

GUIDELINES FOR THE COLLECTION, ANALYSIS AND
PRESENTATION OF SUBSISTENCE USE INFORMATION FOR
ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT
810 DETERMINATIONS

Final Report to the Alaska Land Use Council

ALUC WORK ITEM #27, WORK GROUP II

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INTRODUCTION

The Alaska National Interest Lands Conservation Act (ANILCA) Title VIII, Subsistence Management and Use, provides an opportunity for rural Alaskan residents to continue to engage in a subsistence way of life. In order to effectively fulfill the requirements of Title VIII and Alaska Statutes 16.05.251 and 16.05.255, federal and state agencies need reliable subsistence-related data. Federal agencies need this information to: evaluate the effects of proposed management actions on subsistence uses and needs as required by ANILCA Section 810; implement the federal monitoring requirements of ANILCA Section 806; prepare the report required by Section 813; and, conduct other planning and land management functions. Subsistence-related data are also used by the State of Alaska in land use decisions and development of fishing, hunting and trapping regulations.

The ANILCA Section 812 recognized the common data needs of federal and state agencies and directed:

"The Secretary, in cooperation with the state and other appropriate federal agencies, shall undertake research on fish and wildlife and subsistence uses on the public lands; seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses; and make the results of such research available to the state, the local and regional councils established by the Secretary or state pursuant to Section 805, and other appropriate persons and organizations."

In May 1983, the Alaska Land Use Council (ALUC) adopted Work Item #27 which commissioned two study groups to look at separate aspects of ANILCA Title VIII. Work Group I was charged to develop recommended guidelines for use by governmental agencies in implementing the Section 810 evaluation process. Work Group II was charged with developing recommended methodologies and study designs for the collection, analysis and presentation of subsistence data and, secondarily, to recommend ways that subsistence data could be used in the Section 810 evaluations.

This report presents recommendations prepared by Work Group II concerning standards and guidelines for the collection, analysis and presentation of subsistence use data. The report is being submitted to the ALUC for consideration. If adopted by the ALUC, the report will constitute recommendations from the ALUC to agencies involved with preparation of Section 810 evaluations.

RECOMMENDATIONS

Federal land management and regulatory agencies in Alaska address projects which vary greatly in diversity, nature, scope, and duration; lead time for planning and implementation varies significantly. Examples of the range of projects which agencies address either through the permitting process or through on-going management activities include: mining activities, airport expansions, timber sales, petroleum exploration and development projects, recreation cabins, regulations governing outfitters and guides, fish and wildlife habitat improvement projects and hydroelectric generation facilities. The nature and scale of each management action will dictate the necessary level of detail of data collection and analysis. If specific data collection and analysis are needed, related decisions will appropriately be made by the responsible management agency based on the management issues specific to each action.

In general, the categories of subsistence data needed by federal and state agencies in preparation of ANILCA Section 810 evaluations include identification of the roles that specific resources, geographic areas and subsistence activities play in the local economy and society of rural communities in Alaska. Collection and analysis of these kinds of data may facilitate the evaluation of the projected effects of proposed actions. These categories should include:

- (1) who uses the land and resources;
- (2) where the uses occur;
- (3) when the uses occur;
- (4) what resources are being used;
- (5) how the uses occur;
- (6) whether or not the uses of the resources have been designated in regulation as subsistence uses, commercial uses, recreational uses or personal uses of wild, renewable resources; and
- (7) the relative role of various subsistence uses in the socio-economic systems of the potentially affected community(s).

In the process of collecting subsistence data, local and regional agency management staffs should be kept advised; specialists should be used or consulted in the planning and conduct of the collection; and local community and village representatives should be consulted for data verification.

The Division of Subsistence, Alaska Department of Fish and Game (ADF&G), is the state agency responsible for collecting and compiling information on subsistence use of fish and wildlife. Federal agencies should consult regularly with the Division

concerning data needs and research plans to ensure coordination and minimize duplication of effort.

Memoranda of agreement between agencies should be pursued wherever similar types of data needs occur. The manager (park superintendent, refuge manager, forest supervisor, etc.) should be involved early in decisions regarding additional data collection efforts. The manager also needs to be made aware of and weigh the potential ramifications of delaying a proposed project or action while more data is being collected versus proceeding with existing data.

The following outline may be used to assess current data availability and indicates the specific kinds of data which may be collected, presented and analyzed by federal and state agencies in implementing subsistence-related responsibilities, particularly in completing ANILCA Section 810 evaluations. Generally, the data collection effort should follow established scientific methods for data collection which have been used throughout the state to date and which provide for repeatability, comparability and objectivity. The need for additional data collection should be a function of the proposed action, extent of existing data, level of public involvement, and others as determined by the management agency. All types of data outlined below relate to the above categories:

I. RESOURCE USES DATA

- A. Subsistence-use area maps, which depict:
 - 1. areas used for subsistence harvest by residents of communities on or near lands affected by the proposed action;
 - 2. kinds or types of resources harvested on or near lands affected by a proposed action; and
 - 3. seasonal camps or facilities on or near lands affected by the proposed action.
- B. Calendar ("seasonal round") of subsistence activities showing months of the year that resources are harvested and any known seasonal variations in harvest intensity.
- C. Means and methods of conducting subsistence activities such as:
 - 1. methods of transportation, specific access routes, general access sites;
 - 2. general means and methods of hunting, fishing, trapping and other resource gathering; and

3. anticipated fluctuations in activities due to environmental and social conditions.
- D. Types of resource uses including food, shelter, fuel, clothing, tools, transportation, handicrafts, customary trade, barter or sharing. This may include information on the role of these resources in the economy, culture and way of life of the community and the value placed on the resources within the culture.
- E. Quantities of resources harvested by categories of user group, if available.
- F. Allocation of resources to competing user groups i.e., subsistence, sport, commercial.
- G. Intensity of use by species within the specific areas and the broader general area of use and by categories of user group if available.
- H. Any known cycles or trends in use patterns.

II. INFORMATION ON COMMUNITIES

- A. Population of each community including seasonal fluctuations.
- B. General land-ownership status of property surrounding each community.
- C. Local organizations involved with resources.
- D. Economic structure (local economy) of community(s) and relative contribution of subsistence uses of renewable resources to the local socioeconomic system and households.

III. ANALYSIS OF EXPECTED CHANGES RESULTING FROM PROPOSED ACTION

- A. Types of expected habitat changes and expected impacts on resources resulting from a proposed action, e.g., expected changes in populations of fish and wildlife or quantities of other renewable resources used for subsistence.
- B. Expected changes in the number of people living in, working in or passing through an area.
- C. Expected changes in the number and composition of people competing for resources in an area.
- D. Expected changes in the level of development or use (such as increases in road traffic, increases

in aircraft noise, etc.) which may affect location, distribution or migration of resources, and subsequently may affect access or harvest.

- E. Expected changes in land classification or land ownership, regulations, etc., which affect rules or access in or to an area or to the resources of an area.
- F. Expected changes in the content, application or enforcement of regulations pertaining to resource uses (licenses, permits, bag limits, seasons open, closed areas, etc.).
- G. Any expected cumulative effects of the above factors.

IV. STANDARDS AND GUIDELINES FOR THE COLLECTION, PRESENTATION AND ANALYSIS OF SUBSISTENCE-RELATED DATA

A. Collection

1. In collecting or storing subsistence use and related resource information or engaging in studies of subsistence uses or the habitat or other resources on which they depend, agencies are encouraged to cooperate and coordinate their efforts with other agencies including the ADF&G, U.S. Fish and Wildlife Service and other sources such as coastal zone management plans. This will ensure that relevant data are not missed and that duplication of effort is minimized. Duplication of research effort should particularly be avoided when pursuing collection of new information on subsistence uses in a rural area or community. Memoranda of agreement between agencies are encouraged.
2. Fully utilize existing bodies of information on subsistence when reviewing literature and records during collection of subsistence-related information. In particular, the following sources should be consulted:
 - a. Subsistence Bibliographies such as the ADF&G Regional Subsistence Bibliography (published version in print; updated version on computer) and the AEIDC Subsistence Bibliography.
 - b. Map Collections such as the ADF&G subsistence uses area map collection and/or the North Slope Borough subsistence map collection.

c. Expert sources of information such as staff of conservation units near the proposed action, ADF&G regional and local staff, Regional native and village corporations or associations and local community representatives.

3. If additional baseline data collection is necessary, the following standards and guidelines for the selection of methodologies and development of study designs:

a. A written plan should state the proposed use of the data, methods for collecting and analyzing data, sampling frame, identification of variables, instrumentation, procedures and schedule.

b. Representatives of communities in which information would be gathered should be kept informed to the extent possible and afforded the opportunity to become involved during the development of the plan.

c. Professionally-acceptable data collection methods and analysis techniques should be employed in any subsistence data gathering, analysis and display processes. Examples of these include: key informant and ethnographic interviews, structured random sample surveys, aerial photographs, participant observation, diaries and correlation and regression analysis. To the extent feasible, the nature of the research itself should guide decisions regarding such questions as whether to use a random sample versus a selected sample, the size of the sample, etc. Mapping of subsistence use areas should follow methodologies compatible with the mapping methodology developed by ADF&G, Division of Subsistence (Mapping Subsistence Use Areas: Methodologies and Issues, Research Notebook Series, No. 1, November 1893).

d. Draft reports containing data gathered from the community should be reviewed by community representatives prior to release or use of the data in management decisions.

- e. Standards guiding the conduct of research should be followed for the protection of human subjects (anonymity and confidentiality). "Ethical Principles for the Conduct of Research in the North," developed by the Association of Canadian Universities for Northern Studies and used by the ADF&G, Division of Subsistence, contains recommended standards for subsistence-related research in Alaska (see summary in Appendix).

B. Documentation of Subsistence Use Data

1. Subsistence use data, as summarized in evaluation, planning or other management and decision documents, should be in a form which is clear, deliberately highlighted and detailed so that decisionmakers, the public and the courts can identify the categories and levels of information used. When data pertaining to the categories (p. 2) are not available, that fact should also be documented.
2. The sources of the data should be documented so that decisionmakers, the public and the courts can locate them. The major exception to this requirement would involve protecting the identities of, and proprietary information provided by, individual informants who request anonymity. In addition, the sources of subsistence data and information should be made available to the public as part of the decisionmaking process. The following Appendix summarizes principles suggested for conducting data collection consistent with ethical standards.

APPENDIX

ETHICAL PRINCIPLES FOR THE CONDUCT OF RESEARCH IN THE NORTH (Based on the Association of Canadian Universities for Northern Studies, Draft Document, 1981)

INTRODUCTION

In too many cases, researchers have worked in isolated communities without regard for the people who live there. Communities have been disrupted and essential local resources used without consultation. Privacy is difficult in small communities, creating additional problems for participants. Guidelines or principles proposed here are intended to promote cooperation and mutual respect between researchers and the northern people.

Northerners are involved with research in several different ways: as research subjects; providing information; as part of a research team; using the completed research; and identifying research needs.

If research is to be explained clearly, conducted ethically and used constructively, it must be guided by principles that consider all of the aforementioned ways in which Northerners are likely to be involved.

PRINCIPLES

1. The research must respect the privacy and dignity of the people.
2. The research should take into account the knowledge and experience of the people.
3. The research should respect the language, traditions and standards of the community.
4. The person in charge of the research is accountable for all decisions on the project, including the decisions of subordinates.
5. No research should begin before being fully explained to those who might be affected.
6. No research should begin without the consent of those who might be affected.
7. In seeking informed consent, researchers should clearly identify sponsors, purposes of the research, sources of financial support and investigators responsible for the research.
8. In seeking informed consent, researchers should explain the potential affects of the research on the community and

environment and should explain the use and value of the research to the community.

9. Informed consent should be obtained from each participant in research, as well as, from the community at large.
10. On an on-going basis, participants should be fully informed of any data gathering techniques developed and used during the course of the research (such as tape recordings, photographs, physiological measures, etc.), and the use to which they will be put.
11. No undue pressure should be applied to get consent for participation in a research project.
12. Research subjects should remain anonymous unless they have agreed to be identified; if anonymity cannot be guaranteed, the subject must be informed of the possible consequences of this before becoming involved in the research.
13. If, during the research, the community decides that the research may be unacceptable to the community, the researcher and the sponsor should suspend the study.
14. On-going explanations of research activities, methods, findings, and their interpretation should be made available to the community with an opportunity for the people to comment before publication. Summaries also should be made available in the local language.
15. Subject to requirements for anonymity, descriptions of the data should be left on file in the communities from which they were gathered, along with descriptions of the methods used and the place of data storage.
16. All research reports should be sent to the communities involved.
17. All research publications should refer to informed consent and community participation and should acknowledge community contributions to be the research project.