ENVIRONMENTAL ASSESSMENT

Amendment to the Alaska Coastal Management Program

Inclusion of the

Bering Straits

and

Northwest Arctic Borough

Coastal Management Programs

into the

Alaska Coastal Management Program

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Ocean and Coastal Resource Management

August 1989

Environmental Assessment
Alaska Coastal Management Program

Amendment Nos. 5 & 6

Inclusion of the Bering Straits Coastal Resource Service Area and the Northwest Arctic Borough Coastal Management Programs

C. BSCMP Policies Approved by the CPC July 7, 1987
D. NWABCMP Policies Approved by the CPC May 22, 1986
E. Letter w/ Additional Information to Don Critchfield from Robert Grogan dated March 16, 1989
F. Distribution List of Agencies, Organizations, etc.

SUMMARY

This document consists of Amendments 5 and 6 to the Alaska Coastal Management Program.

Amendment 5 is the Bering Straits Coastal Management Program (BSCMP) which consists of four documents:

(1) The Bering Straits Coastal Resource Service Area Coastal Management Program Resource Inventory (Volume 1)

(2) The Bering Straits Conceptually Approved Coastal Management Plan (Volume 2)

(3) The Revised Bering Straits Coastal Resource Service Area Boundary Map (in Volume 3)

(4) The Revised Bering Straits Coastal Management Program policies chapter approved by the Alaska Coastal Policy Council in July 1987.

Amendment 6 is the Northwest Arctic Borough Coastal Management Program (NWABCMP) (formerly known as the NANA CMP) which consists of four documents:

(1) The NANA Region Coastal Management Plan (Volume 1)

(2) The NANA Region Coastal Management Plan Background Report (Volume 2)

(3) The Northwest Arctic Borough Coastal Management Plan Map Atlas (Volume 3)

(4) The Revised Northwest Arctic Borough Coastal Management Program policies chapter and coastal boundary approved by for the Coastal Policy Council in May 1986.

The Governor of Alaska submitted these amendments to the Federal Office of Ocean and Coastal Resource Management (OCRM) for incorporation into the Alaska program. These documents were widely distributed to interested parties and, therefore, are not attached to this environmental assessment (EA). However, subsequent changes were made to the policy chapters of these coastal management programs, and these changes are included as Appendix C for the BSCMP and Appendix D for the NWABCMP.

The proposed Federal action is approval by OCRM of the incorporation of the BS and NWAB CMPs into the ACMP pursuant to Section 306(g) of the Coastal Zone Management Act (CZMA) and OCRM regulations on amendments to approved state coastal zone

management programs. (15 CFR § 923.80, 44 Fed. Reg. 18617 (1979). Approval of the amendments would allow Federal funding for implementation of the BS and NWAB CMPs and the State's reliance upon the enforceable policies of the amendments for Federal consistency under Section 307 of the CZMA as amended, 16 U.S.C. 1451 et seq.

The National Environmental Policy Act of 1969 (NEPA), as amended, 42 U.S.C. 4321 et seq., requires Federal agencies to assess the environmental impacts of proposed major actions significantly affecting the quality of the human environment. Federal approval of the ACMP was considered a major Federal action which required NEPA review. When the Secretary of Commerce approved the Alaska program in 1979, draft and final environmental impact statements (DEIS and FEIS) were prepared to satisfy the requirements of NEPA. This EA relies in part on those documents for a broader discussion of the affected environment, alternatives considered, and environmental consequences of the proposed Federal action. It supplements FEIS information as necessary to describe the changes which have been proposed by the State of Alaska. The EA addresses issues relevant to the regulations of the amendments and related implementation of the BS and NWAB CMPs.

The BS and NWAB CMPs are comprehensive management programs regulating land and water uses within their respective areas. Major components of the programs are district boundaries, goals and objectives, definition of uses subject to the programs, and most importantly, enforceable policies for regulating activities proposed within their respective areas. The policies of these programs will be implemented by their respective regions and by state agencies through the existing ACMP consistency process (6 AAC 50).

The BS and NWAB CMPs were first submitted (July 7, 1986, for the NWABCMP and August 5, 1987, for the BSCMP) for approval as Routine Program Implementations (RPIs). After reviewing the documents submitted by the State regarding the RPI requests, OCRM found it necessary to request further information. After reviewing the additional information submitted by the State, OCRM found the BS and NWAB CMPs unapprovable as submitted. OCRM informed the State in writing (September 2, 1987, for the BSCMP and August 8, 1986, for the NWABCMP) of its findings.

The NWABCMP was found to be a significant amendment to the ACMP because of the inland boundary extension and the policies relating to the national interest in regard to the potential for exploration and development of petroleum and mineral resources and the protection and management of the extremely valuable commercial and subsistence fishery. The NWABCMP was denied approval by OCRM again in February 1987 and September 1987 because of concerns with the location of the inland boundary, the tailoring of policies to "important and sensitive use areas" within the district, and the language of four policies.

The BSCMP was denied approval as an RPI and an amendment based on the inland boundary of the district's coastal area and on the designation of important use areas within the district.

OCRM agreed with the commenters of the CMPs that the programs, if approved and implemented, would shift the ACMP decision making from the State to the local level and thus cause arbitrary or unreasonable restrictions or exclusions of areas of state and national interest.

The State and the respective CMPs have changed their policies so that they are no longer strict prohibitions. Instead, the policies are now performance standards and should provide flexibility enough to accommodate reasonable development. Specific changes to the wording of the Programs' policies are indicated in the policies approved by the Coastal Policy Council (CPC), and they are included with this document as Appendices C and D.

The Preliminary Findings of Approvability are included as Appendix A for BSCMP and Appendix B for NWABCMP. OCRM has considered all comments received by the State during the CPC public hearing and will consider comments received on this EA.

The conclusion of this EA is that the approval of the BS and NWAB CMPs as amendments to the Alaska Coastal Management Program is not a major federal action having a significant impact on the human environment. Therefore, a Finding of No Significant Impact (FONSI) is appropriate.

I. INTRODUCTION

A. APPROVAL OF THE ALASKA COASTAL MANAGEMENT PROGRAM

Recognizing the need for a coordinated effort to manage the nation's coastal resources, Congress passed the Federal Coastal Zone Management Act (CZMA) in 1972, 16 U.S.C. 1451 et. seq. The CZMA established a voluntary program for the management, beneficial use, protection, and development of the land and water resources of the nation's coastal areas. The Federal program was designed to encourage the states to exercise more fully their authorities and responsibilities related to coastal resources.

The CZMA provides guidelines for the development of state coastal management programs. The implementing Federal regulations at 15 CFR Part 923 outline the requirements for state program development and approval. These regulations include the guidelines for changing an approved state program. Changes to an approved program may be processed as either a matter of routine program implementation or as an amendment (15 CFR § 923.80).

The Alaska Coastal Management Program (ACMP) was approved by the Secretary of Commerce in July 1979. The program is based on the Alaska Coastal Management Act (ACMA) of 1977 which establishes an approach of shared local and State coastal management responsibilities. The ACMA created the Coastal Policy Council (CPC) to direct the State coastal program. The CPC develops statewide standards and guidelines for the management of coastal land and water uses. The CPC also reviews and approves local coastal programs. The Governor's Office of Management and Budget, Division of Governmental Coordination (DGC) serves as staff to the CPC and is the lead ACMP agency. The ACMP sets forth guidelines and standards related to coastal resources and provides for local coastal programs to implement the ACMP provisions.

B. DEVELOPMENT OF THE BERING STRAITS COASTAL MANAGEMENT PROGRAM (BSCMP) AND THE NORTHWEST ARCTIC BOROUGH COASTAL MANAGEMENT PROGRAM (NWABCMP)

Both the BSCMP and the NWABCMP (formerly known as the NANA CMP) were developed over a period of approximately seven or eight years by the Coastal Resource Service Area (CRSA) Boards and staff. The Bering Straits CRSA Board conceptually approved the BSCMP on September 18, 1986, and the NANA CRSA Board conceptually approved the NWABCMP on July 23, 1985. DGC prepared and provided findings and conclusions along with the appropriate CMP text for public review and comment during the period of November 25, 1986 to January 30, 1987 for the BSCMP and December 30, 1985 to February 18, 1986 for the NWABCMP. Each program was revised to address public comments received, and these proposed changes were included in the appropriate DGC findings and conclusions

which were submitted and approved unanimously by the CPC on July 7, 1987 for the BSCMP and May 22, 1986 for the NWABCMP.

On July 7, 1986, the CPC, through the DGC, requested the Office of Ocean and Coastal Resource Management (OCRM) to incorporate the NWABCMP into the federally-approved State program as routine program implementation (RPI). On August 8, 1986, OCRM notified the State that based on the inland boundary extension and on the policies relating to the national interest in energy facilities development, the NWABCMP was found to be a significant amendment to the ACMP and thus OCRM denied its approval as an RPI. The NWABCMP approval was denied by OCRM again in February 1987 and September 1987 because of concerns with the location of the inland boundary, the tailoring of policies to "important and sensitive use areas" within the district, and the language of four policies.

The BSCMP was submitted by DGC to OCRM for approval as an RPI on August 5, 1987, and it was denied approval as either an RPI or an ACMP amendment based on the inland boundary of the district's coastal area and on the designation of important use areas within the district.

With the inclusion of additional information requested by the Assistant Administrator for the National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), on October 5, 1988, regarding the importance of anadromous fish resources to individual subsistence users and the regional economies of the Bering Straits and the Northwest Arctic regions provided by the DGC, the BSCMP and the NWABCMP have been resubmitted to OCRM for approval as of March 23, 1989. This environmental assessment (EA) applies to the BSCMP and the NWABCMP as submitted on that day.

C. NATURE OF THE FEDERAL ACTION

The proposed Federal action is NOAA's approval of the incorporation of these changes into the ACMP pursuant to NOAA regulations on Amendments to Approved Management Programs (15 CFR § 923.80 (1989). An amendment is defined as a substantial change in, or substantial change to, enforceable policies or authorities related to:

(1) Boundaries;

(2) Uses subject to the management program;

(3) Criteria or procedures for designating or managing areas of particular concern or areas for preservation or restoration; and

(4) Consideration of the national interest involved in the planning for and in the siting of facilities which are necessary to meet requirements which are other than local in nature. (15 CFR § 923.80(c))

When an amendment is submitted, OCRM must review the request to determine if the federally-approved management program, as changed by the amendment request, will still constitute an approvable program. This requires a preliminary determination that the ACMP, as amended by the NWABCMP and the BSCMP, will still meet the substantive requirements of the CZMA in the categories listed above (15 CFR § 923.82). These preliminary Findings of Approvability have been made and are included as Appendices (Appendix A is for the Bering Straits and Appendix B is for the Northwest Arctic Borough). These Findings provide a detailed analysis of approvability of these CMPs. Accordingly, reviewers should note that except during the discussion of alternatives, this EA does not focus on approvability issues.

In accordance with the amendment procedures, OCRM must assess the environmental impact of the proposed amendments in order to satisfy the requirements of the National Environmental Policy Act (NEPA). Because NEPA and the CZMA have similar goals, the information used in the NEPA process will also be used to help make a final determination whether the ACMP, as amended by these programs, still constitutes an approvable state program under the CZMA.

This EA addresses the NEPA requirements under the guidelines established by NOAA (NOAA Directives Manual, Chapter 02-10, July 23, 1984). This EA analyzes the potential environmental impacts of the policies and provisions of the NWABCMP and of the BSCMP to determine if those impacts are substantially different from the impacts identified in the original ACMP Final Environmental Impact Statement (FEIS). All other aspects of these programs not analyzed in detail in this EA were determined to be consistent with NEPA in the original ACMP/FEIS and do not require further analysis.

Issues Identified During the Review Process

Inland Boundaries

The BSCMP boundary extends inland beyond the interim boundary established in the ACMP to include a combination of selected watersheds, drainage basins, contiguous coastal wetlands, and uniform corridors along streams and rivers which provide important spawning, rearing, and overwintering habitats for important populations of anadromous fish within the region. Also included in the BSCMP boundary is a uniform 2 mile setback from coastal bluff areas which adjoin, or are in close proximity

to, marine waters. The proposed boundary extension is intended to ensure that activities that have or are likely to have direct and significant impacts on anadromous fish and other coastal dependent resources, are included within the coastal zone.

The NWAB boundary extension is quite similar to Bering Straits in that it includes watersheds of the major drainage systems which provide important spawning, rearing and overwintering habitats for populations of anadromous fish within the region. The watersheds in the NWABCMP boundary include the Kivalina, Wulik, Noatak, Kobuk and Selawik Rivers, and the Kotzebue Sound drainages of the northern Seward Peninsula, including the Buckland, Kiwalik, Kugruk, Inmachuk, and Goodhope Rivers. The NWAB inland coastal boundary encompasses only the areas in the NANA CRSA which drain into Kotzebue Sound or the Chukchi Sea. The watershed of the upper Noatak River is excluded from the coastal boundary along a line which follows the southern limits of the Noatak National Park and Preserve from the east boundary of the NANA CRSA to the Range 5 West/Range 6 West boundary, and then north to the northern limits of the NANA CRSA.

The boundary extensions for the BS and the NWAB CMPs are mainly designed to provide comprehensive management of uses and activities that may have a direct and significant impact on anadromous fish resources which are of great importance as a subsistence resource for the residents of the region. The protection and management of subsistence resource is an important issue to the State as well.

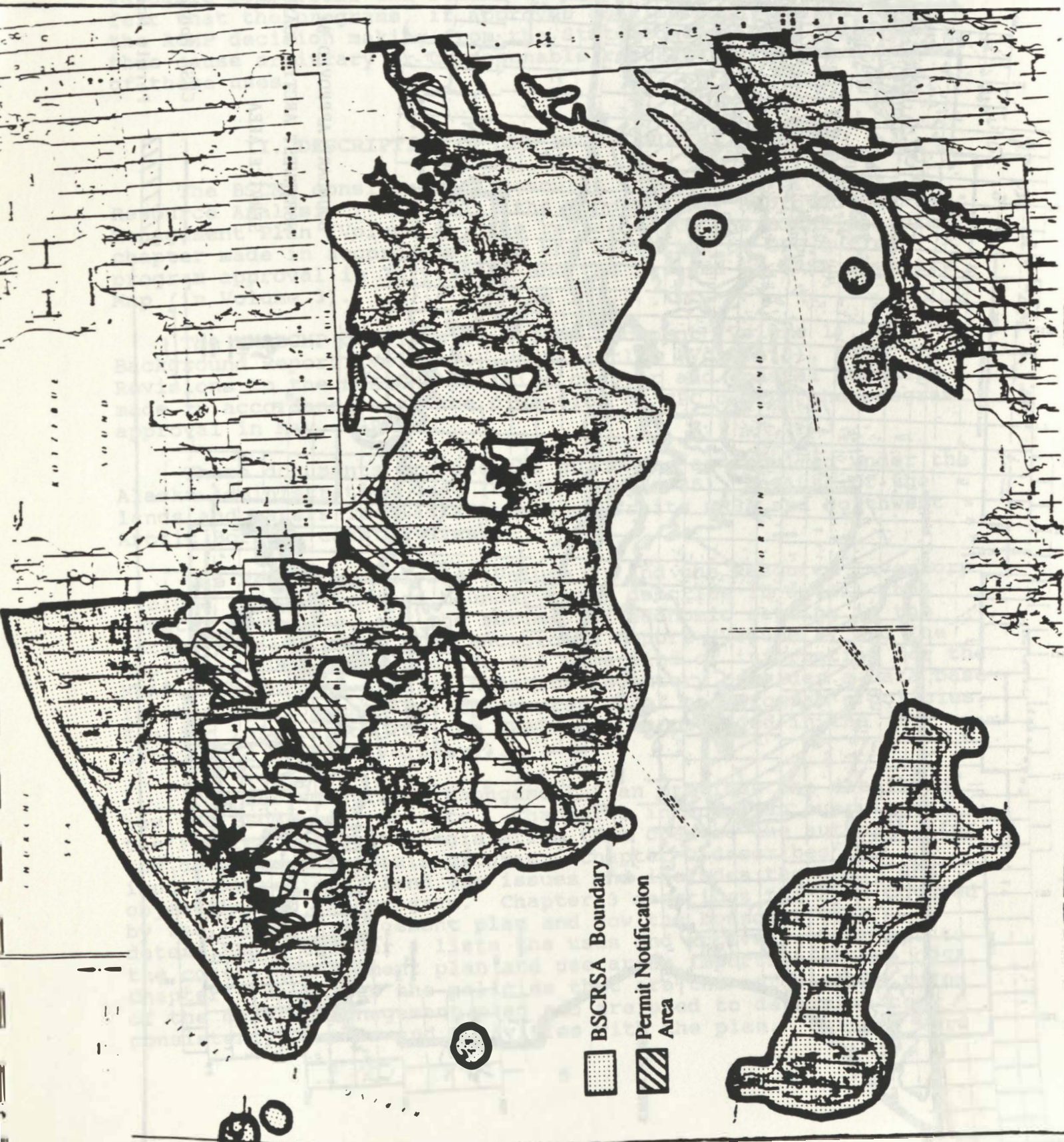
The inland boundary extensions for the BS CRSA and the NWAB also include areas that have been identified as having the greatest potential for mineral related uses and activities that may directly affect the coastal zone. Such areas include a combination of selected watersheds and setbacks from the coastline where mineral activities may directly affect marine coastal water, including anadromous fish resources.

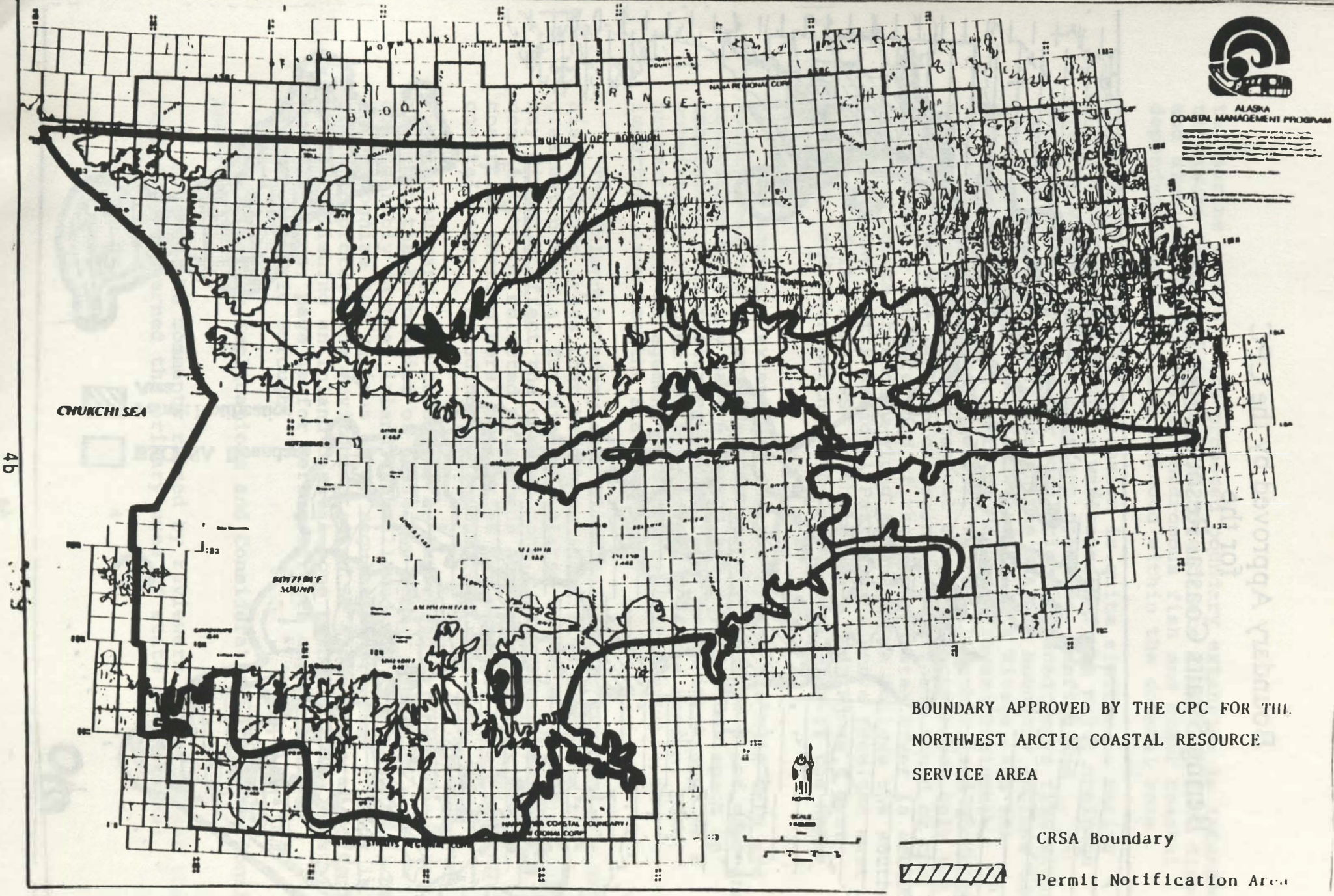
In summary, the concerns, as expressed by the commenters, are that the boundaries of these two CMPs: 1) extend considerably farther inland than allowed for in the ACMP; 2) do not recognize the various other regulatory programs already in place to protect the environment; and 3) exceed Federal criteria for establishing an inland coastal zone boundary. See coastal boundary maps, page 4a for Bering Straits and page 4b for Northwest Arctic Borough.

Policy Implications and Consideration of the National Interest

Some of the comments raised by reviewers of the BS and the NWAB CMPs concerned the primary uses of state and national

Boundary Approved by the CPC
for the
Bering Straits Coastal Resource Service Area





BOUNDARY APPROVED BY THE CPC FOR THE NORTHWEST ARCTIC COASTAL RESOURCE SERVICE AREA

4b

interest in the programs' districts with regard to the potential for exploration and development of petroleum and mineral resources and the protection and management of the extremely valuable commercial and subsistence fishery. These reviewers felt that the programs, if approved and implemented, would shift the ACMP decision making from the State to the local level and thus cause arbitrary or unreasonable restrictions or exclusions of these uses.

II. DESCRIPTION OF THE BSCMP AND THE NWABCMP

The BSCMP consists of a Resource Inventory (Volume 1), a Resource Analysis (Volume 2), the Conceptually Approved Coastal Management Plan (Volume 3), the revisions to the BSCMP policies chapter made in accordance with the direction of CPC during program approval in July 1987, and the Revised BS CRSA Boundary Map (in Volume 3).

The NWABCMP consists of a Plan Document (Volume 1), a Background Report (Volume 2), a Map Atlas (Volume 3), and Revisions to the NWABCMP policies chapter and coastal boundary made in accordance with the direction of CPC during the program approval in May, 1986.

These documents provide the guidance, as required under the Alaska Administrative Code (6 AAC Chapter 85), for use of the lands and waters in Alaska's Bering Straits CRSA and Northwest Arctic Borough coastal areas.

The Resource Analysis (Volume 2) and the Resource Inventory (Volume 1--with revised boundary map) describe in detail the coastal resources, and the social and economic setting in the Bering Straits CRSA. The Background Report (Volume 2) and the Map Atlas (Volume 3) provide the same kind of information for the NWAB. The Bering Straits Resource Inventory provides a data base for the development and implementation of the program's policies. Similar information for the NWAB area is provided in the Background Report (Volume 2).

The Bering Straits Management Plan provides the details of how the BSCMP will operate. Chapter 1 includes an overview of the Federal and State legislation that created the authority for the development of this program. Chapter 2 describes the important regional land use issues and includes the goals and objectives of the program. Chapter 3 describes the area covered by the coastal management plan and how the boundary was determined. Chapter 4 lists the uses and activities subject to the coastal management plan and use areas important to the CRSA. Chapter 5 describes the policies that are the enforceable rules of the coastal management plan and are used to determine the consistency of uses and activities with the plan. Changes were

made to some of the policies during the 1986 CPC approval process. A complete listing of the policies as now proposed for approval can be found in Appendix C. Chapter 6 describes how the State of Alaska and the CRSA Board work together in the consistency determination process, including the role of local communities and landowners. Chapter 7 includes the potential Areas Meriting Special Attention (AMSA's) designated in the plan. These are areas that possess unique physical, biological or development characteristics, and which may require more detailed planning. Chapter 8 outlines the program for public input used in the development of the plan. The appendices include: A. Waterfowl and Shorebird Distribution, Abundance, and Important Wetland Habitats in the Bering Straits CRSA; B. Native Corporations of the Bering Straits CRSA; and C: Locations of Potential AMSAs Within the Bering Straits CRSA.

The NWAB Management Plan provides a similar format and details as to how its CMP will operate. Policies of the NWAB were revised during the state review process. These policies, as currently proposed, can be found in Appendix D.

III. DESCRIPTION OF THE BERING STRAITS AND THE NORTHWEST ARCTIC ENVIRONMENT

The Bering Straits region is located in the unorganized borough. The area is bounded on the east by ridges and valleys of the Nulato Hills, the mountains of Bendeleben, Darby and Kigluaik which circumscribe the major rivers of the southern Seward Peninsula. An expansive coastal plain area extends northeast from Cape Prince of Wales to the northern border of the CRSA. Along the common border with the NWAB, several rivers originate in the Bering Straits CRSA but flow east or north to empty into Kotzebue Sound. The Nugnugaluktuk River is a large system within the coastal boundary but does not discharge into the coastal waters of the Bering Straits CRSA.

The NWAB (formerly the NANA CRSA) is characterized by east-west trending ridges of the Brooks Range, Baird Mountains, and Waring Mountains which separate the westward flowing drainage basins of the Noatak, Kobuk, and Selawik Rivers. These systems all flow into Kotzebue Sound, as do the rivers and streams of the northern Seward Peninsula within the NWAB.

Both program areas are sparsely populated and rich in natural resources.

Each CMP is applicable to that area described in the respective coastal management plan as lying within the coastal boundary. A description of the Bering Straits boundary is included in Chapter 3 of the management program, as amended. The NWAB coastal boundary is described in Chapter 2 of the NANA

Region Coastal Management Plan, Volume 1, Plan Document. During the CPC review and approval of both district programs, the boundary which was originally proposed by each district was reduced in scope. Areas omitted from the originally proposed boundaries were classified as "permit notification areas". For a discussion of Permit Notification Areas, see the Preliminary Findings of Approvability (Appendices A and B).

The physical, biological and cultural environments of the Bering Straits region are described in detail in the Resource Analysis, the Resource Inventory, and the Management Plan. Similar information for the NWAB area is described in detail in the Background Report, Volume 2. These documents have been widely distributed and reviewed during the District and State review process. Should interest dictate, the reader is referred to these documents for detailed descriptions of the environments affected by these coastal management plans.

There are issues related to the environment that are important with regard to the approval of these Programs. They include:

1) the relationship of fish and wildlife resources to native subsistence and regional economies; 2) protection of resources dependent on coastal waters; and 3) the importance of mineral and petroleum resources to local, State and national interests. These issues have a potential for creating resource allocation conflicts if proper coastal management is not achieved.

A. SUBSISTENCE RESOURCES/DEPENDENCE ON FISH AND WILDLIFE

The economies of the BSCRSA and the NWAB are contemporary subsistence/cash economies. The harvesting of local fish and wildlife resources historically was, and continues to be, the primary focus of their regional economies. The economies are based on the combination of subsistence and commercial harvesting of fish and wildlife. Studies indicate that subsistence foods constitute 70 to 80 percent of total protein consumed by households in the BSCRSA and NWAB regions.

All of the villages in the BSCRSA and the NWAB are located on major water bodies, due in part to the enhanced availability of fish, marine mammals, or other food resources. Anadromous fish such as the whitefish, arctic char, and Pacific salmon dominate the local subsistence harvest of fish in both the BSCRSA and NWAB regions (Burch, 1985; Ellanna, 1980; USFWS, 1987). Chum salmon and pink salmon are the predominant subsistence and commercial fishing target species in most communities. For more detailed information regarding the importance of fish resources to individual subsistence users and

the regional economies of the Bering Straits and Northwest Arctic regions, see letter and attachment from Robert Grogan to Don Critchfield, dated March 16, 1989. (Appendix E)

The ACMP (p. 70) states that "the subsistence standard does not aim to protect subsistence activities directly, but rather enables the districts to identify and protect subsistence resources so that, in turn, subsistence activities will be protected. The standard should be read in conjunction with the habitat protection standards..., as these standards protect the habitat which supports subsistence resources." (ACMP, p. 70).

B. RESOURCES DEPENDENT ON COASTAL WATERS

All anadromous fish are dependent upon saline waters during some stage of their life history cycle for feeding, rearing, migrating, overwintering, or combinations of these events; spawning activities of all anadromous fish occur in freshwater systems. Within the Bering Straits CRSA, anadromous fish present in fresh and saline waters of the region include Arctic char, salmon (chum, pink, coho, chinook, and sockeye), whitefish (sheepfish, least cisco, Bering cisco, Arctic cisco, broad whitefish, and humpback whitefish), and smelt (boreal and pond). The currently documented distribution of these species within freshwater streams of the Bering Straits CRSA is presented in Volume 2, Resource Analysis. Arctic char, chum salmon, pink salmon, coho salmon, chinook salmon, and whitefish are most abundant and important to the residents of the region. Additional information concerning the occurrence, preferred habitats, and life history of these species are presented in Volume 1, Resource Inventory.

A similar distribution of species exist in the NWAB region, and such documentation can be found in Chapter 3 of the NANA Region CMP, Volume 1, Plan Document.

C. MINERAL AND PETROLEUM RESOURCES

Mineral resources remain the Bering Straits region's most valuable known commodity. Hardrock tin-tungsten-fluoride deposits at Lost River are among the most promising mineral prospects in the State. Other hardrock mineral prospects include gold lodes in the Nome Mining District and patented mining claims near Solomon. For more detailed information on minerals and mining in the Bering Straits region, refer to the BSCRSA Volume 2, Management Plan, Public Hearing Draft, October, 1984.

Mineral resources are also important in the NWAB region. The major mining area in the Borough is the Red Dog/Lik site on the Lisburne Peninsula. This area contains massive lead, zinc,

and silver deposits along with significant barite deposits. Development of the Red Dog/Lik mining project is predicted to create 400 permanent jobs, which would be of significant economic importance to the NWAB. The Shungnak mineral district, which contains major copper ore deposits and is the site of an active jade mine, is another area important to the local economy. For further details on the minerals and mining in the NWAB region, refer to the NANA Region, CMP, Volume 2, Background Report.

Development of oil and gas deposits in Alaska stimulates the State's economy and provides an important domestic energy source for the nation. There has been some lease sale activity in Norton Sound and other areas such as the Navarin Basin and Hope Basin. But little success for oil and gas development in upland areas is expected because industry has shown little interest in these areas. For further information regarding oil and gas development and associated impacts in the Bering Straits region, see Bering Straits CRSA, Volume 2, Management Plan, Public Hearing draft, pp. 4-24 through 4-61.

There is a potential for oil and gas discovery in the NWAB coastal region; however, the area is ranked as having low to moderate potential for success in commercial size discoveries. The Federal offshore lease sale nearest the area has been delayed until greater need necessitates the exploration of these marginal areas (NANA Region CMP, Volume 2, Background Report).

IV. ENVIRONMENTAL CONSEQUENCES OF BSCMP AND NWABCMP

A. GENERAL IMPACTS DESCRIBED IN ACMP/FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)

The impacts associated with the implementation of the ACMP have been previously described in the FEIS on the ACMP (pp. 261-288). Generally, these impacts can be said to protect coastal resources through better management decisions which are guided by the implementation of the coastal policies. The FEIS also recognizes that costs associated with development activities in the Alaskan environment will be higher than what is normally expected in the lower 48 States.[1] Some relevant impacts (as described in the FEIS) are listed below.

1. Impacts Upon Cost of Development

Coastal development located in sensitive areas but still permissible will probably be more costly as a result of

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[1] Petroleum development costs in Alaska are about five times higher than other offshore areas of the United States. (AOGA, Information Material)

permit conditions based on siting and design considerations to mitigate adverse impacts. The siting of such facilities may or may not be most economically efficient (p. 269).

The ACMP may have a substantial effect on development patterns....The ACMP will affect the patterns of development in four ways: (1) it will alter the nature of private planning and design; (2) it will increase the sophistication of the standards that agencies apply in reviewing development; (3) it will use designations of district programs for use of the coastal area; and, (4) land use designations of district programs will place restrictions or allow development within certain geographic areas only (p. 269).

2. Impacts of the ACMP's Policies and Standards

Standards apply coastwide, and tend to be adaptable to allow flexibility in interpretation and application. The variability and differences in local conditions make it difficult, if not impossible, to formulate very specific standards that would be appropriate everywhere on the coast. The standards do prescribe appropriate forms of management and priorities, but in effect allow some discretion, especially to local governments, in applying them.

Local governments contend that it will be difficult to apply statewide standards to smaller geographic areas. Whether the standards are thought to be too general or specific, conflicts are likely. These will be resolved through the conflict resolution mechanism provided in the ACMP. (p. 271)

Costs of coastal development and activities may fluctuate as a result of new designs and locations which may be required to achieve conformance with the coastal development standards. (p.272)

a. Impacts of the Energy Facilities Standards.

The standard has three parts. One requires local and State identification of sites suitable for development of energy facilities. Another explicitly considers uses authorized by the issuance of State and Federal leases for mineral and petroleum resource extraction as uses of State concern which cannot be arbitrarily or unreasonably excluded from the coastal area. The third part of the standard prescribes sixteen specific standards or criteria for the siting and approval of energy facilities. These specific standards seek to

maximize public benefits of facility development and minimize adverse effects. The standard includes a careful provision for exceptions to these specific standards...The private costs of energy facility development will increase, in some cases to the point of deterring proposed development or displacing it to other areas...Some areas will be completely eliminated from consideration as suitable for energy facilities...The effect of allowing exceptions to the standards will be to cause adverse impacts which the standards seek to avoid (pp. 274, 275).

The anticipated impacts of considering uses authorized by State and Federal energy leases as uses of State concern are as follows:

o These uses will not be arbitrarily or unreasonably excluded from the coastal area.

o Adverse environmental, social and economic effects will attend acceptance of these uses, but will be minimized and may be prevented through conformance of the uses with the other standards (p. 276).

b. Impacts of the Habitat Standards.

A general standard is set out to protect all habitat, and then more specific standards are set to protect certain features of specific habitats. Because these standards afford complete protection, an exception is provided which would allow non-conformance with the standards in the case of a significant public need for the use, and no reasonable alternative. The use or activity must still minimize degradation of the habitat. The habitat standards do not prohibit development, but rather require certain performance standards be met, which in turn allows for the possibility of technical solutions to achieve conformance...Conformance with this standards may limit some development in coastal areas...The costs of development in the coastal area may increase (p. 281).

3. **Impacts of Uses of State Concern Designation.**

Under certain circumstances there is potential for the arbitrary or unreasonable exclusion from the coastal area of uses of regional, statewide and national significance. These uses are defined in the ACMP, and include transportation, communication, energy developments and other uses. This and related provisions of the ACMP guard against the arbitrary or unreasonable exclusion from the coastal area of these

uses. It requires that local units of government make certain findings before uses of State concern are restricted or excluded from their coastal areas (p. 284).

4. Impacts of District Coastal Programs.

Districts may redefine the initial coastal zone boundary, but must still include the areas important for management. When district boundaries are complete, a more detailed boundary will be in place. The districts may include more or less land area in their boundaries as a result of their surveys and studies which will be more detailed than the effort the State was able to mount for the initial boundary definitions. Districts may also include within their final boundary, but not subject to direct control, areas in Federal ownership or use which are excluded from the coastal zone boundary but which may be transferred to the districts. If the areas are transferred, they will be subject to management. District programs will also define those uses considered proper and improper. This may be done for all areas, or for certain areas. Within the limits of discretion prescribed in the ACMP standards, decisions about proper and improper uses will be based on the environmental capability of areas for uses, and the needs and goals of the districts (p. 288).

The ACMP/FEIS acknowledged that coastal policies applied to individual activities or proposed developments would likely increase the costs of development or might inhibit development in some areas if the standards cannot be met. In fact, "some areas will be completely eliminated from consideration as suitable for energy facilities." Examples of eliminated areas might include rookeries, haulout sites, anadromous spawning waterbodies, etc. Some permits could be denied if activities are determined to be inconsistent with the approved management plans. Nonetheless, the provisions and procedures in the ACMP require that "uses of State concern," which includes energy development, not be arbitrarily or unreasonably excluded from the coastal area.

The following discussion focuses on potential environmental consequences which may be associated with BSCMP or NWAB CMP approval(s), and it analyzes whether these consequences differ substantially from the findings of the ACMP/FEIS cited above.

B. IMPACTS OF EXTENDING THE INLAND BOUNDARY

1. Description of the Bering Strait and the Northwest Arctic Regions Boundaries

Both the BSCRSA and NWAB coastal zone boundaries extend three miles seaward from the coastline. This is unchanged from the interim coastal boundary of the ACMP. The inland boundaries of the coastal areas have been established further inland than the interim boundary of the ACMP. These State approved boundaries for each district encompass a combination of selected watersheds; drainages; uniform corridors along streams and rivers that provide critical spawning, rearing, and overwintering habitat for documented populations of anadromous fish; and setbacks from marine coastal waters (Reference: Grogan/Tweedt Letter, dated July 7, 1986, p. 5).

2. Justification for the Boundary Extensions

The justification for extending the inland boundary beyond the interim boundary is described in the BSCMP (pp. 3-4 through 3-19) for the Bering Straits region and in the NWABCMP (pp. 2-4 through 2-27) for the NAB. The State-approved district boundaries for these two programs "diverge from the interim boundary of the ACMP to the extent necessary to ensure management of uses and activities that may have direct and significant affects on anadromous fish and other coastal dependent resources that are of great importance to the residents of these regions and the State" (6 AAC 85.040(c)(1)). (Source: Grogan/Tweedt Letter, dated July 7, 1986, p. 5 and Grogan/Tweedt, dated August 5, 1987, p. 5).

These extended boundaries are intented to properly manage and protect anadromous fish and habitat from development activities. This protection is critical to the welfare and biological productivity of these populations at all stages of their development. Due to the widespread distribution of spawning, rearing, and overwintering habitats for anadromous fish within the Bering Straits CRSA and the Northwest Arctic Borough and the interconnected network of migratory pathways utilized during seasonal movements between use areas and marine or estuarine waters, most of the watercourses and associated lakes, springs, and wetlands contribute to the presence and maintenance of anadromous fish habitats. Significant disturbance or alteration of the quality, quantity, or seasonal flow of stream waters supporting any vulnerable life history activity of anadromous fish has the potential to adversely impact the populations or productivity of affected anadromous fish, if not properly mitigated. Wetlands and tributaries which do not directly provide anadromous fish habitat are often important in the maintenance of flow and water quality for downstream aquatic habitats utilized by anadromous fish and waterfowl (Murphy et al. 1984, Lloyd 1985, Elliott and Finn 1984). (Reference: Bering Straits Coastal

Resource Service Area Board Coatal Management Plan, Conceptually Approved, Volume 3, October 1986, pp. 3-14 and 3-15; NANA Region Coastal Management Plan, Volume 1, October 1985, pp. 2-18 and 2-19).

The management of mineral activities was given particular attention in both Program areas due to the regions' long history of mineral activity and potential for further mineral development. Areas the districts and reviewing agencies identified for inclusion in the approved boundaries are areas that have the greatest potential for mineral related uses and activities that may directly affect the coastal zone. The areas included are a combination of selected watersheds and setbacks from the coastline where mineral activities may directly affect marine coastal water, including anadromous fish resources. The setbacks from the coast occur either in locations where the interim boundary (approximately the 200-foot contour) arbitrarily bisected a coastal bluff or where mineral related activities were proximate to the coast and were likely to have a direct impact on marine coastal waters. In areas where the potential for occurrence of mineral related activities or other activities was not as great, a corridor which extends upstream to include one mile above the documented distribution of anadromous fish is included. (Source: Grogan/Tweedt Letter, dated August 5, 1987, p. 5 & 6).

Some areas with mineral deposits within both the BSCRSA and the NWAB regions were not included within their respective coastal boundaries, because there is less certainty that direct and significant impacts to coastal resources or habitats would result from development projects occurring in these areas. Development projects in such areas will be subject to state consistency review under the BSCMP and NWABCMP if project-specific information indicates that a proposal is likely to have direct and significant impacts on the resources of the coastal zone. (Source: Grogran/Tweedt Letter, dated August 5, 1987, p. 6, also see discussion of Permit Notification areas in Appendices A and B).

All transitional and intertidal areas, salt marshes, salt water wetlands, islands and beaches are included within both the Bering Straits CRSA and Northwest Arctic Borough coastal areas (6 AAC 85.040(c)(2)). Also, the boundaries of these two programs are compatible with each other, and the BSCMP is compatible with the Nome Coastal Management Program and adjoining district of Cenaliulriit CRSA. The NWAB coastal

boundary is also compatible with the North Slope Borough coastal boundary (6 AAC 85.040(e)). (Source: Grogan/Tweedt Letter, dated August 5, 1987, p. 6).

Once the BS and the NWAB CMPs are approved, their policies will form the basis for Federal consistency determinations in their respective regions. Consequently, the major impact of the boundary extensions will be to ensure the long-term protection of the anadromous fish and wildlife resources and the protection of the subsistence needs of the regions' residents. The regions will review, for consistency with pertinent policies of these CMPs and the ACMP, future development activities which may alter aspects of the identified anadromous fish habitat in the coastal zone.

3. Relationship of the Boundary Extension to Federal and Native Lands

The direct result of the BS and NWAB CMP boundary extensions is an increase in the land area the uses of which are subject to the enforceable policies of these CMPs. Regardless of the provisions of the BS and NWAB CMPs, Section 304(1) of the CZMA requires that all land, the use of which is by law subject solely to the discretion of, or which is held in trust by the Federal government, its officers or agents, are excluded from the coastal zone. In addition, all native allotments held in trust by the United States Government for the benefit of native Alaskans are excluded from the coastal zone. Due to the complex land exchanges being contemplated, it is not feasible to delineate clearly the excluded lands on a map. However, as required by Section 307 of the CZMA, Federal agencies conducting or supporting activities on excluded Federal lands which directly affect the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with the approved ACMP.

4. Conclusion

The extended boundaries of the BS and NWAB CMPs will have an overall positive impact on the human environment, but not one that will differ in scope or intensity from that associated with existing ACMP implementation. They will provide comprehensive management of resources and more efficient project review procedures with less potential for disputes, because the regions and the DGC have identified the resource areas of critical concern.

The BS and NWAB CMPs' extended inland boundaries, while geographically greater in their areal extent than the ACMP interim boundary, are consistent with the original objectives of the ACMP. The impacts of such extensions do not differ either in context or intensity from those described and analyzed in the

ACMP/FEIS program description and environmental impact analysis.

The impacts and benefits of extending the inland boundaries of the BS and NWAB CMPs are not substantial and will not alter the way activities which impact anadromous waterbodies are conducted either inside or outside of the coastal boundaries within these regions. The boundary extensions should permit more efficient review procedures with less potential for disputes because the regions have identified the most critical resource areas.

C. IMPACTS OF POLICY IMPLEMENTATION

The BSCMP and the NWABCMP policies replace and supplement the ACMP policies. The BSCMP policies are presented in the Conceptually Approved Coastal Management Program, Volume 3, Chapter 5, pp. 5-1 through 5-22, and the NWABCMP policies are presented in NANA Region CMP, Volume 1, Plan Document, pp. 6-1 through 6-40. Modifications to both Programs' policies were made during the State review process. The State approved policies are included as Appendices C and D. These policies, which are the enforceable rules of their respective CMP, are organized into the following categories: Subsistence; Habitat and Biological Resource Protection; Air, Land and Water Quality; Historic, Prehistoric, and Archaeological Sites; Geophysical Hazards; Coastal Development; Mining and Mineral Processing; Energy Facilities; Transportation and Utility Systems; Recreation; Disposals of Interest; Timber; and Coastal Access and Easements. Land and water uses and activities occurring on State and private lands, and federal actions which directly affect habitats or resources within the Bering Straits CRSA and the Northwest Arctic Borough coastal boundaries are subject to these policies.

These policies are designed to identify clearly "performance standards" for the protection of important resource values and uses, and to provide for orderly and balanced utilization of all coastal resources. In addition to identifying performance standards, some policies request supplemental information needed by the district or State agencies to evaluate "performance" during the consistency determination process. This requested information is in addition to general project information, as identified in the Bering Straits Conceptually Approved Coastal Management Plan, Volume 3, Chapter 6, Implementation, pp. 6-1 through 6-20 for the Bering Straits region, and in the NANA Region Coastal Management Plan, Volume 1, Plan Document, Chapter 7, pp. 7-1 through 7-31 for the Northwest Arctic Borough area.

These policies apply to the entire area within the coastal boundaries. Some of the policies are area-specific, pertaining to resource values or concerns only in identified areas where the resources or uses occur (for example, anadromous fish streams, marine mammal haul-out sites, important use areas for

subsistence). In addition to enforceable policies, several administrative policies for the respective local governments have been included. Although the administrative policies are recognized as "unenforceable", they are intended to provide direction to the local decision makers and, therefore, express the district planners' intent with respect to planning, coordination, and notification. The policies are useful when working with project developers and State and Federal agencies during the planning of projects and activities within the region. These policies are listed at the end of Section 80 of the DGC Findings and Conclusions for the respective CMPs (dated June 5, 1987, for the BSCMP and April 7, 1986, for the NWABCMP). The respective districts believe that such cooperative relationships will result in project designs that address regional concerns in a cost-effective manner.

The record of ACMP implementation indicates that the DGC has exercised its authority not to accept local government recommended permit conditions or stipulations when DGC viewed the recommendation as overly restrictive interpretations of district policies made by the local jurisdiction. In addition, the CPC can amend the BSCMP and the NWABCMP and other District programs to accommodate a use of State concern which was not foreseen at the time of program approval (6 AAC 85.185). Taken together, these factors indicate that the State can play a strong role in implementing the BSCMP and the NWABCMP and that it has considerable authority to ensure balanced decisionmaking.

Assessment of BSCMP and the NWABCMP Policies--State Concern and National Interest

The primary uses of State and national interest in the Bering Straits CRSA and the Northwest Arctic Borough are the potential exploration and development of petroleum and mineral resources and the extremely valuable commercial and subsistence fishery in the regions. As stated under AS 47.40.070, it is the responsibility of the CPC to ensure that district programs do not unreasonably or arbitrarily restrict or exclude uses of State concern. The State has concluded that the programs, as approved by the CPC, will not arbitrarily or unreasonably restrict or exclude uses of State concern or of national interest. The CPC has found that the balanced policies and the implementation strategy of the programs will provide positive mechanisms for resolving conflicts between uses of State concern in these two regions. (Reference: Grogan/Tweedt letter, dated July 7, 1986, p. 9).

Several reviewers expressed concern that the approval of the BSCMP and the NWABCMP and their subsequent implementation will result in a shift in ACMP decision making from the State to the local level. They feared that these CMPs would erode the ability of the ACMP to adequately consider the uses of State concern and

the national interest. A few policy changes that were made to address commenters concerns particularly illustrate the attention that was given to ensure that uses of State concern and national interest are not restricted and that the policies are well balanced.

Some examples of such changes in the BSCMP are found in a letter to Peter Tweedt from Robert Grogan, dated August 5, 1987. The changes to Policy F-2--Mitigation, and Policy A-1--Subsistence Use, as described in the letter, are presented as examples below. In these examples, language added to the policy during CPC review is underlined and language deleted is [CAPITALIZED AND BRACKETED]. Also included here for clarification are the State's findings for these policies. OCRM has carefully reviewed these policies and agrees with the State's analysis.

Policy F-2 Mitigation

All land and water use activities shall be conducted with appropriate planning and implementation to mitigate potentially adverse effects on the following resources of local, state, or national importance: fish and wildlife populations and their habitats; subsistence resource uses and activities; commercial fishing uses and activities; and cultural resources. Mitigation shall include and be considered in the following order of preference:

a) attempt to avoid the loss of the affected resource or activity;

b) when the loss cannot be avoided, minimize the loss and the need for restoration, maintenance, or compensation efforts;

c) when the loss of resources and/or associated activities cannot be minimized, restore or rehabilitate the resource to its predisturbance condition, to the extent feasible and prudent; and

d) when loss or damage to existing resources and associated activities is substantial and irreversible (including, for example, a seasonal loss in commercial fishing or subsistence harvest) and the above objectives cannot be achieved, compensation for resource and/or harvest loss shall be considered. In the case of loss of habitat production potential, enhancement of other habitats shall be considered as one alternative means of compensation.

The costs of mitigation, relative to the benefits to be gained, will also be considered in implementation of this policy.

Intent:

Policy F-2 is intended to provide sequential steps that will be followed to mitigate potential impacts. Policy F-2 (a) and (b) states that for all fish and wildlife populations and their habitats and commercial subsistence harvest activities, it is appropriate to first attempt to avoid loss of habitat or interference with harvest activities and secondly to minimize such loss or interference. The CPC encourages sound project site planning, design, and construction to achieve these requirements.

Policy F-2(c) and (d) addresses restoration or compensation for fish and wildlife populations or habitat loss or interference with commercial and subsistence harvest activities. The importance of the habitat and commercial or subsistence harvest will be considered during evaluation of the need for restoration or compensation.

Policy F-2 provides a process for mitigation of possible impacts to resources of local, state or national importance. Some commenters had noted that such a policy should allow for consideration of the cost of compliance with the policy relative to the benefits to be gained. Policy F-2, as revised, moves the statement that clearly addresses this concern from the intent section into the body of the policy. The intent section provides further clarification on how to use the policy and ensures that uses of local, state and national concern are not restricted. (Reference: State's findings per letter to Peter Tweedt from Robert Grogan dated August 5, 1987, pp. 8-9.)

Policy A-1 Subsistence Use [PRIORITY]

Subsistence use of coastal lands and waters of the Bering Straits CRSA has traditionally been the primary and highest priority use of all land and waters within the coastal management plan area; therefore, all other land/water uses and activities shall ensure that through careful planning, development, and operation of a resource extraction or development project, all steps will be taken to mitigate adverse impacts to subsistence resource and their use in accordance with policy F-2. [ACCOMMODATE THE USE OF SUBSISTENCE RESOURCES IN THE PLANNING, DEVELOPMENT AND OPERATION OF THESE USES AND ACTIVITIES].

[INTENT:

THE PURPOSE OF POLICY A-1 IS TO PROVIDE GUIDANCE TO THE DECISION-MAKING PROCESS THAT DEALS WITH BALANCING CONFLICTING USES OF STATE CONCERN. IT IS THE INTENT OF THIS POLICY TO ENSURE THAT THROUGH CAREFUL PLANNING, DEVELOPMENT, AND OPERATION OF A RESOURCE EXTRACTION OR DEVELOPMENT PROJECT, ALL REASONABLE STEPS ARE TAKEN TO MITIGATE ADVERSE IMPACTS TO SUBSISTENCE RESOURCES AND THE USE OF SUBSISTENCE RESOURCES.]

The customary and traditional use of fish and wildlife resources is of critical importance to local residents in the Bering Straits CRSA region and is one of the many uses of State concern and national interest that are addressed through the district program. It is extremely important to the CRSA and to the state that the use of subsistence resources be considered when other resource use projects are planned, designed, and operated The change to the policy title clarifies that the policy is about subsistence "use" and does not establish a subsistence "priority". The other changes will eliminate the intent statement and clearly explain opportunities for land/water uses and activities to accommodate the use of subsistence resources. (Reference: State's findings per letter to Peter Tweedt from Robert Grogan dated August, 5, 1987, pp. 9-10).

The NWAB made similar policy language changes in the NWABCMP to address the State and national interests. See letter to Peter Tweedt from Robert Grogan, dated April 24, 1987, pp. 10-11.

Important Use Areas

Criteria for designation and management of areas of particular concern are included within the ACMP regulations in 6 AAC 00.158.170. These criteria are not changed or affected by either the BSCMP or the NWABCMP. The BSCMP nominates 11 areas and NWABCMP nominates 3 areas for consideration as potential Areas Meriting Special Attention (AMSA); however, neither CMP makes any formal AMSA designations at this time. But as agreed by OCRM, the CPC may establish coastal program policies for specific subareas within a district that are tailored to the particular resources of the subarea.

The BSCMP identifies 26 Important Use Areas (IUA). IUAs are designated based on the presence of highly productive wildlife habitat, the ability to sustain a large portion of a community subsistence requirements, the occurrence of unusual

historic sites, large mineral deposits, important recreational values, potential importance in future energy development, hazardous areas, or the presence of important fisheries. The purpose of designating an IUA is to guide uses and activities so that they are compatible with the important attributes of the area.

There are only two policies that apply specifically to the IUAs. They are subsistence policies A-4 and A-5, and they apply only in IUAs identified for subsistence values. These are areas that provide a large part of the sustenance for one or more villages and cannot be replaced by another site within a village's subsistence range. See page 4-7 of the Bering Straits CRSA CMP, Volume 3, and the OCRM Preliminary Findings of Approvability, dated June, 1989, for further information. The district saw this as a way to avoid applying policies to the entire district that are appropriate and legitimate only in their most critical subsistence areas.

Important Resource Areas (IRAs) and Sensitive Use Areas (SUAs) (Applies to NWAB only)

The NWABCMP identifies 14 IRAs and 8 SUAs. IRA and SUA standards are generally designed to guide uses and activities so that they are compatible with the important attributes, primarily subsistence resources and uses, of the area, while providing opportunities for other carefully designed and managed uses and activities. During the State review process, resource development interests commented that the IRA/SUA policies were overly restrictive. Based in part on these comments, many of the IRA/SUA policies were modified prior to CPC approval to replace prohibitive language with performance standards.

Policies AAA-1 and GGG-4 remain highly restrictive as Policy AAA-1 prohibits activities not related to cultural resource management, fish and wildlife management, or subsistence use within the Onion Portage SUA. Further details on this policy are described in the Preliminary Findings of Approvability dated June, 1989.

NWABCMP Policy GGG-4 also remains rather restrictive as it establishes relatively strict guidelines during the subsistence hunt; however, these restrictions are appropriate given the importance of the subsistence hunt and the relatively short time period involved (two to four week period between June 1 and July 15). Further details on this policy are also described in the Preliminary Findings of Approvability dated June, 1989.

OCRM carefully reviewed all IRA and SUA policies, and as a preliminary matter, OCRM finds that these policies do not unreasonably restrict uses of regional or national concern and are appropriate.

Conclusion

OCRM concludes that the implementation of the policies described above and other BS and NWAB CMPs policies will not have a significant adverse impact on cultural, historic or archaeological resources, public health and safety, endangered species, wetlands or significant water bodies, or other natural resources. This conclusion is based on the above analysis, the extensive record developed for the BSCMP and the NWABCMP, and on the experience gained from approving numerous other district programs and evaluating their implementation over several years. The BSCMP and the NWABCMP are management programs which will affect future development activities which may individually or cumulatively impact coastal resources. The policies are designed to provide environmental protection to these coastal resources with a major thrust toward minimizing adverse impacts to important fish and wildlife habitats located within the coastal zone. At the same time, the BSCMP and the NWABCMP require their respective district and State agencies to clearly consider social and economic factors in permit decisions and consistency determinations. The overall impact of the BSCMP and the NWABCMP on the human environment should be positive since they are designed to provide more site-specific interpretations of the existing ACMP standards. This should result in increased long-term protection of the State's coastal resources.

The incorporation of the BSCMP and NWABCMP policies into the ACMP will result in environmental impacts which do not differ in context or intensity from the impacts described in the ACMP/FEIS. The BSCMP and NWABCMP policies, as finally revised and approved by the CPC, are consistent with the ACMP's original objective of protecting important coastal resources, while providing for necessary economic growth.

V. ALTERNATIVES

A. General

There are two alternatives available to OCRM. OCRM could approve the BSCMP and the NWABCMP amendments currently under review. Alternatively, OCRM could find that certain provisions of the BSCMP and NWABCMP do not meet the requirements of the CZMA, and return the amendment requests to the State for further changes.

Concurrent with conducting this environmental review process, OCRM made a preliminary determination that the CMPs are approvable under the CZMA. This decision is based on a review of the record-of-decisionmaking provided by DGC, including the decisions made by the CPC on the approvability of the CMPs under

the ACMP and additional information obtained by OCRM after the submission of CMPs and during the subsequent process of policy revision. Generally speaking, coastal district programs developed under the guidance of a state-mandated law which have been previously found approvable under the CZMA are presumed to meet the CZMA requirements. One area which provides some uncertainty, however, is the degree to which a given local program considers the national interest in coastal resources protection and resource use. Past controversy in the approval of the BSCMP and the NWABCMP focused on the issue of whether or not the programs allowed adequate consideration of national interests in coastal resource decisionmaking. OCRM found, in August 1986 that the BSCMP and the NWABCMP, as written, did not provide adequate consideration for national interest. Therefore, comments received from Federal agencies and other affected interest groups during the final review process impact OCRM's decisionmaking on approvability. The two available alternatives (to approve or to disapprove) are based on the merits of specific problems identified during the review process and are discussed below.

B. Alternative 1: Approve the BSCMP and the NWABCMP Amendments

In determining whether the BSCMP and the NWABCMP were amendments to the ACMP or routine program implementation changes, OCRM found that the revised inland boundaries in both of these regions were substantial changes to the interim boundaries approved in the FEIS, and that several policies of these Programs were substantial changes to the standards of the ACMP.

1. Boundary Extension

During the State review of the BSCMP and the NWABCMP, the CPC made specific changes to the proposed inland boundary to bring the CMPs into compliance with the ACMP. The CPC found that important anadromous fish habitat needed to ensure subsistence usage did justify further extension inland of the boundary to include corridors along streams and rivers that provide critical spawning, rearing, and overwintering habitat for documented populations of anadromous fish; and setbacks for marine coastal waters.

The boundaries proposed for the CMPs are justified. The boundaries are proposed to ensure that anadromous fish resources, which are a coastal resource of critical importance to the Bering Straits and Northwest Arctic Borough residents, are appropriately managed.

The BSCMP and the NWABCMP inland boundaries were also modified to include areas that the district and reviewing agencies identified as having the greatest potential for mineral

related uses and activities that may directly affect the coastal zone. These areas include a combination of selected watersheds and setbacks from the coastline where mineral activities may directly affect marine coastal waters, including anadromous fish resources.

In approving state inland coastal boundaries, OCRM has ensured that all states comply with the minimum standards (i.e., the inclusion of transitional and intertidal areas, salt marshes and saltwater wetlands, and any shorelands (fastlands) which are being used or could be used by various land and water use activities which have or might have direct and significant impacts on marine coastal waters (bays, estuaries, etc.). Beyond that, OCRM regulations (15 CFR 923.31(b)(1)&(2)) permit states a certain degree of latitude in determining the coastal zone boundary in order to address the varied environmental and administrative factors which occur among the coastal states. Variations in the inland extent of the coastal zone are appropriate so long as wetlands, beaches, transitional areas and other shorelands are included and subject to management.

Emphasis in coastal zone management is often placed on water quality impacts to coastal waters. Because rivers flow to the sea, the considerable scrutiny over land and water use activities takes place close to river and stream banks which may be considerable distances upland. This scrutiny occurs either directly or through Federal consistency review for "spillover" effects. Thus, it is difficult to determine how far upriver a coastal boundary should extend if a decision is made to go beyond the direct influence of saline waters. In the case of the Bering Straits CRSA and the Northwest Arctic Borough, documented anadromous fish spawning, rearing, and overwintering areas were included.

In the Preliminary Findings of Approvability, OCRM finds that the extensions of both the inland Bering Straits boundary and the Northwest Arctic Borough boundary are consistent with the ACMP and the CZMA.

2. Coastal Policies

Prior to State adoption of both the BSCMP and the NWABCMP in 1986, the CPC also made modifications to the policies based on comments received from reviewers with regard to the ability of the ACMP to adequately consider uses of State concern and the national interest. Pursuant to their responsibility under AS 46.40.070, DGC made a review, and the CPC approved several changes to the policies of the BS and NWAB CMPs to ensure that they do not unreasonably or arbitrarily restrict or exclude uses of State concern. The policy changes to the BSCMP can be found in the Division of Governmental Coordination Revised Findings and Conclusions on the Bering Straits Coastal Resource Service Area

Coastal Management Program, dated June 5, 1987. The policy changes to the NWABCMP can be found in the Division of Governmental Coordination Revised Findings and Conclusions on the NANA Coastal Resource Service Area Coastal Management Program, dated April 7, 1986.

Based on the assessment made of the policies as described in Part IV of the EA, OCRM finds that the policies as now proposed should not unreasonably or arbitrarily restrict or exclude uses of State concern or of national interest.

As a consequence of the attached Preliminary Findings and the analysis conducted in this EA, OCRM finds that approval of the BSCMP and the NWABCMP and their incorporation into the ACMP is the preferred alternative. Approval of the BSCMP and the NWABCMP will satisfy the substantive requirements of NEPA (see Section 101 of P.L. 91-190, as amended). There will be long-term benefits to the human environment by using good resource management techniques. These CMPs are designed to permit development while requiring activities to minimize natural resource impacts. At the same time, they recognize that development is desirable as it brings benefits to the residents of these regions, the State and the nation. Whether or not the BSCMP and the NWABCMP provide the appropriate "balance" between environmental protection and development can not be answered clearly prior to actual program implementation. Implementation of these programs will be monitored by the CPC and reviewed during OCRM's program evaluation under Section 312 of the CZMA.

C. Alternative 2: Deny Approval of the BSCMP and the NWABCMP Amendment

The BSCMP and the NWABCMP were processed as amendments to the ACMP because their inland boundary extensions were considered substantial changes to the ACMP interim approved boundary and because a number of their policies were considered to be substantial changes to the ACMP. These policies brought into question whether the BSCMP and the NWABCMP provided for adequate consideration of the national interest.

Given the importance of petroleum and mineral development in the Bering Straits and the Northwest Arctic Borough to the nation as a whole, it is important to ensure that decisions can be made based on approved policies which not only protect natural resources and subsistence usage unique to Alaska, but also reasonably accommodate such exploration and development. Consequently, relevant concerns expressed by such entities as the Alaska Miners Association (AMA) and the Alaska Oil and Gas Association (AOGA) are analyzed under this alternative to determine if adequate consideration was given to the national interest in regard to exploration and development of petroleum

and minerals and whether implementation of BSCMP and NWABCMP policies could be construed as arbitrarily or unreasonably prohibiting related activities. Such a finding would be reason to delay or again deny approval of the BSCMP and/or the NWABCMP as not meeting the requirements of the CZMA.

1. Boundary Extension

The petroleum and mineral industries contend that the inland coastal zone boundary for the BSCMP and the NWABCMP and other Alaska district programs should be the minimal boundary and include only saline coastal waters and lands adjacent to those waters. They believe that extensions beyond that area will lead to arbitrary and capricious designations and consequently will result in unnecessary or unjustified regulation of their activities outside of a limited area adjacent to the shoreline.

The consistency of extending the inland boundary in the BSCMP and the NWABCMP with the provisions of the ACMA and the CZMA has been previously addressed. OCRM finds that extending boundaries inland for the distances and purposes stated is permissible under existing regulations. The only remaining question is whether the extension gives adequate consideration to the national interest with regard to petroleum and mineral exploration and development. The petroleum and mineral industries argue that there are other Alaska statutes (e.g., AS Title 16 - Protection of Fish and Game) which provide for the management of anadromous fish habitat; that petroleum and mineral activities have minimal adverse impacts; and that ACMP consistency reviews based on this boundary would be unnecessary and burdensome, requiring stipulations on activities that are not coastal related.

If the OCRM agreed with industry comments and found the boundary extension unjustified, the preferred alternative would be denial of the BSCMP and the NWABCMP and a request to limit their inland boundaries to exclude anadromous waterbodies, their tributaries, and adjacent uplands. Upon analysis, the following points are relevant:

o The primary reason for including additional areas within the BSCMP and the NWABCMP is to comprehensively protect the habitat supporting the areas' significant commercial and subsistence anadromous fishery resources.

o The extension was based on the probable impacts of all types of development (e.g., gravel removal and mining, transportation and utility corridors) which could affect anadromous water bodies. Therefore, it is a comprehensive management program and is not intended to discriminate against such industries.

o Studies have shown that petroleum and mineral activities can impact coastal resources (such as upstream oil spills in waterbodies which directly impact coastal waters). Large scale developments in the floodplains of anadromous waterbodies have the potential to have direct and significant impacts on coastal waters. Management scrutiny of such development projects to include monitoring and enforcement activities is essential to ensuring that environmental impacts will be minimized and that a negotiated balance can be achieved between resource development and environmental protection.

o While other State and Federal statutes protect resources inland of a defined coastal zone boundary, this is not an accepted rationale for arguing that coastal management, which provides a comprehensive review of policies, should not apply to the full extent possible within a coastal boundary. Nor is it an argument for not extending the boundaries.

o Based upon the analysis of the EA, adequate consideration of the national interest will be reasonably accommodated within the extended boundary.

2. Coastal Policies

The discussion of the BSCMP and the NWABCMP coastal policies included under alternative #1 above concluded that, from an environmental impact perspective, these policies would have a beneficial environmental impact. In addition, OCRM has found that, as a preliminary matter, the policies of the BSCMP and the NWABCMP, as revised, do not conflict with the national interest in regard to the potential for exploration and development of petroleum and mineral resources and the extremely valuable commercial and subsistence fishery in the region.

OCRM finds that the policies of the BSCMP and the NWABCMP balance several uses of State concern and national interest and that none of the policies can now be considered arbitrary, as each was developed to address a specific issue of concern to these regional areas. Subsistence usage and protection of subsistence resources is a legitimate concern in Alaska and is mandated by State and Federal laws. The policies do not categorically restrict resource development. Instead, resource development activities are required to meet certain performance standards that, where possible, prevent or minimize adverse impacts to the fish and wildlife resources and maintain subsistence access to those resources.

The CPC has the continuing responsibility and authority to ensure that district policies do not arbitrarily or unreasonably restrict or exclude a use of State concern in the future (AS 46.40.060(c); Resolution 13 and 6 AAC 85.185). In addition, OCRM will review the implementation of these policies through the

evaluation required by Section 312 of the CZMA to ensure that future decisions based on the approved BSCMP and NWABCMP policies are made in a manner consistent with the requirements of the CZMA and the ACMP.

Based on the content of the policies of the BSCMP and NWABCMP, the review and analysis conducted for this EA and the Preliminary Findings, and the record of local program implementation in other districts, there is no reason to select alternative 2 to delay or deny approval of the BSCMP or the NWABCMP.

VI. CONSULTATION

The BSCMP and the NWABCMP were developed with full opportunity for participation by relevant Federal and State agencies, local governments, regional organizations, port authorities and other interested public and private parties.

The BSCMP and the NWABCMP under Federal review for incorporation into the ACMP have undergone a number of changes from their original plans and these changes have been coordinated with all relevant, interested parties. Chapter 8 of the BSCMP Public Hearing Draft, Volume 2, describes the public participation efforts of the BSCMP, and Chapter 9 of the NANA Region CMP Plan Document, Volume 1, describes the public participation efforts of the NWABCMP.

OCRM is required to provide for public review and comment on proposed changes to approved coastal programs. Alaska originally submitted the BSCMP to OCRM as a matter of routine program implementation (RPI) in August, 1987. The State originally submitted the NWABCMP to OCRM as an RPI in July, 1986. Based on OCRM's analysis, both the BSCMP and the NWABCMP were determined to be amendments to the ACMP and thus activated the amendment process in each case.

VII. CONCLUSION

This EA shows that the approval of the BSCMP and the NWABCMP as amendments to the ACMP are not major Federal actions having significant impacts on the human environment. The environmental impacts associated with implementation of these CMPs have been analyzed and do not appear to be significantly different than the impacts analyzed in the original ACMP/FEIS. In making this finding, OCRM has carefully considered the factors for determining "significant affects" contained in the NOAA Directives Manual 02-10, Section 13(a) and the regulation for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR Section 1508.27.

Approval of the BSCMP and the NWABCMP will provide for smooth transitions for the implementation of the ACMP by the State to these local programs. Individually, each will be implemented jointly by their respective district and the State agencies using existing State permits, review procedures, and enforcement authorities. Each CMP will permit its respective district to have greater planning and management oversight in reviewing activities which take place within the respective coastal zones. If federally approved, the district programs could be utilized for Federal consistency purposes and CZMA funds would be available to the districts for a broad range of activities, thereby furthering coastal zone management in these regions. The BSCMP and the NWABCMP have been found by the State to be consistent with the approved ACMP and as a preliminary matter have been found to meet the requirements of the CZMA by OCRM. Accordingly, a Finding of No Significant Impact is appropriate.

8/21/89
Date

Donald E. Critchfield,
Director, Office of Ocean and
Coastal Resource Management

August 23, 1989
Date

David Cottingham,
Director, Office of Ecology
and Conservation

Prepared by: Doris Grimm, Environmental Protection Specialist, CPD/NEPA with assistance from NOAA and OCRM staff members John King, Hugh Schratwieser, Marcella Jansen, and Ben Mieremet.

VIII. REFERENCES

1. Aleutians East Coastal Management Program Environmental Assessment, June 1987.

2. North Slope Borough Coastal Management Program Environmental Assessment, March 1988.

3. Letter to Peter Tweedt, Director, OCRM, from Robert Grogan, Director, State of Alaska, Office of the Governor, August 5, 1987.

4. Division of Governmental Coordination, Introduction to and Revised Findings and Conclusions, June 5, 1987.

5. Summary of Comments and Responses of the Bering Straits Coastal Resource Service Area (BSCRSA) Coastal Management Program, June 5, 1987.

6. Letter to Don Critchfield, Acting Director, OCRM, from Robert Grogan, Director, State of Alaska, Office of the Governor, March 16, 1989.

7. Letter to Peter Tweedt, Director, OCRM, from Robert Grogan, Director, State of Alaska, Office of the Governor, July 7, 1986.

8. Division of Governmental Coordination, Introduction to and Revised Findings and Conclusions of the NANA Coastal Resource Service Area (NANACRSA) Coastal Management Program, April 7, 1986.

9. Summary and Response to Comments of the NANA Coastal Resource Service Area Coastal Management Program, April 7, 1986.

10. Letter to Peter Tweedt, Director, OCRM, from Robert Grogan, April 24, 1987.

11. Chronology of Federal Review of Bering Straits Coastal Resource Service Area (CRSA) Coastal Management Program (CMP), July 7, 1987 through October 5, 1988.

12. Chronology of Federal Review of Northwest Arctic Borough (NWAB) Coastal Management Program (CMP), May 22, 1986 through October 5, 1988.

13. ACMP Bering Straits Coastal Resource Service Area Coastal Management Program, Preliminary Findings of Approvability, June 1989.

14. ACMP Northwest Arctic Borough (formerly NANA) Coastal Management Program, Preliminary Findings of Approvability, June 1989.

Appendix A

Preliminary Findings of Approvability:
Bering Straits CRSA Coastal Management Program

PRELIMINARY FINDINGS OF APPROVABILITY
AUGUST 1989

Amendment No. 5 to the Alaska Coastal Management Program

Bering Straits Coastal Resource Service Area
Coastal Management Program

I. Introduction

The Alaska Coastal Management Program (ACMP) was approved by the Secretary of Commerce in July 1979. Included in the ACMP are the guidelines for local program development. In part, the ACMP states:

> The size and diversity of Alaska's coastal area have required specially adapted organizational arrangements for coastal management. These specialized needs are reflected in the Alaska Coastal Management Act of 1977 (AS 46.40 and 44.19.891-894), which provides for local coastal programs to be developed in conformity with general guidelines and standards. This approach represents a partnership of shared state and local management responsibilities. The Coastal Policy Council is responsible for statewide oversight and coordination, while local units, the coastal resource districts, are to develop more specific programs for their own areas. These district coastal management programs are the building blocks of the Alaska Coastal Management Program. (Emphasis added)

The Bering Straits region is located in the unorganized borough. To allow for coastal planning in this vast area, the ACMP sets guidelines for the creation of special planning districts. In 1980, the residents of the Bering Straits region voted to organize a "coastal resource service area" (CRSA) and elected a CRSA board to oversee the preparation of the coastal program. The Bering Straits Coastal Management Program (BSCMP) represents the culmination of over eight years of work by the CRSA Board, area residents, State, Federal, and local officials. The program includes a Resource Inventory (Volume 1), a Resource

Analysis (Volume 2), and a Management Plan (Volume 3). Together, these documents detail how the ACMP policies are fulfilled through the policies and guidelines of the BSCMP.

On November 15, 1986, the Bering Straits CRSA Board submitted the BSCMP to the Alaska Coastal Policy Council (CPC) for approval. In response to comments received during the public review period, the Division of Governmental Coordination (DGC), the CRSA Board, and program reviewers worked together to revise the program. The revised program was approved by the CPC on July 7, 1987.

On August 5, 1987, the CPC, through DGC, requested that the Office of Ocean and Coastal Resource Management (OCRM) approve the incorporation of this new program into the federally-approved ACMP as a matter of routine program implementation (RPI). On September 2, 1987, based on concerns about the extent of the inland boundary and the creation of important use areas within the district, OCRM denied federal approval of the BSCMP as either an RPI or an amendment. The DGC requested that OCRM reconsider its decision to deny approval. On October 20, 1987, OCRM declined to reconsider the decision, and instructed the State to review the proposed inland boundary and important use area policies and designation processes.

In May and August of 1988, the DGC requested further dialogue with OCRM concerning guidance on earning federal approval for the BSCMP. On October 5, 1988, OCRM responded with several suggestions. First, OCRM suggested that the State submit

either a reduced inland boundary or further information and/or justification in favor of the originally proposed boundary. Second, OCRM dismissed the procedural debate over the designation of special use areas in favor of a policy-by-policy review.

On March 23, 1989, the DGC resubmitted the BSCMP to OCRM for review and consideration as an amendment to the federally-approved ACMP, as provided for under 15 C.F.R. § 923.82(b)(2). The latest submittal is supported by additional information intended to address the concerns previously raised by OCRM.

In accordance with the amendment procedures (15 C.F.R. § 923.82), OCRM must make a preliminary determination as to whether the ACMP, as amended by the BSCMP, would still constitute an approvable program, and if the procedural requirements of section 306(c) of the Coastal Zone Management Act (CZMA) have been met. These Preliminary Findings of Approvability address the approvability issues in the BSCMP.

II. Detailed Findings Under 15 C.F.R. § 923.82, Amendment Review and Approval Procedures

(i) For amendments affecting management program boundaries, the program, if changed, continues to include the following areas (as defined in § 923.31(a)) within the State's coastal zone: areas the management of which is necessary to control uses with direct and significant impacts on coastal waters; transitional and intertidal areas; salt marshes and wetlands; islands; beaches; and waters under saline influence (15 C.F.R. § 923.82(a)(1)(i)).

The final ACMP boundary delineated by the BSCMP continues to include all areas necessary to control uses with direct and significant impacts on coastal waters (CZMA section 304(1) and

15 C.F.R. § 923.82(a)(1)(i)). The policies of the Bering Straits Program apply within the defined program boundary, i.e., the State waters within three miles and the landward area described in the BSCMP as approved by the Coastal Policy Council.

The ACMP interim boundary is based on an Alaska Department of Fish and Game (DFG) boundary study which defined three biophysical coastal areas, the "zone of direct interaction," the "zone of direct influence," and the "zone of indirect influence." These zones were defined on biophysical characteristics and did not include consideration of "uses and activities." The State adopted the zones of direct interaction and direct influence as the interim coastal boundary for the ACMP. These two zones include transitional and intertidal areas; salt marshes and wetlands; islands; beaches; and water under tidal influence, including areas where anadromous fish, such as salmon, migrate upstream to spawn. During the DFG study, these areas were mapped at a gross scale with the intention that district program development could result in more detailed resource inventories in order to define final coastal boundaries. It was also intended that the identification and analysis of "uses and activities" that impact coastal resources could indicate that the interim boundary may need to be revised. The ACMP regulations at 6 AAC 85.040(c) provide that:

> (c) Final boundaries of the coastal area subject to the district program may diverge from the initial boundaries if the final boundaries:

(1) extend inland and seaward to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on marine coastal waters; and

(2) include all transitional and tidal areas, salt marshes, saltwater wetlands, islands, and beaches.

At 6 AAC 85.900, "marine coastal water" is defined to mean:

> ... water adjacent to shorelines which contains a measurable quantity of seawater, including sounds, bays, lagoons, bayous, ponds and estuaries, and the living resources which are dependent on these bodies of water. (Emphasis added)

Before discussing the proposed boundary, it is important to note that many of the lands and inland waters included within the BSCMP boundary are Federal lands which, under section 304(1) of the CZMA, must be excluded from the coastal zone. Federal lands, including native allotments, village townsite lands, and lands held in trust by the Federal government, are excluded from the coastal area. Lands within National Parks, National Wildlife Refuges, National Monuments and Preserves, Bureau of Land Management lands, as well as waters beyond the three mile limit, are not directly subject to the Program. These Federal jurisdictions compose a portion of the uplands in the Bering Straits CRSA. Such lands are identified in the BSCMP and are included for planning purposes only.

In accordance with the criteria set forth at 6 AAC 85.040(c) and the definition of marine coastal waters at 6 AAC 85.900, which are part of the federally-approved ACMP, the BSCMP has deviated from the inland interim boundary to include a combination of selected watersheds, drainages, uniform corridors along important anadromous fish streams and rivers, and uniform

setbacks from marine coastal waters. This extension is based on a detailed analysis of resource information for the BSCRSA, the potential for resource development, and the need to manage uses and activities that may have direct and significant impacts on the area's important natural resources, including anadromous fish. The boundary has also been extended in certain areas to provide an uniform two mile setback from coastal waters where bluffs are adjacent to, or in close proximity to, the shoreline. In these areas, the 200 foot elevation criteria, used to delineate the interim boundary, was found to be inadequate to encompass areas where uses and activities could have direct and significant impacts on coastal resources.

During the BSCMP review process, the State and OCRM received several comments expressing concern over the extent of the inland boundary. In response to these comments, DGC reviewed the proposed boundary, and working with the Bering Straits CRSA, revised the inland boundary. The boundary subsequently approved by the CPC represents a reduction in the extent of the originally proposed inland boundary. In the CPC's order approving the BSCMP, the CPC states that certain areas were deleted from the original boundary proposal because there was less certainty that direct and significant impacts would result from projects which were undertaken in these areas.

In order to address the possibility that some projects within the deleted areas may result in direct and significant impacts on the coastal zone, these areas were classified as

permit notification areas. The designation of permit notification areas represents added detailing to the State consistency review procedures. Under the State consistency provisions, the district will be notified of any State permit activities occurring within the permit notification areas and it will participate in the review to determine whether the project is likely to have direct and significant impacts on the resources and habitats of the coastal zone. This determination will then be subject to appeal pursuant to the procedures set forth in 6 AAC 50. If the project is found to have direct and significant impacts, then it will be reviewed by using the same standards and procedures set forth for projects within the coastal zone.

Permit notification areas are located outside of the coastal zone, and represent a further detailing of State procedures. It is important to note that application of the federal consistency provisions of section 307 of the CZMA is based on the effects of the federal activity on the coastal zone, rather than on geographic location of the activity. Thus, the designation of permit notification areas does not substantively affect the determination of uses or activities which are subject to federal consistency requirements. Nonetheless, given the potential for coastal impacts from activities occurring within permit notification areas, it would be prudent for federal agencies to pay special attention to these activities when checking for spillover effects.

In approving the BSCMP, the CPC found that the proposed BSCMP inland boundary, which is more extensive than the interim boundary, is justifiable and consistent with State legislation because it meets the criteria of 6 AAC 85.040(c) and (d). The term "interim boundary" itself suggests a temporary boundary subject to modification. Both OCRM and the CPC have previously approved district extensions of the interim coastal boundary. For example, both the CPC and OCRM approved the Matanuska-Susitna Borough and Bristol Bay CRSA Coastal Management Programs with extended inland boundaries based on the need to control land and water uses which could impact anadromous fish habitat, or other important resources. Although final boundaries deviating from the interim boundary are permissible and have been approved in the past, each boundary proposal is reviewed on its own merits against the requirements of the ACMP, the ACMA, the CZMA and their appropriate implementing regulations.

In the most recent submittal, the DGC has provided additional information detailing the commercial and subsistence values of the area's salmon fishery. In addition to the important social and cultural aspects of the subsistence lifestyle, there are significant economic aspects. Subsistence foods provide a substantial part (70 to 80 percent) of the protein consumed by households in the region, and salmon represent an indispensable part of the local subsistence economy. Reductions of the subsistence resource potentially would have to be covered through federal and State assistance programs.

Although the commercial fishery is not as large as that in Bristol Bay, it is a highly significant part of the regional cash economy. During the period 1981-86, the average annual ex-vessel value of this fishery was $865,000. The region derives additional benefits from the fishery through fish processing and marketing. Within the BSCRSA, commercial fishing is the major source of cash for many families.

The BSCMP inland boundary extension was designed to ensure that activities which could significantly affect the region's critical anadromous fishery resources will be subject to state and local review. The DGC has provided sufficient evidence on the importance of this valuable resource and that the need to protect anadromous fish streams and habitat is a valid basis for the proposed extension of the BSCRSA's inland coastal zone boundary.

In reviewing a state inland coastal boundary, OCRM must find that it complies with section 304(1) of the CZMA, in particular that it extends inland from the shoreline only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on coastal waters. OCRM has given coastal states deference in determining what constitutes a necessary use and what activities may cause significant impacts on coastal waters. CZMA approval regulations provide flexibility in defining inland coastal boundaries to allow for the range of environmental and administrative factors which occur among the Nation's coastal states. 15 C.F.R. § 923.31(b)(1)&(2). Approved

state coastal programs vary in the extent of their inland boundaries. These variations are appropriate so long as wetlands, beaches, islands, waters under saline influence, transitional and intertidal areas are included and subject to management.

The ACMP boundary extension in the Bering Straits CMP is a substantial change to the interim boundary; however, it is allowable under the watershed option identified in 15 C.F.R. § 923.31(b)(1). Furthermore, as the federally-approved ACMP definition of coastal waters includes the living resources dependent on these waters, OCRM finds, as a preliminary matter, that the proposed boundary extension is in compliance with section 304(1) of the CZMA which, among other things, requires that:

> The [Coastal] Zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on coastal waters. (Emphasis added)

Finally, the proposed boundary also meets the requirements of the regulations at 15 C.F.R. § 923.31(a)(8) requiring a clearly defined boundary map. Therefore, as a preliminary matter, OCRM finds that the extended boundary is consistent with State regulations, the federally-approved ACMP, the CZMA, including section 304(1), and the CZMA implementing regulations.

(ii). For amendments affecting uses subject to the management program, the program, if changed, will continue to:

(A) Identify which uses are subject to the management program (see § 923.11(b)(1));

(B) Assure that the policies and authorities governing the management of these uses incorporate a sufficient range of considerations to address the findings and policies of section 302 and 303 of the Act (see § 923.3(b)(1) and (2));

(C) Assure that policies and authorities related to use management are capable of effective implementation at the time of amendment approval (see § 923.3(b)(2));

(D) Identify uses considered by the State to be of regional benefit and a method (or methods) for assuring local regulations do not unreasonably restrict or exclude such uses (see § 923.12(b)).

As a preliminary determination, the ACMP as amended by the BSCMP continues to have enforceable policies for managing uses which are consistent with CZMA sections 302 and 303.

Regulations in the ACMP provide criteria for the definition of uses subject to management (6 AAC 85.080). Chapter 4, Volume 1, of the BSCMP identifies the uses subject to the BSCMP. OCRM has carefully reviewed the record to ensure that the policies of the BSCMP are consistent with all CZMA requirements regarding the sufficient range of considerations addressed in sections 302 and 303 of the Act.

The BSCMP's policies implement Alaska state coastal policies although the BSCMP policies are, in most cases, more specific than those in the ACMP. In developing the policies, the CRSA Board and the State placed a high priority on protecting subsistence resources and habitats. Volume 2 - (the Resource Inventory of the BSCMP) describes the region's natural resources and provides the background for the BSCMP policies. The BSCMP

policies prescribe how development can occur within the CRSA.

The BSCMP "uses subject to management" will be regulated through State agency permits and State and federal consistency reviews, coordinated by the DGC consistency review process in 6 AAC 50. In conducting these reviews, the State must give "due deference" to the CRSA in interpreting the BSCMP.

The uses considered by the State to be of regional benefit, and the methods of assuring that local regulations do not arbitrarily restrict or exclude such uses, are not affected by incorporation of the BSCMP into the ACMP. The policies of the BSCMP consider uses of regional benefit to be the ACMP designated "Uses of State Concern" and the BSCMP adequately addresses such uses. The principal procedures used by the State to prevent the unreasonable local restriction or exclusion of such uses are the ACMP consistency process and the procedures of 6 AAC 85.185 (see discussion of the national interest below).

(iii). For amendments affecting criteria for designating or managing areas of particular concern, the management program, if changed, continues to provide for:

(A) Criteria for designations (see § 923.21(b)(1));

(B) Designation of areas on a generic or site-specific basis (see § 923.21(b)(1) and (2));

(C) Description of how the management program addresses and resolves the management concerns for which areas are designated (see § 923.21(b)(3) and (4)); and

(D) Guidelines regarding priority of uses, including uses of lowest priority (see § 923.21(b)(5)).

Criteria for designation and management of areas of

particular concern are included within the ACMP regulations in 6 AAC 80.158 - 80.170. These criteria are not changed or affected by the BSCMP. The BSCMP nominates 11 areas for consideration as potential Areas Meriting Special Attention (AMSA); however, it does not make any formal AMSA designations at this time.

The BSCMP also identifies 26 Important Use Areas (IUA). IUAs are designated based on the presence of highly productive wildlife habitat; the ability to sustain a large portion of a communities subsistence requirements; the occurrence of unusual historic sites, hazardous areas, large mineral deposits, or important recreational areas; the potential importance in future energy development; or the presence of important fisheries. The purpose of designating an IUA is to guide uses and activities so that they are compatible with the important attributes of the area.

Unlike the Special Habitat Policy Areas (SHPA) found in the federally-approved Aleutians East Coastal Management Program (AECMP), each IUA within the BSCMP does not contain area specific policies. Policies A-4 and A-5, which deal with subsistence, are the only policies in the BSCMP that apply specifically to IUAs. These two policies apply within all IUAs identified for important subsistence resources and activities.

In reviewing the AECMP, OCRM paid particular attention to the issue of the development of area specific policies outside of the AMSA process. After extensive analysis, OCRM concluded that

the use of policies developed outside of the AMSA process for specific sub-areas is appropriate under the CZMA and ACMP. Therefore, OCRM committed to a policy by policy review of area specific policies to ensure that they do not unreasonably restrict uses of regional or national concern.

BSCMP policies A-4 and A-5 provide performance standards rather than inflexible or unreasonable prohibitions. These standards are designed to protect important subsistence areas, while providing opportunities for other carefully designed and managed uses and activities. As a preliminary matter, OCRM finds that these policies do not unreasonably restrict uses of regional or national concern.

> (iv). For amendments affecting criteria for designating or managing areas for preservation or restoration, the management program, if changed, continues to provide for criteria and procedures for designations that are for the purposes of preserving or restoring areas for their conservation, recreational, ecological or esthetic values. (15 C.F.R. § 923.82(a)(1)(iv)).

The ACMP process for designation and managing areas for preservation or restoration will not be changed by the BSCMP.

> (v). For amendments affecting procedures for considering the national interest in particular facilities, the management program, if changed, continues to provide for:
>
> > (A) A description of the national interest in the planning for and siting of facilities which is taken into account by the consideration procedures (see § 923.52(c)(1));
> >
> > (B) The sources relied upon for such consideration (see § 923.52(c)(2));

(C) A clear and detailed description of the administrative procedures and decision points where this interest will be considered (see § 923.52(c)(4)); and

(D) In the case of energy facilities, consideration of any applicable interstate energy plan or program developed pursuant to section 309 of the Act (see § 923.52(c)(3)).

The description of the national interest in the planning for and siting of facilities and the sources relied upon for the description are provided in the ACMP/FEIS at pages 193-196 and were found to be approvable by the Secretary of Commerce in 1979.

The ACMP requires that district programs may not arbitrarily or unreasonably restrict or exclude "uses of State concern" (ACMP pg. 170); "uses of State concern" also include uses of national significance (ACMP pg. 169). The ACMP "uses of State concern" provision governs uses that are of more than local significance. These uses of State concern have been considered by the BSCMP in Volume 1, Chapter 4.

In attempting to balance both protection and development-oriented interests, the Bering Straits CRSA Board and the State placed a high priority on maintenance of fish and wildlife populations and habitats. Bering Straits residents depend on these resources for food, jobs, cash, clothing, and handicrafts. The subsistence economy and the commercial fishing industry, which together provide the majority of cash and jobs in the region, are dependent upon the maintenance of these resources.

The ACMP, as amended by the BSCMP, will continue to provide a clear and detailed description of administrative procedures and

decision points where the national interest will be considered. In the event of a conflict between local and state-wide interests, the ACMP includes methods which assure that local "regulations" do not unreasonably restrict or exclude uses of state concern.

If, during program implementation, a State concern would be unreasonably restricted or excluded, the ACMP provides several corrective mechanisms. First, the DGC or the requisite State resource agency (where only a single agency permit is required) renders project consistency determinations on a state-wide basis and may reject, with good cause, the CRSA's stipulations or recommendations (6 AAC 50.120). Second, the CPC can amend any district program to accommodate a use of State concern which was not foreseen at the time of program development (6 AAC 85.185). OCRM approval of such an amendment would be required. Finally, on petition of a citizen of the coastal district or of a State resource agency showing that the district coastal management plan is being improperly implemented or enforced, the CPC shall conduct a hearing on the matter and take appropriate action to correct any problems (AS 46.40.100).

Based on a review of the record, OCRM finds, as a preliminary matter, that the BSCMP policies allow for adequate consideration of the national interest. Furthermore, as a preliminary matter, OCRM approves the BSCMP policies noting that implementation of the BSCMP will apply to areas outside of the approved coastal zone only to the extent that Federal activities

covered under CZMA section 307(c)(1) and (2), directly affect the coastal zone or to the extent that federally-permitted activities covered under section 307(c)(3)(A) or (B) listed in the ACMP, affect the land or water uses in the coastal zone.

In preliminarily approving these policies, OCRM reiterates the following clarification regarding the use of intent statements. OCRM finds the use of intent statements to clarify enforceable policy less than optimal. However, we are assured by the State of Alaska's Attorney General (opinion dated November 29, 1985), that the intent statement is incorporated into the policy and that for implementation purposes, the two will be treated as one unit.

Finally, the requirements of 15 C.F.R. § 923.52(c)(3) do not apply as there are no applicable interstate energy plans developed under section 309 of the CZMA.

The Following Procedural Requirements of § 306(c) of the CZMA Have Been Met:

(i) The State has developed the amendment with the opportunity for full participation by relevant Federal agencies, State agencies, local governments, regional organizations, port authorities and other interested public and private parties (section 306(c)(1)).

(ii) The State has coordinated the amendment with local, area-wide and interstate plans applicable to areas within the coastal zone affected by the amendment and existing on January 1 of the year in which the amendment request is submitted (section 306(c)(2)).

(iii) Notice has been provided and a public hearing held on the proposed amendment (sections 306(c)(1) and (3)); and

(iv) The Governor or the head of the State Agency, designated pursuant to section 306(c)(5), has reviewed and approved the proposed amendment (section 306(c)(4)).

The BSCMP meets the procedural requirements of section 306(c) of the CZMA and 15 C.F.R. § 923.82(a)(2) as follows:

(i) and (ii) - The Bering Straits Coastal Management Program was developed with full opportunity for participation by relevant Federal and State agencies and local governments, regional organizations, port authorities and other interested public and private parties. Between November 1980 and March 1982, the CRSA Board held 10 public meetings in various locations throughout the district. During 1983 and 1984 BSCRSA staff members held public education and resource verification meetings in each of the district's 15 second class cities. In October 1984, the BSCMP public hearing draft was distributed to local, State, and federal agencies, and other interested parties for review and comment. Public hearings on the draft BSCMP were held in all of the incorporated communities within the district. The BSCRSA Board also made numerous presentations concerning the BSCMP to industry groups, government agencies, Native corporations, trade associations, and other affected parties. In 1987, the CPC approval process provided an additional public hearing and comment opportunity. Further details of the public participation opportunities are provided in Chapter 8 of the BSCMP, Volume 3.

(iii) - This amendment satisfies the requirements for a public hearing. First notice of the public hearing and of the

availability of the final DGC staff recommendation was given on June 8, 1987. Notice was published in four Alaska newspapers - Juneau Empire, Anchorage Daily News, Nome Nugget, and Tundra Times. The hearing was held in Shismaref, Alaska on July 7, 1987. The public notice meets the requirements of both 6 AAC 85.150(j) and AS 44.62.310 which govern public notice requirements of the ACMP and Alaska Law.

(iv) - The CPC, under authority vested by AS 46.40.060 and 46.40.070, approved the BSCMP on July 7, 1987.

The BSCMP also meets the National Environmental Policy Act (NEPA) requirements at 15 C.F.R. § 923.82(c). In accordance with NEPA regulations and with National Oceanic and Atmospheric Administration guidelines, OCRM has prepared an Environmental Assessment (EA) on the BSCMP. As a preliminary matter, the EA has determined that an EIS is not required for this amendment.

III. Conclusion

I issue these Preliminary Findings and, as a preliminary matter, determine that the ACMP, as amended by the proposed BSCMP, would still constitute an approvable program and that the procedural requirements of section 306(c) of the CZMA have been met.

Donald E. Critchfield
Acting Director
Office of Ocean and Coastal
Resource Management

8/21/89
Date

Appendix B

Preliminary Findings of Approvability:
Northwest Arctic Borough Coastal Management Program

PRELIMINARY FINDINGS OF APPROVABILITY
AUGUST 1989

Amendment No. 6 to the Alaska Coastal Management Program

Northwest Arctic Borough (formerly NANA) Coastal Management Program

I. Introduction

The Alaska Coastal Management Program (ACMP) was approved by the Secretary of Commerce in July 1979. Included in the ACMP are the guidelines for local program development. In part, the ACMP states:

> The size and diversity of Alaska's coastal area have required specially adapted organizational arrangements for coastal management. These specialized needs are reflected in the Alaska Coastal Management Act of 1977 (AS 46.40 and 44.19.891-894), which provides for local coastal programs to be developed in conformity with general guidelines and standards. This approach represents a partnership of shared state and local management responsibilities. The Coastal Policy Council is responsible for statewide oversight and coordination, while local units, the coastal resource districts, are to develop more specific programs for their own areas. These district coastal management programs are the building blocks of the Alaska Coastal Management Program. (Emphasis added)

When the process was initiated to develop a district coastal management program the NANA region was part of the unorganized borough. To allow for coastal planning in this vast area, the ACMP established guidelines for the creation of special planning districts. In 1979, NANA residents voted to organize a "coastal resource service area" (CRSA) and elected a CRSA board to oversee the preparation of the coastal program. In May 1986, the NANA region was incorporated into the Northwest Arctic Borough (NWAB). Formation of the NWAB also involved the incorporation of significant territory to the north and east of the original

CRSA. These lands were not considered during development of the NWAB Coastal Management Program (CMP), and thus, it is possible that the NWAB will consider additional planning for these areas in the future. Any changes to the NWAB CMP would have to be submitted to the Alaska Coastal Policy Council (CPC) and the Office of Ocean and Coastal Resource Management (OCRM) for review and approval as program changes.

The Northwest Arctic Borough Coastal Management Program represents the culmination of over eight years of work by the CRSA Board, the Borough, area residents, local, State, and federal officials. The program includes a Plan Document (Volume 1), a Background Report (Volume 2), and a Map Atlas (Volume 3). Together, these documents detail how the ACMP policies are fulfilled through the policies and guidelines of the NWAB CMP.

On October 17, 1985, the NANA CRSA Board submitted the district coastal management program to the Alaska Coastal Policy Council for approval. Acting as staff to the CPC, the Division of Governmental Coordination (DGC) prepared preliminary findings and conclusions on the program. The findings and the text of the program were distributed for public review on December 30, 1985. In response to comments received during the review period, DGC, the CRSA Board, and program reviewers worked together to revise the program. The revised program was approved by the CPC on May 22, 1986.

On July 7, 1986, the CPC, through DGC, requested that OCRM approve the incorporation of this new program into the

federally-approved ACMP as a matter of routine program implementation (RPI). On August 8, 1986, based on the extension of the inland boundary and the need to review the impact of enforceable policies on uses of national interest, OCRM denied federal approval of the NWAB CMP as an RPI, and determined that this program change would be treated as an amendment.

On February 13, 1987, OCRM denied approval of the NWAB CMP as an amendment because of concerns about the inland boundary, the use of important and sensitive use areas, and the need for clarification of four policies. On April 24, 1987, DGC responded by suggesting several program changes and requesting that OCRM recommence the review process.

Based on the same concerns detailed above, OCRM again denied approval of the NWAB CMP on September 2, 1987. The DGC requested that OCRM reconsider its latest decision to deny approval. On October 20, 1987, OCRM declined to reconsider the decision, and instructed the State to review the proposed inland boundary and special use area policies and designation processes.

In May and August of 1988, DGC requested further dialogue with OCRM concerning guidance on earning federal approval for the NWAB CMP. On October 5, 1988, OCRM responded with several suggestions. First, OCRM suggested that the State submit either a reduced inland boundary or further information and/or justification in favor of the originally proposed boundary. Second, OCRM decided to drop the procedural debate over the designation of special use areas in favor of a policy-by-policy

review.

On March 23, 1989, the DGC resubmitted the NWAB CMP to OCRM for review and consideration as an amendment to the federally-approved ACMP, as provided for under 15 C.F.R. § 923.82(b)(2). The latest submittal is based on additional information intended to address the concerns previously raised by OCRM.

In accordance with the amendment procedures (15 C.F.R. § 923.82), OCRM must make a preliminary determination as to whether the ACMP, as amended by the NWAB CMP, would still constitute an approvable program, and if the procedural requirements of section 306(c) of the Coastal Zone Management Act (CZMA) have been met. These Preliminary Findings of Approvability address the approvability issues in the NWAB CMP.

II. Detailed Findings Under 15 C.F.R. § 923.82, Amendment Review and Approval Procedures

(i) For amendments affecting management program boundaries, the program, if changed, continues to include the following areas (as defined in § 923.31(a)) within the State's coastal zone: areas the management of which is necessary to control uses with direct and significant impacts on coastal waters; transitional and intertidal areas; salt marshes and wetlands; islands; beaches; and waters under saline influence (15 C.F.R. § 923.82(a)(1)(i)).

The final ACMP boundary delineated by the NWAB CMP continues to include all areas necessary to control uses with direct and significant impacts on coastal waters (CZMA section 304(1) and 15 C.F.R. § 923.82(a)(1)(i)). The policies of the NWAB CMP apply within the defined program boundary, i.e., the State waters within three miles and the landward area described in the NWAB

CMP as approved by the Coastal Policy Council.

The ACMP interim boundary is based on an Alaska Department of Fish and Game (DFG) boundary study which defined three biophysical coastal areas, the "zone of direct interaction," the "zone of direct influence," and the "zone of indirect influence." These zones were defined on biophysical characteristics and did not include consideration of "uses and activities." The State adopted the zones of direct interaction and direct influence as the interim coastal boundary for the ACMP. These two zones include transitional and intertidal areas; salt marshes and wetlands; islands; beaches; and water under tidal influence, including areas where anadromous fish, such as salmon, migrate upstream to spawn. During the DFG study, these areas were mapped at a gross scale with the intention that district program development could result in more detailed resource inventories in order to define final coastal boundaries. The identification and analysis of "uses and activities" that impact coastal resources could also indicate that the interim boundary may need to be revised. The ACMP regulations at 6 AAC 85.040(c) provide that:

> (c) Final boundaries of the coastal area subject to the district program may diverge from the initial boundaries if the final boundaries:
>
> (1) extend inland and seaward to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on marine coastal waters; and
>
> (2) include all transitional and tidal areas, salt marshes, saltwater wetlands, islands, and beaches.

At 6 AAC 85.900, "marine coastal water" is defined to mean:

> ... water adjacent to shorelines which contains a measurable quantity of seawater, including sounds, bays, lagoons, bayous, ponds and estuaries, and the living resources which are dependent on these bodies of water. (Emphasis added)

Before discussing the proposed boundary, it is important to note that many of the lands and inland waters included within the NWAB CMP boundary are Federal lands which, under section 304(1) of the CZMA, must be excluded from the coastal zone. Federal lands, including native allotments, village townsite lands, and lands held in trust by the Federal government, are excluded from the coastal area. Lands within National Parks, National Wildlife Refuges, National Monuments and Preserves, Bureau of Land Management lands, as well as waters beyond the three mile limit, are not directly subject to the Program. The Program is applicable to uses and activities on federally-excluded lands which have spillover impacts that significantly affect land and water areas, uses, or resources within the coastal zone (15 C.F.R. § 923.33(c)). Federally-excluded lands compose a significant portion of the uplands in the Northwest Arctic Borough. Such lands are identified in the NWAB CMP and are included for planning purposes only.

In accordance with the criteria set forth at 6 AAC 85.040(c) and the definition of marine coastal waters at 6 AAC 85.900, which were both incorporated into the federally-approved ACMP, the NWAB CMP has deviated from the inland interim boundary to include a combination of selected watersheds, drainages, uniform corridors along important anadromous fish streams and rivers, and

uniform setbacks from coastal bluffs. This extension is based on a detailed analysis of resource information for the Borough, the potential for resource development, and the need to manage uses and activities that may have direct and significant impacts on the area's important subsistence resources.

During the NWAB CMP review process, the State and OCRM received several comments expressing concern over the extent of the inland boundary. In response to these comments, DGC reviewed the proposed boundary and, working with the local officials, revised the inland boundary. The boundary subsequently approved by the CPC represents a reduction in the extent of the originally proposed inland boundary. In the CPC's order approving the NWAB CMP, the CPC states that certain areas were deleted from the original boundary proposal because there was less certainty that direct and significant impacts would result from projects which were undertaken in these areas.

To address the possibility that some projects within the deleted areas may result in direct and significant impacts on the coastal zone, these areas were classified as permit notification areas. The designation of permit notification areas represents added detailing to the State consistency review procedures. Under the State consistency provisions, the district will be notified of any State permit activities occurring within the permit notification areas and it will participate in the review to determine whether the project is likely to have direct and significant impacts on the resources and habitats of the coastal

zone. This determination will be subject to appeal pursuant to the procedures set forth in 6 AAC 50. If the project is found to have direct and significant impacts, then it will be reviewed by using the same standards and procedures set forth for projects within the coastal zone.

Permit notification areas are located outside of the coastal zone, and represent a further detailing of state procedures. It is important to note that application of the federal consistency provisions of section 307 of the CZMA is based on the effects of the federal activity on the coastal zone, rather than on the geographic location of the activity. Thus, the designation of permit notification areas does not substantively affect the determination of uses or activities which are subject to federal consistency requirements. Nonetheless, given the potential for coastal impacts from activities occurring within permit notification areas, it would be prudent for federal agencies to pay special attention to these activities when checking for spillover effects.

DGC maintains that the proposed NWAB CMP inland boundary, which is more extensive than the interim boundary, is justifiable and consistent with State legislation because it meets the criteria of 6 AAC 85.040(c) and (d). The term "interim boundary" itself suggests a temporary boundary subject to modification. Both OCRM and the CPC previously have approved district extensions of the interim coastal boundary. For example, both the CPC and OCRM approved the Matanuska-Susitna Borough and

Bristol Bay CRSA Coastal Management Programs with extended inland boundaries based on the need to control land and water uses which could impact anadromous fish habitat. Although final boundaries deviating from the interim boundary are permissible and have been approved in the past, each boundary proposal is reviewed on its own merits against the requirements of the ACMP, the ACMA, the CZMA and their appropriate implementing regulations.

Alaska has recognized previously, and OCRM has approved as part of the ACMP, a definition of coastal waters that includes those animals which are dependent on coastal waters. The NWAB CMP inland boundary extension ensures that activities which could significantly affect critical anadromous fishery resources will be subject to State and local review.

In the most recent submittal, the DGC has provided additional information detailing the commercial and subsistence values of the area's salmon fishery. Although the commercial fishery harvest in the NWAB is not as important on a statewide basis as that of the Bristol Bay CRSA or Aleutians East Borough, it is an important component of the local economy. For example, approximately 25 percent of all households in Kotzebue, the borough's largest city, are involved in the commercial salmon fishery in Kotzebue Sound. From a national perspective, the number of salmon taken in the Kotzebue Sound commercial fishery is roughly equivalent to half of the take for the commercial salmon fishery in the entire state of Oregon.

Although commercial fishing is important to the NWAB,

subsistence is clearly the most important activity within the borough. Salmon and other anadromous fish resources represent an indispensable part of this aspect of the economy. The State's most recent submittal indicates that subsistence foods constitute 70 to 80 percent of total protein consumed by households in the NWAB/BSCRSA region. Reductions of the subsistence resource potentially would have to be covered through federal and State assistance programs. In addition to the economic component, subsistence activities have important social, historical, and cultural aspects.

The DGC has provided sufficient evidence on the importance of this valuable resource and that the need to protect anadromous fish streams and habitat is a valid basis for the proposed extension of the NWAB's inland coastal zone boundary.

In reviewing a state inland coastal boundary, OCRM must find that it complies with section 304(1) of the CZMA, in particular that it extends inland from the shoreline only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on coastal waters. OCRM has given coastal states deference in determining what constitutes a necessary use and what activities may cause significant impacts on coastal waters. CZMA approval regulations provide flexibility in defining inland coastal boundaries to allow for the range of environmental and administrative factors which occur among the Nation's coastal states (15 C.F.R. § 923.31(b)(1)&(2)). Approved state coastal programs vary in the extent of their inland

boundaries. These variations are appropriate so long as wetlands, beaches, islands, waters under saline influence, transitional and intertidal areas are included and subject to management.

The ACMP boundary extension in the NWAB CMP is a substantial change to the interim boundary. However, it is allowable under the watershed option identified in 15 C.F.R. § 923.31(b)(1). Furthermore, as the federally-approved ACMP definition of coastal waters includes the living resources dependent on these waters, OCRM finds as a preliminary matter that the proposed boundary extension is in compliance with section 304(1) of the CZMA which, among other things, requires that:

> The [Coastal] Zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on coastal waters. (Emphasis added)

The issue of compatibility between district boundaries was also raised during program review. In approving the NWAB CMP, the CPC found that the proposed boundary was in compliance with 6 AAC 85.030(e), which requires compatibility of coastal boundaries between adjacent districts. The NWAB is bounded on the south by the Bering Straits CRSA and on the north by the North Slope Borough. Both the NWAB and BSCRSA have adopted the interim boundary in the area of their common boundary. Similarly, both the NWAB and NSB generally have followed the state interim boundary (i.e., the 200 foot contour) in defining the coastal zone near their common border. Just to the north of Kivalina

Lagoon, however, the proposed NWAB coastal boundary moves substantially inland from the interim boundary, and generally follows the original border between the NANA CRSA and the NSB. The inland extension in this area is designed to encompass important anadromous fish habitat within the drainages of the Kivalina, Wulik, and Noatak Rivers. This extension is clearly defined and addresses the different resources and topography of this area. Furthermore, it is consistent with the requirements and objectives of the ACMP and CZMA. Therefore, OCRM concurs with the CPC's finding that the NWAB coastal boundary is compatible with adjacent districts and provides for consistent administration of the ACMP.

The proposed boundary also meets the requirements of the regulations at 15 C.F.R. § 923.31(a)(8) requiring a clearly defined boundary map. The extended boundary is therefore consistent with State regulations, the federally-approved ACMP, and section 304(1) of the CZMA.

(ii). For amendments affecting uses subject to the management program, the program, if changed, will continue to:

(A) Identify which uses are subject to the management program (see § 923.11(b)(1));

(B) Assure that the policies and authorities governing the management of these uses incorporate a sufficient range of considerations to address the findings and policies of section 302 and 303 of the Act (see § 923.3(b)(1) and (2));

(C) Assure that policies and authorities related to use management are capable of effective implementation at the time of amendment approval (see § 923.3(b)(2));

(D) Identify uses considered by the State to be of regional benefit and a method (or methods) for assuring local regulations do not unreasonably restrict or exclude such uses (see § 923.12(b)).

As a preliminary determination, the ACMP as amended by the NWAB CMP continues to have enforceable policies for managing uses which are consistent with CZMA sections 302 and 303.

Regulations in the ACMP provide criteria for the definition of uses subject to management (6 AAC 85.080). Chapter 5, Volume 1, of the NWAB CMP, identifies the uses subject to management under the NWAB CMP. OCRM has carefully reviewed the record to ensure that the policies of the NWAB CMP are consistent with all CZMA requirements regarding the sufficient range of considerations addressed in sections 302 and 303 of the Act.

The NWAB CMP's policies implement Alaska state coastal policies although the NWAB CMP policies are, in most cases, more specific than those in the ACMP. In developing the policies, the CRSA Board and the State placed a high priority on protecting subsistence resources and habitats. Volume 2 - (the Background Report) describes the region's natural resources and provides the background for the NWAB CMP policies. The NWAB CMP policies prescribe how development can occur within the borough. The NWAB CMP "uses subject to management" will be regulated through State agency permits and State and federal consistency reviews, coordinated by the DGC consistency review process in 6 AAC 50.

The uses considered by the State to be of regional benefit, and the methods of assuring that local regulations do not

arbitrarily restrict or exclude such uses, are not affected by incorporation of the NWAB CMP into the ACMP. The policies of the NWAB CMP consider uses of regional benefit to be the ACMP designated "Uses of State Concern" and the NWAB CMP adequately addresses such uses. The principal procedures used by the State to prevent the unreasonable local restriction or exclusion of such uses are the ACMP consistency process and the procedures of 6 AAC 85.185 (see discussion of the national interest below).

(iii). For amendments affecting criteria for designating or managing areas of particular concern, the management program, if changed, continues to provide for:

(A) Criteria for designations (see § 923.21(b)(1));

(B) Designation of areas on a generic or site-specific basis (see § 923.21(b)(1) and (2));

(C) Description of how the management program addresses and resolves the management concerns for which areas are designated (see § 923.21(b)(3) and (4)); and

(D) Guidelines regarding priority of uses, including uses of lowest priority (see § 923.21(b)(5)).

Criteria for designation and management of areas of particular concern are included within the ACMP regulations in 6 AAC 80.158 - 80.170. These criteria are not changed or affected by the NWAB CMP. The NWAB CMP nominates 3 areas for consideration as potential Areas Meriting Special Attention (AMSA); however, it does not make any formal AMSA designations at this time.

The NWAB CMP also identifies 14 Important Resource Areas (IRA) and 8 Sensitive Use Areas (SUA). There were originally 15

IRAs; however, the Pah River IRA is no longer within the State approved coastal boundary. SUAs are designated to guide uses and activities in areas which may need special protection for important biological, subsistence, and cultural resources, or which have been, or may be, important for major resource or transportation development projects with regional impacts. IRAs are designated to protect extremely sensitive areas that are of major importance for subsistence, cultural, and biological resources.

In reviewing the Aleutians East CMP, OCRM paid particular attention to the issue of the development of area specific policies outside of the AMSA process. After extensive analysis, OCRM concluded that the use of policies developed outside of the AMSA process for specific sub-areas is appropriate under the CZMA and ACMP. Therefore, OCRM committed to a policy-by-policy review of area specific policies to ensure that they do not unreasonably restrict uses of regional or national concern.

IRA and SUA standards are generally designed to guide uses and activities so that they are compatible with the important attributes, primarily subsistence resources and uses, of the area, while providing opportunities for other carefully designed and managed uses and activities. During the State review process, resource development interests commented that the IRA/SUA policies were overly restrictive. Based in part on these comments, many of the IRA/SUA policies were modified prior to CPC approval to replace prohibitive language with performance

standards.

Policy AAA-1 remains very restrictive as it prohibits activities not related to cultural resource management, fish and wildlife management, or subsistence use within the Onion Portage SUA. The Onion Portage SUA adjoins and encompasses parts of the federally-managed Onion Portage Archaeological District and the Kobuk Valley National Park. Although Policy AAA-1 is very protective, it is appropriate given the critical subsistence and cultural values associated with the Onion Portage area, and it is consistent with other protections established for this area by the State and federal government.

Concerns have also been raised over Policy GGG-4 which addresses oil and gas activities within the Eschscholtz Bay SUA. This policy calls for the cessation of inwater operations associated with seismic exploration and exploratory drilling during the subsistence hunt for beluga whales and seals. Production activities would have to be minimized and limited to maintaining safe operation of the production facility. The subsistence hunt generally covers a two to four week period between June 1st and July 15th. Policy GGG-4 establishes relatively strict guidelines during the subsistence hunt; however, these restrictions are appropriate given the importance of the subsistence hunt and the relatively short time period involved.

OCRM has carefully reviewed all IRA and SUA policies, and as a preliminary matter, OCRM finds that these policies do not

unreasonably restrict uses of regional or national concern and are approvable.

One additional issue that came up during the State review process was the standing of federally-excluded lands falling within the boundaries of IRAs or SUAs. Under section 304(1) of the CZMA, federal lands, including lands within National Parks, National Wildlife Refuges, National Monuments and Preserves, Bureau of Land Management lands, native allotments, village townsite lands, and lands held in trust by the Federal government are excluded from the coastal zone. The coastal program's jurisdiction over activities occurring on these lands is limited to those activities which have spillover effects on the coastal zone.

A review of land status maps indicates that there are no IRAs or SUAs situated entirely on federally-excluded lands. The inclusion of federally-excluded lands within the boundaries of IRAs and SUAs should be viewed as a planning tool only. IRA and SUA policies cannot be implemented as mandatory enforceable policies outside of the coastal zone (i.e., on federally-excluded lands); however, federal agencies may choose to treat these policies as advisory guidelines.

Application of federal consistency is based on direct effects to the coastal zone for section 307(c)(1) and (2) activities and on effects to land or water uses in the coastal zone for section 307(c)(3) activities. Furthermore, DGC has indicated that IRA and SUA policies apply only within the

geographic boundaries of the IRA or SUA. Therefore, for purposes of federal consistency, application of IRA or SUA policies is limited to activities that have direct effects within the non-excluded portion of the appropriate IRA or SUA.

(iv). For amendments affecting criteria for designating or managing areas for preservation or restoration, the management program, if changed, continues to provide for criteria and procedures for designations that are for the purposes of preserving or restoring areas for their conservation, recreational, ecological or esthetic values. (15 C.F.R. § 923.82(a)(1)(iv)).

The ACMP process for designation and managing areas for preservation or restoration will not be changed by the NWAB CMP.

(v). For amendments affecting procedures for considering the national interest in particular facilities, the management program, if changed, continues to provide for:

(A) A description of the national interest in the planning for and siting of facilities which is taken into account by the consideration procedures (see § 923.52(c)(1));

(B) The sources relied upon for such consideration (see § 923.52(c)(2));

(C) A clear and detailed description of the administrative procedures and decision points where this interest will be considered (see § 923.52(c)(4)); and

(D) In the case of energy facilities, consideration of any applicable interstate energy plan or program developed pursuant to section 309 of the Act (see § 923.52(c)(3)).

The description of the national interest in the planning for and siting of facilities and the sources relied upon for the description are provided in the ACMP/FEIS at pages 193-196, and

were found to be approvable by the Secretary of Commerce in 1979.

The ACMP requires that district programs may not arbitrarily or unreasonably restrict or exclude "uses of State concern" (ACMP p. 170). "Uses of State concern" also include uses of national significance (ACMP p. 169). The ACMP "uses of State concern" provision governs uses that are of more than local significance. These "uses of State concern" have been considered by the NWAB CMP in Volume 1, Chapter 5.

In attempting to balance both protection and development-oriented interests, the NANA CRSA Board and the State placed a high priority on subsistence and the maintenance of fish and wildlife populations and habitats. NWAB residents depend on these resources for food, jobs, cash, clothing, and handicrafts. The subsistence economy and the important commercial fishing industry are dependent upon the maintenance of these resources.

The ACMP, as amended by the NWAB CMP, will continue to provide a clear and detailed description of administrative procedures and decision points where the national interest will be considered. In the event of a conflict between local and state-wide interests, the ACMP includes methods which assure that local "regulations" do not unreasonably restrict or exclude uses of State concern.

If, during program implementation, a State concern would be unreasonably restricted or excluded, the ACMP provides several corrective mechanisms. First, the DGC or the requisite State

resource agency (where only a single agency permit is required) renders project consistency determinations on a state-wide basis and may reject, with good cause, the CRSA's stipulations or recommendations (6 AAC 50.120). Second, the CPC can amend any district program to accommodate a use of State concern which was not foreseen at the time of program development (6 AAC 85.185). OCRM approval of such an amendment would be required. Finally, on petition of a citizen of the coastal district, or of a State resource agency, showing that the district coastal management plan is being improperly implemented or enforced, the CPC shall conduct a hearing on the matter and take appropriate action to correct any problems (AS 46.40.100).

During the development and review of the NWAB CMP, national interest concerns were raised regarding several policies. Policies A-1 and G-6 received particular attention. Policy A-1 was originally entitled "Subsistence Priority," and many reviewers felt that the policy would unfairly restrict and possibly preclude activities other than subsistence. In response to these concerns, changes were made to improve and clarify this policy. The policy was retitled "Subsistence Uses" and reworded to clarify that development activities shall take all appropriate measures to mitigate adverse impacts to subsistence resources and the use of subsistence resources. Furthermore, the State clarified that Policy G-6 (discussed below) is the appropriate mechanism for implementing the mitigation requirements of Policy A-1.

Policy G-6 "Mitigation" establishes a preference list for mitigation, with the avoidance of loss of the affected resource as the most preferred alternative, and possible compensation where loss or damage is unavoidable and irreversible as the least preferred alternative. Major concerns with this policy center on the consideration of cost factors in policy implementation. Based on these concerns, the policy was revised to incorporate an intent statement which, among other things, requires that the "cost of mitigation, relative to the benefit to be gained, will also be considered in implementation of this policy." OCRM has previously suggested that this language be included within the body of the policy. The State has offered to make this change; however, for purposes of interpreting the States's program, we are relying on the State Attorney General's opinion dated November 29, 1985, that finds that the intent statement is incorporated into the policy and carries the same weight as the body of the policy. Therefore, this change is not necessary.

Based on a review of the record, OCRM finds, as a preliminary matter, that the NWAB CMP policies allow for adequate consideration of the national interest. In approving these policies, OCRM reiterates the following clarification regarding the use of intent statements. OCRM finds the use of intent statements to clarify enforceable policy less than optimal. However, we are assured by the State of Alaska's Attorney General (opinion dated November 29, 1985), that the intent statement is incorporated into the policy and that for implementation

purposes, the two will be treated as one unit.

As a preliminary matter, OCRM approves the NWAB CMP policies noting that implementation of the NWAB CMP will apply to areas outside of the approved coastal zone only to the extent that Federal activities covered under CZMA section 307(c)(1) and (2), directly affect the coastal zone or to the extent that federally-permitted activities covered under section 307(c)(3)(A) or (B) affect the land or water uses in the coastal zone.

The requirements of 15 C.F.R. § 923.52(c)(3) do not apply as there are no applicable interstate energy plans developed under section 309 of the CZMA.

The Following Procedural Requirements of Section 306(c) of the CZMA Have Been Met:

(i) The State has developed the amendment with the opportunity for full participation by relevant Federal agencies, State agencies, local governments, regional organizations, port authorities and other interested public and private parties (section 306(c)(1)).

(ii) The State has coordinated the amendment with local, area-wide and interstate plans applicable to areas within the coastal zone affected by the amendment and existing on January 1 of the year in which the amendment request is submitted (section 306(c)(2)).

(iii) Notice has been provided and a public hearing held on the proposed amendment (sections 306(c)(1) and (3)); and

(iv) The Governor or the head of the State Agency, designated pursuant to section 306(c)(5), has reviewed and approved the proposed amendment (section 306(c)(4)).

The NWAB CMP meets the procedural requirements of section 306(c) of the CZMA and 15 C.F.R. § 923.82(a)(2) as follows:

(i) and (ii) - The NWAB CMP was developed with full opportunity for participation by relevant Federal and State agencies and local governments, regional organizations, port authorities and other interested public and private parties. Public participation opportunities included numerous public meetings, workshops, CRSA Board meetings, and several draft plan comment and review opportunities. Following formation of the NANA CRSA in 1979, one of the CRSA Board's first actions was to begin a series of 22 public meetings (2 in each village within the district) in order to identify important coastal issues. These meetings helped provide a basis for developing program goals and objectives. In 1984, a draft plan was distributed to government agencies, village councils, Native corporations and other interested parties. Based on comments received the CRSA prepared and issued a revised draft plan. Comments from this draft were used in preparing the Public Hearing Draft, which was approved by the CRSA Board in July, 1984. In 1986, the CPC review process included a public meeting and comment period to provide an additional opportunity for interested parties to comment on the proposed approval of the NWAB CMP. Further details of the public participation opportunities are provided in Chapter 9 of the NWAB CMP, Volume 1.

(iii) - This amendment satisfies the requirements for a public hearing. First notice of the public hearing and of the availability of the final DGC staff recommendation was given on April 1, 1986. Notice was published in five Alaska newspapers -

Juneau Empire, Anchorage Daily News, Fairbanks Daily News - Miner, Cordova Times, and Tundra Times. The hearing was held in Kotzebue, Alaska on May 22, 1986. The public notice meets the requirements of both 6 AAC 85.150(j) and AS 44.62.310 which govern public notice requirements of the ACMP and Alaska law.

(iv) - The CPC, under authority vested by AS 46.40.060 and 46.40.070, approved the NWAB CMP on May 22, 1986.

As a preliminary matter, the NWAB CMP also meets the National Environmental Policy Act (NEPA) requirements at 15 C.F.R. § 923.82(c). In accordance with NEPA regulations and with National Oceanic and Atmospheric Administration guidelines, OCRM has prepared an Environmental Assessment (EA) on the NWAB CMP. The EA has determined, as a preliminary matter, that an EIS is not required for this amendment.

III. Conclusion

I issue these Preliminary Findings and, as a preliminary matter, determine that the ACMP, as amended by the proposed NWAB CMP, would still constitute an approvable program and that the procedural requirements of section 306(c) of the CZMA have been met.

Donald E. Critchfield
Acting Director
Office of Ocean and Coastal
Resource Management

8/21/87
Date

BERING STRAITS CRSA COASTAL MANAGEMENT PROGRAM

POLICIES APPROVED BY THE ALASKA COASTAL POLICY COUNCIL JULY 7, 1987

5.1 INTRODUCTION

The policies presented in this chapter are the "enforceable rules" of the Bering Straits CRSA coastal management program. Land and water uses and activities occurring on state and private lands, and federal actions which directly affect habitats or resources within the Bering Straits CRSA coastal boundary are subject to the policies of the coastal management program. Uses and activities must comply with applicable coastal management policies to be considered "consistent" with the district's coastal management program. All parties participating in the consistency determination process will use these policies as the standards for evaluating consistency.

Policies presented in this section are designed to clearly identify "performance standards" for the protection of important resource values and uses, and to provide for orderly and balanced utilization of all coastal resources. The policies are intended to provide protection and management guidance for coastal resources during the planning, design, construction, and operational phases of coastal development (uses and activities) in preference to after-the-fact enforcement and compliance actions. Additionally, the policies provide clear guidance of the Board's intent while recognizing the need for some flexibility in making consistency determinations. Activities and uses subject to a consistency determination must clearly show compliance with the coastal management policies. The application of policies in making a consistency determination cannot restrict uses of state concern without addressing Coastal Policy Council requirements for restricting such uses of state concern.

In addition to identifying performance standards, some policies request supplemental information needed by the CRSA Board or state agencies to evaluate "performance" during the consistency determination process. This requested information is in addition to general project information, as identified in Chapter 6, Implementation.

The guidance and standards provided by the policies are the culmination of the coastal management program and the synthesis of the Bering Straits CRSA concerns and objectives. Preparation of these policies included five major steps accomplished during development of the district program:

- Evaluation and application of the Issues, Goals, and Objectives (Chapter 2);
- Review of the Resource Inventory (Volume 1) and Resource Analysis (Volume 2), with input from the public participation process (Chapter 8);

- Review, evaluation, and modification of appropriate policies from earlier Bering Straits CRSA program documents and other coastal management programs;
- Review of the Alaska Coastal Management Program Standards and Guidelines requirements and organization of the policies to reflect these requirements (6 AAC 80 and 6 AAC 85); and
- Preparation of policies.

The products of this process are the Bering Straits CRSA policies which recognize coastal resource values and use areas important to the Bering Straits CRSA residents. The protection of subsistence resources and habitats, and the maintenance of the subsistence way of life are are the foundation for preserving traditional cultural values and the community and regional economy. The Bering Straits CRSA policies attempt to balance economic development with maintenance of the Native culture and subsistence economy.

Policies apply to the entire area within the coastal boundary. Some of the policies are area-specific, pertaining to resource values or concerns only in identified areas where the resources or uses occur (for example, anadromous fish streams, marine mammal haul-out sites, important use areas for subsistence). In addition to enforceable policies, several administrative policies for the Bering Straits CRSA Board have been included. Although the administrative policies are recognized as "unenforceable", they are intended to provide direction to the CRSA Board and express the Board's desires with respect to planning, coordination, and notification.

5.2 DEFINITIONS

The following definitions are applicable to terminology used in policies for the Bering Straits CRSA coastal management program.

Active Floodplain of Watercourses:

The portion of a floodplain that is periodically inundated or encompassed by a mean annual flood (Q = 2.33 flood frequency) and is characterized by active flowing channels, high water channels and adjacent unvegetated or sparsely vegetated bars. The term "Q = 2.33 flood frequency" means the flood that occurs every 2.33 years on the average.

Affected Community(ies):

To include appropriate city councils, IRA/traditional councils, and village corporations. Village corporations and IRA/traditional councils within the boundary of the Bering Straits CRSA are in Appendix B of Volume 3.

Avoid:

To prevent from occurring.

Essential Habitats:

Areas which support essential life history requirements of fish or wildlife species. These essential areas encompass one or more of the following: (1) pupping, calving, colonial nesting, spawning, rearing, wintering, migration, important feeding, and haul-out areas; (2) highly productive breeding and nesting areas; (3) sites providing unique population elements including high seasonal use and concentration areas or isolated occurrences; (4) habitats and use areas regularly associated with endangered species; (5) unique ecological systems; and (6) areas supporting a large portion of the individuals or species of a fish or wildlife population in the region during specific seasons.

Feasible and Prudent:

Consistent with sound engineering practice and not causing environmental, social, or economic problems that outweigh the public benefit to be derived from compliance with the standard which is modified by the term "feasible and prudent". An alternative is feasible unless it is inconsistent with sound engineering practice. An alternative is prudent despite the presence of increased social, environmental, or economic costs, unless those costs are of extraordinary magnitude, and are due to unique factors present in a particular case.

Fish and Wildlife Resources:

To include all aquatic and marine finfish and shellfish, and all resident and and migratory wildlife and marine mammals in the Bering Straits CRSA.

Maintain:

To provide for continuation of current conditions and functions.

Minimize:

To select from a comprehensive review of alternatives the option which uses the most effective technology to limit or reduce impact to the smallest amount, extent, duration, size, or degree.

Plants:

To include all terrestrial, aquatic, and marine plants in the Bering Straits CRSA.

Significant Impact:

Likely to have an influence or effect greater than that attributable to mere chance. Section 46.40.210(5) of the Alaska Coastal Management Act defines a "use of direct and significant impact" as a use, or an activity associated with the use, which proximately contributes to a material change or alteration in the natural or social characteristics of a part of the state's coastal area and in which: a) the use, or activity associated with it, would have a net adverse effect on the quality of the resources of the coastal area; b) the use, or activity associated with it, would limit the range of alternative uses of the resources of the coastal area; or c) the use would, of itself, constitute a tolerable change or alteration of the resources within the coastal area but which, cumulatively, would have an adverse effect.

Water-Dependent:

A use or activity which can be carried out only on, in, or adjacent to water areas because the use requires proximity or close access to the water body.

Water-Related:

A use or activity which is not directly dependent upon proximity or access to a water body but which provides goods or services that are directly associated with water dependence. If this use or activity is not located adjacent to a water body, it could result is a loss of quality in the goods or services offered.

Wetlands:

Those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions.

5.3 POLICIES

The following policies apply to all activities and uses of coastal lands and waters within the General Use Area of the Bering Straits CRSA.

A. SUBSISTENCE

A-1 Subsistence Use

Subsistence use of the coastal lands and waters of the Bering Straits CRSA has traditionally been the primary and highest priority use of all lands and waters within the coastal management plan area; therefore, all other land/water uses and activities shall ensure that through careful planning, development, and operation of a resource extraction or development project, all steps will be taken to mitigate adverse impacts to subsistence resources and their use in accordance with policy F-2.

A-2 Planning Processes (Administrative Policy)

Where uses and activities may have a significant adverse impact on subsistence resources and activities, the Bering Straits CRSA Board shall work if requested, with affected communities and resource-dependent users to identify subsistence resource concerns and to develop appropriate mitigative measures and stipulations for development activities, in accordance with the procedures identified in Chapter 6, Implementation.

A-3 Access

Traditional and customary access to subsistence use areas shall be maintained unless reasonable alternative access is provided for subsistence users.

A-4 Impacts on Subsistence

Within important use areas identified for subsistence resources and activities in Chapter 4, entities proposing non-subsistence uses or activities shall locate such uses and activities at alternative sites outside the identified areas. Where location in alternative sites is not feasible and prudent, uses and activities shall minimize adverse impacts to subsistence resources, subsistence activities, and coastal habitats.

A-5 Impact Research

Major projects listed in Chapter 6.7 shall assimilate existing resource information and, where necessary, project applicants shall collect data to provide adequate information for identification and mitigation of adverse impacts to subsistence resources and activities in important use areas identified in Chapter 4.

A-6 Subsistence Conflicts with Recreation

Recreational fishing and hunting access routes, facilities and associated activities subject to permits and approvals shall be sited, constructed and operated to minimize adverse impacts to subsistence activities.

B. HABITAT AND BIOLOGICAL RESOURCE PROTECTION

B-1 Habitat Alteration

Development activities and facility sites shall meet, at a minimum, the criteria established under state regulations 6 AAC 80.130 and policies B-2 through B-10. Uses and activities that do not conform with policies B-2 through B-10 may be allowed if: (1) there is a significant public need for the activity, (2) there are no feasible and prudent alternatives to meet the public need which conform to the ACMP standards and other applicable policies in this section, and (3) all feasible and prudent steps to maximize conformance with the policies have been taken.

B-2 Habitat Maintenance

All habitats shall be managed to maintain or enhance the biological, chemical, and physical characteristics of the habitat which contributes to its capacity to support living resources.

B-3 Offshore Areas

Offshore areas shall be managed as a conservation zone so as to maintain or enhance subsistence, commercial, and sport fisheries and subsistence harvests.

B-4 Estuaries

Estuaries shall be managed to assure adequate water flow, natural circulation patterns and nutrient and oxygen levels, and to avoid the discharge of toxic wastes or silt and the destruction of productive habitats. These habitats shall be managed to maintain or enhance commercial, subsistence and sport fisheries, and subsistence harvests.

B-5 Wetlands and Tideflats

Wetlands and tideflats shall be managed to assure adequate water flow, nutrients, and oxygen levels, and to avoid adverse changes in natural drainage patterns, the destruction of important or essential habitats, and the discharge of toxic substances.

B-6 Rocky Islands and Seacliffs

Rocky islands and seacliffs shall be managed to avoid the harassment of wildlife, the destruction of important or essential habitats, and the introduction of competing or destructive species or predators.

B-7 Barrier Islands and Lagoons

Barrier islands and lagoons shall be managed to maintain adequate flows of sediments, detritus, and water, to avoid the alteration or redirection of wave energy which would lead to unnatural deposition in lagoons or the erosion of the islands, and to discourage activities which would decrease their use by coastal species including polar bears and nesting birds.

B-8 High Energy Costs

High energy coasts shall be managed to assure the adequate mixing and transport of sediments and nutrients, and to avoid the redirection or interruption of transport processes and wave energy.

B-9 Rivers, Lakes, and Streams

Rivers, lakes, and streams shall be managed to protect natural vegetation, water quality, important and essential habitats, and natural water channels and flows necessary for maintenance of fish and wildlife habitats.

B-10 Upland Habitats

Important and essential habitats in upland areas shall be managed to maintain natural drainage patterns, surface and ground water quality, and natural ground-water recharge areas. Alteration of vegetation shall be minimized to prevent excessive run-off, hydraulic or thermal erosion, or decreased biological productivity.

B-11 Instream Flow

Except for public water supplies and domestic use, appropriation of water from rivers, streams, lakes, or wetlands shall not decrease instream flow below the amount determined necessary by the Alaska Department of Fish and Game and/or U.S. Fish and Wildlife Service to protect fish habitat and production and waterfowl habitat unless, in accordance with AS 46.15, the Commissioner of the Alaska Department of Natural Resources makes a finding based on public review that (1) the competing use of water is in the best public interest, and (2) no feasible and prudent alternative exists. Where a water appropriation, or the cumulative impact of more than one water appropriation, has the potential to decrease instream flow below the amount necessary for fish and waterfowl habitat and production, project applicants shall be required to provide the data necessary to determine instream flow.

B-12 Fish Passage

B-12.1 Development activities, facilities, and structures shall be designed, sited, constructed and operated in a manner which does not impede or interfere with timely access to spawning streams by adult anadromous fish or movements of juvenile anadromous fish.

B-12.2 All temporary and permanent drainage structures constructed across anadromous fish streams, including multiple channels within the annual floodplain, shall provide for free and unrestricted movement of adult, fry, and juvenile anadromous fish which are present in the stream in accordance with the following criteria:

a) Culverts shall be placed in and aligned with the natural stream channel and installed so that at least one-fifth of the diameter of each round culvert and at least six inches of the height of each elliptical or arch culvert is installed below the streambed at both the inlet and outlet of the drainage structure.

b) Culverts shall be designed to accommodate upstream movement of the slowest swimming anadromous fish species or age class using the watercourse.

B-13 Maintenance of Stream Characteristics

All permanent bridges and culverts shall, to the extent feasible and prudent, be positioned to avoid changing the direction and velocity of the stream flow. Drainage structures shall be adequately sized to accommodate the best available estimate of the 25-year peak discharge without significantly interfering with volume, velocity, sediment transport, or substrate characteristics of the stream where these properties are important to the uses of the stream.

B-14 Use of Explosives

To protect fish, explosives shall not be detonated within, beneath, or adjacent to marine, estuarine, or fresh waters that support fish unless the detonation of the explosives produces or is likely to produce an instantaneous pressure change in the water body of no more than 2.5 psi (pounds per square inch), or produces or is likely to produce a peak particle velocity greater than 0.5 ips (inches per second) in a spawning bed during the early stage of egg incubation. Setbacks from fish-bearing waters shall be required to insure that buried explosive charges meet the criteria shown in Table 5-1 (Distance to Fish-Bearing Waters) and Table 5-2 (Distance to Spawning Beds). These criteria do not apply if the water body, including its substrate, is frozen or if no fish are present.

B-15 Water Intake Structures

Where water removal has been authorized from rivers, lakes, streams, or wetlands occupied by fish, the intake structure shall be designed, operated, and maintained to prevent entrainment or impingement of fish. Site specific requirements for water intake structures in anadromous fish waters shall comply with the screening and maximum velocity criteria presented in Table 5-3.

TABLE 5-1: DISTANCE TO FISH-BEARING WATERS (in feet)

Material	Explosive Charge Weight (in pounds)[2] 1	2	5	10	25	100	500	1000
Rock, Frozen Soil	35	50	80	110	175	350	780	1100
Ice	30	40	70	95	150	300	670	950
Saturated Soil	25	35	60	80	130	250	570	810
Unsaturated Soil	20	30	50	70	105	210	470	670

TABLE 5-2: DISTANCE TO SPAWNING BED (in feet)[1] for varying weights of explosives

Material	Explosive Charge Weight (in pounds) 1	2	5	10	25	100	500	1000
Distance (in all soil materials)	40	55	85	120	190	380	850	1200

[1] Straight line distance from center of confined buried charge to waterbody.

[2] The scaled distance relationships set forth in Tables 5-1 and 5-2 above apply to single shots of a given weight of explosives or single shots in a multiple charge if each charge is separated by an eight millisecond or longer delay.

SOURCE: Alaska Department of Fish and Game, Habitat Division.

TABLE 5-3: MAXIMUM ALLOWABLE SCREEN MESH SIZE AND WATER VELOCITIES THROUGH A SCREENED INTAKE FOR SMALL WATER WITHDRAWALS

Criteria	Group I	Group II	Group III	Group IV	Group V
Screen mesh in:					
inches	0.4	0.04	0.1	0.25	0.25
(millimeters)	(1.0)	(1.0)	(2.4)	(6.4)	(6.4)
water velocity* (feet per second)	0.1	0.5	0.5	2.0	-

Group I - Fry State: whitefish
Group II - Juvenile Stage: smelt, whitefish
- Fry or Juvenile Stage: sheefish, pink salmon, chum salmon
Group III - Juvenile Stage: coho, chinook, and sockeye salmon; Arctic char, Dolly Varden
Group IV - Adult State: whitefish, Arctic char, Dolly Varden
Group V - Adult Stage: chinook, coho, sockeye, chum, and pink salmon; criteria shall be used to prevent entrapment of Group V fish in off-stream pumping ponds; velocity criteria are not applicable.

*Water velocity as measured on the downstream side of the water intake enclosure.

SOURCE: Alaska Department of Fish and Game, Habitat Division.

B-16 In-water Facilities and Structures

To the extent feasible and prudent, structures and facilities constructed in or over rivers, streams, lakes, wetlands, tideflats, or marine waters shall be located, designed, and constructed to:

- avoid degradation of water quality;
- avoid obstructions to fish and wildlife migration, spawning, and rearing; and
- avoid obstructions to navigation, commercial fishing, and subsistence harvest activities.

B-17 Snow Removal from Waterbodies

Snow shall not be removed or compacted on ice cover overlying waterbodies which support fish except for perpendicular crossings of frozen streams, as approved by the Alaska Department of Fish and Game.

B-18 Marine Mammal Haul-outs and Seabird Colonies

Seabird colony sites and haul-outs and rookeries used by walrus, sea lions, and seals (Volume 1, Map 10, or as updated in the ADF&G Regional Habitat Management Guides) shall not be physically altered or disturbed by structures or activities in a manner that would preclude or significantly interfere with continued use of these sites. Land and water structures and facilities shall maintain a one-half mile buffer from identified use areas for walrus, sea lions, seals, and seabirds. Development activities with high levels of acoustical or visual disturbance shall, to the extent feasible and prudent, be conditioned in appropriate permits, leases, and plans of operation to prohibit these activities within:

- one-half mile of walrus or sea lion haul-outs from May 1 through December 31;
- one-half mile of seal haul-outs from March 1 through September 30; and
- one mile of seabird colonies from April 15 through September 30.

B-19 Disturbance by Aircraft

To minimize adverse disturbances to seabird colonies (Volume 1, Map 10, or as updated in the ADF&G Regional Habitat Management Guides), fixed-wing and helicopter aircraft shall maintain a minimum altitude of 2,000 feet or a 1.5 mile horizontal distance from identified colony sites between April 15 and September 30. To minimize adverse disturbances to walrus, sea lion, and seal haul-out sites (Volume 1, Map 10, or as updated in the ADF&G Regional Habitat Management Guides), fixed-wing and helicopter aircraft shall maintain a minimum altitude of 2,000 feet or a one-half mile horizontal distance from identified haul-out sites between May 1 and December 31 for walrus and sea lions, and between March 1 and September 30 for seals.

These conditions shall not be applicable where safety, weather conditions, or authorized destination within the area of concern dictate otherwise.

B-20 Reindeer Fawning Areas

Development activities shall minimize disturbance to the primary reindeer fawning areas shown in Volume 1, Map 10, during the fawning period from April 15 through May 15. Development activities and uses shall maintain the integrity and function of authorized and permitted reindeer fawning areas and shall not preclude access to fawning areas. The Bering Straits CRSA Board shall annually provide supplemental information concerning currently used reindeer fawning areas to the state and federal resource agencies.

B-21 Endangered Species

Development activities shall not cause significant impacts to the habitats or populations of the endangered bowhead whale, gray whale, peregrine falcon, or other designated endangered species identified by the state or federal governments.

C. AIR, LAND, AND WATER QUALITY

C-1 State and Federal Regulations

State and federal statutes, regulations, and procedures pertaining to the protection of air, land, and water quality are incorporated into the Bering Straits CRSA coastal management program.

C-2 Water Quality Standards

C-2.1 Domestic and public water supplies, fresh and marine waters important for the growth and propagation of fish, wildlife, and plants, and waters used for recreation shall be classified by the Alaska Department of Environmental Conservation (ADEC) for water quality standards necessary to maintain or enhance these uses. Reclassification of waters shall be made through ADEC amendment procedures.

C-2.2 All permits, leases, or plans of operation for land and water uses which may directly affect water quality shall require that these activities be sited, designed, constructed, and operated to provide a reasonable assurance that discharges will meet state and federal water quality standards for the receiving water use criteria.

C-3 Environmental Protection Technology

To the extent feasible and prudent, equipment and procedures utilizing the most effective technology for limiting emissions and effluents, and for the storage, handling, cleanup, and disposal of oil and other toxic substances shall be required for industrial, military, energy, and transportation facilities.

C-4 Hazardous Substances

C-4.1 Planning Process - Administrative Policy

The Bering Straits CRSA Board shall work, if requested, with entities proposing treatment, storage, transportation, or disposal of hazardous materials or toxic substances to provide the Bering Straits CRSA Board, affected communities, Native corporations, and appropriate landowners the opportunity to participate in the planning process for the treatment, storage, transportation or disposal of hazardous materials or toxic substances, in accordance with the procedures identified in Chapter 6, Implementation.

C-4.2 Storage, transportation, cleanup, and disposal of hazardous materials and toxic substances, petroleum, and petroleum products shall comply with state and federal regulations including provisions for public notice and public participation.

C-4.3 Hazardous materials, toxic substances, petroleum, or petroleum products as defined in State and federal regulations, shall not be disposed of on barrier islands, on sea ice, in marine waters, or in any rivers, streams, lakes, or wetlands in the region.

C-5 Siting of Facilities (Administrative Policy)

The Bering Straits CRSA Board shall work, if requested with developers of proposed industrial facilities to evaluate emissions and effluent dispersion, and assist in the siting of industrial facilities, in accordance with the procedures identified in Chapter 6, Implementation.

C-6 Cumulative Impacts

The cumulative impacts of new industrial development on the air and water quality of the district shall be considered in the review of proposed development projects. The cumulative effects on ambient air and water quality from proposed development projects shall meet all applicable requirements of State and federal laws and regulations.

C-7 Refuse Disposal

State requirements for solid waste management and drinking water shall be adhered to in the operation and siting of disposal sites for refuse and putrescible wastes. Additionally, to the extent feasible and prudent, disposal sites for refuse and putrescible wastes shall:

C-7.1 Be located in upland sites a minimum of 1,500 feet from domestic water sources or fish-bearing waterbodies, and a minimum of 200 feet from any surface waters. The appropriate setback shall be determined following a site-specific surface and subsurface hydrological investigation;

C-7.2 Be located to avoid destruction of important or essential habitats;

C-7.3 Be designed and operated to avoid pollution of surrounding areas and to avoid creation of an attractive nuisance for wildlife, i.e., prevent garbage foraging by wildlife;

C-7.4 Provide for the incineration of combustible materials generated by new development activities, unless the environmental effects of incineration are more detrimental than disposal in a landfill or removal from the CRSA; and

C-7.5 Offshore developments, marine vessels, and floating fish processors shall dispose of refuse only in approved, onshore disposal sites. Floating fish processors shall dispose of fish processing wastes only at locations authorized by appropriate state and federal permitting agencies.

C-8 Sewage Disposal

Where feasible and prudent, sewage ponds and treated sewage outfalls shall be setback a minimum of 1,500 feet from currently used domestic water supplies or fish-bearing waters, and a minimum of 200 feet from any surface waters. The appropriate setback shall be determined following a site-specific surface and subsurface hydrological investigation.

C-9 Storage of Petroleum and Petroleum Products

Facilities for the storage of petroleum and petroleum products shall be in compliance with federal and state oil pollution regulations and regulations regarding drinking water supplies. Additionally, to the extent feasible and prudent, facilities for the storage, processing, or treatment of 5,000 gallons or more of petroleum or petroleum products shall be sited a minimum of 500 feet from domestic water supplies and surface waters. Impermeable berms and basins capable of retaining 110 percent of the tank capacity (or capacity of the largest tank where multiple tanks are separately valved) plus maximum accumulated precipitation shall be required to minimize the potential for inadvertent pollution. For facilities of 5,000 gallons or more a plan of operation for the facility, and for the recovery, storage, and transportation of spilled petroleum or petroleum products shall be prepared.

C-10 Oil Spill Contingency Plans (Administrative Policy)

The Bering Straits CRSA Board shall, if requested, work with project sponsors to provide that affected communities shall be involved in the development and review of oil spill contingency plans, when such plans are required of project sponsors by federal or state statutes or regulations, in accordance with the procedures identified in Chapter 6, Implementation.

C-11 Siltation and Sedimentation

Development uses, activities, and facilities shall not induce increased sedimentation, siltation, and resulting turbidity which could have a significant adverse impact to

aquatic productivity and habitats, marine fish, shellfish, or anadromous fish populations in marine, estuarine, and freshwater environments.

C-12 Discharge of Drilling Muds, Cuttings and Production Waters

C-12.1 The discharge of drilling muds, cuttings and production waters into marine waters of the district shall adhere to NPDES conditions and the Alaska Coastal Management program consistency requirements incorporated in or accompanying the NPDES permit. The Alaska Department of Environmental Conservation Certificate of Reasonable Assurance for NPDES permits shall require discharges to have no significant, acute, or cumulative adverse impacts on fish, wildlife, or aquatic plant resources.

C-12.2 Discharges of drilling muds, cuttings or production waters to fresh water lakes, streams, wetlands, or to estuarine waters shall not be permitted.

C-12.3 Whenever feasible and prudent, disposal of produced waters in upland areas shall be accomplished using reinjection techniques.

C-13 Oil and Gas Operations

Oil and gas plans of operation, and development and production plans must contain "best available technology" oil spill detection, containment, and clean-up measures which will minimize adverse impacts to fish and wildlife, habitats, commercial fishing, and subsistence resources and activities.

C-14 Nuclear Testing

Uranium fuel processing facilities and nuclear testing shall be sited and conducted in a manner that does not adversely affect fish, birds, animals, vegetation, or people in the Bering Straits CRSA.

D. HISTORIC, PREHISTORIC, AND ARCHAEOLOGICAL SITES

D-1 Regional and Local Planning (Administrative Policy)

It is the policy of the Bering Straits CRSA Board that cultural resources be considered during development of regional and local planning activities, in accordance with the procedures identified in Chapter 6, Implementation.

D-2 Cultural Resource Areas

Based on the limited inventory of historic and archaeological sites in the region and the variety of environmental settings in which they have been found, all areas within the coastal zone boundary are considered to have the potential to contain significant cultural resources. Evaluation of potential impacts to significant cultural resources and appropriate mitigation shall be the responsibility of entities proposing development activities.

Project sponsors proposing development activities with the potential to adversely affect cultural resource areas shall provide an assessment and evaluation of identified cultural resource sites. This shall include reference to Bering Straits CRSA Volume 2, Map 5.1 to see if the project is within a township where cultural sites have been documented. If the project is within such a township, the district and the state Historic Preservation Office shall be contacted for more site-specific knowledge. Where there is potential for undiscovered cultural sites in the project area, the appropriate federal and state agencies and the district in consultation with affected communities shall determine if a cultural resource survey is needed prior to surface disturbance activities.

Uses and activities which may adversely affect cultural resource areas shall comply with the following standards:

D-2.1 To the extent feasible and prudent, archaeological, prehistoric, and historic resources shall be protected from adverse impacts caused by adjacent uses and activities.

D-2.2 Prior to major projects listed in Chapter 6.7, the project applicant shall conduct a review, contact the State Historic Preservation Office and ensure that areas or artifacts of significant historic, prehistoric, or archaeologic importance will not be disturbed or destroyed during project development.

D-2.3 If previously undiscovered artifacts or areas of historic, prehistoric, or archaeologic importance are encountered during development activities, the Bering Straits CRSA Board and the State Historic Preservation Office shall be notified. The site shall be protected from further disturbance pending evaluation by the State Historic Preservation Office.

D-3 Traditional Activities

Uses and activities which require permits or approvals and which may impact traditional activities at cultural or historic sites shall avoid or mitigate significant impacts. Appropriate mitigation is determined by the state and the district in consultation with the landowners, affected communities, and the regional non-profit corporation.

D-4 Data Requirements (Administrative Policy)

Prior to any major archaeological project within the district, adequate information shall be provided by project sponsors to the Bering Straits CRSA Board and affected communities will be used to determine the purpose of the project, and the anticipated impacts to cultural resources, fish and wildlife and their habitats, plant resources, and subsistence activities identified in the Bering Straits coastal management program, in accordance with the procedures identified in Chapter 6, Implementation.

D-5 Removal of Artifacts

All state and federal regulations governing removal of artifacts must be met. Additionally, on private lands, artifacts shall not be removed from the Bering Straits CRSA without permission of the affected landowner. On public lands, artifacts shall not be removed from the Bering Straits CRSA without permission from the affected communities and the regional non-profit corporation.

D-6 Cultural Resource Orientation

For major projects listed in Chapter 6.7, the project applicant shall inform construction and operation workforces of the importance of historic and cultural resources to local residents, and of the state and federal laws prohibiting disturbance of such resources.

E. GEOPHYSICAL HAZARDS

E-1 Design and Siting Criteria

Industrial and commercial development, public buildings, and public housing projects shall not be located in a geophysical hazard area if a feasible and prudent alternate site exists. Development in geophysical hazard areas shall incorporate appropriate siting, design, construction, and operation measures to minimize property damage, minimize potential impacts to the environment, and protect against loss of life.

E-2 Local Knowledge (Administrative Policy)

It is the policy of the CRSA Board that information concerning known geological hazards be supplemented with the knowledge and experience of local residents, particularly elders. The Bering Straits CRSA Board shall, if requested in cooperation with local villages, assist development entities in obtaining this information, in accordance with the procedures identified in Chapter 6, Implementation.

E-3 Coastal Processes

Development and resource extraction activities shall be sited and conducted to minimize accelerated coastal erosion or adverse impacts to coastal processes which could contribute to increased geophysical hazards.

E-4 Coastal Storm Surge/Tsunami Flooding

To the extent feasible and prudent, industrial and commercial development, public buildings and public housing projects shall not be located within areas subject to storm surge or other saltwater flooding. When siting within such areas is unavoidable, structures must be located, designed, constructed, and operated to minimize potential impacts to the environment, and protect against loss of life.

E-5 Landslides and Mass Wasting Hazards

To the extent feasible and prudent, new developments shall avoid areas subject to landslide and mass wasting hazards. Industrial and commercial development, public buildings, and public housing projects shall incorporate appropriate siting, design, construction, and operation measures to minimize the hazards.

E-6 Riverine Flooding

To the extent feasible and prudent, industrial and commercial development, public buildings and public housing projects shall not be sited within the annual floodplain and highwater channels of rivers, streams, and lakes. Where siting of facilities within this area is unavoidable, structures must be designed and constructed to minimize property damage, minimize impacts to the environment, and protect against loss of life.

E-7 Permafrost

Development activities and uses shall incorporate measures for protection of the organic mat and underlying permafrost into project planning, design, and construction. Where disturbance of the organic mat is unavoidable, the area disrupted shall be stabilized to avoid degradation of the permafrost.

E-8 Ice Hazards

To the extent feasible and prudent, shoreline and offshore developments shall avoid areas subject to ice hazards such as ice over-ride, ridging, and gouging. Development within such areas shall be subject to siting, design, construction, and operation measures which minimize the potential hazards.

F. COASTAL DEVELOPMENT

F-1 Water-Dependent and Water-Related Activities

In planning for and approving development in shoreline and waterfront areas, the Bering Straits coastal management program and state agencies shall give priority, in the following sequence, to:

(a) water-dependent uses and activities;

(b) water-related uses and activities; and

(c) uses and activities which are neither water-dependent nor water-related, for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.

F-2 Mitigation

All land and water use activities shall be conducted with appropriate planning and implementation to mitigate potentially adverse effects on the following resources of local, state, or national importance: fish and wildlife populations and their habitats; subsistence resource uses and activities; commercial fishing uses and activities; and cultural resources. Mitigation shall include and be considered in the following order of preference:

(a) attempt to avoid the loss of the affected resource or activity;

(b) when the loss cannot be avoided, minimize the loss and the need for restoration, maintenance, or compensation efforts;

(c) when the loss of resources and/or associated activities cannot be minimized, restore or rehabilitate the resource to its predisturbance condition, to the extent feasible and prudent; and

(d) when loss or damage to existing resources and associated activities is substantial and irreversible (including, for example, a seasonal loss in commercial fishing or subsistence harvest) and the above objectives cannot be achieved, compensation for resource and/or harvest loss shall be considered. In the case of loss of habitat production potential, enhancement of other habitats shall be considered as one alternative means of compensation.

The costs of mitigation, relative to the benefits to be gained, will also be considered in implementation of this policy.

Intent: Policy F-2 is intended to provide sequential steps that will be followed to mitigate potential impacts. Policy F-2 (a) and (b) states that for all fish and wildlife populations and their habitats and commercial and subsistence harvest activities, it is appropriate to first attempt to avoid loss of habitat or interference with harvest activities and secondly to minimize such loss or interference. The CPC encourages sound project site planning, design, and construction to achieve these requirements.

Policy F-2(c) and (d) addresses restoration or compensation for fish and wildlife populations or habitat loss and interference with commercial and subsistence harvest activities. The importance of the habitat and commercial or subsistence harvest will be considered during evaluation of the need for restoration or compensation.

F-3 Dredge and Fill

Dredging or filling operations which may have a significant, adverse effect on important or essential fish and wildlife habitat shall be prohibited unless no feasible and prudent upland alternative site exists to meet the public need for

the proposed project. If no feasible and prudent alternative is available, the project shall be designed, constructed, and maintained to minimize the area of disturbance, disruption of drainage patterns, and the need for continual maintenance of the project.

F-4 Dredge Spoil Disposale

Dredge spoils from construction-related activities shall be disposed of in approved onshore sites. Discharge may occur in an approved offshore area if the material is suitable fill for an approved project, or would cause less adverse impact to the environment, subsistence activities and historic/cultural sites. Offshore disposal shall meet applicable state and federal regulations. Dredged spoil disposal shall avoid significant adverse impact to important and essential habitats and significant alteration of shoreline processes. Onshore disposals shall be contained and stabilized to prevent erosion and leaching into adjacent waters.

F-5 Enclave Developmente

To the extent feasible and prudent, housing, camp facilities and other infrastructure in support of major development projects shall be located in enclaves separated from existing communities, unless the affected community approves of a different arrangement.

F-6 Infrastructure and Public Servicese
(Administrative Policy)

The Bering Straits CRSA Board shall, if requested, work with sponsors of major development projects listed in Chapter 6.7 which require a significant increase in infrastructure, utilities, or public services to ensure that the affected communities are apprised and receive reasonable advance notification of the proposed project needs, schedule, and specific plans to minimize the impact of development activities on the affected community, in accordance with the procedures identified in Chapter 6, Implementation.

F-7 Development Timinge

To the extent feasible and prudent, offshore resourcee exploration and development activities shall be schedulede and/or located to avoid impacts to commercial fishing ande subsistence activities. Where significant adverse impactse cannot be avoided, mitigation shall be considered in accordance with policy F-2.

F-8 Minimize Shoreline Disturbance

To maintain the stability and function of the marine coastline, stream and river banks, and lake shorelines, commercial and industrial development facilities and structures shall not be located closer than 100 feet from high-higher water (HHW) of coastlines and ordinary high water of river, stream, and lake shorelines unless the use or activity is water-dependent or water-related. Commercial or industrial uses and activities which are neither water-dependent or water-related may occur only if there is no feasible and prudent alternative to meet the public need.

F-9 Completion of Use

Upon abandonment, completion of use, or expiration of authorization (whichever occurs first) facilities, structures, and debris shall be removed by the project sponsors and the site rehabilitated unless there is a demonstrated future use for the site, as determined by appropriate state agencies and the district in consultation with affected communities and the project sponsor or unless such removal and rehabilitation would cause greater impacts than abandonment. Where feasible and prudent, gravel removed from abandoned roads and pads shall be stored in approved sites for reuse in future construction.

F-10 Multiple Use

To the extent feasible and prudent, ports, piers, cargo handling, storage, parking, and other coastal facilities shall be designed and utilized to minimize the need for duplicative facilities. Subsequent use of facilities for purposes other than their original intent shall also be a consideration in the siting and design of coastal facilities.

F-11 Compatibility

To the extent feasible and prudent, activities on and uses of coastal lands and waters shall be compatible with adjacent land and water uses, including subsistence.

F-12 Compliance Monitoring

For coastal developments and activities, the permitting or authorizing agency shall discuss and cooperatively set, as funding permits, monitoring priorities with the district to insure compliance with stipulations and special conditions on permits or authorizations.

G. MINING AND MINERAL PROCESSING

G-1 Access to Minerals

Where feasible and prudent, new residential, commercial, or industrial development shall not be sited in locations which would preclude or significantly hinder the effective and safe development and extraction of identified mineral deposits.

G-2 Planning Processes (Administrative Policy)

Entities proposing major mining or mineral processing activities shall provide the Bering Straits CRSA Board, affected communities, and affected landowners an opportunity to participate in planning processes, in accordance with the procedures identified in Chapter 6, Implementation.

G-3 Sand and Gravel Priority Areas

To the extent feasible and prudent, sources of sand and gravel shall be authorized in a descending order of priority, as follows:

(a) existing, approved upland sand and gravel pits;

(b) reuse of sand and gravel from abandoned development areas;

(c) new upland sand and gravel pits;

(d) rivers, streams, and lakes that do not support fish;

(e) marine shoreline and offshore sand and gravel sources; and

(f) floodplain sand and gravel sources in fish-bearing streams.

G-4 Floodplain Sand and Gravel Extraction

If removal of sand and gravel from streams and rivers for construction, sale or related purposes cannot be avoided, the following policies apply:

G-4.1 To the extent feasible and prudent, sand and gravel shall be extracted from the following river configurations in the order of highest to lowest preference: braided, split channel, meandering, sinuous, and straight. When possible, exposed sand and gravel bars in broad, active floodplains shall be considered for extraction.

G-4.2 To the extent feasible and prudent, changes to channel hydraulics shall be avoided.

G-4.3 Sand and gravel pits shall be located to minimize the probability of channel diversion through the site.

G-4.4 The effects of sand and gravel removal shall be minimized by maintaining buffers between active channels and the work area and by avoiding in-stream work, unnecessary clearing of riparian vegetation, and disturbance to natural banks.

G-4.5 To the extent feasible and prudent, site configurations shall avoid the use of long straight lines and shall be shaped to blend with physical features and surroundings to provide for diverse riparian and aquatic habitats.

G-4.6 If the work area may be inundated by high water during the period of operation, temporary dikes shall be constructed around the site to segregate the work area from active channels and avoid the entrapment of fish.

G-4.7 Removal of sand and gravel from floodplains of fishbearing streams shall not adversely impact spawning or overwintering habitat.

G-4.8 When gravel washing operations occur in the floodplain, settling ponds shall be used to remove suspended materials from the wash water; settling ponds shall be adequately diked or set-back from active channels to avoid breaching by a 10-year frequency flood. Wash water shall be recycled or other appropriate mining technologies will be utilized so that the effluent discharge complies with state and federal water quality regulations.

G-5 Overburden Disposal

Overburden shall not be disposed of in lakes, within the mean annual floodplain of streams or rivers, or below the limit of mean high water in intertidal areas and estuaries. Whenever feasible and prudent, overburden in upland areas shall be saved and replaced on the disturbed area to conform to the natural topography as part of the reclamation process.

G-6 Reclamation and Restoration

Reclamation of all upland and floodplain mined sites shall be required unless such reclamation would cause greater adverse impact to the environment. At a minimum, reclamation shall include the following elements, as applicable:

G-6.1 Topsoil shall be segregated from overburden, and both shall be stored above the mean annual floodplain of rivers, streams and lakes. Topsoil for these purposes is defined as the layer of mineral and organic material in which fibrous plant roots can survive.

G-6.2 At the end of each mining operation season, all disturbed areas shall be graded to stable slopes or otherwise stabilized to minimize erosion. Within mean annual floodplains, regrading to ground contours which will not entrap fish nor significantly alter stream hydraulics shall occur at the cessation of each operating season. Sand and gravel materials used in the construction of settling ponds and other essential facilities may be retained in place until completion of use.

G-6.3 At the completion of mining activities or sand and gravel extraction, all disturbed areas shall be stabilized and revegetated, as appropriate. Restoration shall include the following:

(a) All disturbed areas shall be graded to stable slopes that blend with the natural topography;

(b) Erosion control measures shall be implemented as appropriate to stabilize the site; and

(c) Areas designated for revegetation shall be covered with topsoil to encourage establishment of native plant species.

An exception to these requirements is provided for the portion of a sand and gravel extraction site required to provide materials for continuing maintenance and operation activities. Maintenance of sand and gravel sites will comply with the requirements of part G-6.2 of this policy.

G-7 Coastal Gravel Extraction

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits only when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel. Such extraction activities shall minimize adverse impacts on wave energy, sediment transport, herring and anadromous fish spawning and rearing habitats, and waterfowl habitat; minimize increases in shoreline erosion; and minimize increases in turbidity and sedimentation.

G-8 Offshore Mining and Extraction of Sand and Gravel

G-8.1 Extraction of sand and gravel or recoverable minerals from the sea bottom in offshore areas shall avoid significant adverse impacts to important and essential habitats, commercial fishing activities, subsistence harvest activities, and navigation.

G-8.2 Extraction of offshore sand and gravel or recoverable minerals within a one mile radius from the ordinary high water mark of anadromous fish streams, measured from their confluence with mean lower-low water may be allowed only after the project applicant provides information demonstrating to appropriate state agencies and the district that mining and related activities will avoid significant adverse impacts to anadromous fish and their habitat.

G-8.3 Dredge spoils and processed materials associated with offshore mining for recoverable minerals shall be discharged on the sea bottom in the area from which they were extracted unless discharge in an approved offshore or onshore site would cause less impact to the environment, subsistence activities, and historic/cultural sites.

G-8.4 Offshore mining and mineral processing activities shall avoid discharge of toxic substances (as defined in Department of Environmental Conservation regulations) in processing effluent in concentrations which exceed state or federal water quality criteria at the boundary of an approved mixing zone, or, if no mixing zone has been approved, at the point of discharge. In areas

where toxic substances occur naturally in bottom sediments, offshore mining activities shall not resuspend such toxic substances in the water column in excess of that allowed by water quality regulations or contribute to additional bioaccumulation of toxic substances in marine organisms or fish.

G-9 Placer Mining

G-9.1 Extraction of placer deposits shall avoid significant adverse impacts to important and essential habitats, commercial fishing activities, and subsistence harvest activities. If adverse impacts can not be avoided, those impacts must be mitigated in accordance with Policy F-2.

G-9.2 Placer operations which discharge processing wastewater to rivers or streams shall incorporate functional sediment control facilities or techniques into the design and operation of the placer mine, as appropriate to meet state and federal water quality standards for effluent discharge.

G-9.3 Maximum use of recycled water or other appropriate mining technologies shall occur to minimize water withdrawal from the stream and subsequent discharge of effluent to adjacent waters.

G-9.4 All placer operations shall be designed, constructed, and operated in compliance with applicable state and federal regulations and water quality standards.

G-9-5 Placer mining operation sites shall be rehabilitated upon completion of use in accordance with Policy G-6. Tailings and processed materials shall be stabilized or contained as appropriate to avoid accelerated erosion and prevent leaching of toxic substances that may be present with the target minerals.

H. MAJOR INDUSTRIAL AND COMMERCIAL FACILITIES

H-1 Planning Requirements (Administrative Policy)

The state and federal government are strongly encouraged to provide the Bering Straits CRSA Board, affected landowners, and affected communities the opportunity to participate in

planning processes for major industrial and commercial facilities, in accordance with the procedures identified in Chapter 6, Implementation.

H-2 Siting Considerations

To the extent feasible and prudent, the siting and approval of major industrial and commercial facilities shall be based on the following standards:

H-2.1 Facilities shall be sited to minimize adverse environmental and social effects on the resources and residents of the region, while satisfying industrial and commercial requirements;

H-2.2 Facilities shall be sited to be compatible with existing and subsequent adjacent uses and projected community needs;

H-2.3 Consolidate facilities and consider the concurrent use of facilities for public or economic reasons;

H-2.4 Select sites with sufficient acreage to allow for reasonable expansion of facilities;

H-2.5 Site facilities where existing infrastructure, including docks, roads, and airstrips, is capable of satisfying industrial and commercial requirements;

H-2.6 Select sites where development will minimize the need for site clearing, dredging, or construction in productive coastal habitats;

H-2.7 Site facilities to minimize the probability that petroleum spills or other forms of contamination along shipping routes could adversely affect commercial and subsistence fishing areas or biologically productive or vulnerable habitats, including marine mammal haul-outs, seabird feeding areas, and waterfowl nesting areas.

H-2.8 Site facilities so that the design and construction of those facilities and the support infrastructure will allow for the free passage and movement of fish, wildlife, and reindeer with due consideration for historic migratory patterns;

H-2.9 Site facilities so that areas of particular subsistence, scenic, recreational,environmental, or cultural value will be protected;

H-2.10 Site facilities in areas of least biological productivity, diversity, and vulnerability, and where effluents and spills can be controlled and contained;

H-2.11 Site facilities where winds and air currents maximize dispersal of airborne emissions which cannot be captured before escape into the atmosphere;

H-2.12 Select sites in areas which are designated for industrial and commercial purposes and where traffic is minimized through population centers;

H-2.13 Site and construct facilities such that public access is not unreasonably restricted and where alternate routes for public access can be provided;

H-2.14 Select sites where vessel movements will not result in overcrowded harbors or interfere with commercial or subsistence fishing operations or equipment; and

H-2.15 Cooperate with private landowners, local governments, developers, and state and federal agencies in the development of major industrial and commercial facilities.

H-3 Use of Existing Energy Facilities

To the extent feasible and prudent, existing energy facilities shall be used to meet new requirements for exploration and production support bases, transmission/shipment (including pipelines and transportation systems), and distribution of energy resources.

H-4 Geophysical Surveys

Geophysical surveys in fresh and marine waters shall be conducted using energy sources such as airguns, gas exploders, and other sources that have been demonstrated to be harmless to fish and wildlife.

Intent: Policy H-4 balances several uses of state concern and national interest, including the exploration and production of oil and gas resources and the protection and utilization of the state's fisheries. After considering the information available on the value of the state's fisheries, the potential adverse impacts associated with the use of explosives in open water, and the potential information to be derived from seismic activities in the transition zone, the state has serious concerns about the use of explosives for seismic exploration in marine waters. The state recognizes that a limited use of explosives may be necessary to obtain quality seismic data in certain areas of the transition zone, such as when there is a need to "tie" geophysical information between potential offshore lease tracts and onshore well sites.

Implementation of Policy H-4 will be based on the best available scientific information relative to the significant adverse impacts of explosives and other seismic technology on fish and wildlife. The State of Alaska is reviewing its current policy pertaining to the use of explosives in marine waters, evaluating alternative means of collecting seismic information in the transition zone, and evaluating available measures to mitigate adverse impacts on marine life and fishery activities. The Alaska oil and gas industry has recently sponsored a program of research to provide additional information with regard to the effects of linear explosives on juvenile salmon in the marine environment. Should a review of this research and the continuing evaluation of the state's seismic policy by the State of Alaska indicate a change to this policy is warranted, the state will pursue such a change.

I. TRANSPORTATION AND UTILITY SYSTEMS

I-1 Planning Processes (Administrative Policy)

The state and federal government are strongly encouraged to provide the Bering Straits CRSA Board, affected landowners, and affected communities with the opportunity to participate in planning processes for transportation and utility corridors, in accordance with the procedures identified in Chapter 6, Implementation.

I-2 Facility Design, Construction, and Maintenance

Highway, airport, port, and utility system design, construction, and maintenance shall minimize alteration of watercourses, wetlands, and intertidal marshes and consider visual compatibility of facilities with the coastal environment.

I-3 Siting and Scheduling

Transportation and utility corridors shall be sited, designed, and operated, with the following standards:

I-3.1 Adverse impacts to habitats, biological resources, subsistence activities, and the community lifestyle shall be minimized;

I-3.2 To the extent feasible and prudent, transportation and utility corridors and facilities shall be consolidated;

I-3.3 Impacts to the free passage and movements of fish, wildlife, and reindeer shall be minimized, with due consideration for historic migratory patterns;

I-3.4 Phasing of construction shall be scheduled in project plans to minimize disturbance during critical migration periods for fish, wildlife, and reindeer; and

I-3.5 Road and pipeline crossings of anadromous fish streams shall be minimized and, to the extent feasible and prudent, consolidated at single locations to reduce multiple impacts to an individual drainage.

I-4 Harbors and Shipping Routes

Harbors and shipping routes shall be sited to avoid reefs, shoals, drift ice and other ice hazards, and other navigational obstructions unless appropriate technology or navigational techniques can mitigate these hazards.

I-5 Airstrips

Where feasible and prudent, new airstrips shall be located, designed, and constructed to avoid physical, visual, and acoustical disturbances to residents, subsistence activities, and important and essential fish and wildlife habitats and populations.

I-6 Electric Transmission Facilities

Wherever feasible and prudent, transmission lines and towers shall be constructed in existing transportation and utility corridors and shall not be sited in important or essential waterfowl habitats or migration areas.

J. RECREATION

J-1 Planning Processes (Administrative Policy)

The state and federal government are strongly encouraged to provide the Bering Straits CRSA Board, affected landowners and affected communities an opportunity to participate in recreation planning, in accordance with the procedures identified in Chapter 6, Implementation.

K. DISPOSALS OF INTEREST

K-1 Planning Processes (Administrative Policy)

The state and federal government are strongly encouraged to provide the Bering Straits CRSA Board, affected communities, and affected landowners the opportunity to participate in the planning process for land disposals and disposal of interests within the region, including homestead settlements, subdivisions, agricultural disposals, and leases, in accordance with procedures identified in Chapter 6, Implementation. Coordination should include the village corporation shareholder for the homesite programs and other private land disposal programs.

K-2 Coordination with Board (Administrative Policy)

The Bering Straits CRSA Board shall assist the state and federal government in the evaluation of disposals of interest and land disposal programs by providing an assessment of the market for land, the type of disposal that meets the needs of the residents, the location of appropriate disposal areas, and optimum timing and design of disposals, in accordance with procedures identified in Chapter 6, Implementation.

K-3 State Land Disposals

The Bering Straits CRSA will participate in the planning process for programmatic state land disposals in accordance

with the authorities outlined in AS 38 (for example, AS 38.04.065, AS 38.05.300, AS 38.05.945), 6 AAC 50 and other Department of Natural Resources procedures (Land Availability Disposal System, or "LADS" process).

L. TIMBER

L-1 Planning Processes (Administrative Policy)

Entities proposing timber harvest and processing activities are strongly advised to provide the Bering Straits CRSA Board, affected communities, and affected landowners the opportunity to participate in the planning process, in accordance with the procedures identified in Chapter 6, Implementation.

L-2 Fire Protection (Administrative Policy)

The state and federal government are strongly encouraged to provide the Bering Straits CRSA Board, affected communities, and affected landowners the opportunity to participate in the planning process for amendments to fire protection agreements affecting the district, in accordance with the procedures identified in Chapter 6, Implementation.

L-3 Timber Management Practices

Best management practices shall be used in all commercial forestry and timber harvest activities in accordance with the Forest Resource and Practice Regulation (11 AAC 95) of the Forest Practices Act (AS 41.17).

M. COASTAL ACCESS AND EASEMENTS

M-1 Planning Processes (Administrative Policy)

The state and federal government are strongly encouraged to provide the Bering Straits CRSA Board, affected landowners, and affected communities the opportunity to participate in the planning process for access points and easement routes on state and federal lands, in accordance with the procedures identified in Chapter 6, Implementation.

M-2 Easements

Recreational, industrial, commercial, and other users shall utilize permitted or identified easements through or adjacent to private lands.

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6.0 POLICIES

6.1 INTRODUCTION

Policies are the "enforceable rules" of a coastal management program; all uses and activities subject to the program must comply with coastal management policies in order to be determined "consistent" with the coastal management program. All parties participating in consistency determinations will use the policies as the means for deciding consistency.

The policies presented in this section are designed to clearly identify "performance standards" for the protection of important resource values and uses while providing some flexibility in making consistency determinations. Activities and uses subject to a consistency determination must clearly show compliance with coastal management policies. The application of policies in making a consistency determination will not restrict uses of state concern without meeting Coastal Policy Council requirements for restricting such uses of state concern.

In addition to performance standards, some of the policies request information needed by the CRSA Board or state agency to evaluate "performance" and make consistency determinations. Information requested is supplementary to general project information to be provided, as identified in Chapter 7.0, Implementation.

Preparation of these policies included four major steps:

(1) review of the resource inventory and analysis and input from public participation.

(2) review and incorporation of appropriate policies from earlier NANA CRSA Program documents, the NANA and KIC Corporations, and the City of Kotzebue.

(3) review of Alaska Coastal Management Program Standards and Guidelines requirements and organization of the policies to reflect these requirements.

(4) preparation of policies for General Use, Important Resource Use, and Sensitive Use Areas.

As a result of this process, the NANA CRSA policies support the resources and values important to NANA residents. The pursuit of subsistence activities continues to provide the foundation for traditional cultural values and the community and regional economy. Within the last decade, NANA residents have worked to strengthen their economy through the development of reindeer herding, small scale agricultural and timber harvesting activities, and more recently, mineral resources. However, it has been a regional policy to balance economic development with maintaining the traditional Native culture and subsistence economy.

The policies in the General Use Area apply to the entire coastal area and must be complied with, regardless of whether the subject use takes place within General Use, Important Resource Use, and Sensitive Use Areas. In addition to the General Use policies, activities and uses taking place within the latter two areas must comply with the policies applicable to those specific areas.

In addition to enforceable policies, several administrative policies for the NANA CRSA Board have been included. These are recognized as "unenforceable" and are designated as administrative policies. Administrative policies primarily address coordination with local residents on consistency determinations, and the authority of the CRSA Board to designate new Important Resource Use and Sensitive Use Areas.

6.2 GENERAL USE POLICIES

The following policies apply to all activities and uses of coastal lands and water within the General Use Area of the NANA CRSA:

A. SUBSISTENCE

A-1 Subsistence Priority

Subsistence use of coastal lands and waters has traditionally been the primary and highest priority use of all lands and waters within the coastal management plan area; therefore, all other land/water management uses and activities shall accommodate the use of subsistence resources in the planning, development and operation of these activities.

Intent

The purpose of Policy A-1 is to provide guidance to the decision making process that deals with balancing conflicting uses of state concern. It is understood that all possible impacts to subsistence resources and the use of those subsistence resources from a resource extraction or development project may be unavoidable. It is the intent of policy A-1 to ensure that through careful planning, development, and operation of a resource extraction or development project, all reasonable steps are taken to mitigate adverse impacts to subsistence resources and the use of subsistence resources.

A-2 Land Use Area Designation

Especially sensitive areas of significant subsistence resource use may be proposed by the CRSA Board as Important Resource Use or Sensitive Use Areas subject to approval by the Coastal Policy Council (Administrative Policy).

A-3 Local Concerns

The CRSA Board shall work with communities affected by proposed activities to identify subsistence resource concerns and to develop appropriate stipulations (Administrative Policy).

A-4 Access to Resources

Management plans and development projects shall maintain traditional and customary access to subsistence resources unless reasonable alternate access is provided.

B. TRAPPING

B-1 Mitigation

Uses and activities not related to trapping shall minimize adverse impacts to trapping activities and resources.

B-2 Non-Trapping Uses

Residential and non-trapping commercial uses of trapping cabins shall be prohibited.

C. HABITAT AND BIOLOGICAL RESOURCE PROTECTION

C-1 Uses and activities that do not conform with the following habitat and biological policies shall be allowed if 1) there is a significant public need for the activity, 2) there are no feasible and prudent alternatives, and 3) all feasible and prudent steps to maximize conformance have been taken.

C-2 Land Use Area Designation

Areas of important habitat and use may be proposed as Important Resource Use or Sensitive Use Areas by the CRSA Board subject to approval by the Coastal Policy Council (Administrative Policy).

C-3 Habitat Maintenance

All habitats shall be managed so as to maintain or enhance the biological, chemical and physical characteristics of the habitat which contribute to its capacity to support living resources.

C-4 Offshore Areas

Offshore areas shall be managed to maintain or enhance fisheries, and marine mammal subsistence harvesting.

C-5 Estuaries

Estuaries shall be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of productive habitat. These areas shall be managed to maintain or enhance commercial and subsistence fisheries, and marine mammal subsistence harvests.

C-6 Wetlands and Tideflats

Wetlands and tideflats shall be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse changes in natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances.

C-7 Rocky Islands and Seacliffs

Rocky islands and seacliffs shall be managed so as to avoid the harassment of wildlife, and destruction of important habitat, and the introduction of competing or destructive species or predators.

C-8 Barrier Islands and Lagoons

Islands and lagoons shall be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of islands, and discourage activities which would decrease the use of islands by coastal species, including polar bears and nesting birds.

C-9 High Energy Coasts

High energy coasts shall be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy.

C-10 Rivers, Lakes and Streams

Rivers, streams, and lakes shall be managed to protect natural vegetation, water quality, important habitat and natural water channels and flows required to protect fish and wildlife habitat.

C-11 Upland Habitats

Important habitats in upland areas shall be managed to maintain natural drainage patterns, surface water quality, and natural ground-water recharge areas; to prevent runoff and erosion; and to minimize alteration of vegetation which may result in decreased biological productivity.

D. HISTORIC, PREHISTORIC AND ARCHAEOLOGICAL RESOURCES

D-1 Land Use Area Designation

Areas of unusually concentrated or culturally important archaeological, prehistoric and historical resources may be proposed by the CRSA Board as Important Resource Use or Sensitive Use Areas subject to approval by the Coastal Policy Council (Administrative Policy).

D-2 Resource Protection

Archaeological, prehistoric and historic resources shall be protected to the extent feasible and prudent from adverse impacts caused by surrounding uses and activities.

D-3 Data Requirements

Prior to any major archaeological project within the district, adequate information shall be provided to the NANA CRSA Board concerning:

(a) purpose of the project;
(b) proposed site area;

(c) timing of operation;

(d) potential impacts on resources addressed in NANA program policies (Administrative Policy).

D-4 Local Notification

The NANA CRSA Board affected communities and landowners and other appropriate parties shall be notified before any excavation or archaeological related work commences on lands around their respective villages (Administrative Policy).

E. AIR, LAND AND WATER QUALITY

E-1 State and Federal Regulations

The statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the NANA Coastal Management Program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes.

E-2 Cumulative Impact

The cumulative impact of new industrial development on district air and water quality shall be considered in the review of proposed development projects. The cumulative air and water quality of proposed development projects shall meet all applicable requirements of state and federal laws and regulations.

E-3 Air and Water Quality

To the extent feasible and prudent, the most effective technology shall be utilized to minimize emissions and effluents from commercial and industrial sources.

E-4 Environmental Protection Technology

To the extent feasible and prudent, the most effective technology will be used for storage, handling, cleanup and disposal of hazardous substances, petroleum and petroleum products.

E-5 Siting

The CRSA Board shall work with developers of proposed industrial facilities to evaluate emission and effluent dispersion, and assist in siting industrial facilities (Administrative Policy).

E-6 Hazardous Substances

Hazardous substance, petroleum and petroleum products disposal and storage shall comply with state regulations, or federal regulations in the absence of state regulations.

E-7 Planning for hazardous Substances

Entities proposing hazardous waste treatment, storage, transportation and disposal must provide the CRSA board, affected communities, Native Corporations and appropriate landowners the opportunity to participate in the planning process as referenced in Chapter 7.7 (Administrative Policy).

E-8 Erosion and Siltation

To the extent feasible and prudent, soil erosion shall be minimized by avoiding the removal of vegetation adjacent to water bodies and by stabilizing and revegetating disturbed soil as soon as possible.

E-9 Water Quality Standards

(a) Domestic and public water supplies, fresh and marine waters important for the production and management of waterbirds and fish, and waters used for recreation shall be classified by the Department of Environmental Conservation (DEC) for water quality standards necessary to maintain or enhance these uses. Reclassification of waters shall be made through DEC procedures.

(b) All permits, leases or plans of operation for land or water uses which may directly affect water quality will require that these activities be sited, designed, constructed and

operated to provide a reasonable assurance that discharges shall meet water quality standards for the receiving water use criteria.

F. GEOPHYSICAL HAZARDS

F-1 Design and Siting Criteria

Industrial and commercial development shall not be located in a geophysical hazard area if a feasible and prudent alternate site exists. Development in hazard areas shall be preceded by adequate siting design and construction measures for minimizing property damage and protecting against loss of life.

F-2 Erosion

To the extent feasible and prudent, development and resource extraction shall be sited and conducted to avoid a significant increase in coastal erosion and significant adverse impacts on other coastal processes.

F-3 Coastal/Seiche Flooding

To the extent feasible and prudent, industrial and commercial development outside established communities and within areas subject to storm surge flooding shall be limited to water-dependent/water-related uses. Water-dependent development within such areas shall mitigate the potential hazard through siting/design/construction measures.

F-4 Landslides and Mass Wasting Hazards

To the extent feasible and prudent, commercial and residential development shall avoid areas identified as subject to landslide and mass wasting hazards. Industrial development shall mitigate the hazard through siting/design/construction measures.

F-5 Riverine Flooding

To the extent feasible and prudent, industrial and commercial development shall not be sited within the active floodplain and

highwater channels. Where siting of structures within the active floodplain and highwater channels is unavoidable, structures within these areas must be sited, designed and constructed to minimize property damage and protect against loss of life.

G. COASTAL DEVELOPMENT

G-1 Water Dependent and Related

In planning for and approving development in shoreline and waterfront areas, the NANA Coastal Management Program and state agencies shall give, in the following order, priority to:

(a) water-dependent uses and activities;

(b) water-related uses and activities; and

(c) uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.

G-2 Dredge and Fill

Shoreline modifications and the discharge of dredged or fill material shall comply with existing state and federal standards.

G-3 Multiple Use

To the extent feasible and prudent, piers, cargo handling, storage, parking, and other facilities shall be designed and used to prevent the need for duplicative facilities.

G-4 Compatibility

To the extent feasible and prudent, activities on and uses of coastal lands and waters shall be compatible with adjacent land and water uses.

G-5 Optimum Shoreline Use

To the extent feasible and prudent, subsistence and commercial fishing sites, and fishing gear storage areas shall be given priority consideration for shoreline use. Other uses must demonstrate consideration of alternative sites.

G-6 Mitigation

All land and water use activities shall be conducted with appropriate planning and implementation to mitigate potentially adverse effects on the following resources of local, state, or federal importance: fish and wildlife populations and their habitats; commercial fishing uses and activities; subsistence resource uses and activities; and cultural resources. Mitigation shall include and be considered in the following order of preference:

(a) attempt to avoid the loss of the affected resource or activity;

(b) when the loss cannot be avoided, minimize the loss and the need for restoration, maintenance or compensation efforts;

(c) when the loss of resources and/or associated activities cannot be minimized, to the extent feasible and prudent, restore or rehabilitate the resource to its predisturbance condition; and

(d) when loss or damage to existing resources and associated activities is substantial and irreversible (including for example a seasonal loss in commercial fishing or subsistence harvest) and the above objectives cannot be achieved, compensation for resource and/or harvest loss shall be considered. In the case of loss of habitat production potential, enhancement of other habitats shall be considered as one alternative means of compensation.

Mitigation requirements listed in other General, Important Resources, and Sensitive Use Area policies shall follow the steps listed above.

Intent

Policy G-6 is intended to provide sequential steps that will be followed to mitigate potential impacts. Policy G-6(a) and (b) states that for all habitats and commercial and subsistence harvest activities, it is appropriate to first attempt to avoid loss of habitat or interference with harvest activities and secondly to minimize such loss or interference. The CPC encourages sound project site planning, design, and construction to achieve these requirements.

Policy G-6(c) and (d) addresses restoration or compensation for habitat loss or interference with commercial and subsistence harvest activities. The importance of the habitat and commercial or subsistence harvest will be considered before restoration or compensation will be required. The cost of mitigation, relative to the benefit to be gained, will also be considered in implementation of this policy.

G-7 Development Timing

To the extent feasible and prudent, offshore resource exploration and development activities must be timed and/or located to avoid interference with commercial and subsistence fishing activities. Where significant adverse effects cannot be avoided, mitigation shall be considered in accordance with Policy G-6.

H. LAND DISPOSAL

H-1 Planning Requirements (Sivunniuq)

The state government must work with the CRSA Board, affected landowners, and affected local governments in the planning processes outlined in Chapter 7.7 for all land disposals (including homesteading settlement, subdivision, and agricultural and coor-

dination with shareholder homesite programs and other private land disposal programs). Federal land disposals are subject to the same requirements (Administrative Policy).

I. TRANSPORTATION AND UTILITIES

I-1 Land Use Area Designation

New transportation corridors or facilities that are not related to community service may be proposed as Important Resource Use Areas by the CRSA Board subject to approval by the Coastal Policy Council (Administrative Policy).

I-2 Planning Processes

The state and federal government shall provide the CRSA Board, affected land owners, and affected local governments the opportunity to participate in planning processes referenced in Chapter 7.7 for all transportation corridor designations (Administrative Policy).

I-3 Water Dependence

Transportation and utility routes and facilities shall be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

I-4 Minimize Impacts Transportation and Utility Corridor Areas shall be sited, designed, and operated so that:

(a) adverse impacts on biological resources, subsistence use areas and local community way of life will be minimized;

(b) duplication of corridors and facilities will be minimized;

I-5 Migratory Passage

To the extent feasible and prudent, transportation and utility corridor uses shall be sited, designed, and operated to allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns.

I-6 Anadromous Fish Streams

To the extent feasible and prudent, access roads shall avoid crossing anadromous fish streams. Bridge or culvert design, construction and scheduling must minimize habitat disturbance and shall not adversely impact free fish passage.

I-7 Stream Crossings

Road and pipeline crossings of rivers or streams shall be minimized and to the extent feasible and prudent consolidated at one location to reduce the number of crossings in an individual drainage.

I-8 Facility Design, Construction, and Maintenance

Highway, airport, port, and utility design, construction, and maintenance must minimize alteration of water courses, wetlands, and intertidal marshes, and visual degradation.

J. ENERGY FACILITIES (Oil and Gas Facilities, Hydroelectric Power, Coal, Geothermal and Transmission Lines Outside Communities).

J-1 Land Use Area Designation

Major energy facilities not related to community energy supply may be proposed as Important Resource Use Areas by the CRSA Board subject to approval by the Coastal Policy Council (Administrative Policy).

J-2 Planning Requirements

The state and federal government shall provide the CRSA Board, affected land owners and affected local governments the opportunity to participate in planning processes referenced in Chapter 7.7 for all energy exploration and development projects prior to development taking place (Administrative Policy).

J-3 Siting Considerations

The siting and approval of major energy facilities shall be based, to the extent feasible and prudent on the following standards:

(a) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;

(b) site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;

(c) consolidate facilities, including use of waste heat;

(d) consider the concurrent use of facilities for public or economic reasons;

(e) cooperate with private landowners, local governments, developers, and state and federal agencies in the development of facilities;

(f) select sites with sufficient acreage to allow for reasonable expansion of facilities;

(g) site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements;

(h) select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions;

(i) encourage the use of vessel traffic control and collision avoidance systems;

(j) select sites where development will require minimal site clearing, dredging and construction in productive habitats;

(k) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination which affect fishing grounds, spawning grounds, and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;

(l) site facilities so that the design and construction of those facilities and support infrastructures in coastal areas of Alaska will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns and so that areas of particular scenic, recreational, environmental, or cultural value will be protected;

(m) select sites where development will require minimal site clearing, dredging, and construction in productive habitats;

(n) site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;

(o) site facilities where winds and air currents maximize dispersal of airborne emissions which cannot be captured before escape into the atmosphere;

(p) select sites in areas which are designated for industrial purposes and where industrial traffic is minimized through population centers; and

(q) select sites where vessel movements will not result in overcrowded harbors or interfere with fishing operations and equipment.

J-4 Energy Facilities

To the extent feasible and prudent, existing energy facilities, including pipelines and transmission lines, shall be used to meet

additional need for production, transmission/shipment, and distribution of energy resources.

K. MINING AND MINERAL PROCESSING

K-1 Land Use Area Designation

Areas of major mining (including placer mining) and mineral processing activities may be proposed by the CRSA Board as Important Resource Use Areas by the CRSA Board subject to approval by the Coastal Policy Council (Administrative Policy).

K-2 Planning Processes

Entities proposing major mining activities and mining of gravel in floodplains must provide the CRSA Board, affected local governments, and affected landowners an opportunity to participate in planning processes referenced in Chapter 7.7 (Administrative Policy).

K-3 Project Design

Mining and mineral processing in the district shall be regulated, designed, and conducted so as to be compatible with the policies contained in this plan, and adjacent uses and activities.

K-4 Coastal Gravel Extraction

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, only when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel. Such extraction activities must minimize adverse impacts on wave-energy, sediment transport, herring and anadromous fish spawning and rearing habitat, and waterfowl habitat; minimize increases in shoreline erosion; and minimize increases in turbidity and sedimentation.

K-5 Sand and Gravel Priority Areas

To the extent feasible and prudent, sources of sand and gravel shall be authorized in a descending order of priority, as follows:

(a) existing gravel pits;

(b) reuse of gravel from abandoned development areas;

(c) new upland pits;

(d) rivers, streams and lakes that do not support fish;

(e) shoreline and offshore gravel sources;

(f) floodplain gravel sources in fish-bearing streams; and

(g) small streams within tundra areas.

K-6 Floodplain Gravel Extraction

If mining in rivers and streams cannot be avoided, the following policies apply:

(a) To the extent feasible and prudent, gravel shall be mined from the following river types in order of preference: braided, split channel, meandering, sinuous, and straight. When possible, exposed gravel bars in large, active floodplains shall be considered for mining.

(b) To the extent feasible and prudent, changes to channel hydraulics shall be avoided.

(c) Gravel pits shall be located to minimize the probability of channel diversion through the site.

(d) The effects of gravel removal shall be minimized by maintaining buffers between active channels and the work area and by avoiding: (1) instream work, (2) unnecessary clearing of riparian vegetation, and (3) disturbance to natural banks.

(e) To the extent feasible and prudent, site configurations shall avoid the use of long straight lines and shall be shaped to blend with physical features and surroundings to provide for diverse riparian and aquatic habitat.

(f) If the site is likely to be inundated during operation, temporary dikes shall be constructed around the site to minimize disturbance to low flow channels and avoid entrapment of fish.

(g) When gravel washing operations occur on the floodplain, settling ponds are required and shall be diked or set back to avoid breaching by the 10-year flood. The wash water shall be recycled; effluent discharge shall comply with state and federal water quality regulations.

K-7 Reclamation

Reclamation of all upland and floodplain mined sites shall be required unless such reclamation would cause greater adverse impact to the environment. At a minimum, reclamation will include the following elements, as applicable:

(a) Topsoil must be segregated from overburden, with both stored above the mean annual floodline.

(b) At the end of each mining operating season, all disturbed areas must be regraded to stable slopes. Within mean annual floodlines, regrading to ground contours which will not

entrap fish and not significantly alter the steam hydraulics will occur at the end of each operating season; tailings used in the construction of settling ponds and other essential facilities may be retained in place until completion of use.

(c) At the completion of mining activities or gravel extraction, all disturbed areas will be stabilized and revegetated. This reclamation shall include the following:

(1) All disturbed areas shall be graded to stable slopes that blend with the natural topography;

(2) Erosion control measures shall be implemented as appropriate to stabilize the site; and

(3) Areas designated for revegetation shall be covered with topsoil to encourage establishment of native plant species.

An exception to these requirements is provided for the portion of a gravel extraction site required to provide gravel for continuing maintenance and operation activities. Maintenance gravel sites will comply with the requirements of part (b) of this policy.

L. TIMBER HARVEST AND PROCESSING

L-1 Timber Management Practices

Best management practices shall be used in all forestry and timber harvest activities in accordance with the Forest Resource and Practice Regulation (11 AAC 95) of the Forest Practices Act (AS 41.17).

L-2 Planning Processes

Entities proposing timber harvest and processing within the region must provide the CRSA Board, affected local governments, and affected landowners the opportunity to participate in the planning processes referenced in Chapter 7.7 (Administrative Policy).

L-3 Habitat Impact

Timber harvesting activities shall be conducted in a manner that minimizes damage to or loss of anadromous fish habitat and adverse impacts to important caribou habitat and migration routes.

M. RECREATION

M-1 Land Use Area Designation

Areas which receive use for recreation pursuits or as a major tourist destination may be proposed as Important Resource Use Areas subject to approval by the Coastal Policy Council (Administrative Policy).

M-2 Coordination

Recreational planners for federal and state lands within the district must provide the CRSA Board, affected local governments, Native Corporations and other landowners the opportunity to participate in recreation planning as through the planning processes referenced in Chapter 7.7 (Administrative Policy).

M-3 Cleanup

State and federal authorizations for commercial recreation users shall require a cleanup plan pertaining to cleanup of temporary and permanent camps during and after use.

M-4 Subsistence Conflicts

Activities, facilities and identified access routes associated with recreational fishing and hunting shall be sited, designed and constructed to minimize interference with subsistence activities and to minimize conflicts with other uses and activities.

M-5 Scenic Views

Recreational and access developments shall, to the extent feasible and prudent, preserve or enhance scenic views and vistas.

N. COASTAL ACCESS AND EASEMENTS

N-1 Easements

Recreational, industrial and other users shall utilize permitted or identified easements through or adjacent to private lands.

N-2 Coordination

Plans to develop access points and easement routes on state and federal lands shall be coordinated with the CRSA Board, affected local governments, Native Corporations and other and adjacent land owners, using the planning processes outlined in Section 7.7 of the Implementation Chapter (Administrative Policy).

6.3 IMPORTANT RESOURCE USE AREA POLICIES

AA SISOALIK SPIT

AA-1 Subsistence

Uses and activities shall not significantly interfere with subsistence activities such as egg gathering, waterfowl hunting, marine mammal hunting, and fishing between June 1 and September 30.

AA-2 Marine Mammals

Uses and activities shall not have a significant adverse impact on marine mammals and their use of the Important Resource Use Area, or significantly interfere with the subsistence harvest of marine mammals.

AA-3 Cultural Resources

Developers proposing commercial and industrial uses and activities involving surface disturbance in areas with potential or identified cultural resources shall provide adequate information during the project review process, including mitigating measures for the protection of these resources (Administrative Policy).

AA-4 Commercial Fishing and Subsistence Activities

During the commercial fishing season, July and August, commercial fishing and subsistence activities are priority uses; therefore, all other land/water uses and activities shall minimize adverse impacts on these uses.

AA-5 Alternative Sites

To the extent feasible and prudent, entities proposing non-subsistence/non-commercial fishing uses and activities must locate such activities at alternative sites outside the area.

AA-6 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts on commercial fishing and subsistence uses and activities. Mitigation shall be considered in accordance with Policy G-6.

AA-7 Mitigation

Entities proposing uses and activities shall identify mitigation measures to adequately protect subsistence, cultural, and biological resources. Mitigation measures shall be described in project applications (Administrative Policy).

BB CAPE KRUSENSTERN

BB-1 Subsistence

Non-subsistence uses and activities shall not significantly interfere with subsistence activities between March 15 and October 31.

BB-2 Marine Mammals

Uses and activities shall not have a significant adverse impact on marine mammals and their use of the Important Resource Use Area, or significantly interfere with the subsistence harvest of marine mammals.

BB-3 Cultural Resources

Developers proposing commercial and industrial uses and activities involving surface disturbance in areas with potential or identified cultural resources shall provide adequate information during the project review process, including mitigating measures for the protection of these resources (Administrative Policy).

BB-4 Tern Nesting Sites

Activities and uses not related to subsistence and to cultural resource studies shall minimize disturbance to tern nesting areas identified on Map 6.

BB-5 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to cultural resource management and subsistence and fish and wildlife management must locate such activities at alternative sites outside the area.

BB-6 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts on cultural and fish and wildlife resources and subsistence activities. Mitigation shall be considered in accordance with Policy G-6.

BB-7 Mitigation

Entities proposing uses and activities shall identify mitigation measures used to adequately protect cultural and subsistence resources. Mitigation measures shall be described in project applications (Administrative Policy).

CC KOBUK/SELAWIK LAKES

CC-1 Subsistence

Offshore activities and uses not related to subsistence shall not significantly interfere with the following spring and fall activities and uses:

(a) seal hunting (September-October)
(b) smelt and herring spawning (May-June)
(c) waterfowl hunting (April 15-October)
(d) sheefish fishing (November-May)

CC-2 Fish

Industrial and commercial activities and uses requiring water intake or discharge of effluent shall be sited, designed, and operated to minimize impacts to larval and juvenile fish. Activities and uses shall be sited, designed, and operated to minimize impacts on anadromous fish migration and overwintering fish populations.

CC-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence, commercial fishing, and biological resource management shall locate such activities at alternative sites outside the area.

CC-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities, commercial fishing, and biological resources. Mitigation shall be considered in accordance with Policy G-6.

CC-5 Mitigation

Entities proposing uses and activities shall identify mitigation measures to adequately protect subsistence activities, commercial fishing, and biological resources. Mitigation measures shall be described in project applications (Administrative Policy).

DD CAPE ESPENBERG/GOODHOPE RIVER

DD-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) seal hunting (May 1-July 15)
(b) fall waterfowl hunting (August 1-October 31)
(c) summer egg gathering (June 1-July 31)
(d) walrus hunting (June)

DD-2 Seal Haulout Areas

Seal haulout areas identified on Map 7 shall not be physically altered or disturbed by development activities. Consideration shall be given to the physical and auditory effects of adjacent activity and disturbance on the use of haulout sites.

DD-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and fish and wildlife management shall locate such activities at alternative sites c side the area.

DD-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

DD-5 Mitigation

Entities proposing uses and activities shall identify mitigation measures to adequately protect subsistence activities and biological resources. Mitigation measures shall be described in project applications (Administrative Policy).

EE KOBUK RIVER DELTA

EE-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(1) waterfowl hunting (July 1-August 15)
(2) spring and summer sheefish fishing (June 1-July 15)
(3) winter and spring muskrat trapping (April 1-June 10)

EE-2 Waterfowl Nesting

Resource exploration and extraction activities shall be sited and scheduled to avoid adverse impacts to waterfowl staging areas shown on Map 6 during the spring (mid-May to mid-June) and fall (August through mid-September). Disturbance to nesting waterfowl shall be minimized from June 1 through mid-July.

EE-3 Fish

Industrial and commercial uses and activities requiring water intake effluent discharge or habitat alteration shall be sited, designed and operated to minimize impact on juvenile fish. Activities and uses shall be sited, designed and operated to minimize impacts on anadromous fish migration and overwintering fish populations.

EE-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and commercial fishing and fish and wildlife management must locate such activities at alternative sites outside the area.

EE-5 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

EE-6 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence, fish and wildlife habitat and population, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

FF SELAWIK RIVER DELTA

FF-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) spring waterfowl hunting (April-October)
(b) spring and summer sheefish fishing (June 1-July 15)
(c) winter/spring muskrat trapping (April 1-June 10)

FF-2 Waterfowl

Resource exploration and extraction activities shall be sited and scheduled to avoid adverse impacts to waterfowl staging areas shown on Map 6 during the fall (August through mid-September). Disturbance to nesting waterfowl shall be minimized from June 1 through mid-July.

FF-3 Fish

Industrial and commercial uses and activities requiring water intake or effluent discharge or habitat alteration must be designed and operated to minimize impacts on juvenile fish. Activities and uses shall be sited, designed, and operated to minimize impacts on anadromous fish migration and overwintering fish populations.

FF-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and fish and wildlife management must locate such activities at alternative sites outside the area.

FF-5 Minimize Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

FF-6 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

GG SALMON RIVER

GG-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) caribou hunting (mid-August to mid-October)
(b) salmon and whitefish fishing (August-September)
(c) furbearer trapping

GG-2 Caribou Migration

Uses and activities shall be required to cease operations during caribou migration, if adverse impacts to migration are likely to occur and other mitigative measures are not effective or feasible.

GG-3 Fish Spawning

Gravel extraction, placer mining, and placement of in-stream structures shall not adversely impact identified spawning areas (Maps 5 and 6).

GG-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and fish and wildlife management must locate such activities at alternative sites outside the area.

GG-5 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

GG-6 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

HH SELAWIK/HUNT/REDSTONE RIVERS CARIBOU MIGRATION CORRIDOR

HH-1 Subsistence

Uses and activities shall not significantly interfere with fall caribou hunting between mid-August and mid-October.

HH-2 Caribou Migration

Uses and activities shall be required to cease operations during caribou migration, if adverse impacts to migration are likely to occur and other mitigative measures are not effective or feasible.

HH-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and fish and wildlife management must locate such activities at alternative sites outside the area.

HH-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

HH-5 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

II MANIILAQ RIVER/AMBLER LOWLANDS AREA

II-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) fall caribou hunting (mid-August/mid-October)
(b) waterfowl hunting (May 1-31 and September 1-30)
(c) trapping (fall and winter)

II-2 Caribou Migration

Resource exploration, extraction, and transportation activities shall be required to cease operation during caribou migration, if adverse impacts to migration are likely to occur and other mitigative measures are not effective or feasible.

II-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and fish and wildlife management shall locate such activities at alternative sites outside the area.

II-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

II-5 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

KK RED DOG TRANSPORTATION CORRIDOR

KK-1 Caribou Monitoring

Uses and activities in the Important Resource Use Area shall be sited, scheduled, and operated to minimize adverse impact to caribou migration. Advance notice of caribou migrations approaching the road corridor will be provided by the caribou monitoring study being conducted in association with the Red Dog mining project.

KK-2 Access

Access shall be provided for National Park Service research and management activities on monument lands.

KK-3 Fish

Uses and activities shall be conducted to minimize significant adverse impacts to anadromous and resident fish.

KK-4 Cultural Resources

The National Park Service shall have access to examine cultural resource sites. Sites and artifacts discovered shall be protected by landowners.

KK-5 Gravel Extraction Sites

Gravel extraction sites shall be reclaimed upon completion of operations unless such reclamation would cause greater adverse impact to the environment.

KK-6 Peregrine Falcon Sites

Active peregrine falcon nesting sites shall be protected, through the use of buffer zones, from any construction or use of transportation systems.

KK-7 Impact Mitigation

Adverse impacts on wildlife and habitat shall be mitigated during construction of transportation systems.

KK-8 Coordination

Entities proposing non-subsistence related uses and activities shall demonstrate that they have coordinated with the Red Dog project subsistence committee sponsored by the NANA Corporation (Administrative Policy).

LL INMACHUK RIVER

LL-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) salmon and char fishing (July-September)
(b) moose hunting (September-March)
(c) furbearer trapping

LL-1 Waterfowl

Resource exploration and extraction activities shall be sited and scheduled to avoid adverse impacts to waterfowl staging areas shown on Map 6 during the spring (April 15 through June 15). Disturbance to nesting waterfowl shall be minimized from June 1 through mid-July.

LL-2 Fish Spawning

Gravel extraction, placer mining, and placement of in-stream structures shall not adversely impact identified spawning areas.

LL-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and fish and wildlife management shall locate such activities at alternative sites outside the area.

LL-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6

LL-5 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

MM LOWER BUCKLAND RIVER

MM-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) waterfowl hunting (April 15-June 15 and August 15-September 15)
(b) seal hunting (April 15-October 31)
(c) moose hunting (September-March)

MM-2 Salmon Spawning

Gravel extraction, placer mining, and placement of instream structures shall not adversely impact identified spawning areas.

MM-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and fish and wildlife management shall locate such activities at alternative sites outside the area.

MM-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

MM-5 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

NN NORTH FORK SQUIRREL RIVER/OMAR RIVER

NN-1 Subsistence

Uses and activities shall not significantly interfere with the following activities:

(a) fall caribou hunting (mid-August - mid-October)
(b) salmon and char fishing (July-September)
(c) waterfowl hunting (September-October)
(d) furbearer trapping

NN-2 Caribou Migration

Uses and activities shall be required to cease operations during caribou migration, if impacts to migration are likely to occur and other mitigative measures are not effective or feasible.

NN-3 Fish Spawning

Gravel extraction, placer mining and placement of instream structures shall not adversely impact identified spawning areas.

NN-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

NN-5 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

NN-7 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

OO NORTH KIVALINA COAST

OO-1 Subsistence

Uses and activities shall significantly interfere with the following subsistence activities:

(a)e marine mammal hunting (March 15-July 15)e
(b)e waterfowl hunting (April 1-May 31 and September 1-30).e

OO-2 Marine Mammals

Uses and activities shall not have a significant adverse impact on marine mammals and their use of the Important Resource Use Area, or significantly interfere with the subsistence harvest of marine mammals.

OO-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and fish and wildlife management shall locate such activities at alternative sites outside the area.

OO-4 Mitigate Impacts

Entities proposing uses and activities shall mitigate adverse impacts to subsistence activities and biological resources. Mitigation shall be considered in accordance with Policy G-6.

OO-5 Mitigation

Entities proposing uses and activities shall analyze potential impacts on subsistence activities and fish and wildlife habitat and populations, and shall mitigate impacts as necessary to comply with the policies of the NANA program. Mitigation measures shall be described in project applications (Administrative Policy).

AAA ONION PORTAGE

AAA-1 Prohibited Uses

Floodplain gravel extraction, surface alteration or the construction of any facility not related to (1) cultural resource management; (2) fish and wildlife management; or (3) subsistence, are prohibited within the Onion Portage Sensitive Use Area. On the state lands within the area, this policy will be implemented as provided for in AS 38.05.185.

AAA-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses; therefore, all other land/water uses and activities shall avoid adverse impacts on these uses.

AAA-3 Caribou Migration

Uses and activities shall be required to cease operation during caribou migration, if adverse impacts to the migration or interference with the subsistence harvest are likely to occur and other mitigative measures are not effective or feasible.

AAA-4 Fishing

Uses and activities shall not significantly interfere with subsistence fishing during June through October.

BBB ELEPHANT POINT/CHORIS PENINSULA

BBB-1 Beluga Whales

Uses and activities shall avoid: (1) interfering with the subsistence harvest of beluga whales; (2) displacing beluga whales from Eschscholtz Bay; and (3) jeopardizing the continued use of Eschscholtz Bay by beluga whales. Seasonal restrictions may be required to meet this standard.

BBB-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses; therefore, all other land/water uses shall avoid adverse impacts on these uses.

CCC KOBUK RIVER SHEEFISH/WHITEFISH SPAWNING AND USE AREA

CCC-1 Floodplain Mining

Gravel extraction and placer mining activities within the mean annual floodline shall not adversely impact anadromous fish habitats, populations or productivity.

CCC-2 Priority Use

Subsistence activities, fish spawning, fish migration and fish and wildlife management are priority uses; therefore, all other land/water uses shall avoid adverse impacts on these uses.

CCC-3 Wastewater Discharge

Industrial and large scale commercial wastewater discharge must provide treatment to maintain water quality at not less than natural conditions.

CCC-4 Buffer Zone

Outside villages, non-water-dependent commercial and industrial within 100 feet of the river's ordinary high water are prohibited unless no feasible and prudent alternative site exists. Within 500 feet of ordinary high water these activities must minimize onsite erosion to avoid increased sediment discharge into the river.

CCC-5 Maintain Flows

Appropriation of surface or intergravel waters from streams within the Important Resource Use Area shall not occur at a withdrawal rate or timing which adversely impacts anadromous fish habitat as determined by the Alaska Department of Fish and Game unless, under the procedures outlined in AS 46.15, the Commissioner of the Department of Natural Resources makes a finding based on public review that the competing use of water is in the best public interest and no feasible and prudent alternative exists.

DDD SELAWIK RIVER/SHEEFISH WHITEFISH SPAWNING AREA

DDD-1 Floodplain Mining

Gravel extraction and placer mining activities within the mean annual floodline shall not adversely impact anadromous fish habitats, populations or productivity.

DDD-2 Priority Use

Subsistence activities, fish spawning, fish migration and fish and wildlife management are priority uses; therefore, all other land/water uses and activities shall avoid adverse impacts on these uses.

DDD-3 Wastewater Discharge

Industrial and large scale commercial wastewater discharge shall provide treatment to maintain water quality are not less than natural conditions.

DDD-4 Buffer Zone

Outside villages, non-water-dependent commercial and industrial development within 100 feet of the river's ordinary high water is prohibited unless no feasible and prudent alternative site exists. Within 500 feet of ordinary high water these activities must minimize on-site erosion to avoid increased sediment discharge into the river.

EEE WULIK RIVER ARCTIC CHAR OVERWINTERING AND SPAWNING AREA

EEE-1 Floodplain Mining

Gravel extraction, placer mining, effluent discharge and placement of structures within the stream shall not adversely impact anadromous fish habitats, populations or productivity.

EEE-2 Priority Uses

Subsistence activities, fish spawning and overwintering, and fish and wildlife management are priority uses; therefore, all other land/water uses and activities shall avoid adverse impacts on these uses.

EEE-3 Maintain Flows

Appropriation of surface or intergravel waters from streams within the Important Resource Use Area shall not occur at a withdrawal rate or timing which adversely affects anadromous fish habitat as determined by the Alaska Department of Fish and

Game unless, under the procedures outlined in AS 46.15, the Commissioner of the Department of Natural Resources makes a finding based on public review that the competing use of water is in the best public interest and no feasible and prudent alternative exists.

EEE-4 Wastewater Discharges

Industrial and large scale commercial wastewater discharge shall provide treatment to maintain water quality at not less than natural conditions.

FFF NOATAK RIVER CHUM SALMON SPAWNING AREA

FFF-1 Floodplain Mining

Gravel extraction and placer mining activities within the mean annual floodline shall not adversely impact anadromous fish habitats, populations or productivity.

FFF-2 Priority Use

Subsistence activities, fish overwintering/spawning/migration, and fish and wildlife management are priority uses; therefore, all other land/water uses and activities shall avoid adverse impacts on these uses.

FFF-3 Wastewater Discharge

Industrial and large scale commercial wastewater discharge shall provide treatment to maintain water quality at not less than natural conditions.

FFF-4 Buffer Zone

Outside villages, non-water-dependent commercial and industrial development within 100 feet of the river's ordinary high water is prohibited, unless no feasible and prudent alternative site exists. Within 500 feet of ordinary high water these activities must minimize on-site erosion to avoid increased sediment discharge into the river.

GGG ESCHSCHOLTZ BAY

GGG-1 **Beluga Whales**

Uses and activities shall avoid: (1) interfering with the subsistence harvest of beluga whales; (2) displacing beluga whales from Eschscholtz Bay; and (3) jeopardizing the continued use of Eschscholtz Bay by beluga whales. Seasonal restrictions may be required to meet this standard.

GGG-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses; therefore, all other land/water uses and activities shall avoid adverse impacts on these uses.

GGG-3 Spotted Seals

Uses and activities shall not adversely impact spotted seals, their use of Eschscholtz Bay, or the subsistence harvest of spotted seals.

GGG-4 Oil and Gas Exploration and Production Activity

Uses and activities associated with seismic exploration and exploratory drilling shall be required to cease inwater operations from breakup through the completion of the subsistence hunt, which is usually a two- to four-week period between June 1 and July 15. During this period, inwater activities associated with production shall be minimized and limited to maintaining safe operations of production facilities.

GGG-5 Oil and Gas Exploration and Production Facility Siting

Exploration or production platforms shall avoid locating in Eschscholtz Bay unless no feasible and prudent alternatives exist.

HHH UPPER KIVALINA RIVER

HHH-1 **Floodplain Mining**

Gravel extraction and placer mining activities within the mean annual floodline shall not adversely impact anadromous fish habitats, populations or productivity.

HHH-2 Priority Uses

Subsistence activities, fish spawning and overwintering, and fish and wildlife management are priority uses; therefore, all other land/water uses and activities shall avoid adverse impacts on these uses.

HHH-3 Maintain Flows

Appropriation of surface or intergravel waters from streams within the Important Resource Use Area shall not occur at a withdrawal rate or timing which adversely impacts anadromous fish habitat as determined by the Alaska Department of Fish and Game unless, under the procedures outlined in AS 46.15, the Commissioner of the Department of Natural Resources makes a finding based on public review that the competing use of water is in the best public interest and no feasible and prudent alternative exists.

HHH-4 Wastewater Discharges

Industrial and large scale commercial wastewater discharge shall provide treatment to maintain water quality at not less than natural conditions.

Appendix E

Letter dated March 16, 1989 from Robert Grogan to Don Critchfield

NOTE: The following enclosures accompanied the original letter but are not included in this package.

1. List of References
2. Article entitled "Evaluating Country Foods in the Northern Native Economy," by Peter J. Usher
3. Commercial and Subsistence Fishing Statistics for the BSCRSA and NWAB

These enclosures are available through OCRM (202) 673-5130

STATE OF ALASKA

OFFICE OF THE GOVERNOR

DIVISION OF GOVERNMENTAL COORDINATION

STEVE COWPER, GOVERNOR

CENTRAL OFFICE
P.O. BOX AW
JUNEAU, ALASKA 99811-0165
PHONE: (907) 465-3562

SOUTHEAST REGIONAL OFFICE
431 NORTH FRANKLIN
P.O. BOX AW, SUITE 101
JUNEAU, ALASKA 99811-0165
PHONE: (907) 465-3562

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SUITE 700
ANCHORAGE, ALASKA 99503-2798
PHONE: (907) 274-1581

NORTHERN REGIONAL OFFICE
675 SEVENTH AVENUE
STATION H
FAIRBANKS, ALASKA 99701-4596
PHONE: (907) 456-3084

March 16, 1989

Mr. Don Critchfield
Acting Director
Office of Ocean and Coastal
Resource Management
1825 Connecticut Avenue, NW
Suite 706
Washington, D.C. 20235

Dear Mr. Critchfield:

The State of Alaska is strongly committed to working with the Office of Ocean and Coastal Resource Management (OCRM) to obtain federal approval of the Bering Straits Coastal Resource Service Area (CRSA) and Northwest Arctic Borough coastal management programs. To this end, in May 1988, we requested that OCRM specify all federal concerns with the programs and allow the state an opportunity to respond.

In October 1988, the Assistant Administrator of the National Oceanic and Atmospheric Administration requested that the state provide OCRM with additional information regarding the inland extension of the coastal zone boundary in the Bering Straits and Northwest Arctic regions. OCRM staff indicated that the required information related to the importance of the anadromous fish resources to the coastal districts.

The enclosed information documents the importance of anadromous fish resources to individual subsistence users and the regional economies of the Bering Straits and Northwest Arctic regions. Coastal management will provide effective and comprehensive management of uses and activities which may affect these resources.

This information is provided to assist OCRM in completing the federal review and approval of these important coastal district

1-A35LH

programs. With the submittal of this information, the state requests that OCRM act immediately to complete the approval process.

Sincerely,

Jan Caulfield for
Robert L. Grogan
Director

Enclosure

cc/enc: Tom Maginnis, Washington DC
Senator Ted Stevens, Washington DC
Senator Frank Murkowski, Washington DC
Congressman Don Young, Washington DC
Senator Al Adams, Juneau
Representative Ilene MacLean, Juneau
John Katz, Governors Office, Washington DC
Alaska Coastal Policy Council
Jim Burgess, OCRM, Washington DC
Grant Hildreth, Kotzebue
Bryan MacLean, Unalakleet

MEMORANDUM State of Alaska

TO: Jan Caulfield
Coastal Program Coordinator
Division of Governmental Coordination
Juneau

DATE: March 17, 1989

FILE NO:

TELEPHONE NO: 267-2331

FROM: Glenn Seaman GS
ACMP Coordinator
Region II
the Habitat Division
Department of Fish and Game

SUBJECT: Information on the Importance of Anadromous Fish to NWAB and BSCRSA

The Division of Governmental Coordination (DGC) asked the Alaska Department of Fish and Game (ADF&G) for assistance in responding to the October 5, 1988, Office of Ocean and Coastal Resource Management (OCRM) request for additional information concerning the importance of anadromous fish to the Bering Straits Coastal Resource Service Area (BSCRSA) and Northwest Arctic Borough (NWAB) coastal districts. The information I have found thus far is summarized below. A list of references is included in enclosure 1.

The OCRM has requested that the state establish a monetary value on subsistence and the sociocultural system in these coastal districts. Unfortunately, it is very difficult, if not impossible, to establish reliable monetary values on subsistence foods or activities. The problems associated with the development of reliable estimates include the difficulty in: (1) developing accurate harvest levels or uses of fish and wildlife resources, (2) establishing local cash incomes, (3) establishing cash values of subsistence resources, and (4) assessing the intangibles (e.g., food preferences and habits, cultural value, loss of traditional way of life) involved in any direct comparison with western economies (Ellanna, 1980; Magdanz, pers. comm.; Mineral Management Service, 1988; Usher, 1976). The DGC asked if there was a good discussion of the problems associated with establishing a cash value to subsistence in Alaska for the OCRM's review. The Division of Subsistence suggested a paper by Peter J. Usher, entitled "Evaluating Country Food in the Northern Native Economy," be provided to the OCRM as a good review of the issue. The paper is not specific to Alaska, but the concerns are similar. A copy of this paper is included in enclosure 2.

GENERAL COMMENTS ON LOCAL DEPENDENCE ON FISH AND WILDLIFE

- The economy of the BSCRSA and NWAB is a contemporary subsistence/cash economy (Ellanna, 1980; James Magdanz, pers. comm.). The harvesting of local fish and wildlife

resources historically was and continues to be the primary focus of the regional economy, based on a combination of subsistence and commercial harvesting of fish and wildlife. Several studies in this region indicate that subsistence foods constitute 70 to 80 percent of total protein consumed by households (Minerals Management Service, 1988). Most personal cash income is spent in the local economy the support subsistence or commercial fish and wildlife harvest activities (e.g., purchasing boats and fishing gear).

- All of the villages in the BSCRSA and NWAB regions are located on a major water body, due in part to the enhanced availability of fish, marine mammals, or other food resources. Anadromous fish (e.g., whitefish, arctic char, Pacific salmon) dominate the local subsistence harvest of fish in both the BSCRSA and NWAB regions (Burch, 1985; Ellanna, 1980; USFWS, 1987). Chum salmon and pink salmon are the predominant subsistence and commercial fishing target species in most communities (regional differences are noted below).

COMMERCIAL AND SUBSISTENCE FISHING STATISTICS

Commercial Harvest - BSCRSA:

- There are two commercial fishing districts in the BSCRSA where commercial fishing is permitted, one near Port Clarence and the other in Norton Sound (see enclosure 3). Most of the commercially caught salmon are taken in the Norton Sound district which is the focus of the following discussion.

- While the contribution of these regional fisheries to the state's economy compared to other regions may be relatively small, the contribution of the commercial fisheries to the regional economy is highly significant. With the exception of Nome, commercial fishing is virtually the only source of cash for many families and the primary source for many others in Port Clarence/Norton Sound fishing districts (Ellanna, 1980). Wage jobs in the BSCRSA region outside of the City of Nome are very limited.

- Seasonal participation in the commercial fishery is extensive. For example, in the Golovin/White Mountain subdistrict, 95,100 salmon were harvested in the 1986 commercial fishery (Jim Magdanz, pers. comm.). Data for Golovin, a small community east of Nome with 31 households, show that 17 commercial fishing permits were issued in 1986. Approximately 75 percent of the households participated directly in the commercial

fishery in Golovin, either as fisherman or associated with fish buying, processing, or shipping.

- The mean income of the Norton Sound communities is not readily available (average annual incomes for several communities provided in section on subsistence harvests). Ellanna (1980) provides an example of the distribution of the Norton Sound harvest by village for the year 1979 (enclosure 4). Commercial fishing is clearly a major contributor to the village economy.

- The commercial harvest statistics for the Norton Sound fishing district from 1961 to 1987 are included in enclosure 3 (extracted from Merkouris and Lean, 1988). The highest recorded commercial harvest for all salmon species was 511,208 fish. The 1988 Norton Sound commercial fishery produced a total catch of 255,160 fish. The mean harvest of salmon for an eight year period (1980-1987) was approximately 342,000 fish.

- The value of the fishery varies from year to year depending on the size of the harvest and price paid to fisherman. The 1981-86 average ex-vessel value (i.e., the price paid to fisherman) of this commercial fishery is approximately $865,800 (ADF&G, 1988). The ex-vessel value of the 1988 harvest was approximately $760,000. The reduced value in 1988 in 1978 resulted from low harvest of chinook salmon (4090 fish), well below the five-year average of 10,415 fish. The fishery also brings additional value to the region and the state from fish processing and marketing.

Commercial Harvest - NWAB:

- The Kotzebue Sound commercial salmon fishery occurs primarily in subdistrict 1 noted on Map 3 in enclosure 2. This is a limited entry fishery, with most of the 209 permit holders and employees from the communities of Kotzebue and Noatak, with a few from Kivalina and Selawik. Approximately 71 percent of the permit holders were from Kotzebue, 21 percent of other NWAB villages, and remainder from outside the NWAB (Merkouris and Lean, 1988). The average income per permit from 1966 to 1988 was $5040.

- Recent ADF&G surveys (ADF&G, Subsistence Division, unpubl. data) indicate that there are approximately 200 households in the City of Kotzebue, with one or more residents from approximately 25 percent of those households participating in the fishery.

- The commercial harvest statistics from 1962 to 1987 are provided in enclosure 3 (Merkouris and Lean, 1988). This salmon fishery is primarily a chum salmon fishery,

with very few chinook, silver, and pink salmon harvested. The peak commercial harvest for all salmon species in this fishery was 677,239 fish in 1981. The average commercial salmon harvest over an eight year period from 1980-87 is approximately 369,000 fish. The 1988 chum salmon harvest in the Kotzebue Sound salmon fishery was 352,910 fish (ADF&G, 1988).

- Chum salmon averaged $0.85 per pound, and the ex-vessel value of salmon in the Kotzebue Sound district in 1988 was approximately $2.81 million. This was the second highest ex-vessel value on record, surpassed only by the 1981 value of $3.2 million due to the record salmon harvest in that year.

- Commercial salmon fishing is a very important component of the local economy. Commercial fishing income is the only or the primary source of income for many residents in Kotzebue, Noorvik, and Noatak (Susan Georgette, pers. comm.). The unemployment rate in 1987 in the NWAB was as high as 60 percent (NWAB, 1988). The 1987 mean income in Kotzebue was $17,184, while the mean income in the 10 other communities in the district was $8323. Minerals Management Service (1988) included estimates that the cost of living in Nome was 33 percent higher than Anchorage and 47 percent higher than Seattle. Adjusting for the increased cost of living in this region, these incomes are very small.

- There is also a limited commercial fishery for sheefish or inconnu (an anadromous fish) in the NWAB region (Merkouris and Lean, 1988; U.S. Fish and Wildlife Service, 1987). This is a winter fishery and occurs in primarily in Hotham Inlet (Kobuk Lake) and Selawik Lake. Residents of Kotzebue and Noorvik participate in this fishery. Commercial and subsistence harvest statistics for this species are provided in enclosure 5. Subsistence harvests of sheefish exceed recent commercial harvests.

<u>Commercial Fish Harvests Compared to Other States:</u>

- The eight-year average salmon harvest between the years 1980 and 1987 for the Norton Sound and Kotzebue Sound districts are about 342,000 and 369,000 fish, respectively. The average combined harvest for these two districts is approximately 712,000 salmon. An eight-year (1978-85) average salmon harvest for the state of California is 591,000 fish and state of Oregon is 749,000 fish (Kruse, 1988). The combined average annual salmon harvest of these coastal districts exceeds the average annual salmon harvest in California and approximates the average annual salmon harvest in Oregon.

Subsistence Harvests - BSCRSA and NWAB:

- The available statistics for the subsistence harvest of salmon in the Norton Sound and Port Clarence districts of the BSCRSA are included in enclosure 3. Statistics on the subsistence harvests of fish and wildlife in villages in or adjacent to the Selawik National Wildlife Refuge (Kiana, Noorvik, Selawik, Ambler, and Shungnak) are provided in enclosure 5 (from McNabb et. al., 1985, cited in U.S. Fish and Wildlife Service, 1987). While the data in enclosure 5 is from 1972, Jim Magdanz (pers. comm.) indicated that these figures are representative of recent harvests of fish and wildlife resources in those districts. However, it should be noted that both the level of harvests and the species harvested may vary from year to year based on species availability, abundance, and other factors (Burch, 1985; USFWS, 1987).

- Reported subsistence harvests in the Norton Sound region have ranged from 24,305 fish in 1975 to 93,422 in 1980 (Ellanna, 1980). Ellanna indicated that salmon account, on the average, for 40 percent of the diet of Norton Sound communities (excluding Nome). Even in Nome, the regional distribution center for most of the BSCRSA, salmon is the most commonly harvested subsistence resource (Minerals Management Service, 1988).

- The percentage of the diet comprised of salmon or other anadromous fish in the BSCRSA and NWAB is comparable to other northern or western Alaska coastal districts. Local dietary dependence in the BSCRSA and NWAB is higher than some other coastal regions which depend to a greater degree on waterbirds, resident (non-anadromous) fish, land mammals, and/or marine mammals. However, the annual income in the BSCRSA and NWAB communities is lower than the annual income in many other coastal districts, suggesting a greater dietary dependence by BSCRSA and NWAB residents on anadromous fish resources. For example, approximately 36 percent by weight of the food harvested in King Cove (Aleutians East Borough) consists of salmon (Stephen R. Braund & Associates, 1986). This is comparable to the 40 percent figure established by Ellanna (1980) for the BSCRSA and, based on data summarized in U.S. Fish and Wildlife Service (1987) and Burch (1985), is also comparable to relative use by NWAB residents. However, the average approximate income of the BSCRSA and NWAB residents is considerable lower than the King Cove and other Aleutians East Borough communities. The approximate average income in 1982 for Brevig Mission was $8800; $16,200 in Elim and Golovin; $13,300 in Goodnews Bay; and 13,800 in Koyuk. NWAB (1988) showed that mean annual income for communities in the NWAB, not including Kotzebue, was $8323. The income of Aleutians East Borough varies in

part with the size of the commercial fishery, but is substantially higher than the NWAB and BSCRSA. In 1982, for example, the approximate average income in Sand Point was $32,400; $32,500 in Nelson Lagoon; $23,800 in King Cove; $34,200 in False Pass; and $29,800 in Cold Bay (Alaska Department of Revenue, 1985). The average annual income was $36,200 for the same period in Anchorage (Alaska Department of Revenue, 1985), which has a cost of living approximately 33 percent lower cost of living than Nome (Minerals Management Service, 1988).

o Salmon is the most important anadromous fish resource to most BSCRSA communities (Ellanna, 1980; Minerals Management Service, 1988). In the NWAB the anadromous fish species of dependence is more variable.

Kivalina: In Kivalina, a village of approximately 270 people and 47 households, the most important anadromous fish species is arctic char (Burch, 1985). Approximately 93,000 pounds of arctic char were taken by residents of Kivalina from June 1964 to May 1965, with approximately 69,000 and 68,000 pounds of arctic char harvested in 1982-83 and 1984-85 seasons, respectively. Less than 2100 pounds of salmon were taken in these years. The large harvest of arctic char is due, in part, to the greater abundance of char, personal preference for char, and other factors.

Noatak: The Noatak River system (including Kelly, Kugururok, and Nimiuktuk rivers) is the most productive salmon and char producing system in the NWAB. Compared to other NWAB river systems, there are very few whitefish (including sheefish) in the Noatak watershed. Consequently, the most important anadromous fish species to the village of Noatak are salmon and arctic char. Recent harvest statistics are not readily available.

Kobuk River and Selawik River Villages: The Kobuk River system supports sizeable populations of whitefish (including sheefish) and salmon. The size of the salmon runs salmon are normally considerably smaller in the Kobuk River than in the Noatak River, while whitefish are much more abundant in the Kobuk River. Consequently, Kobuk River villages have a greater dependence on whitefish (see enclosure 6). The subsistence harvest of fish, the great majority of which are anadromous, of the Kobuk River villages is over one million pounds (McNabb et. al., 1985; U.S. Fish and Wildlife Service, 1987). Based on the 1970 population estimate of the Kobuk River villages of 1246 people (National Park Service, 1988), the Kobuk River village residents need a minimum of 802 pounds of fish per capita. This is lower than the fish take of 1180 pounds per capita for the village of Selawik.

This concludes the summary of information I have been able to obtain thus far. I suggest the DGC review the above material and enclosures and call me with any questions or additional information needs. I would be glad to do further research if needed.

Enclosures

cc w/Enclosures:

Grant Hildreth, NWAB
Bryan MacLean, BSCRSA

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NANA Regional Corporation
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Savoonga Native Corporation
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Shaktoolik Native Corporation
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Shishmaref Native Corporation
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City of Koyuk
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City of Nome
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City of Savoonga
City of Selawik
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Diomede IRA Council
Elim IRA Council
Elim Native Corporation
Gambell IRA Council
Golovin IRA Council
Golovin Native Corporation
Golovin Traditional Council
Inalik Native Corporation
Kawerak Corporation
Kiana Traditional Council
Kikikagruk Inupiat Corporation
King Island Native Corporation
Kobuk Traditional Council
Kotzebue IRA Council

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Mary's Igloo Traditional Council
NANA Development Corporation
NANA Regional Corporation
Noatak IRA Council
Nome Eskimo Community
Noorvik IRA Council
North Slope Borough
Northwest Arctic Borough
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Savoonga Native Corporation
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Teller Traditional Council
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Unalakleet Native Corporation
Wales IRA Council
Wales Native Corporation
White Mountain IRA Council
White Mountain Native Corporation

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