

# APPENDIX A. ENFORCEABLE AND GUIDANCE POLICIES

## A. INTRODUCTION

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This Appendix reprints the enforceable policies of the Kenai CMP, including the enforceable policies for the Port Graham / Nanwalek AMSA. It also includes non-enforceable guidance policies for the Kenai CMP and the Port Graham / Nanwalek AMSA.

## B. KENAI CMP ENFORCEABLE POLICIES

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### 1.0 Coastal Development

**1.2. Floating Facilities.** In determining whether to allow or prohibit any floating facility at a specific site, the following priorities shall be considered:

- a. Higher priority shall be given to those uses and activities that cater to seasonal or short term uses over long-term use.
- b. Lower priority consideration shall be given to:
  1. uses and activities that benefit only an individual or limited group,
  2. uses and activities that take up a large area, or have broader or more pronounced impacts,
  3. uses and activities located in sites that are inappropriate to accommodate a floating facility because of physical characteristics, including, but not limited to: tidal flushing, anchorage, proximity to other floating facilities or uplands users, site specificity (the need for the facility to be located at a specific site)and
- c. The following requirements shall apply to any floating facility allowed in a specific location within the District:
  1. Grounding: To the extent practicable, floating facilities shall be moored in a minimum of 12 feet of water present during mean lower low water or 0.0 tide stage, and avoid shallow areas where they could settle on or abrade the substrate during low tides.
  2. Proper Anchoring: Floating facilities shall use anchoring methods similar to a marine vessel and shall not use shore ties or other means that restrict passage around their location. Anchors shall be of sufficient weight and holding capability to keep the facility in its proper location without drifting into an unacceptable location or onto the beach.

3. Removal: An owner or operator shall be responsible for promptly removing and disposing of floats, docks, rafts, boats, and float houses or other related materials when the lease or permit has expired. Facilities shall be removed within the time period specified by the permitting agencies. Abandonment, casting loose, or disposal on a beach are prohibited as disposal methods.

### **1.5. Ports and Harbors.**

- a. Ports, harbors and docks placed in coastal waters shall avoid adverse impacts to erosion, deposition and related littoral processes.
- b. To the extent practicable, piers, docks, boat ramps and other waterfront facilities shall be designed and operated for cooperative or public use to avoid duplication of facilities.

## **2.0 Natural Hazard Areas**

**2.2. Erosion.** Developers shall retain existing vegetative cover in designated erosion-prone areas to the greatest extent practicable. In cases where development or other activities lead to removal of vegetation, erosion shall be prevented or, if it occurs, shall be remedied through revegetation (with native species if available) or by other suitable measures (see [Volume 2, Map Figures F1-F10, G1-G8](#)).

## **3.0 Recreation and Coastal Access**

### Lakeshore and Riverfront Development Requirements

**3.1. Priority Use.** Uses and activities within designated recreational use areas as shown on [Map Figures A and P1- P4](#), that are economically or physically dependent on a lakeshore or riverfront location are given higher priority when compared to uses and activities that do not economically or physically require a lakeshore or riverfront location. Priority shall be given, in the following order, to:

- a. water-dependent uses and activities;
- b. water-related uses and activities; and
- c. uses and activities that are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.
  1. Water-dependent uses include: fish hatcheries; float plane ramps, boat launches, docks; sport-fishing and wildlife viewing facilities; and accessory attached housing; and remote recreational cabins dependent on water access.
  2. Water-related activities include: retail stores and commercial activities such as lodges, hotels, restaurants, and other similar uses that provide views and access to the lakefront or riverfront.

3. Exceptions: Non-water-dependent and non-water-related uses and activities shall be permitted when it is not practicable to develop a site with a water-dependent or water-related use or activity due to shallow bathymetry or unusual lot characteristics such as substandard size, frontage, or steep topography, or when such uses would be inconsistent with zoning.

### In-water Development Requirements

**3.2. Activities in recreational waters.** Uses and activities in recreational waters shall meet the following requirements:

- a. Structures and buoys placed on the surface of navigable waters shall be visibly marked to minimize navigation hazards.
- b. Developments, structures, facilities and buoys in navigable coastal waters shall be placed to avoid, minimize or mitigate navigation hazards or obstruction.

### Public Access Requirements

**3.3. Public access.** An applicant shall detail in the project application how legal public access routes to coastal water bodies, lakeshores and riverfronts will be protected from adverse physical impacts as a result of public use, where practicable.

**3.4. Capital improvements.** Capital improvements on municipal and state-owned coastal waterfront, lakefront and riverfront property shall incorporate walkways, shelters, viewing platforms and landscaping whenever practicable to increase and control public access and to facilitate public enjoyment in designated recreational use areas as described in Chapter V of the Kenai Peninsula Borough Coastal Management Plan, while protecting the resources upon which the recreation depends (as shown in the [“Recreational Features” table](#)).

### Conflicts with Recreational Uses and Activities

**3.5. Recreational features.** Proposed uses or activities in designated recreational areas as described in Chapter V of the Kenai Peninsula Borough Coastal Management Plan shall avoid, minimize or mitigate direct and significant impacts upon the existing uses and activities and the protected features on which the recreation depends (as shown in the [“Recreational Features” table](#)).

**3.6. Ports, Harbors and Docks in Rivers within Designated Recreational Use Areas** ([see map figure A and P1-P4](#)).

- a. Ports, harbors and docks placed in rivers shall avoid adverse impacts to recreational activities (as shown in the [“Recreational Features” table](#)).
- b. The area immediately surrounding small boat harbors shall, to the extent practicable, be reserved for harbor-related and water-dependent uses.

- c. To the extent practicable, piers, docks, boat ramps and other waterfront facilities shall be designed and operated for cooperative or public use to avoid duplication of facilities.

**Recreational Features (see Policies 3.5, 3.6)**

	Region #	1	2	3	4	5	6	7	8	9	10	11	12
	Location	Hope, Pt. Possession, Ingram Ck.	Hope "Y", Kenai Lake	Seward & Resurrection Bay	Cooper Landing	Coastal Plain, Pt. Possession - Kenai R.	Kasilof River	Homer, Ninlichik & Anchor R. & Deep Ck.	Upper Kachemak Bay & Fox River Flats	S. Kachemak Bay & Chugach Is.	Outer Coast of Kenai Peninsula	W. Cook Inlet – N. of Redoubt Bay	W. Cook Inlet – S. of Redoubt Bay
Protected Features	Trails	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	Scenic Values		✓	✓	✓			✓		✓	✓		
	Game Habitat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Fish Habitat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Marine Mammal Hab.	✓		✓					✓	✓	✓	✓	✓
	Shorebird Hab.	✓		✓			✓		✓	✓	✓		✓
	Seabird Hab.									✓	✓		✓
	Waterfowl Hab.							✓	✓	✓		✓	✓
	Shellfish Hab.						✓	✓		✓			
	Eelgrass									✓	✓		✓
	Beach			✓	✓		✓	✓			✓		
	Dunes						✓						
	Cultural or Historic Features	✓	✓	✓	✓					✓		✓	
Uses & Activities	Hunting	✓	✓				✓	✓	✓	✓		✓	
	Fishing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Dip/set-netting						✓			✓		✓	✓
	Clam Digging						✓			✓			
	Sightseeing		✓	✓			✓			✓	✓		✓
	Bird & wildlife viewing	✓	✓	✓						✓	✓		✓
	Photography		✓							✓	✓		✓
	Coastal Education			✓				✓	✓				✓
	Beachcombing			✓			✓			✓			
	Picnicking	✓					✓	✓					
	Camping	✓	✓	✓	✓		✓	✓			✓		

	Region #	1	2	3	4	5	6	7	8	9	10	11	12
	Location	Hope, Pt. Possession, Ingram Ck.	Hope "Y", Kenai Lake	Seward & Resurrection Bay	Cooper Landing	Coastal Plain, Pt. Possession - Kenai R.	Kasilof River	Homer, Ninilchik & Anchor R. & Deep Ck.	Upper Kachemak Bay & Fox River Flats	S. Kachemak Bay & Chugach Is.	Outer Coast of Kenai Peninsula	W. Cook Inlet – N. of Redoubt Bay	W. Cook Inlet – S. of Redoubt Bay
Uses & Activities (continued)	Floatplanes				✓			✓	✓	✓	✓	✓	✓
	Whitewater boating	✓	✓									✓	
	Float boating				✓	✓							
	Power boating				✓	✓			✓	✓	✓	✓	
	Mooring			✓			✓	✓		✓	✓		
	Boat Launch				✓	✓	✓	✓	✓				
	Cruiseships			✓							✓		
	Tour Boats			✓							✓		
	Sailing			✓							✓		
	Kayaking			✓						✓	✓		
	Scuba Diving									✓			
	Biking	✓	✓										
	Hiking	✓	✓	✓	✓	✓			✓	✓	✓	✓	
	Skiing	✓	✓						✓				
	Dog Sledding	✓	✓						✓				
	Snowmachine	✓	✓						✓	✓			✓
	Commercial recreation & tourism	<sup>1</sup>	✓	<sup>2</sup>								<sup>2</sup>	

<sup>1</sup> The USFS has denied commercial permits in the region

<sup>2</sup> Commercial recreation-related activities on the tidelands are primarily day use. To prevent conflicts, floating facilities used overnight on state-owned tidelands will not be authorized in Resurrection Bay and carefully considered elsewhere.

#### **4.0 Energy Facilities**

*There are no enforceable policies in this section.*

#### **5.0 Transportation & Utilities Routes and Facilities**

*There are no enforceable policies in this section.*

#### **6.0 Commercial Fishing and Seafood Processing Facilities**

**6.1. Suitable Areas.** Uses and activities within the areas designated as suitable for the location of facilities related to commercial fishing and seafood processing as shown on [Map Figures N1-N8](#) shall be sited to avoid or minimize adverse impacts to commercial fishing and seafood processing facilities.

**6.2. Water-dependent Uses.** Within the areas designated as suitable for the location of facilities related to commercial fishing and seafood processing as shown on [Map Figures N1-N8](#), fish and seafood processing and support facilities shall be considered water-dependent uses.

#### **7.0 Mariculture (Aquatic Farming)**

*There are no enforceable policies in this section.*

#### **8.0 Timber Harvest and Processing**

*There are no enforceable policies in this section.*

#### **9.0 Sand and Gravel Extraction**

**9.1. Sand and Gravel Priority Areas.** To the extent practicable, sources of sand and gravel from coastal water shall be authorized in a descending order of priority as follows:

- a. reuse of sand and gravel from abandoned development areas;
- b. rivers, streams, and lakes that do not support fish.

#### **10.0 Subsistence Use Areas**

*There are no enforceable policies in this section.*

#### **11.0 Fish and Wildlife Habitat**

*There are no enforceable policies in this section.*

## **12.0 Air, Land and Water Quality**

*There are no enforceable policies in this section.*

## **13.0 Archaeological and Historic Resources**

*There are no enforceable policies in this section. See policy 1.2.b.*

# **C. PORT GRAHAM / NANWALEK AMSA ENFORCEABLE POLICIES**

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## **1.0 Coastal Development**

*No AMSA enforceable policies.*

## **2.0 Natural Hazard Areas**

*No AMSA enforceable policies.*

## **3.0 Recreation, Tourism and Coastal Access**

*No AMSA enforceable policies.*

## **4.0 Energy Facilities and Industrial Development**

*No AMSA enforceable policies.*

## **5.0 Transportation and Utilities Routes and Facilities**

*No AMSA enforceable policies.*

## **6.0 Fishing and Seafood Processing Facilities**

*No AMSA enforceable policies.*

## **7.0 Mariculture**

*No AMSA enforceable policies.*

## **8.0 Timber Harvest and Processing**

*No AMSA enforceable policies.*

## **9.0 Sand and Gravel Extraction**

*No AMSA enforceable policies.*

## **10.0 Subsistence**

In addition to policy 10.2, the Alaska Coastal Management Program State Standard for subsistence shall apply to activities within Port Graham/Nanwalek AMSA.

Non-federal public land and waters within the boundaries of the Port Graham/Nanwalek AMSA as shown in [Volume 2, Map Figure I4](#) and as provided in the legal description in Section 2 of this Chapter are designated subsistence use areas. Table 1.26 provides a summary of resource by harvest area. These include:

- AMSA-wide non-federal uplands from mean and ordinary high water to the inland boundary of the coastal zone;
- AMSA-wide anadromous rivers, lakes and streams to ordinary high water ([see Volume 2, Map Figure I4](#)) (note: 100-ft buffer lies along the shorelines of anadromous waters);
- AMSA-wide non-anadromous rivers, lakes and streams to ordinary high water; and
- AMSA-wide non-federal marine waters from mean high water seaward to the seaward boundary of the AMSA.

<b>Table 1.26 Subsistence Resource by Harvest Area</b>				
<b>SUBSISTENCE RESOURCE</b>	<b>AMSA-wide anadromous rivers lakes and streams to ordinary high water</b>	<b>AMSA-wide non-anadromous rivers lakes and streams to ordinary high water</b>	<b>AMSA-wide non-federal marine waters (as defined above)</b>	<b>AMSA-wide uplands (as defined above)</b>
<b>SALMON</b>	✓		✓	
<b>OTHER FISH</b>	✓	✓	✓	
<b>INVERTEBRATES</b>			✓	
<b>FURBEARERS</b>				✓
<b>MARINE MAMMALS</b>			✓	
<b>BIG GAME</b>				✓
<b>SMALL GAME</b>				✓
<b>BIRDS</b>	✓	✓	✓	✓
<b>PLANTS</b>			✓	✓
<b>FIREWOOD</b>				✓

**10.2. Buffer.** A natural, undisturbed buffer of at least 100 feet on each side shall be maintained along rivers, lakes, and shorelines within the Port Graham/Nanwalek AMSA ([see Volume 2, Map Figure I4](#)). No development shall be allowed within the 100-foot buffer. The distance is measured from the ordinary high water mark along rivers lakes and streams, and from mean high water for the ocean or sea.

### **11.0 Fish and Wildlife Habitat**

*No AMSA enforceable policies.*

### **12.0 Air, Land and Water Quality**

*No AMSA enforceable policies.*

## 13.0 Archaeological and Historic Resources

*No AMSA enforceable policies.*

### **D. KENAI CMP GUIDANCE POLICIES**

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Under AS 46.40.210(7), a district coastal management plan is a plan that sets out policies and standards “to guide public and private uses of land and water within that district ...”. Guidance policies are policies that may not meet one or more tests of enforceability contained in state statute but that can help guide coastal uses within the district. Guidance policies are not enforceable and cannot be used to require conditions or stipulations on projects during the project consistency review process. The following are the guidance policies for the Kenai district.

#### **1.0 Coastal Development**

**G-1.1. Cumulative Impacts.** The cumulative effects of proposed new and existing development on ambient air and water quality and coastal habitats will be considered in the review or renewal of coastal projects.

**G-1.2. Navigation Obstruction.** Structures, pipelines and buoys placed on the surface of navigable coastal waters should be visibly marked to minimize navigation hazards. Structures, pipelines and buoys in navigable coastal waters should be placed to avoid, minimize or mitigate navigation hazards or obstruction.

**G-1.3. Timely Notification Requirement.** Within marine and estuarine waters of the coastal area, operators of activities relating to oil, gas, and mining exploration and production should provide timely written notification to a list of fishing organizations maintained by the Kenai Peninsula Borough to apprise commercial fishing interests of the schedule and location of development activities prior to initiation of the project if such project has the potential to disrupt commercial fishing activities. This notice should include a schedule of activities and a map or description of any potential conflicts or physical obstructions that may impact or preclude commercial fishing opportunities or damage/contaminate fishing gear, including but not limited to subsea pipelines, subsea wellhead structures, and modifications to the natural shoreline topography or sea-bottom profile (e.g. causeways, artificial islands, dredge spoil disposal sites).

**G-1.4. Placement of Dredged or Fill Material in Important Habitats.** For a project that requires the placement of dredged or fill material in coastal water within a designated important habitat, the applicant should submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on the special productivity of the habitat as part of a consistency review packet or a consistency evaluation, as appropriate.

#### **2.0 Natural Hazard Areas**

**G-2.1. Erosion.** The following performance standards should be considered for development on slopes exceeding 15 percent:

- a. For slopes of 15 to 30 percent, the area used for development should not exceed 25 percent of the site.
- b. For slopes of 31 percent or greater, the area used for development should not exceed 10 percent of the site.

The areas used for development includes all structures, roads and driveways.

**G-2.2. Use of Public Land.** State and Borough land in the designated 100 year floodplain and other designated hazard prone areas should be maintained in public ownership unless a greater public need would be met by disposing or developing such land.

**G-2.3. Floodway and Floodplain Development.** Bridges and culverts that cross designated floodways should be designed and maintained to accommodate flow through the structure with no increase to base flood levels and to avoid retaining and spreading flood waters behind them (see Volume 2, Map Figures F1–F10).

**G-2.4. Landslides, Mass Wasting, and Avalanche Hazards.** Unless there are no practicable alternatives, new development should avoid designated natural hazard areas subject to landslide, mass wasting and avalanche hazards (see Volume 2, Map Figures G1-G5).

### **3.0 Recreation and Coastal Access**

**G-3.1. Reclamation of Recreational Areas.** For recreational areas and trails discovered to be deteriorating because of overuse, the Borough encourages reclamation by the responsible management agency.

**G-3.2. Improved Access and Facilities.** The Borough encourages the development of improved trails, boardwalks, fish cleaning stations, picnic areas, and litter and waste disposal sites within designated recreational areas to prevent or minimize any adverse effects to the surrounding natural environment that could be caused by heavy foot traffic, extensive firewood gathering, or improper disposal of waste.

**G-3.3. Easements and Rights-of-way.** Section line easements and public rights-of-way that provide public access to public recreation areas or coastal water bodies should not be vacated unless equal or better access is provided or unless the public easement or right-of-way is unmanaged and adverse impacts to sensitive habitat and adjacent private lands is occurring.

**G-3.4. Open Space Areas.** Publicly owned shorelines, beaches and upland areas that possess high value recreation, scenic, wildlife or environmental quality or are subject to natural hazards, should be retained as public open space or recreation areas.

## 4.0 Energy Facilities and Industrial Development

### G-4.1. Water Resources.

- a. Commercial/Industrial operations should use necessary measures to prevent drilling wastes, oil spills, and other toxic or hazardous materials from contaminating surface and groundwater.
- b. Any industrial water withdrawal must comply with the requirements of AS 46.15 and may require that aquifer testing of the production well(s) and monitoring of nearby public or private wells be conducted. Results of testing should be submitted to the Kenai Peninsula Borough and the Alaska Department of Natural Resources; these results should demonstrate what effects the withdrawal of water necessary to serve the fully developed project will have on prior water rights holders within the area of influence.

**G-4.2. Use of Existing Facilities.** Existing industrial facilities or areas and pipeline routes should be used to meet new requirements for exploration and production support bases, transmission/shipment (including pipelines and transportation systems), and distribution of energy resources.

**G-4.3. Habitat Protection.** Projects that require dredging, clearing or construction in productive habitats should be designed to keep these activities to a minimum area necessary for the project.

**G-4.4. Navigating and Commercial Fishing.** Activities associated with oil and gas resource exploration, industrial development, or production should minimize navigational interference and be located or timed to avoid potential damage to fishing gear. Offshore pipelines and other underwater structures should be located, designed or protected so as to allow fishing gear to pass over without snagging or otherwise damaging the structure or gear.

**G-4.5. Offshore Structure Debris.** Debris from offshore construction activities should be removed to an approved onshore disposal site on or before completion of construction.

**G-4.6. Oil Storage.** Oil produced in offshore areas should be transported to shore for storage unless transport is determined to have a greater potential for adverse environmental impact than offshore storage.

**G-4.7. Alternative Energy.** Projects using energy sources such as wind, solar, and geothermal will be permitted provided the project conforms to the policies contained in this program and all other applicable laws.

**G-4.8. Hydroelectric Power.** Hydroelectric projects should not dam, divert, or reduce water levels in rivers, streams, or lakes that support important commercial, subsistence, or recreational fish species unless the project is designed to mitigate loss to fish production and any interference with navigation.

**G-4.9. Development Plans for Public Review.** The Borough will make available for public review copies of all oil and gas exploration or development plans it receives from the state as part of the state's oil and gas lease sale process.

**G-4.10. Prevention and Cleanup of Oil Spills.** The Borough shall pursue the development and adoption of policies and plans relating to the prevention and cleanup of oil spills.

#### **G-4.1. Geophysical Surveys.**

The following guidance policy is applicable to important habitats and designated subsistence harvest areas as shown on the [Volume 2, Map Figures H-H6, I-I4 and O1-O3](#).

- a. Geophysical surveys should be located, designed, and conducted in a manner so as to avoid disturbances to designated important habitats, and subsistence harvest areas. Seasonal restrictions, restrictions on the use of explosives, or restrictions relating to the type of transportation used in such operations should be included as necessary to mitigate potential adverse impacts.
- b. Geophysical surveys in fresh and marine waters supporting fish or wildlife should use energy sources that have been demonstrated to be harmless to fish and wildlife and human uses of fish and wildlife. Blasting for purposes other than geophysical surveys will be approved on a case-by-case basis after all steps have been taken to minimize impacts and when no practicable alternatives exist to meet the public need.

**Intent:** Guidance Policy 4.1(b) balances several uses of state concern and national interest, including the exploration and production of oil and gas resources and the protection and use of the fisheries of Cook Inlet and the Gulf of Alaska. After considering the information available on the value of the 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 transitional zone, the Kenai Peninsula Borough have serious concerns about the use of explosives for seismic exploration in marine waters.

### **5.0 Transportation and Utilities Routes and Facilities**

**G-5.1. Road Design.** In addition to considering safety, cost, and efficiency in road design, the Borough encourages consideration of the needs of nonmotorized travelers, scenic values, and ways to minimize disruption to private lands and landowners located along rights-of-way.

### **6.0 Fishing and Seafood Processing Facilities**

**G-6.1. Maintenance and Enhancement of Fisheries.** Maintenance and enhancement of fisheries should be given high priority in reviewing proposed projects that might adversely impact important fisheries habitat, migratory routes and harvest of fish or shellfish.

**G-6.2. Placement of Structures.** All temporary and permanent developments, structures, and facilities constructed or placed in marine and estuarine waters of the Kenai Peninsula Borough area should be sited, constructed, and operated in a manner that does not create a hazard or obstruction to commercial fishing operations.

**G-6.3. Fisheries Enhancement Programs.** Land and water in areas identified by the Department of Fish and Game or Cook Inlet Aquaculture Association for fisheries enhancement programs should be managed to be compatible with those programs.

**G-6.4. Fish Enhancement and Stocking.** Fish enhancement and stocking projects should use local, indigenous stocks to maintain the genetic integrity of wild and indigenous fish populations.

**G-6.5. Fish Passage Improvements.** The Borough favors the continued cooperative efforts by the Alaska Department of Fish and Game, Cook Inlet Aquaculture Association and other state and federal agencies to accomplish stream or fish passage improvements and increase fish habitat throughout the Borough.

**G-6.6. Inventory of Commercial and Sport Fishing Interests.** The Borough Planning Department shall maintain a list of commercial and sport fishing organizations and make this list available to entities conducting activities in fishing areas within the Borough to assist in notification requirements provided in Policy G 7.5.

**G-6.7. Public Information.** The Borough Planning Department shall maintain project information and maps provided by developers conducting activities in fishing areas within the Borough and make this information available on request to the public.

**G-6.8. Disposal of Wastes.** Uses of fish processing by-products and wastes should be promoted, and disposal of processing wastewater and fish scrap should meet applicable state and federal water quality and waste disposal standards.

## **7.0 Mariculture**

**G-7.1. Finfish Farming.** Aquatic farming of salmon or other finfish is prohibited within the marine and estuarine waters of the Kenai Peninsula Borough. Fisheries enhancement and stocking in which juvenile fish are released to marine waters to mature and be commercially harvested are acceptable fish and wildlife management practices where it has been determined to be scientifically sound and where public review shows it to be in the public interest.

**G-7.2. Siting Criteria.** Mariculture facilities within the coastal boundary of the Kenai Peninsula Borough shall meet the following siting criteria:

- a. Potential mariculture sites shall be in areas of low conflict with existing uses. Where appropriate, facilities will be consolidated to minimize impacts on other users. Separation distances between farms shall be established in order to minimize cumulative impacts on water quality and potential for disease transmission.
- b. Sites must have flushing characteristics and depth necessary to ensure that existing water quality and habitats will be maintained or enhanced and to minimize the potential for disease transmission.
- c. Potential mariculture/aquaculture sites shall be in areas of low conflict with existing uses. The following areas shall be avoided where incompatible:
  - the mouth of anadromous fish streams, identified by the Alaska Department of Fish and Game;
  - important habitat areas for existing species of fish, shellfish, waterfowl, seabirds or marine mammals;
  - important kelp and eelgrass beds;

- recreation, subsistence or sport fishing and hunting areas receiving significant public use;
- commercial fishing areas;
- fishery enhancement sites;
- areas of vessel traffic;
- tidelands contiguous to privately owned uplands.

**G-7.3. Anchoring.** Mariculture facilities should be securely anchored with an anchor of sufficient size and holding capacity to keep the facility in its proper location. Shore anchoring cables or other shore attachments should not be used in areas where they could pose a hazard to navigation.

**G-7.4. Visibility.** All mariculture facilities should be visibly marked with paint, buoys or lights to meet U.S. Coast Guard requirements.

**G-7.5. Public Notice Requirements.** As required under Alaska Statute 38.05.945 and 38.05.856 the state shall notify the public, individuals and organizations affected by activities related to aquatic farming (mariculture), sale, lease or disposal of state land or resources. Among those notified are the Kenai Peninsula Borough, Village and Regional Corporation, Regional Fish and Game Councils, and Community Councils.

For Aquatic Farm sites (mariculture) a public hearing is required under Alaska Statute 38.05.946, in addition to the requirements under AS 38.05.945.

**G-7.6. Reporting Requirements.** Mariculture permit holders should prepare reports and development plans required by permitting agencies. At a minimum these should summarize the species and volumes of seafood produced.

## **8.0 Timber Harvest and Processing**

**G-8.1. Management Activities.** Forest management activities should be planned and managed so as to:

- a. Minimize adverse environmental impacts to fish and wildlife populations and their habitat;
- b. Ensure the free passage of anadromous and resident fish in rivers, streams lakes, and marine waters;
- c. Minimize conflict with recreational uses and activities;
- d. Minimize sedimentation, erosion and alteration of natural drainage patterns;
- e. Minimize adverse visual impact in areas with high scenic value;
- f. Maintain long-term productivity of forest soils and ecosystems, reduce epidemic infestations of forest pests, reduce hazard of forest fires;
- g. Promote regeneration of harvested forests.

### **G-8.2. Log Transfer and Storage.**

- a. Logs shall be stored above mean higher high water (MHHW) wherever practicable.
- b. Sites for in-water dumping and storage of logs should be selected and these activities conducted so as to minimize adverse affects on the marine ecosystem, accumulation of bark and toxins, conflicts with recreational uses and activities, navigation hazards and exposure to storms.

**G-8.3. Consistency Review.** The Kenai Peninsula Borough supports amendments to the Forest Practices Act to make activities associated with timber harvest subject to coastal management consistency review.

## ***9.0 Sand and Gravel Extraction***

**G-9.1. Extraction of Sand and Gravel from Rivers and Streams.** Sand or gravel extraction from rivers or streams are subject to the following standards:

- a. Maximum use of recycled water should occur to minimize water withdrawal from the stream.
- b. Changes to channel hydraulics should be avoided.
- c. Sand and gravel pits should be located to minimize the probability of channel diversion through the site.
- d. The effects of sand and gravel removal on nearby lands and waters should be minimized by maintaining vegetative filter strips or buffers around areas of sand and gravel extraction between active channels and the work area and by avoiding in stream work, unnecessary clearing of riparian vegetation, or disturbance to natural banks.
- e. If the work area may be inundated by high water during the period of operation, temporary dikes should be constructed around the site to segregate the work area from active channels.
- f. To the extent practicable, site configurations should avoid the use of long straight lines and should be shaped to blend with physical features and surroundings.

**G-9.2. Overburden Disposal.** Overburden related to sand and gravel extraction should not be disposed of in lakes, within the 100-year floodplain of streams or rivers, or below the limit of mean high water in intertidal areas and estuaries. Overburden in upland areas should be saved and replaced on the disturbed area to conform to the natural topography as part of the reclamation process.

**G-9.3. Reclamation and Restoration.** Reclamation of all upland and floodplain extraction sites should be required unless such reclamation would cause greater adverse impact than would leaving the site unreclaimed. At a minimum, reclamation should include the following elements, as applicable:

- a. Topsoil should be segregated from overburden, and both shall be stored above the 100-year floodplain of watercourses.
- b. At the end of each season all disturbed areas within 100-year floodplains of streams that support anadromous fish should be regraded to stable slopes with ground contours that will not entrap fish.

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 gravel extraction, all disturbed areas should be graded to stable slopes that blend with the natural topography. Erosion control measures shall be implemented to stabilize the site, areas designated for revegetation should be covered with topsoil to encourage establishment of native or other selected plants, and erosion-prone areas requiring immediate cover should be seeded with a cover crop. Alternatively, excavated pits may be converted into fish and wildlife habitat areas.

**G-9.4. Access to Minerals.** On public lands identified as having high potential for sand and gravel, surface uses should be managed to maintain opportunities for future extraction activities where practicable.

## 10.0 Subsistence

**G-10.1. Subsistence Resource Mapping.** The Borough Planning Department will work with the communities of English Bay and Port Graham to designate and map subsistence areas important to these communities as part of the AMSA plan for this area.

**G-10.2. Timing of Activities.** Timing of proposed activities should be considered when avoiding or minimizing impacts to the activities, uses or resources for which an area has been designated for subsistence use. The applicant should provide information about the timing of proposed activities as part of the consistency review packet or the consistency evaluation. Proposed activities should be timed to avoid, minimize or mitigate impacts to the activities, uses or resources for which an area has been designated for subsistence use.

## 11.0 Fish and Wildlife Habitat

**G-11.1. Appropriation of Water.** Appropriation of surface or intergravel waters from streams should not occur at a withdrawal rate or timing that adversely affects anadromous fish habitat, as determined by the Department of Natural Resources, unless the Department makes a finding based on public review that the competing use of water is in the best public interest and no practicable alternative exists.

**G-11.2. Fish Passage.** Development activities, facilities and structures should be designed, sited, constructed and operated in a manner that does not impede or interfere with timely access and movement of fish. Causeways, gravel berms, culverts, and other obstructions or constrictions to fish movement are of particular concern. Existing fish passage problems, including perched culverts, man-made stream obstructions, and velocity barriers should be corrected by the entity responsible for the problem.

**G-11.3. Seabird Colonies and Marine Mammal Haul-Outs.** Seabird colony sites and haul-outs and rookeries used by sea lions and harbor seals (as identified in Alaska Department of Fish and Game Regional Guides) shall not be physically altered or disturbed by structures or activities in a manner that would preclude or interfere with continued use of these sites. To the extent practicable, development structures and facilities with a high level of noise, acoustical or visual disturbance shall maintain a one-half mile buffer from identified use areas for sea lions, harbor seals, and marine birds during periods when these species are present.

**G-11.4. Whale Migration and Feeding Areas.** Uses and activities within or adjacent to coastal waters shall not interfere with migration or feeding of whales. Interference refers to conduct or activities that disrupt an animal's normal behavior or cause a significant change in the activity of the affected animal.

**G-11.5. Bald Eagles and Nest Sites.** Activities shall avoid harming or disturbing bald eagles or their nest sites in accordance with the Bald Eagle Protection Act (16 USC 668) by timing operations when eagles are not breeding or nesting (generally September 1 to March 1), retaining a buffer of undisturbed natural vegetation around occupied nest trees, or both. The use and size of buffers shall be determined on a case-by-case basis by the U.S. Fish and Wildlife Service and Alaska Department of Fish and Game and may vary with topography, timber type, wind firmness, type of activity, or other factors, but will generally be about 330 feet wide.

**G-11.6. Wetlands Mapping.** The Borough shall obtain funding to research and map wetlands in developing areas and apply for Corps of Engineers General Permits in non-critical wetland areas to reduce wetland permit requirements for individuals.

**G-11.7. Wetlands Ordinance.** The Borough shall develop a wetlands ordinance to address the subdivision, drainage, and filling of wetland areas for future development.

**G-11.8. Water Resources.** The Borough encourages the Alaska Department of Fish and Game to both: 1) identify streams within the Kenai Peninsula Borough with the highest priority for establishing reservation of in stream flows (AS 46.15.145) and 2) work towards establishment of this reservation.

**G-11.9. Priority Use.** For projects proposed within important habitats the applicant should submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on the special productivity of the habitat as part of a consistency review packet or a consistency evaluation, as appropriate.

**G-11.10. Use of Explosives.** The following applies to important habitats ([Volume 2, Map Figures H-H6 and I1-I4](#)), parks, refuges and sanctuaries within the designated recreation use area ([Volume 2, Map Figures Q-Q3, X-X15](#)) and designated subsistence use areas ([Volume 2, Map Figures O1-O3](#)). To protect fish, marine mammals, and other aquatic fauna, explosives should not be detonated within, beneath, or adjacent to marine, estuarine, or fresh waters that support fish and wildlife during periods when fish or marine mammals are present unless the detonation of the explosives produces an instantaneous pressure rise in the water body of no more than 2.5 psi (pounds per square inch) or unless the water body, including its substrate, is frozen.

**G-11.11. Buffer.** A natural, undisturbed buffer of at least 100 feet should be maintained along rivers, lakes, and shorelines that are in important habitat areas. ([see Volume 2, Map Figure I4](#)). No development should be allowed within the 100-foot buffer. The distance is measured from the ordinary high water mark along rivers lakes and streams, and from mean high water for the ocean or sea.

## 12.0 Air, Land and Water Quality

**G-12.1. Hazardous and Toxic Substances.** Hazardous materials, petroleum, or petroleum products as defined in State and federal regulations, should not be disposed of in the Borough unless done so at a facility designed and approved for this purpose.

**G-12.2. Storage of Petroleum Products and Other Substances.**

- a. Facilities for the storage, processing, or treatment of petroleum products and other potentially harmful substances exceeding 660 gallons capacity should not be sited within the 100-year floodplain.
- b. Where petroleum-related storage is permitted outside of the 100-year floodplain buffer zones of not less than 100 feet should be required to separate oil storage facilities (with a capacity of 660 gallons or more) from rivers, streams, lakes, wetlands, or marine waters which provide domestic or public water supplies, or support anadromous fish populations as well as areas of human settlement or use which are highly susceptible to petroleum contamination. Buffer zone width should be established in consultation with the Borough, and the Alaska Departments of Environmental Conservation and Natural Resources and should be based on site criteria, such as depth of seasonal high water table, slope, aspect, and permeability of surrounding soils and substrata.
- c. Impermeable berms and basins capable of retaining 110 percent of storage capacity plus 12 inches of free board should be required for all above-ground storage facilities to minimize the potential for uncontained spills or leaks.

**G-12.3. Monitoring.** the Kenai Peninsula Borough encourages the State of Alaska to develop monitoring procedures with latest technology.

**13.0 Archaeological and Historic Resources**

**G-13.1. Historical and Prehistoric Sites.** Prior to development activities, historical and prehistoric sites identified and listed on the Alaska Heritage Resource Inventory will be reviewed by the Department of Natural Resources. The inventory is maintained by the Division of Parks and Outdoor Recreation, Office of History and Archaeology.

**G-13.2. Protection From Disturbance.** If previously undiscovered artifacts or areas of historic, prehistoric, or archaeological importance are encountered during development activities, the site should be protected from further disturbance and the State Historic Preservation office should immediately be notified to evaluate the site or artifacts.

**G-13.3. Identification and Designation of Areas.** The Borough will work with appropriate state agencies, village governments, and private organizations or individuals, as funding and staff allow, to identify and designate additional coastal areas are important to the study, understanding, or illustration of national, state, or local history or prehistory.

## **E. PORT GRAHAM / NANWALEK AMSA GUIDANCE POLICIES**

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### **1. Coastal Development**

**G-1.1. Floating Facilities.** All floating facilities and partially submerged objects such as mariculture rafts, set nets, mooring buoys, in-water storage areas for timber harvest logs, and docks should be sufficiently marked so as to be visible at night and under adverse weather conditions.

**G-1.2. Marking of Navigation Obstacles.** All underwater obstacles along the coastline and in navigable waters should be clearly marked and mapped to avoid hazard to watercraft.

### **2. Natural Hazard Areas**

**G-2.1. Erosion.** With the exception of dredging activity for the maintenance or improvement of navigation channels, removal of sand, gravel, or other mineral materials should not be permitted within designated erosion-prone areas.

**G-2.2. Stabilization.** At the conclusion of authorized dredging within designated areas, disturbed areas should first be stabilized and then revegetated or otherwise protected from erosion.

### **3. Recreation and Coastal Access**

**G-3.1. Road and Trail Setbacks.** New roads or trails intended for use by vehicles should be located at least 100 feet from anadromous streams and coastal waters, other than those intended to cross or access the water body.

**G-3.2. Bridges and Walkways.** The Borough encourages the construction of bridges or elevated walkways over streams where existing ATV and foot trails cross to minimize disturbance to fish and wildlife.

**G-3.3. English Bay River ATV Trail.** The Borough encourages the relocation of the ATV/foot trail along the English Bay River to a location that is a greater distance away from the river to avoid erosion of the river bank and destruction of important fish and wildlife habitat.

**G-3.4. Tourism.** The Kenai Peninsula Borough encourages the development of a seasonal tourism industry in this AMSA by making use of the many cultural, historic, and natural wildlife resources that exist.

**G-3.5. Village Council Authority.** The Kenai Peninsula Borough respects and supports Port Graham's and Nanwalek's right to oversee and control the development of a seasonal tourism industry so that desirable cultural values are retained and left undisturbed.

#### **4. Energy Facilities and Industrial Development**

*There are no guidance policies for this section.*

#### **5. Transportation and Utilities Routes and Facilities**

*There are no guidance policies for this section.*

#### **6. Commercial Fishing and Seafood Processing**

**G-6.1. Protection of Salmon Fisheries.** Coastal development activities should be planned and conducted in a manner that avoids or minimizes adverse effects on commercial salmon fisheries within the Port Graham/Nanwalek AMSA.

**G-6.2. Timing of Activities.** Allowable development activities that conflict with commercial fishing should be timed to coincide with periods of little or no commercial fishing activity.

**G-6.3. Notification.** Entities pursuing activities that could conflict with commercial fishing activities within the Port Graham and Nanwalek area should be required to provide timely written notification of the schedule and location of the proposed activity prior to initiation of the project. This notice should include a schedule of activities and a map or description of any potential conflicts or physical obstructions that may impact or interfere with commercial fishing opportunities or cause damage to commercial fishing gear, including, but not limited to, underwater utility cables, pipelines, community sewage outfalls, timber harvest debris, and modifications to the natural shoreline topography or sea bottom profile (e.g. piers and docks, artificial islands, dredge spoil disposal sites, etc.).

The Kenai Peninsula Borough Planning Department staff should notify the appropriate local and regional organizations of projects or proposals located within the AMSA. Notifications shall be given to the following local and regional organizations:

- Nanwalek IRA Council President, P.O. Box 8028, AK 99603 (907) 281-2274
- Port Graham Village Council President, P.O. Box 5510, Port Graham, AK 99603 (907) 284-2227
- English Bay Corporation President, 1637 Stanton Avenue, Anchorage, AK 99508 (907) 281-2208
- Port Graham Corporation President, P.O. Box 5569, Port Graham, AK 99603 (907) 284-2212
- Chugach Alaska Corporation, 560 E. 34th Avenue #300, Anchorage, AK 99503-4396, (907) 563-8866
- The North Pacific Rim Housing Authority 8300 King Street Anchorage, AK 99518 (907) 562-1444

**G-6.4. Disposal of Fish Processing Wastes.** Disposal of fish processing wastewater and fish scrap should meet applicable state and federal water quality and waste disposal standards. The use or reprocessing of fish waste is encouraged.

**G-6.5. Fishery Maintenance and Enhancement.** Maintenance and enhancement of fisheries should be considered highly important when reviewing proposed projects that might adversely impact subsistence resources, important fisheries habitat, migratory routes, and the harvest of fish or shellfish.

**G-6.6. Fish Enhancement and Stocking.** Fish enhancement and stocking projects should use local, indigenous stocks to maintain the genetic integrity of wild and indigenous fish populations.

## 7. Mariculture

**G-7.1. Finfish Farming.** The Kenai Peninsula Borough Coastal Management Program prohibits aquatic farming of salmon or other finfish in marine or estuarine waters of the Kenai Peninsula Borough. The mariculture policies in the rest of this section are intended for shellfish and sea vegetable mariculture.

**G-7.2. Potential Conflicts.** Mariculture projects should be planned and located to avoid significant conflict with subsistence or commercial fishing activities in this AMSA.

**G-7.3. Site Characteristics.** Mariculture raft sites should have sufficient tidal flushing characteristics and depth to ensure that existing water quality and habitats within this AMSA are maintained or enhanced and that the potential for disease transmission is minimized.

**G-7.4. Visibility.** All mariculture rafts in this AMSA should be visibly marked with paint, buoys, and/or lights to meet requirements set by the U.S. Coast Guard in order to avoid navigational obstructions and hazards to commercial fishing vessels and other watercraft.

**G-7.5. Reprocessing of Fish Scrap.** The Borough encourages the development of facilities for the reprocessing of fish scrap produced by local processors into fisheries byproducts.

**G-7.6. Mariculture Development.** The Kenai Peninsula Borough encourages the development of shellfish and sea vegetable mariculture activity to increase and diversify the local economic base of this AMSA.

## 8. Timber Harvest

**G-8.1. Timber Harvest Management Activities.** Timber harvest activities within this AMSA should be consistent with the Alaska Forest Resources and Practices Act and the Kenai Peninsula Borough Coastal Management Plan and conducted to:

- a. Minimize adverse environmental impacts to fish and wildlife habitat and subsistence resources;
- b. Minimize conflict with recreational uses and activities;
- c. Minimize sedimentation, erosion, and alteration of the natural drainage patterns;
- d. Minimize adverse visual impact in areas with high scenic value;
- e. Maintain long-term productivity of forest soils and ecosystems and reduce the hazard of forest fires;

- f. Promote the regeneration of harvested forests; and
- g. Allow for the free passage of both anadromous and resident fish in rivers, streams, lakes, and marine waters.

**G-8.2. Log Storage and Transfer Sites.** Sites for in-water dumping and storage of logs should be selected by the applicant. In-water dumping and storage of logs should be conducted so as to minimize adverse effects on the marine ecosystem and subsistence, accumulation of bark and toxins, conflicts with recreational uses and activities, navigational hazards, and exposure to storms.

## **9. Sand and Gravel Extraction**

*There are no guidance policies for this section.*

## **10. Subsistence**

**G-10.1. Local Responsibility.** Local residents of each community are directly responsible for seeing that protection of their subsistence use area occurs and shall be responsible for reporting any environmental damage or violation of law to proper agency officials.

**G-10.1. Timing of Activities.** Timing of proposed activities should be considered when avoiding or minimizing impacts to the activities, uses or resources for which an area has been designated for subsistence use. The applicant should provide information about the timing of proposed activities as part of the consistency review packet or the consistency evaluation. Proposed activities should be timed to avoid, minimize or mitigate impacts to the activities, uses or resources for which an area has been designated for subsistence use.

## **11. Fish and Wildlife Habitat**

**G-11.1. Habitat Improvement.** The Borough encourages improvement of fish and wildlife habitat areas in the AMSA through voluntary, community-wide clean up projects and services, and habitat awareness and learning programs.

**G-11.2. Enhancement Projects.** The Borough encourages fish and wildlife enhancement projects in habitat areas within the AMSA.

**G-11.3. All Terrain Vehicle Use.** The Borough encourages ATV operators to use existing roads or trails where possible and to avoid operating vehicles in wetland areas, anadromous rivers, or other sensitive habitat to avoid impacts to fish and wildlife.

## **12. Air, Land and Water Quality**

**G-12.1. Oil Spill Emergency Preparedness and Response - Priority Areas.** In the event of oil or hazardous substance discharge, spill cleanup activities should address the following areas. Order of priority should depend on the location of the discharge and the prevailing tidal currents.

- Port Graham Waterfront and Cannery
- English Bay Lagoon and River
- Selenie Lagoon
- Port Graham River
- Koyuktolik Bay (Dogfish Bay)
- Port Chatham
- Chugach, Windy, and Rocky Bay Intertidal Areas

**G-12.2. Port Graham Water Line.** The Borough recommends that the Port Graham Village Council work with the Borough and DEC to ensure that the solid waste landfill and the Port Graham community water line, are not proximate to one another.

**G-12.3. Port Graham Solid Waste Landfill.** The Borough will continue to work with the residents of Port Graham to identify a new landfill site for Port Graham and work toward acquisition of this site.

### **13. Archaeological and Historic Resources**

**G-13.1. Historic Site Review.** New development should meet the requirements of federal and state law and local ordinance regarding identification and protection of historic and cultural resources. Should artifacts or other cultural evidence be encountered during any phase of a project, the proponent should stop work and contact the State Historic Preservation Office, and the appropriate village council. These entities may complete evaluations, documentation and determine appropriate mitigation measures.

**G-13.2. Integrity of Cultural Resources.** Local maps and inventories of documented important cultural and archaeological sites will be kept in each community. These maps and inventories should not be made available to the general public, however, so that these cultural resources and archaeological sites may be preserved in their natural setting.



## APPENDIX B. TRANSITION AMENDMENT REFERENCES

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This appendix presents references consulted during development of the transition amendment to the Kenai Coastal Management Plan. These references are additive to, and do not replace, other reference lists in the plan document. Unless otherwise noted, published sources of information are summarized in the plan text and are available for review at the Kenai Peninsula Borough Planning Office, 144 N. Binkley, Soldotna, AK 99669, Phone: (907) 714-2201.

Alaska Department of Fish and Game, Division of Commercial Fisheries. <http://www.cf.adfg.state.ak.us/> Division of Commercial Fisheries Web Site. March 2005.

Alaska Department of Fish and Game, Division of Subsistence. *Alaska Subsistence Fisheries 2002 Report*. December 2003. Available online at: <http://www.subsistence.adfg.state.ak.us/download/asf2002.pdf>

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Kachemak Bay National Estuarine Research Reserve. *Kachemak Bay Ecological Characterization*. 1997, as updated through February 2005. Available on the Web at: <http://www.habitat.adfg.state.ak.us/geninfo/kbrr/coolkbayinfo/kbec.html>

Kenai Peninsula Borough, Community Economic Development Division. *2003 Situation and Prospects for the Commercial Fishing Industry*. April 2005. Available online at: <http://www.borough.kenai.ak.us/CEDD/2003/S&P/Commercial%20Fishing/Halibut%20Harvest.htm>

Kenai Peninsula Borough. *Kenai Peninsula Borough All-hazard Mitigation Plan*. September 2004.

Kenai Peninsula Borough Planning Department and consultants for the Kenai Peninsula Borough. *Kenai Peninsula Borough Comprehensive Plan Revision*. Prepared by the March 2005. Available online at: <http://www.kpbcompplan.com/>

Marcorelle, Deric, Alaska Department of Environmental Conservation. The borough expanded the existing Port Graham landfill until a new site could be found. The borough is in the process of locating a site for a new landfill. Personal communication, February 2005.

Mayer, Cathy, Solid Waste Manager, Kenai Peninsula Borough. Port Graham/Nanwalek water line on land owned by the Borough within designated landfill boundary. Water line is 1,000-1,500 feet from landfill's waste-containing areas. Personal communication to James Weise, February 2005.

National Marine Fisheries Service, U.S. Department of Commerce, National Oceanic and Atmospheric Administration. Gravel Policy. 1996.

<http://www.nmfs.noaa.gov/habitat/habitatprotection/gravelpolicy1996.pdf>

Weise, James, Drinking Water Program Manager, Alaska Department of Environmental Conservation. Separation distance between water line and solid waste in Port Graham solid waste landfill adequate for safe drinking water. Personal communication, February 2005.

# APPENDIX C. POTENTIAL AREAS WHICH MERIT SPECIAL ATTENTION

## Introduction

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This appendix to the 2005 transition amendment reprints in its entirety Chapter 5 of the previously approved plan. The text and figure numbers have been retained. The chapter describes areas that were nominated as Areas Which Merit Special Attention (AMSAs) during the original planning process. The borough did not pursue AMSA designation for these areas when the coastal plan was approved in 1990 (the Port Graham / Nanwalek AMSA was established in 1992).

During this transition amendment, the borough does not propose new AMSAs, but maintains this appendix for historical reasons.

## AMSA OVERVIEW

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The Alaska Coastal Management Program provides a mechanism for focusing attention and funds on areas of the borough that are critical to borough, needs and where conflicts exist or are likely to occur as the area develops.

This mechanism is nomination of Areas Which Merit Special Attention (AMSAs). Section 46.40.210 of the Alaska Statutes defines an Area Which Merits Special Attention as: “a delineated geographic area within the coastal area which is sensitive to change or alteration and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use of the resources to a conflicting or incompatible use, warrants special management attention, or which, because of its value to the general public, should be identified for current or future planning, protection or acquisition.”

Nomination of an AMSA is therefore a means of focusing management attention on the chosen area. The following are areas within the Kenai Peninsula Borough, which have been nominated as AMSAs.

- Anchor River Mouth
- Bridge Creek Watershed (Homer)
- Cape Starichkof
- Chuitna Area
- Kasilof River
- Kenai River
- Nikiski Industrial Area
- Ninilchik/Deep Creek Waterfront
- Paint River/Chenik Lake Drainage
- Port Graham/English Bay Area
- Seldovia Watershed
- Upper Resurrection Bay

In the pages that follow, each AMSA is described and a proposed management scheme developed according to the standards established for AMSAs (6 AAC 80.160). The following area descriptions and preliminary management schemes are not enforceable for consistency review purposes. The information is advisory only.

## **ANCHOR RIVER MOUTH**

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Potential Area Which Merits Special Attention

### **Value Justification:**

**Development:** Developed state campground, private recreational vehicle park, two tackle shops and scattered residential development.

**Recreational/Scenic/Heritage:** Heavy camping near Anchor River estuary on lower river, sport fishing and beachcombing use. Boat launching area, which supports salt-water sport fishing activities.

**Coastal Resources:** Salmon, steelhead, Dolly Varden, halibut, wildlife and seabirds. This area has been nominated an AMSA to examine recreational use demands and the need for saltwater launching facilities in this area. River erosion and flooding are also factors, which need to be considered in future development of this area.

### **Location:**

The lower portion; and mouth of the Anchor River downstream from the Old Sterling Highway Bridge, including the beach area approximately one-half mile either direction from the river mouth. 1:63,360 Topographic Quad: Seldovia D-5. See Figure 5.1.

### **Existing Ownership/Management/Use:**

The State owned Anchor River Recreation Area comprises a major portion of this area. Privately owned parcels include the land occupied by two tackle shops, a number of residential/ recreational cabins and two RV camp areas. An undeveloped area commonly used for boat launching is also in private ownership.

### **Adjoining Ownership/Management:**

Most of the land south and west of this area is in private ownership. The Anchor River Inn and shopping area, and a gravel pit are located along the Old Sterling Highway west of this area. Low-density residential and private recreational lots border this area to the south. Access to the north is limited and the Cook Inlet borders this area on the west.

### **Present and Anticipated Conflicts:**

Heavy recreational use and the demand for beach and river access in this area conflicts with private property rights. Flooding and river erosion pose hazards to public and private development along the river and have required past bank stabilization and flood control measures. Bank stabilization and in-river construction have the potential to impact water quality and fish habitat.

### **Preliminary Management Scheme:**

Public land in this area should be managed for recreation and public access use. To the extent possible, public recreation areas should be designed to maintain vegetated buffer areas between developed recreation areas and adjacent private land to minimize impacts and discourage trespass. Development along the river and within the 100-year floodplain should be designed to avoid the need for future erosion and flood control measures and to conform to the Kenai Peninsula Borough Floodplain management regulations.

## **BRIDGE CREEK WATERSHED (HOMER AREA)**

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Potential Area Meriting Special Attention

### **Value Justification:**

Development: Existing and potential rural residential development.

Recreational/Scenic/Heritage: High scenic value, with views of Homer Spit and Kachemak Bay. Moderate recreational use, including moose hunting and winter sports.

Coastal Resources: Important moose habitat in the northern portion of the drainage. This watershed is the major water supply for the City of Homer and marine-related industrial development. Because surface waters are easily affected by improper development, this area has been nominated as an AMSA to protect water supply and quality.

### **Location:**

Bridge Creek watershed from the diversion dam upstream to the 1,000-foot elevation. It is located two and one-half miles north of Homer between Diamond and Crossman Ridges. 1:63,360 Topographic Quad: Seldovia C-4 & 5. See Figure 5.2.

### **Existing Ownership/Management/Use:**

Ownership: Private, some state lands in the northern portions.

Management/Use: Some limited residential development and undeveloped recreational use has occurred. State lands (north of the section line between townships 5 and 6) have been classified for grazing and timber and managed by DNR.

Adjoining Ownership/Management/Use: Private lands to the south and state lands to the north. Most state lands have been classified for grazing, timber or resource management. Some grazing leases exist to the north. Residential development is occurring to the south along Diamond Ridge Road and Skyline Drive.

### **Area Description/Significance:**

Bridge Creek occupies a forested valley between Crossman and Diamond Ridges, which are covered with brush vegetation. Bridge Creek is the principal water supply for the City of Homer and marine-related industrial development on Homer Spit. Surface water supplies are susceptible to adverse impacts from improper adjacent development or use of the stream and reservoir itself for other purposes. Growth is occurring in the Diamond Ridge area. Timber harvest and grazing activities and more intensive recreational use may also occur.

### **Existing or Potential Conflicts:**

Uncontrolled development in this watershed could adversely impact Homer's water supply.

### **Preliminary Management Scheme:**

The watershed should be managed by DNR and the borough to protect the public water supply. Development within 200 feet of Bridge Creek or the reservoir impoundment should be reviewed by the borough and ADEC on a case-by-case basis and no buildings should be allowed within 50 feet. Natural vegetation should be

maintained along stream and reservoir banks. The remaining public land in the watershed should be managed for recreation and open space and other compatible uses.

Residential development, timber harvest and grazing activities should be required to minimize runoff and erosion and should not be allowed to discharge any contaminants into these waters. State lands in this AMSA should be classified for watershed management.

## **CAPE STARICHKOF**

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### Potential Area Meriting Special Attention

#### **Value/Justification:**

Development: Potential LNG site or major support base, oil terminal and/or treatment facility for offshore oil and gas development. Suitable uplands for residential development.

Recreation/Scenic/Heritage: Sport fishing, clam digging, beachcombing and camping potential, outstanding scenic values.

Coastal Resources: Salmon, steelhead. Cape Starichkof has been nominated as an AMSA to focus management efforts on a balanced plan to meet the industrial development and recreational needs of the borough and the region.

#### **Location:**

Cape Starichkof, the mouth of Stariski Creek and associated uplands between the bluff and Sterling Highway are included. The AMSA is located fifty-five miles south of the city of Kenai and twelve miles north of Anchor Point. 1:63,360

Topographic Map: Seldovia D-J. See Figure 5.3.

#### **Existing Ownership/Management/Use:**

Ownership: Private and state, some borough selections.

Management/Use: This area is presently undeveloped except for a White Alice relay site and scattered private residences in the area.

Adjoining Ownership/Management/Use: Adjoining lands are private and generally undeveloped. Offshore oil and gas leases abut the area to the west.

#### **Area Description/Significance:**

The beach at Cape Starichkof is characterized by a mile-long sand spit with Stariski Creek forming an estuary immediately behind it. Gravel beaches occur north of the spit. The bluffs around Cape Starichkof are extremely high, but decrease in height towards the southern portion of the area. Upland areas are vegetated with spruce-hemlock forest. This is the only location along the eastern coast of Cook Inlet south of Kenai and north of Homer with deep-water close offshore.

Cape Starichkof was identified in the past as a potential liquid natural gas plant site to process Cook Inlet natural gas. The area was also identified as a potential site for a service base, oil terminal and/or treatment facility in support of lower Cook Inlet oil and gas development in the event of a high case find. The mouth of

Stariski Creek offers the potential for future development of a small boat harbor. Uplands are also suitable for residential development. This area offers outstanding scenic and recreation values. Sport fishing in Stariski Creek is excellent. Clam digging and beachcombing are also current uses, which could be expanded. The heavily traveled Sterling Highway passes through a portion of the area. The potential for the development of camping and beach access facilities is good. Anadromous fish spawn in Stariski Creek and moose are frequently observed in the area.

**Existing or Potential Conflicts:**

Cape Starichkof has been identified as both a prime industrial site and important recreational site.

**Preliminary Management Scheme:**

The unique development and recreational potential of Cape Starichkof should be recognized and accommodated. The comprehensive development program for the Cape Starichkof AMSA developed under the direction of the Kenai Peninsula Borough should consider the management recommendations, which follow. Since siting and planning energy developments are a major use of state and national concern, this AMSA master plan should be developed in cooperation with appropriate state and federal agencies.

Since this is the only location between Kenai and Homer with the combination of near shore deep water, large tracts of uplands suitable for industrial development and beach access, part of this area should be reserved for marine-related industry or oil and gas-related facilities in support of lower Cook Inlet lease development.

Lands adjacent to Stariski Creek and along the beach, as well as other state lands not selected by the borough, should be considered for addition to the Alaska State Park System as recreation areas or waysides. Management of these lands should emphasize protection of the area's fish and wildlife habitat values and scenic resources. Potential development of a small boat harbor at the mouth of Stariski Creek should be studied. This harbor could serve the growing population of local residents and recreational users.

The proposed industrial sites may be utilized for passive (undeveloped) recreational use until development occurs. Industry should locate, construct and operate in a way that will minimize impacts on recreational and wildlife resources. If it is clearly established that industrial development will not occur, the state park land could be expanded and other lands made available for residential development. The Kenai Peninsula Borough and Alaska Division of Parks should prioritize their industrial and recreational concerns and cooperatively develop an evolving plan of action for this AMSA.

## **CHUITNA AREA**

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Potential Area Meriting Special Attention

**Value Justification:**

Development: Continued development of natural gas resources, upgrade of power generation facilities, proposed major development of the adjacent Chuitna coal fields, a pending timber harvest, possible development of geothermal and gold resources to the north, and expanded recreational activity all point to significant impacts to the Chuitna AMSA. Private and public land planning activities are underway for residential and industrial subdivisions, ports, solid waste sites, and other facilities in support of resource development.

Recreation/Scenic/Heritage: The Chuitna area has moderate to high recreation, scenic and archaeological values.

Coastal Resources: There is an important waterfowl habitat near Beluga. Major drainages support anadromous fish. Significant moose harvests occur in the area. Timber, gravel, and natural gas resources occur in the coastal areas. This area is nominated as an AMSA to recognize, encourage and plan for major resource and related developments while protecting the traditional lifestyle and natural environment.

**Location:**

This AMSA is defined to include coastal areas to the 1,000-foot contour from the Matanuska-Susitna Borough boundary to the Trading Bay State Game Refuge. 1:63,360 Topographic Quad: Tyonek A3-4. See Figure 5.4.

**Existing Ownership/Management/Use:**

Ownership: Surface and subsurface ownerships belong to State, borough, and private interests. Major private ownerships belong to the Cook Inlet Region, Inc. and the Tyonek Native Corporation, with significant port and industrial sites belonging to the Kenai Peninsula Borough.

Management/Use: There are four onshore gas fields located along the coast of this AMSA, the most significant of which is the Beluga River Unit. Within the unit is the Beluga River Power Station supplying electrical power to Anchorage and the region via major transmission lines. Oil and gas pipelines connect Granite Point with Nikiski. A tank farm and pumping station is located just to the west of Shirleyville. The Native village of Tyonek is the most significant concentration of population, with approximately 300 residents. Southwest of Tyonek is a woodchip mill and a dock which are not presently in operation. There is another residential area at the Three-Mile Creek subdivision just southwest of the power plant, where there are approximately 11 year-round families and limited commercial services. Airstrips exist at Tyonek and Beluga, and there is an improved barge-landing site at Ladd northeast of the mouth of the Chuitna River.

Adjoining Ownership/Management/Use: Most surrounding lands are in state and regional corporation ownership. The Matanuska-Susitna Borough borders this AMSA to the northeast and Trading Bay State Game Refuge to the southwest. Additional oil and gas fields and related developments occur offshore in the upper Cook Inlet.

**Area Description/Significance:**

The area is characterized by relatively flat, poorly drained spruce forest with many small ponds and bogs. Tide flats and associated wetlands occur at Beluga and the mouths of the larger drainages. Deep water occurs nearest to shore at Granite Point, North Foreland, and Ladd. The Beluga tide flats and wetlands are important waterfowl habitat. Significant moose harvest occurs in the Tyonek-Beluga area. Subsistence hunting and fishing are important to the native inhabitants. Furthermore, an important commercial set net fishery occurs along the beaches and the Chuitna River provides significant sport fishing opportunities. The Old Tyonek, Tyonek, Chuitna, Three-mile and Beluga Rivers are anadromous.

Groundwater is available in large quantities in the Beluga, with moderate to high quantities in the Tyonek and Granite Point areas. The glacial soils in this area, although developable pose limitations due to poor drainage. Low glacial moraines are interspersed with boggy areas. The moraines are generally suitable for development and poorly drained areas unsuitable.

Tyonek has long been a center of native culture. Tyonek has a high concentration of burial sites, house pits and middens, which make it an area of archaeological significance.

Areas adjacent to the AMSA have large quantities of low sulphur sub-bituminous coal. Three major fields, the Capps, Chuitna and Three mile, have been identified, with two coal-mining projects currently proposed for the Chuitna field. Construction associated with these projects and impacting the AMSA includes truck haul and maintenance roads, overland conveyors, and port terminals. Deepwater port staging area would be required to store coal and then load vessels for transport to markets. Probable terminal sites are at Granite Point, North Foreland, and Ladd.

A pending State sale of 40 million cubic feet of timber to the north of the AMSA would necessitate transport of logs or chips out of the area from one of the aforementioned port sites and require the development of haul roads. Also, there is a pending proposal to develop a bulk loading dock adjacent to Ladd from which gravel and other commodities can be shipped.

**Preliminary Management Scheme:**

The recently completed Chuitna Area Resource Development Plan identifies issues and goals for this area. It is proposed that the resource information, issues and goals from this document are the basis for the development of this AMSA.

## **KASILOF RIVER**

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Potential Area Meriting Special Attention

**Value Justification:**

Development: Dock, ramp and small boat harbor; fish unloading facilities and processing; potential for small-scale marine-related industrial development; potential oil and gas resources. Residential suitability on well-drained uplands.

Recreation/Scenic/Heritage: Camping, picnicking, beachcombing, sport fishing and hunting; historic and archaeological sites, moderately high scenic value.

Coastal Resources: Important habitat for salmon, moose and migratory waterfowl. Wetlands naturally retain floodwaters. This area is nominated as an AMSA to protect and manage the recreational and resource values of the Kasilof River wetlands, provide for small-scale industrial and residential development, examine transportation and public access requirements, and resolve existing or potential conflicts between resource agencies and developers.

**Location:**

The nominated AMSA is located along the Kasilof River, approximately 14 miles south of the City of Kenai. It includes the area downstream from the Sterling Highway bridge bordered by Cohoe and Kalifornisky Loop Roads, the area upstream from the highway bridge between the river and Tustumena Road, and a corridor along anadromous tributaries of the Kasilof River. 1:63,360 Topographic Quad: Kenai B-4. See Figure 5.5.

**Existing Ownership/Management/Use:**

Ownership: A major portion of the wetlands along the river is owned by the state. Remaining ownership is primarily private, with a few small borough and federally owned parcels.

Management/Use: A portion of the area on the north side of the river mouth has been developed by the Alaska Department of Transportation and Public Facilities and is now in private ownership. Several private fish

loading docks are located upstream. Four small fish processors operate processing plants near Kasilof. Private residences occur in Kasilof, Cohoe and a few isolated, wooded riverbank areas. There are a number of shore fishery sites and a few mining claims within the area.

Adjoining Ownership/Management/Use: Lands adjoining this area are primarily private. Some of these private lands have been developed for residential purposes, but the majority of them are undeveloped.

**Area Description/Significance:**

The area contains a large portion of the wetlands found at the mouth of the Kasilof River. Beach grasses and other salt tolerant plant species are found in low-lying areas. Sandy beaches occur at the river mouth. Upland areas are relatively flat and vegetated with a spruce-hemlock forest interspersed with muskeg.

The Kasilof River is the second largest salmon producer in the borough. Salmon stocks utilize the Kasilof River during their run to Tustumena Lake and upstream spawning and rearing areas. The intensive wetlands are important in maintaining water quality, nutrient enrichment and natural retention of floodwaters and are prime habitat for waterfowl and moose.

Accessible from both Cohoe and Kalifornsky Loop Roads, this area offers a wide variety of outdoor recreational opportunities. Current use focuses on boat launching (for trips into Cook Inlet and up and down the Kasilof River) camping, picnicking, and beachcombing. The area is used by waterfowl hunters in the fall. The remains of an old Russian fort as well as several archaeological sites are located in this area, providing the opportunity for a historical interpretation program. This area has ample well-drained upland areas for the development of campgrounds with excellent beach resources for recreation. Scenic qualities in this area are excellent.

On the north shore of the river mouth a private boat ramp/dock services the commercial fishing fleet. Several other private docks along the river provide unloading facilities for commercial fish and fueling stations for fishing vessels. Mooring buoys line the river during the fishing season, and two fish buying rafts are seasonally moored at the mouth. Scattered residential development occurs along the river near the community of Kasilof. Well-drained upland soils are suitable for residential/commercial uses. Oil and gas resources may be significant in this area. There are no public boat launching facilities on the lower river.

**Existing or Potential Conflicts:**

Improper development in or adjacent to the Kasilof River wetlands could adversely impact the wildlife habitat, recreational and scenic resources important to the economy, public use and quality of life of this area. Structures and mooring buoys within the river could conflict with navigational use of the river. Transportation and public access conflicts could also result from increased competition for use of limited public parking and access points along the river.

**Preliminary Management Scheme:**

The Kenai Peninsula Borough, with the cooperation of DNR, DOT, ADF&G, and the U. S. Army COE, should develop a comprehensive development program for this AMSA. This master plan should consider the following proposed management recommendations.

Suitable land should be reserved adjacent to existing docks, canneries, and at the borough land near the mouth of Coal Creek, for boat moorage, marine related services, fish off-loading and potential processing. Developments in these locations should be required to maintain water quality.

The state land at the mouth of the river should be considered for addition to the Alaska State Park System and managed in cooperation with the Alaska Department of Fish and Game. Historical interpretation of the Russian fort site should be explored. Upland campgrounds and the sandy beach areas on the southwest side of the river should be appropriately developed for recreational uses. The state owns the majority of the remaining wetlands along the river upstream from the proposed park limits and should manage these lands to protect wildlife habitat and water quality. Future public land disposal for residential/commercial development should be restricted to well-drained uplands.

## **KENAI RIVER**

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### Potential Area Meriting Special Attention

#### **Value Justification:**

**Development:** River mouth has access to marine and highway transportation services and utilities which make it ideally suited for fish processing and marine-related development. Lower river below Skilak Lake is developed for medium density residential development, commercial and recreational development. Above Skilak Lake river is developed for low-density residential and recreation use.

**Recreation/Scenic/Heritage:** Heavy recreation use for boat launching, boating, fishing, camping, wildlife viewing and walking.

**Coastal Resources:** Migration, spawning and rearing area for salmon and other anadromous fish; important waterfowl, bird, eagle and wildlife habitat area; wetlands and floodplain areas provide natural water storage areas and water quality functions. This area is nominated as an AMSA to balance the habitat and recreation values of the river with the need for residential and industrial development in the area. Policies of the AMSA are intended to complement and help carry out the goals of the Borough's Kenai River Goals and Objectives and the Kenai River Special Management Area Plan.

#### **Location:**

The nominated AMSA will include: 1) the Kenai River and its tributaries from the mouth to the 1,000 foot elevation or headwaters of the tributaries; 2) The 100 year floodplain, contiguous wetlands determined to be of high resource value, and high bank areas with low soil stability; and 3) a 300 foot corridor measured perpendicular from the outer edge of the areas identified in 1) and 2). See Figure 5-6.

#### **Existing Ownership/Management:**

**Ownership:** The major wetlands and floodplain areas of the river mouth and a number of recreation areas are in state or municipal ownership. The remainder of the land downriver from the wildlife refuge boundary, near the outlet of Skilak Lake, is in private ownership. The land along the upper river above Skilak Lake is primarily in federal ownership other than a few private parcels in the Cooper Landing area.

**Management:** The water column and state park land along the Kenai River is currently managed according to the Kenai River Special Management Area Plan. The remainder of the area is subject to borough and city regulations, including city zoning, borough subdivision regulations and floodplain regulations. Outside of the cities, other than the Kenai Peninsula Borough Floodplain Development Program there are no local land use regulations or building permits regulating use or development along the river. The upper river within the Kenai National Wildlife Refuge and Chugach National Forest is subject to federal management.

**Preliminary Management Scheme:**

Issues, goals and general background information relating to potential development conflicts is well documented in the Kenai River Special Management Area Plan and Borough's Kenai River Goals and Objectives. The AMSA plan for this area should work towards inter-agency cooperation to develop a detailed database, public information and appropriate local regulations to carry out the goals and objectives adopted in these two documents.

## **NIKISKI INDUSTRIAL AREA**

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Potential Area Meriting Special Attention

**Value Justification:**

Development: Marine industrial, industrial, marine commercial, commercial, residential, and transportation.

Recreation/Scenic/Heritage: Unique scenic value

Coastal Resources: excellent potential for marine-dependent industrial.

**Location:**

The Nikiski Industrial Area is located three miles north of the Kenai City limits on the North Kenai Road. The area is approximately 20 square miles and runs from Lower Salamatof Lake on the south to Boulder Point on the North.

**Existing Ownership/Management/Use:**

Ownership: State, Kenai Peninsula Borough, private.

Management/Use: The area is managed primarily by private entities with the predominant uses related to processing, and distribution of oil and gas. Due to the nature and marine location of these facilities proper management is needed to protect existing uses.

Adjoining Ownership/Management/Use:

Ownership: Federal, State, Borough, private.

Management/Use: Surrounding management and use is conservation, recreation, and development.

**Area Description/Significance:**

This area of focus from Lower Salamatof Lake to Boulder Point includes the borough's existing major oil and gas-related industrial development, marine facilities and the coastal bluff and tide flats in Nikiska Bay.

Existing industrial development at Nikiski includes an oil terminal, two petrochemical refineries, and urea plant, an LNG plant and support services for oil and gas exploration and development. Additional lands are designated to the north and south for expansion of energy-related industries. These additional sites are proximal to deep water, but the bluff is somewhat higher than at the existing sites.

The area between the Nikiski and Salamatof industrial sites lacks sufficient acreage between the road and bluff for major development. Salamatof has scattered light industry, warehousing, commercial activity and a fish receiving station. This site could support larger scale marine-dependent industrial development where

moderate water depth is required and could serve as a light industrial area servicing the needs of major oil and gas developments at Nikiski.

The area from the East Forelands to Boulder Point is north from existing industrial developments and support services, yet still holds good potential for marine related industrial development.

Boulder Point has fair proximity to deep water and moderate bluff height. It is the northernmost feasible industrial site with deep-water marine access on the east side of Cook Inlet and the closest site to Anchorage. The western portion of Nikiska Bay has moderate (18 foot) depths not far offshore, however, the remainder of Nikiska Bay is shallow and not recommended for marine-dependent industrial development. The Foreland lakes and related drainages serve as a scenic break between the Nikiska Bay and East Forelands industrial sites and have good recreational and low-density residential value. The East Forelands industrial site is within 0.2 mile of deep water and is an excellent industrial site. The high bluff poses some problems with waterfront access, but is lower in the southern portion of this site. Some scattered industrial development related to petrochemical pipelines already exists in this area.

**Existing/Potential Conflicts:**

Land use in this coastal area is diverse with increasing potential for conflicts as further development occurs. The existing industrial users are interested in developing guidelines to alleviate problems associated with locating incompatible land uses in close proximity. Large water withdrawal required for industrial purposes have the potential to lower groundwater tables and lake levels in portions of this AMSA.

**Preliminary Management Scheme:**

The Kenai Peninsula Borough should initiate a comprehensive development program for future development in this AMSA. This area is a major component of the tax base and economy of the borough, with potential for future large-scale development. The borough should work closely with the existing industries, businesses, and residents to develop an overall development plan. Groundwater is a valuable resource within this AMSA. The Borough should work with existing industries, state and federal agencies, and residents to develop a hydrogeologic study of the area. The hydro geologic study would define the direction of groundwater flow, the potential effect of industrial development on groundwater quality, and potential effect on domestic water supplies.

## **NINILCHIK/DEEP CREEK**

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Potential Area Meriting Special Attention

**Value Justification:**

Development: Residential, fish processing and boat harbor.

Recreation/Scenic/Heritage: Heavy camping, sport fishing and beachcombing use. High scenic value, Russian village and church.

Coastal Resources: Salmon, steelhead, halibut, dolly varden, moose, shorebirds, clams.

This area has been nominated as an AMSA to focus management on heavy recreational use demands, which could conflict with local residential lifestyle, commercial activities, and may adversely impact wildlife and historic resources.

**Location:**

Community of Ninilchik and adjoining lands at the mouth of the Ninilchik River, approximately 35 miles southwest of Soldotna. 1:63,360 Topographic Quad: Kenai A5. See Figure 5.8.

Deep Creek is located approximately one mile south within Section 4, T2S, R14W, S.M.

**Existing Ownership/Management/Use:**

Ownership: State-owned lands occur primarily along the beachfront. Remaining lands are private, including native, with some borough selections.

Management/Use: The State Park System includes four developed campgrounds. The historic Russian village of Ninilchik and a fish processing plant and boat harbor occupy mouth of the Ninilchik River. To the south is the Ninilchik school, post office and business area. The mouth of Deep Creek contains a boat launch, parking area and restroom facilities belonging to state park system.

**Adjoining Ownership/Management/Use:**

The adjoining uplands are privately owned with limited residential development at present, but subdivisions are being developed.

**Area Description/Significance:**

The Ninilchik River mouth includes a wide beach area and flat low lying areas adjacent to the river and is separated from the uplands by a vegetation-covered bluff approximately 75 feet in height. The river mouth itself has been improved to create a small boat harbor and adjacent lands on either side cleared and filled for marine-related development. The harbor is accessible at high tides and is used by the local commercial fishing fleet. Seward Fisheries operates a fish offloading facility.

The village of Ninilchik occupies the lands on the north side of the river and across from the processing plant. This old Russian village with its orthodox church (Holy Transfiguration of our Lord Chapel) provides historical interest to the area. Upland areas are suitable for residential/commercial land usage. The existing 85-unit campground on the beach and 13 unit bluff campground receive constant use throughout the summer months. Sport salmon fishing the Ninilchik River is excellent. The scenic qualities of the area are likewise excellent.

Deep Creek recreation area provides a large beach area, parking lot, and boat launch to enable people to enjoy clamming, marine and freshwater fishing, and camping.

**Existing or Potential Conflicts:**

Conflicts currently exist between residents of Ninilchik and recreationalists concerning trespass, dumping of sewage holding tanks, littering and other problems. Heavy recreational use could also adversely impact sport fish and wildlife and interfere with small boat harbors and fish processing activities if not properly managed.

**Preliminary Management Scheme:**

The Kenai Peninsula Borough should initiate a comprehensive development program for future development in this AMSA. The Alaska Division of Parks should take prime responsibility for developing, implementing and enforcing a recreational management plan, which minimizes conflicts with existing private uses and protects resource values.

The actual mouth of the river should continue to be utilized as a small boat harbor and processing site for the local commercial fishing fleet. The major portion of the village's economy is dependent upon commercial fishing and fish processing. Additional lands should be available on both sides of the river mouth for potential harbor and plant expansion or development of marine-related support services. Cooperative management will be required by the Alaska Division of Parks with assistance from the Department of Transportation and the State Troopers to resolve trespass and other problems. Restriction of recreational vehicles from entering the old village of Ninilchik may be one course of action.

New residential and commercial development should take place on upland sites and be of a character and density reflective of the rural environment and scenic qualities of the area. Public roads, harbors, historic rights-of-way, and beach access points should be kept open for public use.

## **PAINT RIVER AND CHENIK LAKE DRAINAGES**

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Potential Area Meriting Special Attention

### **Value Justification:**

Development: A wilderness lodge base camp and headquarters on Chenik Lagoon; Fish ladder at low tide mark on lower Paint River; Fish ladder at Chenik Lake - Cook Inlet Aquaculture Association.

Recreation/Scenic/Heritage: Sockeye salmon sport fishing, brown bear viewing and photography; Old Chenik Roadhouse; high scenic value.

Coastal Resources: Sockeye, Coho, Pink, Chum, Dolly Varden, ducks, geese, seabirds, Pacific Herring, Harbor Seals, sea otters, moose, and brown bears.

### **Location:**

The Paint River and Chenik Lake drainages from Cook Inlet to the 1000 foot elevation or headwater, and extending offshore one mile. This AMSA is north of McNeil River State Game Sanctuary on the west side of Cook Inlet. 1:250,000 USGS Alaska Topographic Series, Iliamna, Alaska. (Fig. 5.9)

### **Existing Ownership/Management/Use:**

Ownership: This area is federally owned land with pending State and Native Corporation selected parcels and tracts. One parcel is leased to a private party who operates a lodge on Chenik Lagoon.

Management/Use: The U.S. Department of the Interior, Bureau of Land Management is responsible for overseeing activity and development in this area until State and Native land conveyances are completed. Existing uses in this area include a base camp and headquarters for brown bear photographers and sport fishermen and two fish ladders to enhance fish migration and spawning activity in Chenik Lake and on the Paint River.

### **Adjoining Ownership/Management/Use:**

The Adjacent lands to the south are owned and managed by the State and make up the McNeil River State Game Sanctuary.

**Area Description/Significance:**

Chenik Lake is an important habitat for the spawning and rearing of Sockeye Salmon and the Chenik River is a very productive sport fishery. The mouth of the river and the lower Chenik Head area near Amakdedulia Cove provide important habitat for Pacific Herring spawning.

The Paint River and one of its tributaries, Dunuletak Creek, contains Sockeye, Coho, Pink, and Chum salmon as well as Dolly Varden. At least one known Bald Eagle nest exists on the lower Paint River and the general area surrounding both the Chenik Lake and Paint River areas is seasonally inhabited by ducks and geese. Seabirds inhabit the coastal areas around Chenik Head in small colonies and it is a known haul-out concentration area for Harbor Seals and an established population area for sea otters.

Inland from the coast moose exist, although widely dispersed, and grizzly or brown bear occupy the area in concentrated numbers. This area around the Chenik Lake and Paint River Drainages is truly a world-class brown bear observatory and one of the few areas in the entire world where large concentrations of wild predators can be observed in safety.

**Existing or Potential Conflicts:**

In 1977 Kachemak Bay Wilderness Lodge Inc. built a base camp on Chenik Lagoon to accommodate brown bear photographers. Since that time this camp had served as a headquarters for scientific studies, as an emergency station for downed pilots and fishermen in danger, and as a small lodge for sport fishing and brown bear enthusiasts. The Department of Fish and Game and Cook Inlet Aquaculture Association have proposed additional fish stocking and enhancement programs in this area. Activity in the area is expected to increase in the future. To maintain opportunities for fish habitat and enhancement programs and to avoid disruption of the natural wildlife habitat, the borough has nominated this area as an AMSA.

**Preliminary Management Scheme:**

The Kenai Peninsula Borough should closely monitor the development of this area in order to maintain the high value of its natural state. Fish enhancement should be encouraged, but not to the extent that this area would suffer or be degraded. Sport fishing should be promoted and limited development should occur in order to meet the needs of human activity in an orderly fashion; however, development should consider the impact and compatibility with concentrated brown bear habitat.

## **PORT GRAHAM /ENGLISH BAY AREA**

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Potential Area Which Merits Special Attention

**Value Justification:**

Development: Two communities, a dock, fish processing plant, residences and seasonal cabins surround the coastline. Community sewage outfalls extend into the bay and Homer Electric Association power line crosses the bay near Port Graham.

Recreation/Scenic/Heritage: Subsistence and sport fishing, clam digging, outstanding scenic value, potential historic and archaeological sites.

Coastal Resources: Salmon, clams, timber resources.

This area has been nominated as an AMSA to facilitate continued fisheries processing, moorage of fishing vessels, personal use fisheries and timber harvest activities and minimize conflicts between these activities.

**Location:**

The river drainages, coastal lowlands, tidelands and marine waters surrounding English Bay and Port Graham from Point Pogibshi on the north to Koyuktolik Bay on the south, extending inland to the 1000 foot contour and offshore one mile. 1:63,360 Topographic Quad: Seldovia B5 and 6, See Figure 5.10.

**Existing Ownership/Management/Use:**

Ownership: The State owns submerged lands and tidelands. Portions are subject to existing tidelands leases.  
Management/Use: A private dock at the community of Port Graham is used to transfer goods and cargo, and is the site of a fish processing facility and fish buying station. Fishing vessels and skiffs used for personal use and recreation are frequently moored or anchored near the community. The community sewage outfall and underwater HEA power line cross the bay in areas frequently used for boat moorage.

Commercial and personal use set nets also use the shoreline. Timber sales are proposed in the area, which will use the shoreline and bay for log storage and transfer to ocean vessels.

**Adjoining Ownership Management and Use:**

The upland areas are primarily in federal and private ownership. The Port Graham and English Bay communities have large federal town sites. The majority of the land within the town sites is managed by the Bureau of Land Management, with the exception of the borough school sites, state airport site and cannery site. The land surrounding the bay between English Bay and Port Graham is blanketed with private Native Allotment parcels.

**Existing or Potential Conflicts:**

Problems have resulted in the past from vessels anchoring in the vicinity of the sewage outfall or underwater HEA line at Port Graham, as anchors can hook on these utilities and result in loss of the anchor or damage to the utility. Boats anchored too close to the docking facilities can obstruct movement of vessels. Timber harvest activities could conflict with set net fishing if the timing and location of log storage and transfer areas is not coordinated with fishing activities. Fish and shellfish habitat could also be impacted by log storage and timber harvest. Coastal erosion from natural processes and offshore gravel extraction is a concern for English Bay.

**Preliminary Management Scheme:**

The AMSA plan for the Port Graham/English Bay Area should accommodate continued fish processing, vessel moorage, personal use and commercial set net fishing and future timber transfer operations. The plan should establish areas for vessel moorage to avoid the sewage outfall, HEA line and minimize congestion at the dock. Timber loading and storage areas should be established and a time frame should be set to avoid conflicts with fishing activities and minimize impacts to important habitats. Policies to avoid activities, which could accelerate coastal erosion, should be developed.

## **SELDOVIA WATERSHED**

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Potential Area Meriting Special Attention

**Value Justification:**

Development: Existing pressure for residential development.

Recreation/Scenic/Heritage: Moderate to high scenic value.

Coastal Resources: Timber potential, black bear habitat. Fish Creek is an anadromous stream. These drainages are the principal water supply for Seldovia (groundwater potential is very low). Geologic conditions are such that improper development in these drainages could easily impact existing water supply and quality.

**Location:**

These watersheds are located to the east and south of Seldovia and cover approximately 4.8 square miles. 1:63,360 Topographic Quad: Seldovia B-5. See Figure 5-11.

**Existing Ownership/Management/Use:**

Ownership: Nearly all private.

Management/Use: Seldovia Lagoon tributary is undeveloped. The community's water supply comes from the gravity-fed Lagoon Creek reservoir, which is depleted each winter, and from the Fish Creek impoundment. During prolonged periods of subfreezing temperatures, both sources have been inadequate to supply the city's needs during peak usage hours.

**Adjoining Ownership/Management/Use:**

Private and state ownership. The community of Seldovia occupies shore lands to the west. Timber may be harvested in this area. Steep slopes and alpine conditions preclude development in the upper watersheds.

**Area Description/Significance:**

Bedrock is at or near the surface in these watersheds and surficial deposits are thin. Water supply demand, other than a few low yielding domestic wells, must be met from surface water sources. The upper drainages are steep and characterized by alpine vegetation and rock. Along the lower elevations of the Fish Creek watershed, water saturated alluvium, glacial drift deposits and peaty soils form a thin mantle over the bedrock and the stream gradient is gentle. Such geologic conditions result in poor drainage, a high water table and vegetation characterized by spruce-hemlock forest interspersed with muskeg and bogs.

Under such conditions, the surrounding lands are often directly connected by shallow sub-surface drainage with the creek. Effluent from sewage disposal systems in areas of high water tables or shallow bedrock could easily cause pollution of the land surface and nearby water supply.

**Existing or Potential Conflicts:**

Residential development, on-site septic tanks, roads, timber harvest, or other construction adjacent to surface drainages could affect water quality.

**Preliminary Management Scheme:**

These watersheds should be managed by the borough and City of Seldovia to protect the public water supply. Policies developed for the surface drinking water resource/policy subunit shall apply. Lands above the Lagoon Creek reservoir should remain undeveloped. Due to the nature of the low-lying lands adjacent to Fish Creek, development should be restricted and carefully controlled. No development should be considered within 50 feet of Fish Creek. All developments within these watersheds should require on-site testing to a certain septic tank suitability meeting state standards for depth to bedrock, seasonal high water table, soil permeability and other criteria established by ADEC before residences are constructed, or else other means of safe waste disposal must be developed. Future subdivision development should be encouraged to locate on suitable tracts north of Seldovia.

# UPPER RESURRECTION BAY

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## Potential Area Meriting Special Attention

### **Value Justification:**

Development; The Port of Seward is Alaska's only year-round, ice-free, deep-water port with rail, road, and air access to the state's interior. Major waterfront-dependent developments include the following: the Alaska Railroad and coal export terminals; commercial fish processing, storage, and transshipment facilities; ship building, repair and maintenance operations at the Seward Marine Industrial Center; a 650-slip small boat harbor; and a lumber mill. Seward is home port for the State Ferry M.V. Tustumena and the Institute of Marine Science's research vessel, Alpha Helix. Major cruise lines visit Seward during the summer months.

Development not water-dependent within the AMSA includes commercial, industrial and residential land uses throughout the area and a small plane airport. The State of Alaska has recently completed the Spring Creek Correctional Center across the bay from the city center, providing maximum security for over 300 inmates.

Recreation/Scenic/Heritage: Upper Resurrection Bay is popular for sport fishing and boating with recreational waterfront activities concentrated at the small boat harbor and Seward's waterfront park. Scenic Resurrection Bay is bordered by steep forested snowcapped mountains making for spectacular vistas throughout the AMSA.

Coastal Resources: Resurrection Bay is a deep glacially eroded finger of the Gulf of Alaska. Broad alluvial fans, built by the bay's several creeks and the Resurrection River, provide lands for settlement. Within a few hundred feet of shore the tideflats give way to steep submarine slopes, which plunge hundreds of feet, making the bay a natural deepwater port. Resurrection Bay water quality is excellent.

Glacially fed Resurrection River and Salmon, Jap, Fourth of July, and Lowell Creeks all flood frequently, have unstable channels, and carry heavy debris loads onto their developed alluvial planes. These rivers pose severe flood hazard to development in floodplain areas. Anadromous fish spawn in all but Lowell Creek.

The bay supports an important recreational fishery and a less noteworthy commercial fishery. The latter includes limited entry purse seining for pink salmon. Principal fishing areas are Humpy Cove, Thumb Cove, Tonsina Point, and Fourth of July Creek delta. Sport fish species include Dolly Varden, rock fish, halibut, and pink, silver, and king salmon.

Marine mammals, including sea otters and harbor seals, share upper Resurrection Bay with some sea birds, mostly gulls and cormorants. Colonies of tufted and horned puffins, glaucous-winged gulls, and black-legged kittiwakes are at the mouth of Resurrection Bay. Other wildlife includes coyotes, mink, beaver, porcupine, snowshoe hare, black bear, moose, and mountain goats.

### **Location:**

The proposed Upper Resurrection Bay AMSA encompasses the road-accessed settlement areas of the Kenai Peninsula at the head of Resurrection Bay. It includes the City of Seward and major portions of the Resurrection River and Salmon Creek drainages (See Figure 5.12).

### **Existing Ownership/Management Use:**

Most of the Upper Resurrection Bay AMSA falls within the City of Seward. The city owns key segments of its developed waterfront and tidelands, and has requested title from the State of Alaska to all remaining

tidelands within its jurisdiction. The Alaska Railroad owns the rail and coal terminal. In addition to the correctional center, the state retains some undeveloped shoreline and upland holdings within the AMSA.

**Adjoining Ownership/Management Use:**

The AMSA encompasses all public and private lands suited for development at the head of Resurrection Bay within the district coastal management boundary.

**Area Description/Significance**

“Seward is blessed with a diversity of water features, beaches, and forested mountainsides, birds and marine life. This natural heritage is not only a magnificent scenic and recreational setting for the town, it is also a sensitive environment which imposes severe constraints on development.” City of Seward Comprehensive Plan, 1985.

In 1985, the City of Seward adopted a comprehensive plan to guide it through a coming period of economic change and growth and toward achievement of six goals. The plan reflects the community’s desire to achieve consistency between permitted land and water uses both inside and adjacent to, but outside, its limits and to gain the cooperation of the borough and the state and federal resource management agencies in achieving its land use and economic development objectives.

By identifying this area as a potential AMSA through its coastal management program, Kenai Peninsula Borough is proposing to spearhead an interagency cooperative management effort to assist Seward in realizing its community development goals. In so doing, it provides the residents of the Seward community, both within and outside the city, the opportunity to address coastal resource management issues beyond the normal limits of local jurisdictions and powers in cooperation with the other levels of government whose decisions and actions affect them.

# APPENDIX D. ENFORCEABLE POLICIES CROSS-REFERENCE TABLES

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