.10.071. However, such consultants would certainly be held to a standard of care applicable to their standards of professional responsibility, and liability and a requirement to indemnify the Joint Trust Fund may be built into contracts. Auditors and investment consultants are not fiduciaries of a state fund within the statutory definition of AS 37.10.071(f). However, a custodial bank may have certain fiduciary obligations to the extent that, for example, it is involved in short-term cash management and securities lending functions if such services are utilized.

## **DELEGATION OF AUTHORITY**
The Council, through the appropriate state and/or federal agencies, may contract for investment, custodial or depository services on a discretionary or non-discretionary basis to the State and Federal governments and their employees, or to independent investment management firms, banks, financial institutions or trust companies by designation through appointments, contracts or letters of authority.

#### **CODE OF ETHICS AND CONFLICTS OF INTEREST**

The State trustees and employees of the Trustee Council Office are subject to the Alaska Executive Branch Ethics Act (AS 39.52). In general, the State law provides that high moral and ethical standards are essential for the conduct of free government and that a Code of Ethics for the guidance of public officers will discourage those officers from acting upon personal or financial interests in the performance of their public responsibilities, and will improve standards for public service and promote and strengthen faith and confidence in public officers.

The State Code of Ethics provides that any effort to benefit a personal or financial interest through official action is a violation. The Code details specific prohibitions pertaining to the abuse of official position, acceptance of gifts, improper use of disclosure of information and improper influence. By law, the State trustees are subject to conflict of interest disclosure requirements of AS 39.50 which includes the delivery of annual reports on financial and business interests to the Alaska Public Officers Commission.

All federal government employees are subject to the standards of conduct provided by the Ethics in Government Act of 1978, Public Law 95-521, as amended, including the Ethics Reform Action of 1989, Public Law 101-194. The statutory prohibitions are found in Title 18 of the United States Code, Sections 201 through 209, which include representational activities, conflict of interest, and dual compensation. Standards of conduct for all government employees are also delineated by Executive Order 12674, as amended by Executive Order 12731. The federal standards of conduct are further delineated in the regulations of the Federal Register, and include acceptance of gifts from outside sources; gifts between employees; gifts from foreign sources; acceptance of travel and related expenses; outside work; honoraria; outside activities; political activity; lobbying; procurement; misuse of government time, equipment, and information; nepotism; negotiating for non-federal employment; post employment; disclosure of financial interests; and penalties. The Department of the Interior, Commerce and Agriculture have additional ethics standards and requirements for all of their employees, including annual training and financial disclosure statements for specific persons, which include members of the Trustee Council.

#### STRATEGIC ASSET ALLOCATION POLICY IN GENERAL

The Council recognizes that strategic asset allocation is the single most important policy decision affecting portfolio return and risk. At least annually, the Council will evaluate its current strategic asset allocation policies. The current policies will be compared with potential alternative policies on a consistent basis.

The specific status of the Joint Trust Fund, including funding status, earnings assumptions, liquidity requirements, and expected growth shall be considered. The Council's investment consultant will use a "mean variance" optimization approach to evaluate the current and alternative policies. The specific inputs to the modeling process will be defined and contrasted with actual historic results. The implications for expected return and risk will be considered over multiple time horizons. The development of optimized asset allocations requires estimates of risk (standard deviation of returns for each asset class), the modeled return for each asset class, and the correlations of each asset class with other asset classes. The strategic analysis will include those asset classes for which the Council believes reasonable inputs are available. Asset subsets where meaningful historic data are not available shall not be considered as a part of the strategic asset allocation analysis. Such subsets or categories, however, may be included as part of an appropriate broad asset category.

#### Manager Structure

Within each major asset category, the Council will determine an appropriate management structure. The structure analysis will consider the potential benefits, risks and costs associated with utilizing active versus passive investment approaches, varied investment philosophies and approaches and vendor diversification.

For each major asset category, the Council will strive to achieve a structure that assures potential exposure to the entire asset category. Particular emphasis, however, may be placed on those subcategories or approaches where the Council has determined the potential benefits are superior to alternative approaches. For example, with respect to international exposure, the management structure may result in a systematic asset allocation bias in favor of developed markets and a corresponding bias against emerging market. Similarly, with respect to domestic equities, the structure decisions may result in a slight bias in favor or against a particular investment style. All such decisions shall be conscious decisions. Unless explicitly decided to the contrary, assets within each major asset category shall be allocated among managers so as to achieve broad diversification and aggregate return and risk profiles similar to the broad market.

At least annually, the Council shall review its management structure to ascertain that desired diversification is being achieved. The Executive Director, in consultation with the IWG, staff, and investment consultants shall prepare such analysis and recommendations for the Council's consideration.

#### Manager Selection

A rigorous, objective due diligence process will be utilized in the selection of all investment managers retained by the Council. The analysis will be conducted by the Council's investment consultant. The managers' roles in the Council program and specific evaluation criteria will be defined prior to the identification of potential candidates. Candidates will be evaluated both quantitatively and qualitatively.

• Quantitative factors will include a comprehensive analysis of historic performance over a variety of market environments. Candidate performance will be evaluated relative to appropriate market indices and peer groups. Candidates will be analyzed

to determine whether portfolio construction has adhered to their stated investment styles.

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• Qualitative factors such as ownership structure, depth of staff, professional expertise, experience managing comparable portfolios, key employee incentives, stability, and potential conflicts of interest also will be considered.

The consultant will identify a semi-finalist group of candidates. All semi-finalists will be judged by the consultant as capable of meeting the Council's needs. The Council will interview all or a portion of the semi-finalist group and make the final selection. The IWG's recommendations to the Executive Director shall be solicited as an integral part of this process.

## Guidelines for Manager Termination

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The performance of the Council's investment managers will be monitored on an ongoing basis. The Council may place a manager on a "Watch List" or terminate a manager at any time. The Council may, by separate resolution, adopt specific criteria to be utilized in identifying developments, which would cause a manager to be placed on a "watch list" and removed from such a list.

## Securities Lending

The Council may enter into a securities lending arrangement with an agent(s) when the Council concludes that such arrangements would be beneficial to the Joint Trust Funds. Securities lending services may be provided by the Council's bank custodian or an independent service provider. Securities lending programs result in the agent undertaking a direct or indirect asset management function. The Council will use the same skill and due diligence in the evaluation and selection of such agent(s) as utilized in the selection of money managers.

# **Rebalancing Guidelines**

The Council may periodically instruct staff to shift and/or limit staff's authority to shift assets within asset classes and/or among asset classes. Unless restricted by Council action, the Executive Director or an appropriate designee shall have discretion to move assets among investment managers and asset categories provided that such actions are consistent with movement of the actual asset allocation within the variability bands of the Council's strategic asset allocation policy and manager structure targets. Such adjustments to the actual asset allocation may be made without prior Council approval when the actual asset allocation falls outside of the variability target bands at end of a calendar month. The Executive Director shall make the necessary adjustments to the initial target allocation within 30 calendar days. Staff shall report any asset shifts at the next regular Council meeting. Such reports will include a description of the rationale for the shift.

# **INDIVIDUAL ACCOUNT PROGRAM OBJECTIVES**

The Council is responsible for the prudent investment of the Joint Trust Fund within the defined purpose and investment objectives of each program mandated by law and policies

of the Council. The Council anticipates that the Joint Trust Fund (Restoration Reserve), along with other unallocated funds and accrued interest, will have a fair market value of approximately \$170 million on or about October 1, 2002. Consistent with the March 1, 1999 resolution funds in the Restoration Reserve and other remaining unobligated settlement funds available October 1, 2002, shall be allocated in the following manner:

- \$55 million of the estimated funds remaining on October 1, 2002 and the associated earnings thereafter will be managed as a long-term funding source, with a significant proportion of these funds to be used for small parcel habitat protection.; and
- The remaining balance of the funds on October 1, 2002 will be managed so that the annual earnings, adjusted for inflation, will be used to fund annual work plans that include a combination of research, monitoring, and general restoration.

Consequently, the Joint Trust Fund has a twofold investment mandate: (1) short-term liquidity for ongoing habitat restoration purposes, including the probable acquisition of lands, and (2) a long-term endowment to generate future income. Future land purchases are subject to ongoing negotiations and the timeline of their corresponding investments cannot be determined until such negotiations are concluded. The investment horizon of these funds would change based upon the probable acquisition date.

Each program mandate shall be evaluated relative to an appropriate market benchmark and also relative to an appropriate peer group of competitive alternatives. The number of investment options and the market benchmarks shall be determined by the Council.

## STATEMENT OF INVESTMENT OBJECTIVES AND POLICIES

## Introduction

The Council hereby establishes the following Statement of Investment Objectives and Policies ("the Statement") for the investment of the Joint Trust Fund. The Council assumes full and complete responsibility for establishing, implementing and monitoring adherence to the Council's policies. The Council reserves the right at any time to amend, supplement or rescind this Statement.

## Investment Objectives

- Provide adequate liquidity for ongoing restoration purposes.
- Preserve the inflation-adjusted value of invested capital on endowment funds.
- Realize competitive, total rates of return.
- Incur minimum levels of risk that are appropriate to other long-term investment objectives.

## Time Horizon

- Establish short and long-term investment objectives
- Evaluate performance over one-, three-, and five-year time periods, with primary emphasis for endowment funds placed on the longer time periods.

#### Benchmarks

Given the investment objectives and time horizons of the Joint Trust Fund, benchmarks are established to gauge progress towards their achievement. The benchmarks are as follows:

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- <u>Variability of total market value</u>. The percentage change in the market value shall be contrasted to that expected from normal investment strategy.
- <u>Competitive rates of return</u>. (Unless specified otherwise, the following benchmarks are based on time-weighted rates of return.)

1. For liquidity purposes, total annualized returns equal to inflation as measured by the U.S. Consumer Price Index of all Urban Wage Earners.

2. For endowment purposes, the total annualized returns shall be established by separate resolution and shall be in excess of inflation as measured by the U. S. Consumer Price Index of all Urban Wage Earners.

3. Total annualized returns should equal or exceed the return on a *passively* managed (market index based) portfolio with the same asset mix as the normal strategic asset mix.

4. Total Joint Trust Funds' annualized returns should exceed the median return on an *actively* managed portfolio with the same asset mix as the normal strategic asset mix and comparable risk.

5. The time-weighted, total rates of return shall be compared to the total rates of return for similar public funds.

• <u>Passively Managed Strategic Benchmark.</u> Performance shall be compared on a quarterly basis to that of a passively managed strategic benchmark. On a biannual basis, performance will be presented to the Council. However, the main purpose of this comparison shall be to contrast the long-term, actively-managed, pre-investment fee performance results versus that of a passively managed portfolio with an asset mix identical to the normal strategic asset mix. The passively managed strategic benchmarks shall be as follows:

Asset Class	Market Indexes
Cash	90-Day U.S. Treasury Bills
Broad Domestic Equity	Russell 3000 Index
Domestic Large Cap	S&P 500 Index
Domestic Small Cap	Russell 2000 Index
International Equity	EAFE Index
Domestic Fixed Income	Lehman Aggregate Index
Intermediate Fixed Income	Lehman Intermediate Gov't Index
International Fixed Income	Salomon Non-Dollar Gov't Bond Index

On a quarterly basis, an independent contractor shall calculate the *passively* managed strategic benchmark by multiplying the respective index total return times the normal strategic asset mix percentage. These statistics will be summed to generate a weighted average total passively managed benchmark return. For periods longer than one quarter, the quarterly returns, in factor form, will be chain-linked. In the case of periods longer than one year, the return shall be annualized.

- <u>Actively Managed Strategic Benchmark.</u> On a quarterly basis, an independent contractor shall calculate the *actively* managed strategic benchmark by multiplying the median actively managed portfolio return for each asset class segment times the normal strategic asset mix percentage. These statistics will be summed to generate a weighted average total actively managed benchmark return. For periods longer than one quarter, median returns for each asset class segment shall be determined for the length of the period and then multiplied times the appropriate normal strategic mix percentage. Those statistics will also be summed to generate a weighted average total actively managed to generate a actively managed strategic benchmark return.
- <u>Asset Class Segments.</u> To maintain an efficient risk/return profile and for the purpose of setting objectives and policies for the different asset classes, assets shall be structured into domestic equity, international equity, domestic fixed income, and international fixed income segments. Collectively and/or individually, portfolios shall be called Managed Account(s), whether the investments are direct or through units of commingled funds. Managed Account investments shall be made with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent investor acting in a like capacity and familiar with these matters would use in the conduct of Trust Funds of like character and with like aims.

# EXXON VALDEZ OIL SPILL TRUSTEE COUNCIL GULF OF ALASKA ECOSYSTEM MONITORING AND RESEARCH PROGRAM PROCESS FOR PROVIDING SCIENTIFIC AND TECHNICAL ADVICE AND PEER REVIEW

#### **I. DESCRIPTION OF PROCESS FOR SCIENTIFIC ADVICE**

The GEM Program is a long-term monitoring and research program, responsive to the needs of resource management agencies, stakeholders and the public, consistent with the program's mission and goals, and held to a high standard of scientific excellence. The process for providing scientific and technical advice includes 1) advice on the program as a whole; 2) advice at the individual project level; and 3) peer review of all proposals and reports.

The GEM scientific advice process builds upon the Trustee Council's successful record of 13 years of peer-reviewed science. This process will be implemented by staff to the *Exxon Valdez* Oil Spill Trustee Council; a committee structure consisting of a Scientific and Technical Advisory Committee (STAC) and related subcommittees and work groups; and a periodically convened independent review committee (see Figure 6.1 below). Programmatic and technical review largely will be separated. This process will be reviewed and refined over time, as experience with program implementation permits better understanding of the Trustee Council's needs for scientific advice under GEM.

In addition to scientific advice provided by the proposed STAC and subcommittees, the Trustee Council also relies on advice from the Program Advisory Committee, other members of the public, and trustee agency staff. The Executive Director is expected to take this broad spectrum of advice into account when resolving conflicting issues and developing recommendations for Trustee Council consideration.

## A. Staff

Since the Trustee Council receives information and guidance from a number of sources, the Council relies on its Executive Director to ensure that all advice and reviews are organized and summarized to assist the Council's decision-making. The Executive Director reports directly to the Trustee Council and has the ultimate responsibility for implementing all the Trustee Council's programs, policies and procedures.

The Executive Director will be assisted by a Senior Science Advisor for Oil Spill Effects, a Science Director and other staff.

The Senior Science Advisor for Oil Spill Effects will provide advice on direct oil-spill related injury and recovery, including peer review of related project proposals and reports. This position will chair the Oil Effects Subcommittee and report the committee's recommendations to the STAC.

The Science Director will assist the Executive Director by 1) providing scientific leadership for the GEM Program; 2) serving as GEM's primary scientific spokesperson and a non-voting permanent co-chair of the STAC; 3) coordinating the scientific committee structure; and 4) ensuring that the GEM Program is implemented with a high standard of scientific excellence. This role is expected to adapt to the changing needs of the growing GEM program.

# **B.** Committee Structure

Scientific and Technical Advisory Committee (STAC). The STAC is a standing committee that is expected to provide the primary scientific advice to the Executive Director on how well the collection of proposed monitoring and research projects (the Work Plan) and the overall GEM Program meet the mission and goals of the Trustee Council (GEM Program Document Vol. I, Chapter 1) and test the adequacy of the GEM conceptual foundation (see Figure 4.3). As needed and appropriate, the STAC may participate in and/or lead the peer review process of proposals and project reports.

*Subcommittees.* The subcommittees are standing committees organized to address the "nuts and bolts" of developing and implementing projects responsive to the Council's needs, coordinating among scientists and other interested parties, and helping to organize technical peer review of individual proposals.

*Work groups.* Ad hoc work groups are subcommittees temporarily formed to address specific issues. They have a specific purpose and a limited duration.

# **C. External Review Committee**

Periodically (every five to ten years), the Trustee Council will contract with an external entity, such as the National Research Council, to review the entire GEM Program.

# **II. ESTABLISHING AND MAINTAINING COMMITTEE STRUCTURE**

# A. Scientific and Technical Advisory Committee (STAC)

## Responsibilities

- 1. The STAC shall meet as often as needed to provide to the Executive Director broad programmatic advice and guidance on the GEM Work Plan with respect to the GEM Program's mission, goals, conceptual foundation, central hypotheses and questions.
- The STAC shall recommend to the Executive Director projects for the GEM Work Plan best suited to the mission, goals, conceptual foundation, and central hypothesis. A written record of these recommendations shall be presented to the Program Advisory Committee (PAC) and to the Trustee Council.

- 3. The STAC co-chairs shall brief the PAC and the Council once a year on the state of the GEM program and on other occasions at the request of the Trustee Council, the Executive Director, or the STAC.
- 4. The STAC, in conjunction with the subcommittees, shall provide leadership in identifying and developing testable hypotheses relevant to the conceptual foundation and central questions of the GEM Strategic Plan, consistent with the GEM Program's mission and goals and the policies of the Trustee Council.
- 5. The STAC, using recommendations provided by the subcommittees and other means, shall identify and recommend syntheses, models, process studies, and other research activities for the Invitation to Submit Proposals.
- 6. The STAC shall meet with subcommittee chairs as needed.
- 7. The STAC shall select the subcommittee members, following a process approved by the Trustee Council. The STAC shall receive reports and briefings from the subcommittee chairs as needed.
- 8. The STAC shall assist Trustee Council staff in identifying peer reviewers, and may, upon request, conduct peer review on individual responses to the Invitation for Proposals and project reports.
- 9. Subject to funding restrictions and in consultation with the Executive Director, the STAC may convene special review panels or work groups to evaluate and make recommendations about aspects of the GEM program, or to meet with project investigators and others to fully explore particular projects or issues.

#### Membership

- 1. The STAC shall have seven members: six voting members appointed by the Trustee Council with the advice of the independent nominating committee and the Trustee Council's GEM Science Director as the seventh member who serves as permanent non-voting co-chair.
- 2. The STAC members shall be drawn from the scientific sectors of academic, government, NGO, and private institutions. Together the members shall possess expertise in the habitats, species and environments of the Alaska Coastal Current and offshore, the intertidal and subtidal (nearshore), the watersheds, modeling, resource management, human activities and their potential ecological impacts, and community-based science programs.
- 3. The STAC members shall be selected for their expertise, broad perspective, long experience and leadership in areas important to the GEM Program.
- 4. STAC members cannot be principal investigators for presently funded or ongoing GEM projects.
- 5. The STAC members shall serve terms of four years, renewable once at the option of the Trustee Council, except during the first two years of the program when three members shall serve initial terms of two years, renewable for a full four year term. All renewals for a second term are at the option of the Trustee Council.
- 6. After serving on the STAC, a person is not eligible to serve again on the STAC for two years, with the exception of a person who was appointed from the list of alternates to complete a partial term. A person appointed as an alternate is eligible to be nominated to an open membership slot to serve a full term, and may, if serving less

than two years and at the discretion of the Trustee Council, also be eligible for renewal.

7. In the event of a vacancy prior to the end of a term, the Trustee Council shall appoint a replacement from among the list of alternates. Inactive members may be removed by the Trustee Council from the STAC membership.

## **Rules of Procedure**

- 1. The STAC shall elect a co-chair by majority vote at least once every two years. The Science Director shall serve as the other co-chair.
- 2. Matters that cannot be resolved by consensus shall be decided by four affirmative votes of the STAC membership.
- 3. The STAC shall develop procedures for interfacing with the subcommittees, work groups and the Program Advisory Committee.

## **B.** Subcommittees

#### Responsibilities

- 1. Subcommittees shall provide guidance within each habitat type to the STAC and to the Trustee Council staff regarding testable hypotheses and other topics for consideration in future Invitations to Submit Proposals.
- 2. Subcommittees shall identify implementation strategies and possible locations for measuring monitoring variables that are relevant to the key questions and testable hypotheses.
- 3. Subcommittees shall, upon request, help organize the peer review on proposals and project reports in their broad habitat types, including recommending appropriate peer reviewers.
- 4. Initially, the subcommittees shall be organized along the lines of the four primary habitat types: offshore, Alaska Coastal Current, nearshore and watersheds, with additional subcommittees for oil effects and data management. The subcommittee structure may change following further review and discussion (and pending final NRC review).
- 5. Subject to funding restrictions, subcommittees may convene special review panels from time to time to evaluate and make recommendations about aspects of the GEM program. At other times, special panels may meet with project investigators and others to fully explore particular topics, problems, or projects.
- 6. A subcommittee may notify the STAC when it encounters the need for a work group.

## Membership

1. Subcommittees are composed of at least 5 and not more than 8 individuals: scientists, resource managers, and/or other experts selected by the STAC primarily for their disciplinary expertise and familiarity with a broad habitat type (watersheds, intertidal and subtidal, ACC, or offshore). Other criteria include institutional and professional affiliations in order to promote collaboration and cooperation.

- 2. Subcommittee members serve three year renewable terms.
- 3. Subcommittee members may include principal investigators of GEM projects.
- 4. Nominees who agreed to serve, but were not selected by the STAC, may serve as peer reviewers and recommend peer reviewers, and are automatically considered as nominees to fill vacancies on subcommittees.

### **Rules of Procedure**

- 1. Subcommittees shall elect their own chairs, usually in a person's third year on the committee.
- 2. Matters that cannot be resolved by consensus shall be decided by majority vote of the membership.

## C. Work Groups

#### Responsibilities

- 1. Work Groups shall recommend to the STAC or a subcommittee courses of action on the task for which the work group has been established. Tasks may include developing strategies to implement specific monitoring and research goals.
- 2. Work Groups may help organize the peer review on proposals submitted to address the task for which the work group has been established.

## Membership

- 1. Any number of individuals may be appointed to work groups established by the Executive Director at the request of the STAC. Expertise will depend on the issue to be addressed.
- 2. Members are approved by the Executive Director from nominees submitted by the STAC or subcommittee that identified the need for the work group.
- 3. Work groups are expected to be issue specific and of a limited duration specified by the Executive Director at its inception.

## **Rules of Procedure**

- 1. Work groups shall elect a chair by majority vote.
- 2. Matters that cannot be resolved by consensus shall be decided by majority vote of the membership.

## **III. SELECTING COMMITTEE MEMBERS**

## A. Selection Process for STAC

1. The Executive Director shall issue a public call for nominations to serve on the STAC. The call will identify the types of expertise and the qualifications the Trustee

Council desires to see for the nominees. Any person (including oneself) or organization is free to make a nomination.

- 2. Those nominating a person or the person being nominated -- will be asked to submit a one-page synopsis of the nominee's qualifications to the Executive Director.
- 3. At the request of the Executive Director, a Nominating Committee will convene to develop a recommended list of persons fitting STAC membership criteria. The Nominating Committee shall recommend to the Executive Director a nominee for each vacant seat on the STAC, after determining that each is willing to serve on the STAC. Remaining nominees who are willing to serve may become alternates. The list of nominees and alternates shall be forwarded to the Trustee Council by the Executive Director.
- 4. The Nominating Committee may suggest names of persons not nominated if there are gaps in desired expertise among the nominees provided to it by the process (i.e., nominating committee members may also make their own nominations).

## **STAC Nominating Committee**

## Responsibilities

- 1. The STAC Nominating Committee shall review nominations for the STAC; if necessary, it may solicit additional nominations at its discretion.
- 2. The nominating committee shall provide the Executive Director a list of preferred and alternate nominees for appointment to the STAC.
- 3. The Nominating Committee chair shall brief the Trustee Council on its recommendations.

## Membership

- 1. The STAC Nominating Committee shall be composed of seven members who are familiar with the development and operation of regional monitoring programs similar to GEM.
- 2. Nominating Committee members may not currently be receiving funding from the Trustee Council, nor may they be closely associated with, or dependent on, those who are funded by the Trustee Council. For example, the Nominating Committee members may not be funded investigators within the EVOS/GEM program, nor may nominating committee members be the immediate supervisors or supervisees of currently funded investigators, or members of their immediate family.
- 3. At least five Nominating Committee members shall reside in Alaska. STAC nominees and current STAC members may not serve on the Nominating Committee.
- 4. Nominating Committee members shall be selected by the Executive Director in consultation with the Trustee Council. The Executive Director shall also determine the life of the Nominating Committee.

#### **Rules of Procedure**

- 1. The Nominating Committee shall elect a chairperson by majority vote to conduct the meetings.
- 2. The Nominating Committee shall establish a schedule and a process for developing a recommended list of nominees for the STAC that is consistent with applicable state and federal statutes, particularly with regard to Equal Employment Opportunity principles and diversity considerations.
- 3. The Executive Director shall provide assistance as requested by the Nominating Committee chair.

#### **B. Selection Process for Subcommittee Members**

- 1. The Executive Director shall issue public calls for nominations to the subcommittees. The announcements shall list desirable qualifications and other nominating criteria.
- 2. The STAC shall review the nominees and make recommendations to the Trustee Council for approval.

#### C. Selection Process for Work Group Members

1. The Executive Director shall approve work group members upon the recommendation of the STAC and/or subcommittees.

## **IV. PEER REVIEW**

Each project proposal, as well as some annual and all final reports, will be peer-reviewed by appropriate experts who are not competing for funding from the GEM program in the same competition and, in general, also are not conducting projects funded by the Trustee Council. The external peer review process will provide a rigorous critique of the scientific merits of proposals and reports. The goals of the review process are to ensure that studies sponsored by the Trustee Council 1) adhere to a high standard of scientific excellence; 2) have scientific objectives that are relevant and consistent with the GEM Program's conceptual foundation, central questions, and testable hypotheses; and 3) use valid methods that will allow them to achieve these objectives. The peer review may be either paid or volunteer, or some combination, whichever is most expeditious and appropriate. Reviews and recommendations shall be documented in writing.

The STAC or subcommittees may convene work groups from time to time to evaluate and make recommendations about aspects of the GEM program. These may include special peer review panels that would meet with project investigators and others to fully explore particular topics, problems, or projects.

A framework for peer review shall be developed by Trustee Council staff and include the following:

- A clear statement of the purposes of the peer review
- The role of the peer reviewer
- Guidelines for achieving and maintaining impartiality

The Science Director is responsible to the Executive Director and the Trustee Council for maintaining independence and the appropriate level of expertise for each peer review activity, training of peer reviewers in established procedures, and establishing an honorarium (payment) process for peer reviewers when necessary to accomplish the needed peer review.

# Figures follow on two pages

Figure 4.3 Selecting monitoring elements starts with the mission and goals established by the Trustee Council, as expressed in the conceptual foundation, which is regularly updated by new information from a variety of sources. GEM Program Document, Vol. I, Chapter 4, page 38.



Figure 6.1. The organizational elements involved in GEM implementation. Modified in response to comments from the NRC, after GEM Program Document, Vol. I, Chapter 6, page 66.

