

COOK INLET SUBAREA CONTINGENCY PLAN

SENSITIVE AREAS SECTION

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SENSITIVE AREAS: INTRODUCTION

This section is intended for use by the On-Scene Coordinators during the initial phase of a spill event to assist in ascertaining the location and presence of spill-sensitive biological and cultural resources, services, and users in the Cook Inlet Subarea. This information is specific to the Cook Inlet Subarea and was compiled by a multi-organization Sensitive Areas Workgroup. No attempt has been made to duplicate information contained in easily accessible existing documents. The Sensitive Areas Section, therefore, must be used in conjunction with the referenced materials and informational contacts identified herein. More detailed and current data should be available from on-scene resource experts when they become engaged in the response. This information is geared toward early response. If appropriate, natural resources trustees may be conducting natural resource damage assessment (NRDA) activities in conjunction with response activities. Information regarding NRDA activities should be directed to the natural resources trustees or to their appointed NRDA Liaison.

Often, the most detailed, up-to-date biological and resource use information will come from people who live and work in the affected area. People from the local community are often knowledgeable sources for information related to fishing, hunting, non-consumptive outdoor sports, and subsistence use. They may also have a good idea of which spill response techniques (especially exclusion and diversion booming) are practicable under prevailing weather and current conditions.

The Alaska Regional Response Team (ARRT) has adopted several documents (see the *Alaska Federal/State Contingency Plan for Response to Oil & Hazardous Substance Discharges/Releases (Unified Plan)*) that address decision-making to help protect sensitive areas and resources. These documents (location noted) include:

- RRT Oil Dispersant Guidelines for Alaska (see *Unified Plan* Annex F, Appendix 1)
- *In Situ* Burning Guidelines for Alaska (see *Unified Plan* Annex F, Appendix 2)
- Wildlife Protection Guidelines for Alaska (see *Unified Plan* Annex G, Appendix 1)
- Inter-agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act's National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act Consultation on threatened and endangered species (see *Unified Plan* Annex G, Appendix 2)
- Alaska Implementation Guidelines for Federal On-Scene Coordinators for the Programmatic Agreement on Protection of Historic Properties during Emergency Response under the National Oil and Hazardous Substances Pollution Contingency Plan Protection of Historic Properties (see *Unified Plan* Annex M)

In addition, Annex N of the *Unified Plan* includes *Shoreline Cleanup and Assessment Guidelines*, which provide helpful information on cleanup options by shoreline type.

The Geographic Response Strategies Section of this plan contains site-specific tactics for use by responders in protecting key sensitive areas. In addition, Environmental Sensitivity Index (ESI) maps have been produced that illustrate selected sensitive resources and shoreline types.

This section and the guidelines in the *Unified Plan* are also intended for use by facility/vessel operators in developing industry oil spill prevention and contingency plans. For an operator's facility or area of

operation, industry contingency plans describe: (a) environmentally sensitive areas and areas of public concern; (b) how sensitive areas would be prioritized during a spill event; and (c) response strategies to protect sensitive areas at risk. This information within industry plans should be consistent with the subarea plan.

The definition of sensitive resources and their geographic locations requires use of field observations and data available from published and non-published materials or through additional field work. With the limited time and funds available for Subarea Contingency Plan development (there are ten such plans covering the state of Alaska), not all the detailed information necessary to adequately complete the Sensitive Areas Section has been compiled. Identifying relative priorities among resources and resource uses takes considerable coordination and discussion among resource management agencies.

A substantial effort to develop and refine a sensitive areas database was underway by Cook Inlet Spill Prevention and Response, Inc. (CISPRI) in their Technical Manual (Section 3.10, January 1994). The Sensitive Areas Workgroup decided to use the CISPRI information as the basis for part of the Sensitive Areas Section. This information is used with the permission of CISPRI. Their material was developed with input from federal and state agencies, who will be further reviewing the information for accuracy and currency. The data presented here is available for CISPRI use on the Visual Information Response System (VIRS).

Many of the maps presented in this section are available on-line through the Internet at:

<http://www.asgdc.state.ak.us/maps/cplans/subareas.html>

The joint Federal-State Subarea Contingency Plan for this subarea is scheduled to be updated periodically. Much can be done in these updates to improve the data and its presentation, such as:

- Establish a continuing interagency mechanism to review, update and maintain sensitivity information and priorities.
- Fund staff/materials to compile data and prepare materials for presentation in the Subarea Contingency Plans.
- Subdivide the area into smaller geographic areas and identify more specifically sensitive seasonal biological and other resource locations.
- Expand and further detail sensitive resources and initial response tactics for the most likely spill scenarios.

Suggestions, comments, and more current information are requested. Please contact either:

Doug Mutter Mark
U.S. Department of the Interior
Office of Environmental Policy
and Compliance
1689 C Street, Room 119
Anchorage, Alaska 99501
(907) 271-5011 FAX
FAX (907) 271-4102
em ail: douglas_mutter@ios.doi.gov

Fink
Alaska Department of Fish and Game
Division of Sport Fish
333 Raspberry Road
Anchorage, Alaska 99518
(907) 267-2338
(907) 267-2464
email: mark_fink@fishgame.state.ak.us

SENSITIVE AREAS: PART ONE – INITIAL CONTACTS

[See next table on page D-6 for specific contact information]

Agency	Resources	Primary Contact	Alternate Contact
FISH and WILDLIFE and HABITAT RESOURCES			
Alaska Department of Fish and Game	fish, shellfish, birds, terrestrial mammals, marine mammals	Mark Fink	Jeanne Walter
U.S. Department of the Interior	migratory birds, sea otters, polar bears, walrus, endangered species, anadromous fish in freshwater, bald eagles, wetlands	Pamela Bergmann	Doug Mutter
U.S. Department of Commerce	sea lions, seals, whales, endangered marine species, anadromous fish in marine waters	Brad Smith	Matthew Eagleton
U.S. Department of Agriculture	national forest lands	Steve Zemke	Mike Novy
Alaska Natural Heritage Program	rare and endangered plants	Julie Michaelson	Rob Lipkin
CULTURAL and ARCHAEOLOGICAL SITES			
Alaska Office of History and Archaeology	historic sites, archaeological sites, national register sites	Dave McMahan	Joan Dale
U.S. Department of the Interior	archaeological/historical sites in park and wildlife refuge system units, public lands, Native allotments/trust lands; sunken vessels	Pamela Bergmann	Doug Mutter
U.S. Department of Agriculture	archaeological/historical sites on national forest lands	Steve Zemke	Mike Novy
SHORELINE TYPES			
Scientific Support Coordinator	shoreline types, environmental sensitivity index maps	John Whitney	
LAND OWNERSHIP and CLASSIFICATIONS/DESIGNATIONS			
Alaska Department of Natural Resources	state lands, state parks and recreation areas, state forests, tidelands	Sam Means	
Alaska Department of Fish and Game	State game refuges, state critical habitats	Mark Fink	Jeanne Walter

Agency	Resources	Primary Contact	Alternate Contact
U.S. Department of the Interior	national parks and preserves, national historic sites, national monuments, national wildlife refuges, public lands, national recreation areas, wild and scenic rivers, wilderness areas, Native trust lands	Pamela Bergmann	Doug Mutter
U.S. Department of Agriculture	national forests, national monuments, wild and scenic rivers, wilderness areas, research natural areas	Steve Zemke	Mike Novy
U.S. Department of Defense	military installations and reservations	Alaska Command	None
Local Governments: –Municipality of Anchorage –Matanuska-Susitna Borough –Kenai Peninsula Borough	municipal and private lands, and rights-of-way	Thede Tobish Ken Hudson Daniel Bevington	Nancy Carver
COMMERCIAL HARVEST			
Alaska Department of Fish and Game	fishing permits, seasons	Mark Fink	Jeanne Walter
Alaska Department of Natural Resources	tideland leases, logging on private lands	Sam Means	
Alaska Department of Environmental Conservation	seafood processing	Manny Soares	Nancy Napolilli
U.S. Department of Commerce	fishing permits, seasons	Brad Smith	Matthew Eagleton
SUBSISTENCE, PERSONAL, AND SPORT USES			
Alaska Department of Fish and Game	subsistence and personal uses statewide and navigable waters, sport hunting and fishing	Mark Fink	Jeanne Walter
U.S. Department of the Interior	subsistence uses on Federal lands and reserved waters; subsistence uses of: sea otters, walrus, polar bears, migratory birds	Pamela Bergmann	Doug Mutter
U.S. Department of Commerce	subsistence use of: whales, porpoises, seals, sea lions	Brad Smith	Matthew Eagleton

Agency	Resources	Primary Contact	Alternate Contact
RECREATION AND TOURISM USES			
Alaska Department of Natural Resources	State parks and recreation areas, anchorages, boat launches, campgrounds, State public lands	Sam Means	
Alaska Department of Fish and Game	sport hunting and fishing	Mark Fink	Jeanne Walter
Alaska Department of Community & Economic Development	seasonal events and activities, travel, outdoor activities, local visitor bureaus, tourism industries	Alaska Division of Tourism	
U.S. Department of Agriculture	campgrounds, cabins, recreation areas, trails, within the national forest system	Steve Zemke	Mike Novy
U.S. Department of the Interior	recreation uses in park and wildlife refuge system units and Federal public lands	Pamela Bergmann	Doug Mutter
WATER INTAKE and USE FACILITIES			
Alaska Department of Environmental Conservation	public drinking water wells, treatment, and storage, fish processing facilities	James Weise	Suzan Hill
Alaska Department of Fish and Game	hatcheries, ocean net pens and release sites, aquaculture	Mark Fink	Jeanne Walter
Alaska Department of Natural Resources	tidelands leases, aquaculture sites, private logging camps and log transfer facilities	Sam Means	
U.S. Coast Guard	marinas and docks, mooring buoys	Marine Safety Office, Anchorage	17 th District, Juneau
AREAS OF LOCAL CONCERN			
Municipality of Anchorage	coastal program special areas, plans, policies	Thede Tobish	
Matanuska-Susitna Borough	coastal program special areas, plans, policies	Ken Hudson	
Kenai Peninsula Borough	coastal program special areas, plans, policies	Daniel Bevington	Nancy Carver

CONTACT INFORMATION:

Agency Na	Primary Contact		Alternate Contact	
	me	Numbers	Name	Numbers
Alaska Department of Fish and Game	Mark Fink	work: 267-2338 fax: 267-2464 emer: email: mark_fink@fishgame.state.ak.us	Jeanne Walter	work: 267-2172 fax: 267-2464 emer: email: jeanne_walter@fishgame.state.ak.us
Alaska Department of Natural Resources	Sam Means	work: 269-8548 fax: 269-8913 emer: email: samm@dnr.state.ak.us	work:	fax: emer: email:
Alaska Department of Environmental Conservation	James Weise	work: 269-7647 fax: 269-7655 emer: email: james_weise@dec.state.ak.us	Suzan Hill	work: 269-7521 fax: 269-3990 emer: email: suzan_hill@dec.state.ak.us
	Manny Soares	work: 269-7640 fax: 269-7510 emer: email: many_soares@dec.state.ak.us	Nancy Napolili	work: 269-7583 fax: 269-7510 emer: email: nancy_napolili@dec.state.ak.us
Alaska Department of Community and Economic Development	Alaska Division of Tourism	work: 465-2012 fax: 465-3767 emer: email: GoNorth@dced.state.ak.us	work:	fax: emer: email:
Alaska Natural Heritage Program	Julie Michaelson	work: 257-2782 fax: 257-2789 emer: email: anjam1@uaa.alaska.edu	Rob Lipkin	work: 257-2785 fax: 257-2789 emer: email: anrl@uaa.alaska.edu

Agency Na	Primary Contact		Alternate Contact	
	me	Numbers	Name	Numbers
Alaska Office of History and Archaeology	Dave McMahan	work: 269-8723 fax: 269-8908 emer: email: dave_mcmahan@dnr.state.ak.us	Joan Dale	work: 269-8718 fax: 269-8908 emer: email: joan_dale@dnr.state.ak.us
U.S. Department of the Interior	Pamela Bergmann	work: 271-5011 fax: 271-4102 emer: email: pamela_bergmann@ios.doi.gov	Doug Mutter	work: 271-5011 fax: 271-4102 emer: email: douglas_mutter@ios.doi.gov
U.S. Department of Commerce	Brad Smith	work: 271-5006 fax: 271-3030 emer: email: Brad.Smith@noaa.gov	Matthew Eagleton	work: 271-6354 fax: 271-3030 emer: email: Matthew.Eagleton@noaa.gov
U.S. Department of Agriculture	Steve Zemke	work: 743-9521 fax: 743-9480 emer: email: szemke@fs.fed.us	Mike Novy	work: 743-9517 fax: 743-9480 emer: email: mnovy@fs.fed.us
U.S. Department of Defense	Alaska Command	work: 552-3944 fax: 552-4855 emer: 552-3000 email:	none work:	fax: emer: email:
U.S. Coast Guard	Marine Safety Office, Anchorage	work: 271-6700 fax: 271-6751 emer: 271-6700 email:	17th District, Juneau	work: 463-2065 fax: 463-2216 emer: 463-2000 email:
Scientific Support Coordinator	John Whitney	work: 271-3593 fax: 271-3139 emer: email: John.Whitney@noaa.gov	work:	fax: emer: email:

Agency Name	Primary Contact		Alternate Contact	
	Name	Numbers	Name	Numbers
Local Governments: Municipality of Anchorage	Thede Tobish	work: 343-4261 fax: 343-4220 emer: email: TobishTG@ci.anchorage.ak.us	work:	fax: emer: email:
Matanuska-Susitna Borough	Ken Hudson	work: 745-9865 fax: 745-9876 emer: email: khudson@msb.co.mat-su.ak.us	work:	fax: emer: email:
Kenai Peninsula Borough	Daniel Bevington	work: 262-4441 fax: 262-8618 emer: email: dbevington@borough.kenai.ak.us	Nancy Carver	work: 262-4441 fax: 262-8618 emer: email: ncarver@borough.kenai.ak.us

SENSITIVE AREAS: PART TWO – AREAS OF ENVIRONMENTAL CONCERN

A. BACKGROUND/CRITERIA

The following relative priority listing was developed by the Sensitive Areas Workgroup, with representatives from state and federal agencies and the private sector. The list prioritizes resources into designations of major, moderate, and lesser concern. Resources are not prioritized within each designation. These designations are for consideration in initial spill response activities; they are not applicable to extended cleanup activities. This prioritization scheme must be used in conjunction with spill-specific information (e.g., size and location of spill, type of product, trajectory) to determine the actual protection priorities for that discharge. Specific guidance to On-Scene Coordinators for protecting cultural resources is contained in Annex M of the *Unified Plan*.

The following criteria were developed as a tool to establish levels of concern. These criteria are not listed in a priority order.

CRITERIA FOR RELATIVE PRIORITY RATING

- human economic disruption -- economic/social value; human food source disruption, health/safety
- mortality -- wildlife, fish, other organisms (how many threatened in relation to abundance)
- animal displacement and sensitivity to displacement
- aesthetic degradation
- habitat availability and rarity
- sublethal effects, including sensitivity to physical or toxic effects of oil or hazardous substances and long-term affects to habitat, species, or both
- threatened and endangered species, and/or other legal designation
- persistent concentration of oil or hazardous substances
- reproduction rate or recolonizing potential
- relative importance to ecosystem
- potential for physical contact with spill--pathway of oil or hazardous substances
- resource sensitivity to response countermeasure

B. AREAS OF MAJOR CONCERN

Threatened or Endangered Species Habitats:
Sea Lion Rookeries, Haulouts, and Critical Habitat

Steller's Eiders Wintering Areas
Shoreline Geomorphology - Coastal Habitat Types:

Marshes
Sheltered Tidal Flats
Sheltered Rocky Shores
High Density Kelp Beds
Eelgrass Beds
Sea Otter Concentration Areas (>20)
Harbor Seal Haulouts (>10)
Large Seabird Colonies (>5,000)
Waterfowl and Shorebird Spring, Fall, Winter Concentration Areas
Bald Eagle Nest Sites
Bald Eagle Feeding Concentration Areas
Large Anadromous Fish Streams (>50,000 Spawners)
Intertidal Salmon Spawning Areas

Hatcheries
Herring Spawning Areas
Beluga Whale Concentration Areas

Land Management Designations:

Federal:
Wilderness
Wild and Scenic Rivers
National Natural Landmarks

State:
Refuges
Sanctuaries
Critical Habitat Areas
Cultural Resources/Archaeological Sites:
National Historic Landmarks
Burial Sites
National Register Eligible Village Sites

Intertidal Sites
High Use Subsistence Harvest Areas
High Use Commercial Fishing Areas
High Use Recreational Areas

C. AREAS OF MODERATE CONCERN

Species of Concern Habitats (Possible Threatened or Endangered)
Shoreline Geomorphology - Coastal Habitat Types:

Gravel Beaches
Mixed Sand and Gravel Beaches
Exposed Tidal Flats
Coarse-Grained Sand Beaches
Sea Otter General Distribution Areas (<20)
Harbor Seal Haulouts (<10)
Seabird Colonies (1,000-5,000)

Waterfowl and Shorebird Nesting and Molting Concentration Areas
 Anadromous Fish Streams (500-50,000 Spawners)
 Clam Beds
 Bear Spring Concentration Areas
 Land Management Designations:
 Federal:
 National Parks
 National Wildlife Refuges
 State:
 State Parks
 Cultural Resources/Archaeological Sites:
 National Register Eligible Sites (Other Than Village Sites)
 Sites Adjacent To Shorelines
 Commercial Fish Harvest Areas
 Recreational Use Areas

D. AREAS OF LESSER CONCERN

Shoreline Geomorphology - Coastal Habitat Types:
 Fine-Grained Sand Beaches
 Exposed Wave-Cut Platforms
 Exposed Rocky Shores
 Seabird Colonies (<1,000)
 Raptor Feeding Areas
 Waterfowl and Shorebird General Distribution Areas
 Bear Fall Concentration Areas
 Anadromous Fish Streams (<500 Spawners)
 Land Management Designations:
 Federal:
 Public Lands
 National Forests
 National Preserves
 State:
 General Public Lands

SENSITIVE AREAS: PART THREE – RESOURCE SENSITIVITY

See also the CISPRI Technical Manual, section 3.10.

The following sensitivity tables were developed by the Sensitive Areas Work Group, with representatives from State and Federal agencies and the private sector (not all information is complete at this time). Where references are available they are noted at the end of the tables. Periods and/or conditions when resources are of varying levels of concern (most, medium, least) with respect to oil spill impacts are noted in the following tables.

Slater, C.L. and R.M. Willis. 1995. Prioritization of environmentally sensitive areas for oil spill planning and response. In: Fourth International Conference on Effects of Oil on Wildlife, Seattle, WA, April 12-14, 1995, pp 178-194.

SHORELINE GEOMORPHOLOGY

(references:

4,7)

CATEGORY	LEAST	MEDIUM	MOST
COASTAL HABITAT TYPES	Fine-grained sand beaches Exposed wave-cut platforms Exposed rocky shores	Gravel beaches Mixed sand & gravel beaches Exposed tidal flats Coarse grained sand beaches	Marshes Sheltered tidal flats Sheltered rocky shores
LAKE AND RIVER HABITAT TYPES	Exposed rocky cliffs & banks Bedrock shores & ledges, rocky shoals Eroding scarps/banks in unconsolidated sediment Exposed man-made structures	Sand beaches & bars Mixed sand & gravel beaches/bars Gravel beaches/bars Gently sloping banks Exposed flats Riprap	Sheltered scarps in bedrock Vegetated steep sloping bluffs Sheltered man-made structures Vegetated low banks Sheltered sand & mud & muddy substrates Marshes
UPLAND HABITAT TYPES	To Be Developed	To Be Developed	To Be Developed

THREATENED OR ENDANGERED SPECIES

(references:

8,9,10,11)

CATEGORY	LEAST	MEDIUM	MOST
ENDANGERED SPECIES			WHALES: Humpback, Fin, Blue, Sei, Sperm, Northern right BIRDS: Short-tailed albatross MAMMALS: Steller sea lion
THREATENED SPECIES			BIRDS: Steller's Eider
SPECIES OF CONCERN		BIRDS: Aleutian Canada Goose, American Peregrine Falcon, Harlequin duck, Kittlitz's murrelet, Marbled murrelet, Northern goshawk, Northern Sea Otter, Olive-sided flycatcher MAMMALS: North American lynx WHALES: Beluga PLANTS: <i>Taraxacum carneocoloratum</i>	

SEA OTTERS

(references:

1,4,12)

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE		< 20	> 20
SUSCEPTIBILITY			year around
HUMAN HARVEST	year around		

Critical Life Periods **J F M A M J J A S O N D**

Present nearshore

=====

Pupping

=====

STELLER'S EIDER

(Refer ences: 4,8)

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE			1 or more
SUSCEPTIBILITY			Sept. - April
HUMAN HARVEST			

Eastern Cook Inlet, Ninilchik to Kennedy Entrance

WATERFOWL AND SHOREBIRDS

(references: 1,4,8,11))

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE	< 100	100 - 1,000	> 1,000
SUSCEPTIBILITY	Nov 1 - Jan 31	Feb 1 - Apr 14 June 1 - Aug 14	Oct 15 - Apr 15 (UCI) Apr 15 - May 30 Aug 15 - Oct 31
SPECIES DIVERSITY	1 - 3	4 - 6	> 6
HUMAN HARVEST	Feb 1 - Aug 31 (UCI) Feb 1 - Sept 30 (LCI)	Nov 30 - Jan 31 (UCI) Dec 17 - Jan 31 (LCI)	Sept 1 - Oct 31 (UCI) Oct 1 - Dec 16 (LCI)

UCI = Upper Cook Inlet: area north of the latitude of Anchor Point
 LCI = Lower Cook Inlet: area south of latitude of Anchor Point

Critical Life Periods	J F M A M J J A S O N D
Spring migration	===
Nesting/rearing	=====
Fall migration	=====
Winter concentrations	=====

SEABIRDS

(references: 1,2,4,8)

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE	< 1000	1000 - 5000	> 5000
SUSCEPTIBILITY	Nov 1 - Jan 31	Feb 1 - April 30	May 1 - Oct 31
SPECIES DIVERSITY	1 - 3	4 - 6	> 6
HUMAN HARVEST			May 1 - June 3 (UCI) April 15 - June 30 (LCI)

UCI = Upper Cook Inlet: area north of the latitude of Anchor Point

LCI = Lower Cook Inlet: area south of latitude of Anchor Point

Critical Life Periods **J F M A M J J A S O N D**

On colonies

Feeding near colonies

=====

=====

RAPTORS (generally eagles)

(references: 1,4,6,8)

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE	1 / coastal mile	2-5 / coastal mile	> 5 / coastal mile
SUSCEPTIBILITY ¹			year around

- There are fewer eagles present during the winter, particularly in the central and upper Cook Inlet.

Critical Life Periods **J F M A M J J A S O N D**

Nesting/rearing

Present near coast

=====

=====

HERRING (including capelin/hooligan)

(references: 1,4)

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE (Biomass in Tons)	< 500	500 - 5,000	> 5,000
SUSCEPTIBILITY	Oct 1 - Feb 28	March and Sept	April 1 - Aug 31
HUMAN HARVEST ¹			April 1 - May 31

1. Capelin and hooligan.

Critical Life Periods J F M A M J J A S O N D

Spawning ==
Present nearshore =====

SALMON

(references: 1,3,11)

CATEGORY	LEAST	MEDIUM	MOST
ABUNDANCE	< 4,000 sockeye < 5,000 pink < 5,000 chum < 500 coho	4,000-25,000 sockeye 5,000-30,000 pink 5,000-10,000 chum < 1,000 chinook < 500-2,500 coho	> 25,000 sockeye > 30,000 pink > 10,000 chum > 1,000 chinook > 2,500 coho
SUSCEPTIBILITY	Dec 1 - Mar 1	Feb 1 - March 31 Nov 1 - Dec 31	April 1 - Oct 31
SPECIES DIVERSITY	1	2 - 4	5
HUMAN HARVEST		Nov 1 - March 31	May 15 - Oct 15 (UCI) May 1 - Oct 31 (LCI) ¹

UCI = Upper Cook Inlet: area north of the latitude of Anchor Point

LCI = Lower Cook Inlet: area south of latitude of Anchor Point

1. Sport fishing off Homer Spit.

Critical Life Periods J F M A M J J A S O N D

Adults nearshore =====
Spawning = =====
Eggs/young development =====
Smolt/fry outmigration =====

REFERENCES FOR TABLES

1. Alaska Habitat Management Guides Reference maps - Southcentral Region (Alaska Department of Fish and Game, Habitat Division, 1986)
2. U.S. Fish and Wildlife Service Seabird Catalog
3. An Atlas of the Catalog of Waters Important to the Spawning, Rearing and Migration of Anadromous Fish Southcentral Region (Alaska Department of Fish and Game, updated annually)
4. Environmental Sensitivity Index (ESI) Maps for Quads in Cook Inlet (RPI for NOAA)
5. National Oceanic and Atmospheric Administration Nautical Charts
6. U.S. Fish and Wildlife Service - bald eagle nest site database
7. Alaska Regional Profiles - Southcentral Region (University of Alaska, Arctic Environmental Information and Data Center, 1974)
8. U.S. Fish and Wildlife Service (Catherine Berg)
9. National Marine Fisheries Service (Brad Smith)
10. U.S. Forest Service (Ken Holbrook)
11. Alaska Department of Fish and Game (Mark Fink)
12. U.S. Fish and Wildlife Service marine mammals database
13. Alaska Department of Natural Resources (Sam Means)
14. National Park Service (Bud Rice)
15. State of Alaska Refuges, Critical Habitat Areas, and Sanctuaries (Alaska Department of Fish and Game, Habitat Division, 1991).
16. Nancy Lethcoe, Personal Communications, 1994

SENSITIVE AREAS: PART FOUR - BACKGROUND INFORMATION

INTRODUCTION

The background information contained in this section is a mixture of references to readily available documents, knowledgeable contacts, and data not readily available elsewhere. Industry-generated references that have had agency input and review are incorporated by reference.

LAND MANAGEMENT MAPS

The Alaska Department of Natural Resources, under agreement with the Alaska Department of Environmental Conservation, produced digital base and land management maps for each of the subareas using their ARC-INFO based Geographic Information System. The following land management maps provide an index to the Public Land Record and should not be viewed as legal documents. These maps are available on the internet at: <http://www.asgdc.state.ak.us/maps/cplans/subareas.html>

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Insert land management designation maps--1 of 6 pages

<http://www.asgdc.state.ak.us/maps/cplans/cook/ci11n3.pdf>

Insert land management designation maps--2 of 6 pages

<http://www.asgdc.state.ak.us/maps/cplans/cook/ci21n3.pdf>

Insert land management designation maps--3 of 6 pages

<http://www.asgdc.state.ak.us/maps/cplans/cook/ci31n3.pdf>

Insert land management designation maps--4 of 6 pages

<http://www.asgdc.state.ak.us/maps/cplans/cook/ci41n3.pdf>

Insert land management designation maps--5 of 6 pages

<http://www.asgdc.state.ak.us/maps/cplans/cook/ci51n3.pdf>

Insert land management designation maps--6 of 6 pages

<http://www.asgdc.state.ak.us/maps/cplans/cook/ci61n3.pdf>

A. LAND MANAGEMENT DESIGNATIONS

1. Access to Lands

Land ownership must be determined and landowners contacted to evaluate incident-specific protection priorities, obtain land-use permitting requirements, and obtain permission to access lands. Native corporation lands, as well as local, state, and federal government lands often require special use permits. If an incident affects private lands or Native Allotments, permission to enter lands should be sought from the landowner. Applicable local borough governments are often the best source of private land ownership records.

2. State

The State of Alaska owns the majority of tide and submerged lands within the state. Tide and submerged lands are those areas located between the mean high tide line and three miles distance offshore. Submerged lands are those located beneath the line of ordinary high water along navigable water bodies.

The Alaska State Legislature has classified certain areas as being essential to fish and wildlife populations and public uses of these resources. These areas are designated as either a game refuge, critical habitat area or game sanctuary. Management of these essential areas is the joint responsibility of the Departments of Fish and Game and Natural Resources. Legislation pertaining to these lands may be found in Alaska Statutes Title 16, Chapter 20. Legal descriptions of area boundaries can be found in the Alaska Department of Fish and Game publication, State of Alaska Game Refuges, Critical Habitat Areas and Game Sanctuaries.

Several of these areas exist in the Cook Inlet Region and are listed below, along with a brief summary of their biological and public use values.

McNeil River State Game Sanctuary was established in 1967 to protect concentrations of brown bears which gather to feed on migrating salmon in July and August. Wildlife viewing is popular.

McNeil River State Game Refuge was created in January 1993 adjacent to the northern boundary of the McNeil River State Game Sanctuary.

Kachemak Bay State Critical Habitat Area was established in 1974 to protect the rich marine habitat which supports numerous fish, shellfish and marine mammals. Tens of thousands of waterfowl, shorebirds and seabirds are present in the spring, summer, and fall. Many waterfowl also overwinter in the area. The bay supports commercial and sport fishing, subsistence marine mammal hunting and fishing, and provides many recreational opportunities.

Fox River Flats State Critical Habitat Area was established in 1972 and serves as a resting and feeding area for thousands of migrating waterfowl and shorebirds during the spring and fall. The area is popular for waterfowl hunting in the fall.

Anchor River/Fritz Creek State Critical Habitat Area was established in 1985 and provides one of the few major moose overwintering areas on the southern Kenai Peninsula. The area also provides opportunities for hunting, fishing, wildlife viewing and winter sports.

Clam Gulch Critical Habitat Area was established in 1976 to protect dense beds of razor clams.

The area provides opportunities for clam digging and commercial and sport fishing.

Kalgin Island State Critical Habitat Area was established in 1972 to protect habitat used by migrating waterfowl and shorebirds during the spring and fall.

Redoubt Bay State Critical Habitat Area was established in 1989 to protect migrating and nesting waterfowl populations during the spring, summer and fall. Tule white-fronted geese and trumpeter swans are species of special concern.

Willow Mountain State Critical Habitat Area was established in 1989 to protect exceptional fish and wildlife habitat and to provide opportunities for hunting, trapping and recreation.

Trading Bay State Game Refuge was established in 1976 to protect habitat used by large numbers of waterfowl migrating through in the spring and fall and nesting in the summer. The area is used for moose calving in the spring, as a spring and fall feeding area for bears, and as a salmon spawning and rearing area. The area is also used for hunting and commercial and sport fishing. This area is of critical importance for subsistence waterfowl and moose hunting by Tyonek residents.

Susitna Flats State Game Refuge was established in 1976 to protect areas used by spring and fall concentrations of migrating shorebirds and waterfowl and summer populations of nesting waterfowl. The refuge also encompasses moose calving areas, spring and fall bear feeding areas and salmon spawning and rearing areas. The area is popular for hunting, wildlife viewing and sport fishing. This area is also important for marine mammal feeding and resting, and is used by beluga and seal hunters.

Goose Bay State Game Refuge was established in 1975 to protect the wetlands used as a spring and fall stopover for migrating waterfowl. The refuge is popular for waterfowl hunting in the fall.

Palmer Hay Flats State Game Refuge was established in 1975 and expanded in 1985 to protect dense spring and fall concentrations of migrating waterfowl. The area also provides moose habitat and salmon spawning and rearing areas. Sport fishing, hunting and wildlife viewing are popular.

Anchorage Coastal Wildlife Refuge was originally established in 1971 and expanded and re-named in 1988 to protect large and diverse bird populations. Peak numbers occur during the spring migration and include waterfowl and shorebirds. The area is extremely popular for wildlife viewing and fall waterfowl hunting.

3. Federal

Chugach National Forest The nation's second largest National Forest at 5.6 million acres is the Chugach, which extends from the Kenai Peninsula for 200 miles to the Bering Glacier. Sport, subsistence and commercial fishing; hunting; sightseeing; outdoor recreation; boating; hiking; and wildlife habitat are some of the primary uses of the Forest.

Katmai National Park and Preserve About 120 miles of the lower Cook Inlet coast lies within the legislated boundaries of this park between Kamishak River and Sukoi Bay on Cape Douglas. The threatened Steller sea lion hauls out just north of Cape Douglas, and Shaw Island serves as a significant seabird colony and harbor seal rookery. Most of the park's coast is designated

wilderness. The park is known for its brown bears, sport fishing, volcanoes, and scenery. The coastal area has become increasingly popular for wilderness bear viewing and photography.

Kenai Fjords National Park The Park features the Harding Icefield and a glacier-carved shoreline along the Gulf of Alaska. Moose, black bear, mountain goats, Steller sea lions, harbor seals, killer whales, many species of whales, porpoises, sea otters and thousands of sea birds inhabit the Park and its surrounding waters. The Park is about 670,000 acres in size. Tour boat excursions, sport fishing, sailing, wilderness sea kayaking, hiking, and photography are popular activities.

Lake Clark National Park and Preserve Set along western Cook Inlet where the Alaska Range and the Aleutian Range meet, the 4 million acre area includes 50-mile long Lake Clark. Glaciers, two active volcanoes, waterfalls and jagged peaks provide an array of scenery. An important red salmon spawning ground, the area is habitat for brown and black bear, caribou, moose, Dall sheep, and trout. River running, hiking, and other outdoor recreation are available in the Park and Preserve.

Alaska Maritime National Wildlife Refuge The Gulf of Alaska Unit of the Refuge includes some of the islands, rocks and forelands along the coast of the Gulf of Alaska. Alaska Maritime consists of over 2,400 islands, headlands, rocks, islets, spires, and reefs along the Alaskan coast, stretching from Southeast Alaska to Cape Lisburne on the Chukchi Sea. About 75 percent of Alaska's marine birds (15 to 30 million of 55 species) use the Refuge. The Refuge also is home to thousands of sea lions, seals, walrus, and sea otters. Wildlife viewing, photography and backpacking are primary uses of the Refuge. The Refuge was established in 1980.

Chisik Island is managed by the Alaska Maritime National Wildlife Refuge. The island is 10.5 kilometers in length and is located at the mouth of Tuxedni Bay. The largest known colonies of murre, puffins, and kittiwakes found in Cook Inlet occupy the cliff habitat on the island. The island is protected with Wilderness status and has a Class I Air Quality designation. Response efforts on Chisik Island must be conducted in direct consultation with the Fish and Wildlife Service.

Gull Island is managed by the Alaska Maritime National Wildlife Refuge. The island is located in Kachemak Bay approximately 5 miles southeast of the end of Homer Spit. The nesting seabird colony here includes over 11,000 black-legged kittiwakes and 5,000 murre. Remote video cameras placed on the island provide real-time video feed of nesting birds and their behavior to seabird biologists and visitors at the Pratt Museum in Homer, Alaska.

Kenai National Wildlife Refuge The Refuge, located on the Kenai Peninsula, contains nearly 2 million acres, including 1.35 million acres designated as Wilderness. The spawning areas within the Refuge support approximately 40% of the Cook Inlet commercial fishing industry and the Refuge is underlain with important oil and gas resources. From tidal marsh to alpine ridge, various natural habitats support a wide variety of wildlife, including wolves, moose, Dall sheep, mountain goat, caribou, coyotes, brown/grizzly bear, black bear, trumpeter swans, lynx, wolverine, beaver, many other small mammals, and 146 species of resident and migratory birds. Four species of salmon spawn here and the refuge also supports many resident fish.

B. HABITAT TYPES

Shoreline habitats have been defined and ranked according to Environmental Sensitivity Index (ESI) standards produced by the National Oceanic and Atmospheric Administration (NOAA) in *Environmental Sensitivity Index Guidelines* (October 1997). Seasonal ESI maps in poster and atlas formats have been produced for the subarea, as shown on the following index map. These maps are available on the internet at: <http://www.asgdc.state.ak.us/maps/cplans/subareas.html>. Updated ESI information can also be found on the internet at: <http://response.restoration.noaa.gov/order/esiindex.html>

1. Benthic Habitats

Oil vulnerability is lower in benthic areas than in the intertidal zone since contamination by floating slicks is unlikely. Sensitivity is derived from the species which use the habitat. Benthic habitats have not been traditionally classed by ESI rankings, but are treated more like living resources which vary with season and location. Benthic habitats include submerged aquatic vegetation beds and large beds of kelp.

2. Shoreline Habitats

Habitats (estuarine, large lacustrine and riverine) ranked from least to most sensitive (see the following table) are described below:

ESI #1--Exposed impermeable vertical substrates: exposure to high wave energy or tidal currents on a regular basis, strong wave-reflection patterns common, substrate is impermeable with no potential for subsurface penetration, slope of intertidal zone is 30 degrees or greater, attached organisms are hardy and accustomed to high hydraulic impacts.

ESI #2--Exposed impermeable substrates, non-vertical: exposure to high wave energy or tidal currents on a regular basis, strong wave-reflection patterns regular, substrate is impermeable with no potential for subsurface penetration over most of intertidal zone, slope of intertidal zone is less than 30 degrees, there can be accumulated but mobile sediments at the base of cliff, attached organisms are hardy and accustomed to high hydraulic impacts.

ESI #3--Semi-permeable substrate: substrate is semi-permeable with oil penetration less than 10 cm, sediments are sorted and compacted, slope is less than 5 degrees, sediment and potential for rapid burial mobility is low, surface sediments are subject to regular reworking by waves, there are relatively low densities of infauna.

ESI #4--Medium permeability substrate: substrate is permeable with oil penetration up to 25 cm, slope is between 5 and 15 degrees, rate of sediment mobility is high with accumulation of up to 20 cm of sediments in a single tidal cycle, sediments are soft with low traffic ability, low densities of infauna.

ESI #5--Medium to high permeability substrate: substrate of medium to high permeability which allows oil penetration up to 50 cm, spatial variations in distribution of grain sizes with finer ones at high tide line and coarser ones in the storm berm and at toe of beach, 20 percent gravel, slope between 8 to 15 degrees, sediment mobility is high during storms, sediments are soft with low traffic ability, low populations infauna and

epifauna except at lowest intertidal levels.

ESI #6--High permeability substrates: substrate is highly permeable with oil penetration up to 100 cm, slope is 10 to 20 degrees, rapid burial and erosion of shallow oil can occur during storms, high annual variability in degree of exposure and frequency of wave mobilization, sediments have lowest traffic ability of all beaches, natural replenishment rate is the lowest of all beaches, low populations of infauna and epifauna except at lowest intertidal levels.

ESI #7--Exposed flat permeable substrate: flat (less than 3 degrees) accumulations of sediment, highly permeable substrate dominated by sand, sediments are well saturated so oil penetration is limited, exposure to wave or tidal-current energy is evidenced in ripples or scour marks or sand ridges, width can vary from a few meters to one kilometer, sediments are soft with low traffic ability, high infaunal densities.

ESI #8--Sheltered impermeable substrate: sheltered from wave energy and strong tidal currents, substrate of bedrock or rocky rubble, variable in oil permeability, slope greater than 15 degrees with a narrow intertidal zone, high coverage of attached algae and organisms.

ESI #9--Sheltered flat semi-permeable substrate: sheltered from wave energy and strong tidal currents, substrate is flat (less than 3 degrees) and dominated by mud, sediments are water-saturated so permeability is low, width varies from a few meters to one kilometer, sediments are soft with low traffic ability, infaunal densities are high.

ESI #10--Vegetated wetlands: marshes and swamps with various types of emergent herbaceous grasses and woody vegetation over the substrate.

ShoreZone Mapping. A coastal habitat mapping effort has produced an on-line database, digital maps, and color aerial imagery and videos of the coastline in the subarea. This geo-referenced data set collected at low tide includes coastal geomorphology and biological habitat for intertidal and shallow subtidal areas. ESI types are cross-referenced. The information may be accessed at:

<http://www.CoastAlaska.net>

3. Upland Habitats

At this time, no uplands or wetlands classifications directly related to sensitivity to oil spills has been identified. A general wetlands classification has been developed by the U.S. Fish and Wildlife Service, National Wetlands Inventory, in Anchorage. Considerable mapping of wetlands has been completed, some of which are available in a Geographic Information System database (see the following figure). Updated map data is being placed on the National Wetlands Inventory Internet web site at: <http://wetlands.fws.gov/>

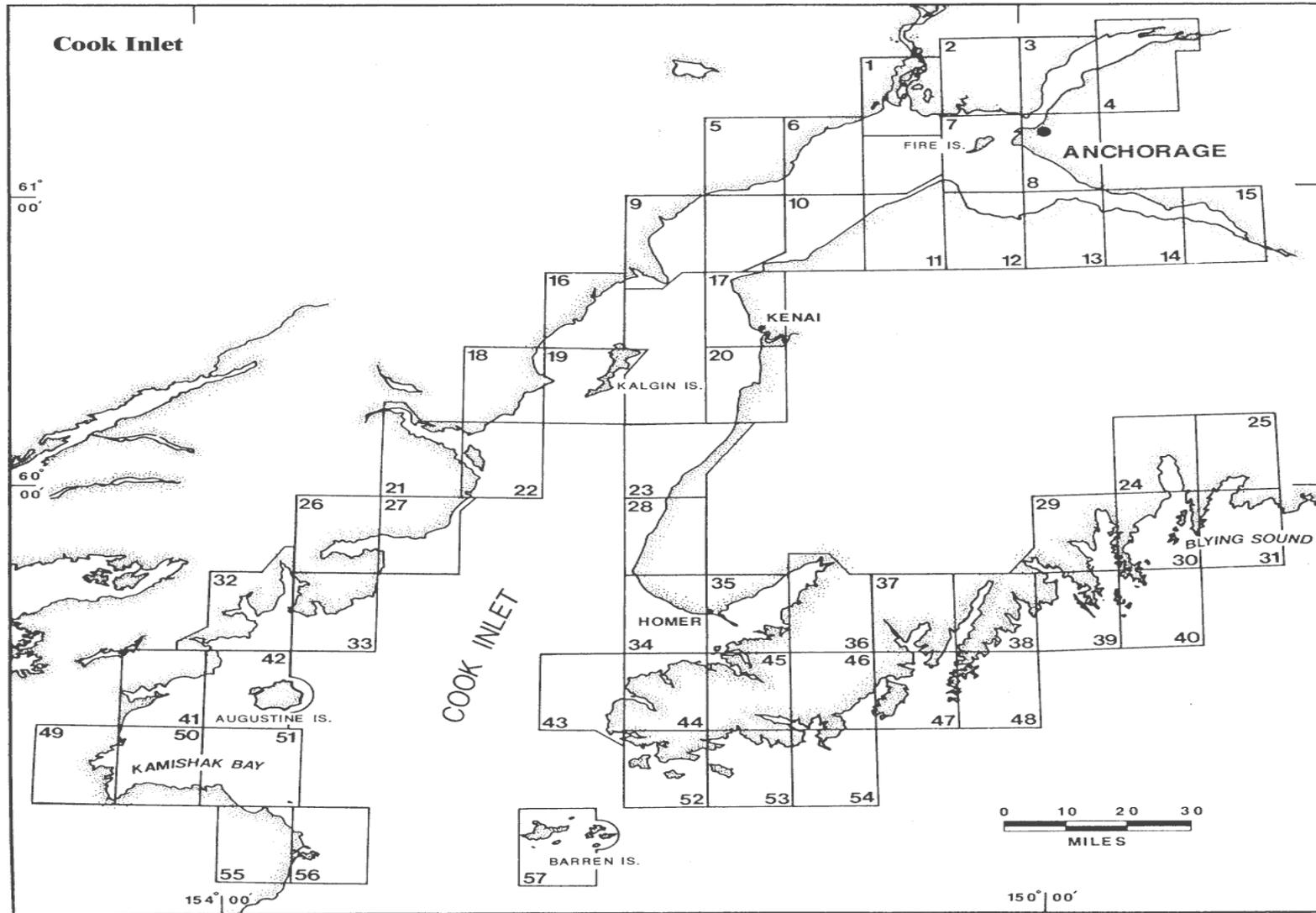
National	Wetlands Inventory
ESIC/USGS	
Anchorage	
786-7	011

ESI HABITAT RANKING

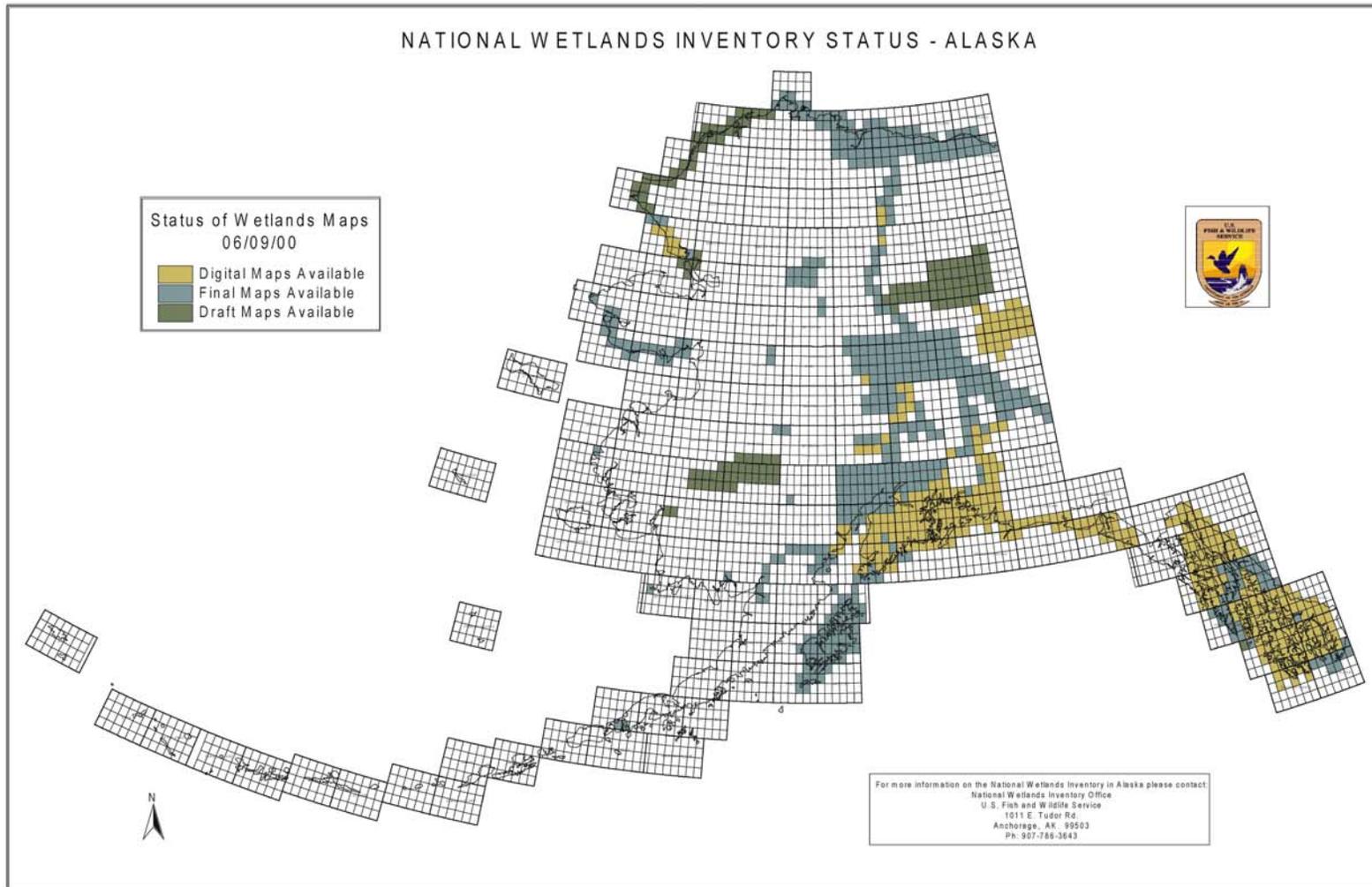
ESI NO.	ESTUARINE	LACUSTRINE	RIVERINE (large rivers)
1 A	Exposed rocky cliffs	Exposed rocky cliffs	Exposed rocky banks
1 B	Exposed sea walls	Exposed sea walls	Exposed sea walls
2 Exposed	wave-cut platforms	Shelving bedrock shores	Rocky shoals; bedrock ledges
3	Fine- to medium-grained sand beaches	Eroding scarps in unconsolidated sediments	Exposed, eroding banks in unconsolidated sediments
4 Coarse-grain	ed sand beaches	Sand beaches	Sandy bars and gently sloping banks
5	Mixed sand and gravel beaches	Mixed sand and gravel beaches	Mixed sand and gravel bars and gently sloping banks
6 A	Gravel beaches	Gravel beaches	Gravel bars and gently sloping banks
6 B	Riprap	Riprap	Riprap
7	Exposed tidal flats	Exposed flats	Not present
8 A	Sheltered rocky shores	Sheltered scarps in bedrock	Vegetated, steeply sloping bluffs
8 B	Sheltered sea walls	Sheltered sea walls	Sheltered sea walls
9	Sheltered tidal flats	Sheltered vegetated low banks	Vegetated low banks
10 A	Saltwater marshes		
10 B	Freshwater marshes	Freshwater marshes	Freshwater marshes
10 C	Freshwater swamps	Freshwater swamps	Freshwater swamps

“Environmental Sensitivity Index Guidelines” (October 1995) NOAA Technical Memorandum NOS ORCA 92

Map Index 1 for ESI Maps in Cook Inlet



NATIONAL WETLANDS INVENTORY STATUS - ALASKA



C. BIOLOGICAL RESOURCES

1. Fish and Wildlife

(a) Threatened and Endangered Species

Federally listed threatened and endangered species are protected under the Endangered Species Act. Spill response activities which could impact a listed species should be coordinated with the U.S. Fish and Wildlife Service and National Marine Fisheries Service. The northern right whale, humpback whale, and short-tailed albatross are also on the State of Alaska's endangered species list. Threatened and endangered species potentially present in the Cook Inlet Subarea include:

Table 1: The following species¹ and critical habitat occur in Alaska waters and have been provided protection under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*):

Listed species	Stock	Latin Name	Status
Blue whale		<i>Balaenoptera musculus</i>	Endangered
Bowhead whale		<i>Balaena mysticetus</i>	Endangered
Fin whale		<i>Balaenoptera physalus</i>	Endangered
Gray whale		<i>Eschrichtius robustus</i>	Delisted
Humpback whale		<i>Megaptera novaeangliae</i>	Endangered
Right whale		<i>Balaena (=Eubalaena) glacialis</i>	Endangered
Sei whale		<i>Balaenoptera borealis</i>	Endangered
Sperm whale		<i>Physeter macrocephalus</i>	Endangered
Steller sea lion	Western population	<i>Eumetopias jubatus</i>	Endangered
Steller sea lion	Eastern population	<i>Eumetopias jubatus</i>	Threatened
Leatherback sea turtle		<i>Dermochelys coriacea</i>	Endangered
American Peregrine Falcon		<i>Falco peregrinus anatum</i>	Delisted
Short-tailed Albatross		<i>Phoebastria albatrus</i>	Endangered
Aleutian Canada Goose		<i>Branta canadensis leucopareia</i>	Delisted
Steller's Eider		<i>Polysticta stelleri</i>	Threatened

Designated critical habitat

Species Group	General Reference Area
Whales	No critical habitat has been designated for the above referenced whales in Alaskan waters.
Steller sea lion	Shelikof Strait Area, Bogoslof Area, and Seguam Pass Area (50 CFR Part 226.12)
Pacific Salmon	No critical habitat has been designated for salmon species in Alaskan waters.

Candidate species

Candidate	Stock	Latin Name	Status
Beluga whale	Cook Inlet	<i>Delphinapterus leucas</i>	Candidate

¹ In its definition of species, the Endangered Species Act of 1973, as amended, includes the traditional biological species concept of the biological sciences and "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature" (16 USC 1532). NMFS uses the term *evolutionarily significant unit* as synonymous with *distinct population segment* and lists Pacific salmon accordingly. For the purposes of section 7 consultations, these are all "species."
COOK INLET SCP: Sensitive Areas, part four

Northern sea otter	Southwestern population	<i>Enhydra lutris kenyoni</i>	Candidate
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The northern sea otter, American peregrine falcon, Aleutian Canada goose, short-tailed albatross, and Steller's eider are under the jurisdiction of the U.S. Fish and Wildlife Service. All salmon species are under the jurisdiction of the National Marine Fisheries Service, Northwest Regional Office, Seattle, Washington.

The threatened Steller's Eider winters in the Kachemak Bay/Lower Cook Inlet area. They tend to concentrate off the southwest end of Homer Spit and offshore of Bluff Point, between Homer and Anchor Point, but have also been observed along the southern shoreline of Kachemak Bay as well. Large flocks also concentrate offshore of Deep Creek just north of Ninilchik; 2,370 Steller's eiders were observed here during a March 2001 survey. A winter aerial shoreline count in 1994 detected 1,363 Steller's eiders in the Kamishak Bay area.

Although the U.S. Fish and Wildlife Service has determined the peregrine falcon is no longer a threatened species, monitoring of the species has continued following its 1994 delisting. Although Alaskan bald and golden eagles are not on the endangered species list, they are fully protected (including their nests and nest trees) under the Bald Eagle Protection Act of 1940. Spill response activities that could affect these species should be coordinated with the U.S. Fish and Wildlife Service.

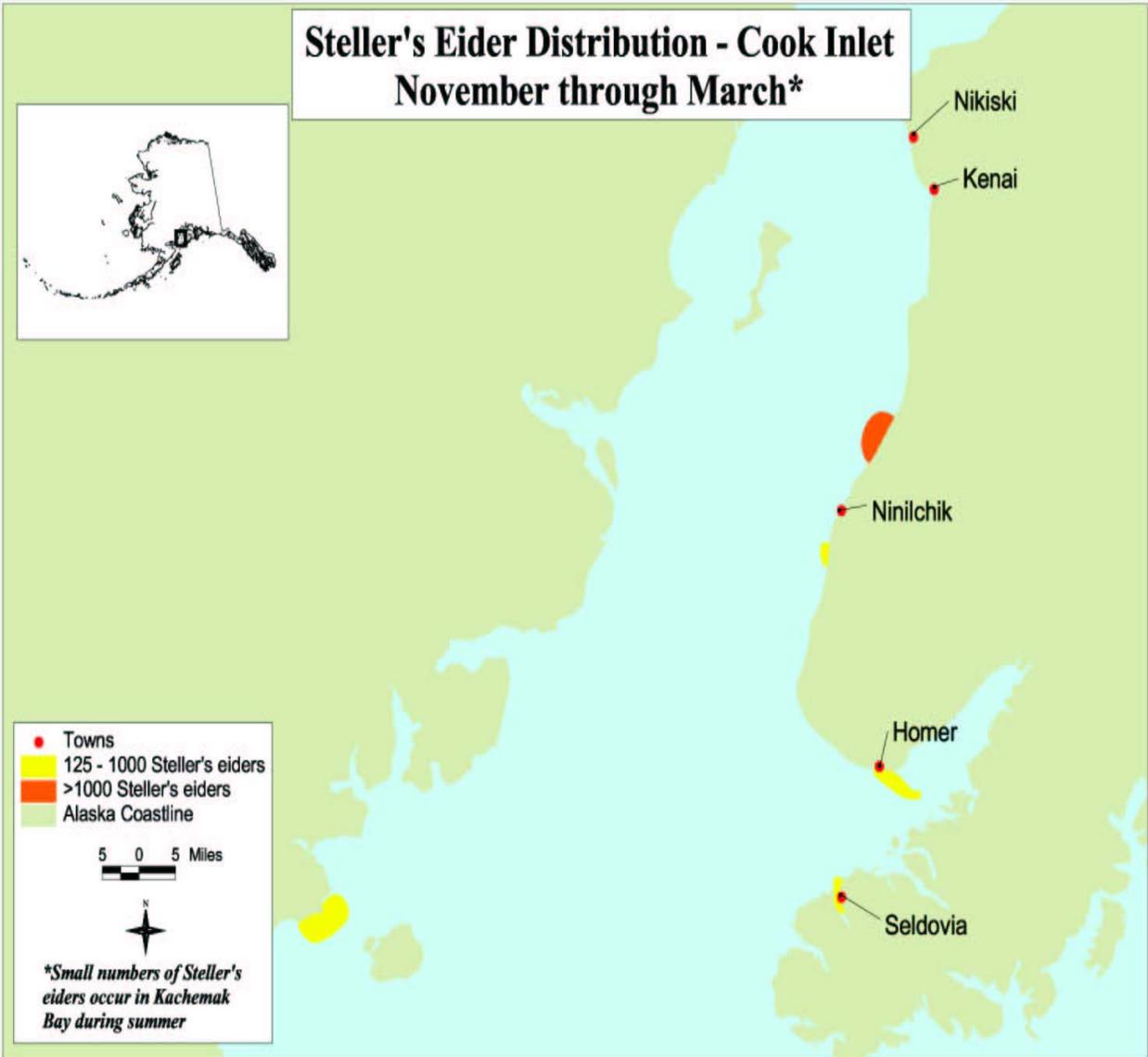
While the National Marine Fisheries Service has determined the Gray whale is no longer a threatened or endangered species, monitoring of the species by the Service has continued following the 1994 delisting. All marine mammals, whether or not they are on the endangered species list, are protected by the Marine Mammal Protection Act of 1972. Any spill response activities that could affect marine mammals should be coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

For updated information on the internet:

U.S. Fish and Wildlife Service National Threatened and Endangered Species web site:
<http://endangered.fws.gov/>

U.S. Fish and Wildlife Service Regional Threatened and Endangered Species web site:
<http://alaska.fws.gov/es/te.cfm>

Alaska Department of Fish and Game Threatened and Endangered Species web site:
http://www.state.ak.us/adfg/wildlife/geninfo/game/es_home.htm



(b) Fish

The waters of the Cook Inlet subarea are among the most productive in the world. Major freshwater systems of the region include the Kenai, Kasilof, and Susitna Rivers. Most of the flowing waters and many of the lakes support populations of anadromous or resident fish species.

Dolly Varden are widely distributed throughout the Cook Inlet subarea; drainages supporting large populations include the Anchor River, Deep Creek, Ninilchik River, Stariski Creek, and the Kenai River. Juveniles become smolt and migrate to Cook Inlet to forage, often returning to fresh water during mid-summer where they remain to overwinter. Resident and rearing populations of Dolly Varden occur in all but the smallest streams.

Rainbow Trout and Steelhead are found in most drainages of the northern and western Kenai Peninsula, from the Anchor River north to the Chickaloon River; drainages supporting populations include the Anchor River, Deep Creek, Stariski Creek, and the Ninilchik River. The largest steelhead run in lower Cook Inlet occurs in the Anchor River and is estimated at 1,500 adults. Steelhead stocks are fall run fish that enter fresh water from August to November, spawn from April to May, and return to the ocean during May and June. Rainbow trout occur in the lower Susitna River drainage and some of the larger rivers flowing into northwestern Cook Inlet.

Salmon. Chinook, sockeye, coho, chum, and pink salmon occur within the subarea. The most significant drainages supporting salmon in the region include the Kenai, Kasilof, Ninilchik, Anchor Rivers, and Deep Creek. Adult salmon are present in freshwater from mid-March through January, depending on the species of salmon and the system. Salmon eggs incubate in stream gravels through winter; fry emerge from stream gravels from mid-March through early June. Chinook, sockeye, and coho salmon fry remain in fresh water from one to four years before migrating to sea. Table xx of this document provides average salmon escapement estimates for principal waters in the Cook Inlet subarea.

Pacific Herring spawning concentration areas occur in Kamishak Bay near Douglas Reefs, Chenik Head, Bruin Bay, Rocky/Ursus Cove, and Iniskin Bay; and also in Kachemak Bay near Mallard Bay, Homer Spit/Mud Bay, Glacier Spit/Halibut Cove, and Tutka Bay. Spawning occurs from late April through mid June on rocky headlands or in shallow lagoons and bays. Eggs are deposited subtidally or intertidally on aquatic vegetation; kelp or eelgrass are generally the preferred spawning substrates. Herring generally move offshore following spawning to feed and into deeper water during winter. Small commercial sac roe harvests occur in upper and lower Cook Inlet.

Forage fish. Numerous species of fish inhabit the nearshore areas of Cook Inlet and are important forage species for higher trophic predators such as seabirds and marine mammals. Capelin spawn in the intertidal zone from late May through mid July. Eggs are deposited in sand and small gravel, hatch two weeks later, and remain larval through the winter.

Pacific Halibut are widely distributed in lower Cook Inlet providing important recreational fisheries based out of Homer, Deep Creek, Anchor River, and Whiskey Gulch. Adult halibut use shallow feeding grounds (27-274 m) in Cook Inlet in the summer and migrate to deeper winter spawning grounds (up to 1094 m) in the Gulf of Alaska.

Groundfish. Commercially important groundfish species in Cook Inlet include Pacific cod,

rockfish, lingcod, and sablefish. Juvenile groundfish occupy shallow nearshore habitats, later moving to deeper areas when they reach sexual maturity.

The map included below identifies essential fish habitat in the Cook Inlet region. Interactive mapping of essential fish habitat is provided by the National Marine Fisheries Service. To do interactive mapping, go to the internet at: <http://mapping.fakr.noaa.gov/website/efh/viewer.htm>. For further information, contact the National Marine Fisheries Service at: <http://www.fakr.noaa.gov/>.

SHELLFISH

Dungeness crab. Sharply declining crab populations in the late 1980's prompted a closure of the commercial fishery in 1991; the noncommercial fishery closed in 1998. Dungeness crabs are found in the intertidal region to a depth of 230 m. Dungeness crabs are most common on sand or muddy-sand bottoms in the subtidal region, and are often found in or near eel grass beds. However, they can also be found on a number of other substrata including various mixtures of silt, sand, pebble, cobble, and shell. Juvenile Dungeness crabs are found in similar habitats as adults, but they generally occupy shallower depths than adults. Juvenile crabs can be very abundant in the intertidal zone, but also occur in shallow subtidal areas. Survival of young crabs is greatest in habitats such as intertidal shell and eelgrass beds where they can gain refuge from predators. Dungeness crabs are distributed in lower Cook Inlet south of Anchor Point, and a major concentration of adults is found in the shallow, nearshore waters along the north shore of Kachemak Bay. They have been documented as far north as Kalgin Island during the summer. Reproductive concentrations in western Cook Inlet are found along the Kamishak Bay coast. Mating occurs in the spring during the molting period. Larvae are planktonic and associated with the nearshore location of females in spring. Post larval crabs are most abundant on sandy bottom, inshore areas shallower than five fathoms.

King Crab populations have been severely depressed since the mid 1980's when the commercial fishery was closed. King larvae generally exhibit a diel movement being most abundant in the upper water column during the day and deeper at night. Young of the year crab occur at a depth of 50 m or less. They are solitary and need high relief habitat or coarse substrate such as boulders, cobble, shell hash, and living substrates such as bryozoans and stalked ascidians. Between the ages of two and four years, there is a decreasing reliance on habitat and a tendency for the crab to form pods of up to thousands of individuals. Podding generally continues until four years of age (about 6.5 cm), when the crab move to deeper water and join adults in the spring migration to shallow water for spawning. Adult red king crab can occur up to a depth of 365 m; preferred habitat for reproduction is less than 90 m in depth. King crabs are common in lower Cook Inlet south of Anchor Point. The inshore migration of king crabs in Kachemak Bay begins in late December, peaks in March, and extends through May. Migration of king crabs into Kamishak Bay begins in February. Mating and release of larvae occur in nearshore areas. Large numbers of king crab spawn in outer Kachemak Bay and around Augustine Island in Kamishak Bay in waters 18-85 m deep. In Kachemak Bay, spawning begins in February, peaks in April, and continues through May. Spawning in Kamishak Bay may be slightly later. Offshore winter migration begins in August and continues through November. The Bluff-Anchor Point area is a major nursery for juvenile king crabs in lower Cook Inlet. Juveniles are also common at the mouth of Iniskin Bay, at Spring Point, Koyuklik Bay Lagoon (Dog Fish Lagoon), and along the south shore of Kachemak Bay.

Tanner crab. There has not been a commercial fishery for Tanner crab since the 1995 closure; noncommercial harvest is highly restricted. Tanner crab larvae are strong swimmers and perform diel vertical migrations in the water column (down at night). They usually stay near the depth of the chlorophyll maximum during the day. The length of time larvae take to mature is unknown, although it has been estimated to be as little as 12 to 14 days. After settling to the bottom, Tanner crabs are widely distributed at depths up to 473 m. Tanner crab, *Chionoecetes bairdi*, is distributed throughout Cook Inlet south of Anchor Point, around the Kenai Peninsula south and west, and in Kamishak Bay. Tanner crabs are found in the littoral zone to 550 m. Adult Tanner crabs appear to be most abundant in the deepwater region between Augustine Island and the Barren Islands. Tanner crabs migrate into Cook Inlet from March through September, with the peak of spawning occurring from May to June. Concentrations of juveniles have been reported near Cape Douglas, Iniskin Bay, and Kamishak Bay. Females are known to form high density mating aggregations consisting of hundreds of crabs per mound. The mounds likely form in the same general location each year, but the location of mounds is largely undocumented.

Shrimp. Pandalid shrimp occur throughout lower Cook Inlet with historical concentration areas in Kachemak Bay and in the deep waters off Cape Douglas. Large populations of northern pink shrimp and coonstripe shrimp occurred in lower Cook Inlet until the early 1980's when declining shrimp populations prompted the closure of commercial trawl and pot shrimp fisheries by the mid 1990's.

Razor clams occur on the east side of Cook Inlet from the Homer Spit north to Cape Kasilof with major concentration areas at Clam Gulch, Ninilchik, Deep Creek, Happy Valley, and Whiskey Gulch. On the west side of Cook Inlet, razor clams are found from Kustatan, at the west foreland, southwest to Tuxedni Bay, with small populations at Chinitna Bay and the south shore of Augustine Island. Commercial harvests for hardshell clams occurs on the south side of Kachemak Bay between Bradley River and Barabara Point.

(c) Birds

Important Bird Habitats/Communities

Tidal Flats. Tidal flats are used most intensively in spring and fall. Large numbers of ducks, primarily northern pintails, green-winged teal, mallards, and American widgeon, are found resting from the tide line to one-half mile offshore, and feeding on Macoma clams and other invertebrates in the intertidal area.

Puccinellia-Triglochin community. The near-coastal *Puccinellia-Triglochin* community, frequently flooded by tides, is most valuable for snow and cackling Canada geese that stop to feed during spring migration.

Ramenski sedge-shallow pond community. The Ramenski sedge-shallow pond community is also used primarily for feeding and roosting. The numerous semi-permanent ponds attract migrant ducks and are used by resident dabbling ducks for brood rearing.

Marsh community. The marsh community is the most valuable habitat type for most waterfowl. During spring and fall, numerous permanent ponds and cover are the primary staging area for tundra swans, loons, grebes, and diving ducks. Marsh habitat is also the most productive nesting habitat for tule white-fronted geese, ducks, loons, grebes, and gulls. The marsh community is flooded only on the highest tides.

Shrub-bog community. During fall, Canada and tule geese use this habitat type for roosting at night. The interface between marsh and shrub-bog communities has the greatest concentration of nesting ducks, geese, and cranes.

Important Bird Species/Groups

Trumpeter Swans. One of the most significant wildlife populations in the northern Cook Inlet critical habitat areas is that of the trumpeter swan. Swans begin arriving in upper Cook Inlet in early April. The peak of migration occurs in early May, depending largely on snow melt. Many trumpeters remain to nest in this area. Trumpeter swan nesting and brood-rearing is widespread; the most concentrated use occurs in the drainages of the Kustatan River, Bachatna Creek, North Fork Big River, and the lower Big and Chakachatna Rivers. Trumpeter swans are sensitive to human activity, particularly in the vicinity of their nests and broods. By mid-October most swans have left upper Cook Inlet for withering areas along the Pacific coast.

Geese. During spring migration, thousands of Canada [three subspecies: lesser (*parvipes*), Taverner's (*taverneri*), and cackling (*minima*)], snow, and white-fronted geese use the coastal wetlands of Cook Inlet. Upper Cook Inlet, including Trading Bay and Redoubt Bay, is considered critical migration habitat for cackling Canada geese and Pacific white-fronted geese. These coastal wetlands are the last feeding areas that cackling Canada geese are known to use before they arrive on nesting areas of the Yukon-Kuskokwim Delta.

Some geese are sensitive to human disturbance; feeding flocks are easily spooked by air traffic. In Redoubt Bay, aircraft flying at or below an altitude of 500 feet and passing within 500 feet cause flocks of geese to take flight. On Susitna Flats, aircraft over 600 feet did not usually flush snow geese, and aircraft passing by at distances greater than one-third mile from a flock caused minimal alert behavior. Tule geese are sensitive to disturbance during nesting and brood-rearing.

Tule White-fronted Goose. The west side of Upper Cook Inlet has one of two known nesting, brood-rearing, and molting areas for tule white-fronted geese.

Snow Goose. Up to 34,000 snow geese have been counted in Cook Inlet marshes enroute from their wintering areas in Washington and British Columbia to their nesting area on Wrangel Island, Siberia. Critical stops include Kenai River Flats, Anchorage Coastal Wetlands, Trading Bay, and Redoubt Bay. Typically, up to 15,000 geese can be observed in these areas, although in some years only a few thousand geese may be observed due to rapid turnover of individuals.

Diving ducks and sea ducks. Most scaup wintering along the coast in salt water are greater scaup, but many or most breeding in inland lakes are lesser scaup. Surveys of the coastal areas from Tuxedni Bay to Chinitna Bay during April through September, 1964-66, found a peak number of diving ducks (most of which were scaup) of 16,400 birds during migration in mid-May, with fewer than 2,000 in April and June (Bennett 1996). In lower Cook Inlet and Kachemak Bay in 1993 small boat surveys estimated about 1600 scaup, mostly within 5 nm of the shoreline (Agler et al. 1995). The breeding population estimate for the Kenai-Susitna area for May, 2000 was 15,916, which is 13 percent of the total for Alaska.

Cook Inlet has both Barrows and Common goldeneye, though Barrows are far more abundant. The lower Cook Inlet winter boat survey estimated 3,638 goldeneye. Aerial shoreline surveys estimated 1,128 goldeneyes in Kachemak Bay (Agler et al. 1995). Residents of Kachemak Bay have noted a dramatic decline in winter goldeneye populations there over the last 10 years.

Long-tailed ducks are primarily winter residents of Cook Inlet, with an estimated 11,058 present in eastern lower Cook Inlet during the winter of 1994 (Agler et al. 1995). During spring, migration numbers peaked along the Lake Clark NP shoreline in April and May at an estimated 1,486 birds. Longtails do not breed in the Cook Inlet area.

Harlequin ducks winter in small numbers along much of the lower Cook inlet shoreline, and breed in low densities in many Cook Inlet river systems. Estimates during boat surveys of lower Cook Inlet ranged from 3,774 in all of Lower Cook Inlet in the summer of 1993, to 1,940 in eastern lower Cook Inlet in winter of 1994, mostly within Kachemak Bay (Agler et al. 1995).

Common eiders breed in low densities along east and west shorelines in lower Cook Inlet. 1994 summer observations estimated 2,844 common eiders. The estimate of 5,822 eiders in eastern Lower CI in winter of 1994 contained king and Steller's eiders as well as Common eiders. Up to several hundred Steller's eiders are present in Kachemak Bay in the winter, particularly along the Homer spit and offshore south of Bluff Point, and up to 2,400 have been estimated wintering in nearshore habitats near Ninilchik (USFWS unpublished data). A winter aerial shoreline count in 1994 detected 1,363 in the Kamishak Bay area, but none north of there along the west side of Cook Inlet.

Cook Inlet is an important molting area for surf and white-winged scoters, particularly in Tuxedni and Chinitna Bays. Summer surveys there estimated 11,900 surf scoters and 4,970 white-winged scoters during 1994-96 (Bennett 1996). Summer boat surveys in 1993 estimated 49,077 scoters (lumped) in lower Cook Inlet, and 29,408 were estimated in eastern lower Cook Inlet during the winter of 1994 (Agler et al. 1995). The Cook Inlet lowlands are also an important breeding area for scoters, primarily surfs but also small numbers of white-winged scoters. The 2000 estimate for breeding scoters for the Kenai/Susitna stratum was 3,089 birds (Conant et al.

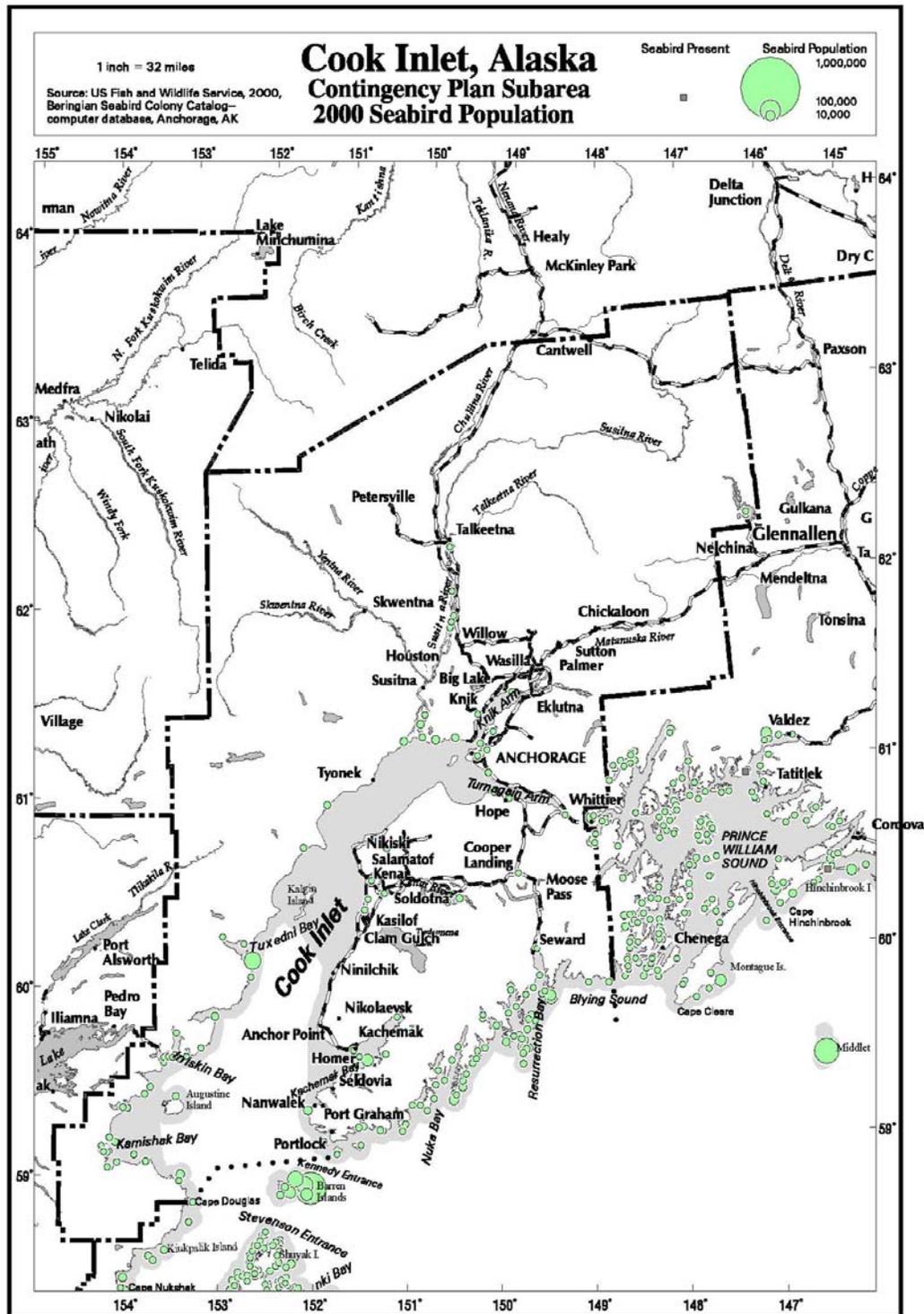
2000). Wintering flocks in Kachemak Bay, and likely other habitats as well, contain a high proportion of black scoters.

Shorebirds. Study results show Cook Inlet to be extremely important to both migrant and winter resident shorebirds, supporting major portions of the population of one of North America=s most (Western Sandpiper) and least (Rock Sandpiper) abundant species. Twenty-eight species of shorebirds have been recorded using Cook Inlet, ranging from all being present during spring to a single species present during winter. The annual pattern of use is characterized by the sudden occurrence and rapid increase in numbers of birds during early May and their abrupt departure in mid- to late-May. During this period, totals frequently exceed 150,000 birds per day. Comparatively little use occurs during summer and autumn, but use is significant from late autumn to early spring when Rock Sandpipers reside in the Inlet. It is estimated that 20-47% of the Pacific flyway population of Western Sandpipers (which numbers 2-3 million) used Cook Inlet embayments, especially southern Redoubt Bay. Cook Inlet also supports between 11-21% of the Pacific flyway population of Dunlin and what may be the entire population of the nominate race of the Rock Sandpiper (*Calidris ptilocnemis ptilocnemis*).

International criteria, used to assess the conservation importance of particular wetland sites to shorebirds, not only place Cook Inlet at the highest level of recognition, but afford similar recognition to several individual embayments therein, including Kachemak Bay, southern Redoubt Bay, Susitna Flats, Trading Bay, and Tuxedni Bay.

Seabirds. See the following regional summary Seabird Population Map. The Alaskan Seabird Colony Catalog is an automated database that contains the distributions of breeding seabirds and the relative size of all the colonies in Alaska. The data reports indicating estimated species composition and numbers for seabird colonies of Prince William Sound are summarized from the catalog. The maps display colony locations. The Alaska Seabird Colony Catalog is maintained by the U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Marine and Coastal Bird Project, in Anchorage at 786-3444. For updated information see the internet at: http://164.159.151.5/seabird/main_seabird.html

There are over 150 documented seabird nesting colonies in the Cook Inlet Subarea. The colonies range in size from tens of birds to tens of thousands of birds. The largest colony is at Chisik and Duck Islands in middle western Cook Inlet, with over 60,000 seabirds. The greatest densities of seabird colonies are located along the outer Kenai Peninsula Coast. Seabirds are generally present at the colonies from late April through August.



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Produced by: Alaska Department of Natural Resources

(d) Marine Mammals

Harbor seals are found in nearly all nearshore marine habitats throughout the subarea and may be found during spring and summer in some rivers and lakes. Harbor seals are usually found in close proximity to coastal and nearby island shorelines and are seldom found more than 5 mi from shore. Commonly used haulout area substrates include offshore rocks and reefs, sandbars, beaches of remote islands, mainland beaches backed by cliffs, shelf ice at the head of bays, and floating sea ice. Pupping appears to take place at all locations where harbor seals haulout. In Cook Inlet seals are year-round residents moving into the upper inlet in summer coinciding with movements of anadromous fish such as eulachon and salmon. At this time seals have been observed in the Susitna River and are believed to enter other Cook Inlet Rivers. In winter seals are absent from the upper inlet likely moving into the lower inlet. In some winters heavy sea ice may influence distribution. Harbor seals use the ice edge to haulout and are not found within areas of extensive ice cover. In lower Cook Inlet, particularly high-density haulout concentration areas are found on Yukon Island and the Bradley-Fox River Flats within Kachemak Bay. Seals are present year-round along the western shore of Cook Inlet and Kamishak Bay, where major haulout areas include Gull Island, the area between the mouths of Oil Bay and Iniskin Bay, Augustine Island, No Name Reef, Nordyke Island, Juma Reef, Douglas River Reefs, and Shaw Island.

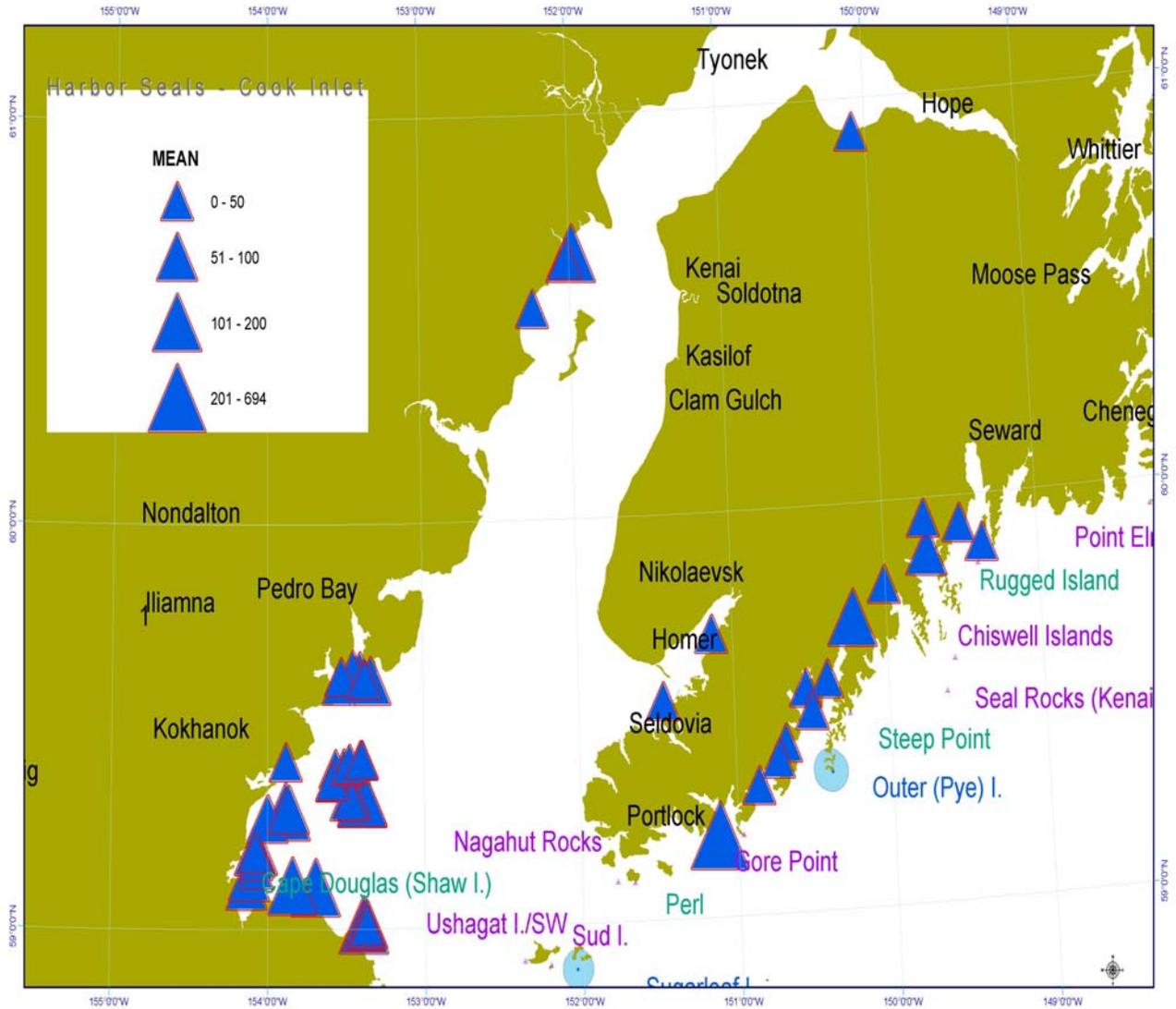
The Steller sea lion population that occurs in the Cook Inlet subarea is part of the population segment classified in 1997 as endangered under the Endangered Species Act. Sea lions are found at haulout and rookery areas near the entrance to Cook Inlet, which include Gore Point, E. Chugach Island, Perl Island, and Elizabeth Island. Pupping occurs from late May through early July, most pups are born during June. During May through August, territorial breeding behavior occurs on the rookeries.

The Beluga whale population that occurs in the Cook Inlet Subarea has been listed as depleted under the Marine Mammal Protection Act and is a candidate species for listing under the Endangered Species Act. Abundance of Cook Inlet belugas has declined from an estimated 653 whales in 1994 to 347 in 1998, a 50% reduction. Belugas concentrate in shallow water along the mouths of rivers during spring and early summer in upper Cook Inlet including the Susitna Delta, Eagle and Goose Bay of Knik Arm, Chickaloon Bay, and the area near the mouth of the Kenai River. These concentrations are associated with the migration of anadromous fish, including eulachon and salmon. Belugas are seldom found more than a few kilometers offshore. While belugas were commonly found in lower Cook Inlet in the past, few have been sighted there since the mid-1990's indicating a decline in distribution.

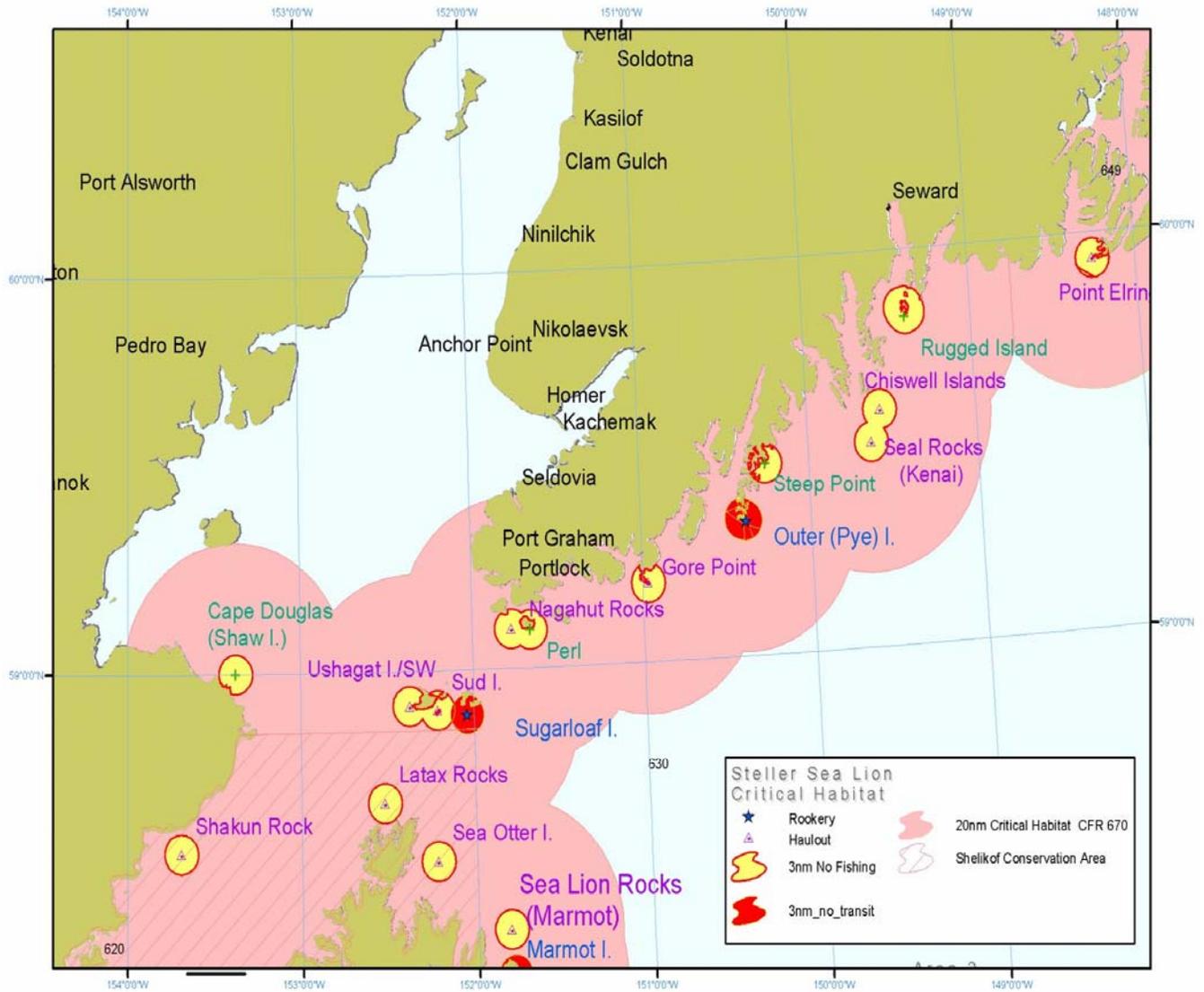
Other cetaceans. Minke whales are found in Kachemak Bay during the summer, particularly in August. Migratory pods of killer whales are occasionally sighted in the outer portions of Kachemak Bay. Harbor porpoises are common in bays, estuaries, tidal channels, and harbors of Kachemak Bay. They are wary and easily disturbed by boat traffic. Dall porpoise are not as common in Kachemak Bay as in the Gulf of Alaska.

Sea otters are generally found in shallow (<40m) nearshore areas where they feed on bottom-dwelling invertebrates. Sea otters are common in Kachemak Bay with highest concentrations near Seldovia and English Bay. While the otter population of Cook Inlet is thought to be expanding in size and distribution, it is not clear whether otters will recolonize areas in upper Cook Inlet where food availability and winter sea ice may limit habitat suitability. Breeding can occur any time of year, with a peak from September-October while pupping peaks in April, May, and early June.

Harbor Seals in Cook Inlet



Steller Sea Lion Critical Habitat in Cook Inlet



Note: Chiswell Island is a small rookery with about 30-60 pups produced each year. This rookery is monitored by remote camera from the Alaska Sea Life Center in Seward.

**Salmon Escapement Abundance Averages (1991-2000)
For Principal Waters in Cook Inlet**

Water	Kings	Coho	Sockeye	Pinks	Chum
Aialik Lagoon			4,700	800	
Amakdedori Creek			2,960	2,100	
Anchor River	596	3,257			
Barabara Creek				6,800	
Bear Creek				16,900	
Bear Lake			6,850		
Big Kamishak River				9,800	18,775
Brown's Peak Creek				22,600	
Bruin Bay River				98,200	11,400
Chenik Lake			4,030		
China Poot				3,600	
Clearwater Creek					10,961
Cottonwood Creek					12,021
Crescent River			51,023		
Deep Creek	523	2,312			
Delight Lake			11,100		
Desire Lake Creek			10,800	8,800	
Dogfish Lagoon				8,500	13,520
Douglas River		400			
English Bay			13,020		
Fish Creek			63,648		
Fitz Creek					1,166
Humpy Creek				31,200	
Humpy Cove				2,200	
Iniskin Bay					17,740
Island Creek				36,200	8,800
James Lagoon				2,200	
Kamishak River			2,533		
Kasilof River			234,088		

Water	Kings	Coho	Sockeye	Pinks	Chum
Kenai River			814,437		
Little Kamishak River				2,100	12,475
McNeil River					19,840
Mikfik Lake			10,170		
Ninilchik River	360				
Packers Creek			28,724		
Port Chatham Creeks				16,900	
Port Dick Creek				36,200	2,460
Port Graham River				12,200	6,180
Rocky River				63,700	2,680
Seldovia River				31,500	
South Nuka Island Creek				11,100	
Sunday Creek				30,500	
Susitna River			116,261		
Thumb Cove				8,200	
Tonsina Creek				2,400	
Tutka Lagoon				21,400	
Ursus Cove Stream					16,220
Windy Right Creek				12,300	
Windy Left Creek				22,700	

(e) Terrestrial Mammals

Caribou. Five subherds comprise the small Kenai Peninsula caribou herd, which was estimated at 1,059 animals in 1998. The Kenai Lowlands herd generally moves from winter concentration areas in the Moose River Flats and vicinity to the area north of the Kenai Airport for calving which occurs during late May and early June. The herd spends the summer and autumn in this same general area. Caribou move to the Moose River Flats rutting area from October 1 to October 10 and breed there. The Kenai Mountains herd generally moves from its winter range in the small upper drainages of Big Indian Creek south to American Pass for calving. After the calving period, during summer and fall, caribou can be found throughout the Kenai Mountains north and west of the Sterling Highway, except that portion south of the Chickaloon River and west of Juneau Creek. The three remaining herds include the Killey River herd which is found between the Killey River and Tustumena Lake, the Twin Lakes herd north of the Killey River to Skilak Lake, and the Fox River Herd between the Fox River and Tustumena Glacier. Summer

habitat is primarily moist, boggy areas where sedges predominate while winter habitat includes aquatic vegetation such as sedges and horsetails along lake margins and streams. Caribou often use ridge tops, frozen lakes and bogs, and other open areas for predator avoidance.

Moose occur in habitats throughout much of the Cook Inlet subarea, ranging from aquatic and riparian floodplain to subalpine willow-dominated areas. Sedge meadows, ponds and lakes with extensive aquatic vegetation, riparian and subalpine willow stands, and forested areas provide important summer habitat for moose. Important winter habitat includes shrub-dominated alpine and riparian areas, and forested areas. Riparian areas along the major rivers and tributary streams are particularly important in winter. Calving occurs in late May and early June, frequently in isolated marshy lowlands.

Black and brown bears are distributed throughout the Cook Inlet subarea. During spring bears are attracted to coastal flats to eat grass and herbaceous vegetation, moving to salmon spawning areas along streams and lakes in late summer and fall. Berries are also an important food item beginning in late July and continuing through fall. Black bears are more abundant in wooded areas, seldom venturing more than 350 yards from mature trees or tall shrubs. Important migratory areas include riparian areas and shorelines of lakes. Spring black bear concentrations occur in Redoubt Bay and Susitna Flats State Game Refuge; they are also common at the head of Kachemak Bay and along the sedge flats between the Bradley and Martin Rivers and in the Fox River valley. Spring brown bear concentrations occur in the McNeil River State Game Refuge along the coastal areas of Kamishak Bay and Redoubt Bay where both brown and black bears concentrate along salmon streams in the late summer and fall, particularly the Kustatan River. Both species of bears spend the winter in dens.

Wolves and foxes are found throughout the subarea. Wolves and foxes select den sites where unfrozen, well-drained soils occur (e.g., dunes river banks, moraines, pingos). Wolves may initiate den construction in mid-April. Pups are born from mid May through early June, and generally leave the den by mid July, although dens may be occupied until August. Red foxes have a reproductive pattern similar to that of wolves.

Aquatic furbearers such as beaver, mink, and river otter are common inhabitants of aquatic and riparian floodplain and wetland areas, including marshes, ponds, lakes, streams, and rivers.

2. Vegetation

Rare plant species are identified below, as documented by the Alaska Natural Heritage Program. The map on the following page identifies the general locations of these rare plants. For further information, contact the Alaska Natural Heritage Program botanist at 257-2785.

RARE PLANTS KNOWN FROM THE COOK INLET SUBAREA:

<u>Global Rank</u>	<u>State Rank</u>	<u>Scientific Name</u>		<u>Common Name</u>
G1Q	S1	<i>Draba Kananaskis</i>	Tun	dra Whitlow-grass
G2	S2	<i>Smelowskia Pyriformis</i>		
G2G3	S2S3	<i>Douglasia Alaskana</i>	Alaska	Rock Jasmine
G2Q	S2	<i>Puccinellia Glabra</i>	Sm	ooth Alkali Grass
G3	S3	<i>Aphragmus Eschscholtzianus</i>		
G3	S3	<i>Thlaspi Arcticum</i>	A	retic Pennycress
G3T3	SR	<i>Douglasia Laevigata Var Ciliolata</i>		A Douglasia
G3G4	S3	<i>Papaver Alboroseum</i>	Pale	Poppy
G3Q	S3	<i>Poa Turneri</i>	Tur	ner Bluegrass
G3Q	S3	<i>Puccinellia Triflora</i>	Three	-flowered Alkali Grass
G3Q	S3	<i>Taraxacum Carneocoloratum</i>		Pink-Flowered Dandelion
G4	S1	<i>Carex Heleonastes</i>	Hu	dson Bay Sedge
G4	S1	<i>Carex Parryana</i>	Parry	Sedge
G4	S2	<i>Carex Preslii</i>	Presl	Sedge
G4	S2	<i>Draba Lactea</i>	Milk	y Whitlow-grass
G4	S2S3	<i>Eleocharis Kamtschatica</i>	Kam	chatka Spike-rush
G4	S3S4	<i>Malaxis Paludosa</i>	B	og Alder's Tongue
G4G5T	S2S4	<i>Carex Glareosa Ssp Pribylovensis</i>		
G4Q	S3	<i>Pedicularis Macrodonata</i>	B	igtooth Lousewort
G5	S1	<i>Agrostis Thurberiana</i>	Th	urber Bentgrass
G5	S1	<i>Arnica Diversifolia</i>	St	icky Arnica
G5	S1	<i>Arnica Mollis</i>	Hairy	Arnica
G5	S1	<i>Blysmus Rufus</i>	Red	Clubrush
G5	S1	<i>Carex Athrostachya</i>	S1	ender beak Sedge
G5	S1	<i>Carex Interior</i>	Inl	and Sedge
G5	S1S2	<i>Cicuta Bulbifera</i>		
G5	S1S	2	Eri	ophorum Viridicarinatum
G5	S2	<i>Malaxis Monophyllos</i>	Whi	te Alder's-Tongue
G5	S2	<i>Potamogeton Obtusifolius</i>		
G5	S2	<i>Potentilla Drummondii</i>		
G5	S3	<i>Smilacina Stellata</i>		
G5	S3S4	<i>Stellaria Crassifolia</i>	Fleshy	Starwort
G5	S4	<i>Zannichellia Palustris</i>	Horned	Pondweed
G5T2Q	S2	<i>Arnica Lessingii Ssp Norbergii</i>		Norberg Arnica
G5T3Q	S3	<i>Carex Lenticularis Var Dolia</i>		Goose-grass sedge

Species Ranks used by The Alaska Natural Heritage Program:

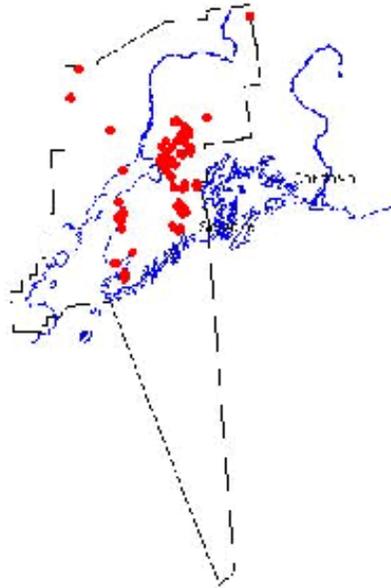
Species Global Rankings

- G1: Critically imperiled globally. (typically 5 or fewer occurrences)
 G2: Imperiled globally. (6-20 occurrences)
 G3: Rare or uncommon globally. (21-100 occurrences)
 G4: Apparently secure globally, but cause for long-term concern (usually more than 100 occurrences)
 G5: Demonstrably secure globally.
 G#GU: Rank of species uncertain, best described as a range between the two ranks.
 G#Q: Taxonomically questionable.
 G#T#: Global rank of species and global rank of the described variety or subspecies of the species.

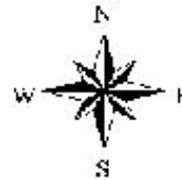
Species State Rankings

- S1: Critically imperiled in state. (usually 5 or fewer occurrences)
 S2: Imperiled in state. (6-20 occurrences)
 S3: Rare or uncommon in state. (21-100 occurrences)
 S4: Apparently secure in state, but with cause for long-term (usually more than 100 occurrences)
 S5: Demonstrably secure in state.
 S#S#: State rank of species uncertain, best described as a range between the two ranks.

Known Rare Plant Locations for the Cook Inlet Subarea Contingency Plan



WORLD MAP & LOCATION OF FIELD
A JESSE RICH, 314-279-2100
Biological Conservation Database



3. Biologically Sensitive Areas

The Alaska Department of Fish and Game began a project in 1996 to map some of the most environmentally sensitive areas (MESAs) for wildlife along Alaska's coast. This information is for contingency planning purposes and does not cover the complete coastline on sensitive areas that other organizations may identify. Maps entitled "Most Environmentally Sensitive Areas along the Coast of Alaska" were published by the Alaska Department of Fish & Game (1997), and are available in hard copy and digital format from their Anchorage office at 267-2338.

Each of these sensitive areas is plotted on a 1:250,000 scale U.S. Geological Survey quadrangle map. A list of the sensitive areas in the subarea and map referencing their location is provided (see the following figure and table), followed by the MESA maps.

**Oil Spill Contingency Planning
Most Environmentally Sensitive Areas
("Biological Hotspots")
along the Coast of the Cook Inlet Subarea**

- 43. Chenik Head to Silver Beach (Kamishak Bay)
 - salmon concentrations
 - herring spawning
 - seabird colonies (>1,800 birds)
 - waterfowl (seaduck) concentrations
 - harbor seal haulout
 - sea otter established population (500-1000 animals)
 - brown bear feeding concentrations
 - McNeil River State Wildlife Sanctuary and State Game Refuge

- 44. Redoubt Bay
 - salmon concentrations
 - waterfowl and shorebird spring and fall staging
 - harbor seal haulouts
 - brown bear feeding concentrations
 - black bear concentrations
 - Redoubt Bay State Critical Habitat Area

- 45. Kalgin Island
 - salmon concentrations
 - razor clam concentrations (south end)
 - waterfowl and shorebird spring and fall staging
 - harbor seal haulout
 - Kalgin Island State Critical Habitat Area

- 46. Trading Bay
 - salmon concentrations
 - waterfowl and shorebird spring and fall staging
 - harbor seal haulouts
 - bear feeding concentrations
 - Trading Bay State Game Refuge

- 47. Susitna Flats
 - salmon concentrations
 - eulachon spawning
 - waterfowl and shorebird spring and fall staging
 - seabird colonies
 - harbor seal haulouts
 - beluga whale feeding concentrations
 - brown bear feeding concentrations
 - black bear concentrations
 - Susitna Flats State Game Refuge

48. Anchorage Flats
- salmon concentrations
 - waterfowl and shorebird spring and fall staging
 - seabird colonies
 - beluga whale feeding concentrations
 - Anchorage Coastal State Wildlife Refuge
49. Goose Bay
- salmon concentrations
 - waterfowl and shorebird spring and fall staging
 - seabird colony
 - beluga whale feeding concentrations
 - Goose Bay State Game Refuge
50. Palmer Hay Flats
- salmon concentrations
 - waterfowl and shorebird spring and fall staging
 - seabird colony
 - Palmer Hay Flats State Game Refuge
51. Mouth of the Kenai River¹
- salmon concentrations
 - waterfowl and shorebirds spring and fall staging
 - seabird colony
 - beluga whale feeding concentrations
 - Kenai River Special Management Area
52. Clam Gulch
- salmon concentrations
 - razor clam concentrations
 - seabird colony
 - waterfowl and shorebird spring staging
 - Clam Gulch State Critical Habitat Area
53. Kachemak Bay
- salmon concentrations
 - herring spawning
 - tanner crab concentrations
 - razor clam and mussel concentrations
 - waterfowl and shorebird spring and fall staging and winter concentrations
 - seabird colonies (>18,000 birds)
 - harbor seal haulouts
 - sea otter concentrations
 - Kachemak Bay and Fox River Flats State Critical Habitat Areas

¹ Area heavily weighted by highly significant commercial and/or subsistence fisheries.

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BIOLOGICAL HOTSPOTS MAP here
http://www.asgdc.state.ak.us/maps/cplans/base/mesa_vol2.pdf

Insert MESA map # 1 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa43.pdf>

Insert MESA map # 2 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa44a.pdf>

Insert MESA map # 3 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa44b.pdf>

Insert MESA map # 4 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa45.pdf>

Insert MESA map # 5 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa46.pdf>

Insert MESA map # 6 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa47.pdf>

Insert MESA map # 7 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa48.pdf>

Insert MESA map # 8 of 14 here

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Insert MESA map # 11 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa52.pdf>

Insert MESA map # 12 of 14 here

<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa53a.pdf>

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<http://www.asgdc.state.ak.us/maps/cplans/cook/mesa53b.pdf>

D. HUMAN RESOURCE USES

1. Fish Hatcheries and Associated Ocean Net Pens

Currently, five fish hatcheries are in the Cook Inlet Region. Four species of Pacific salmon, rainbow and lake trout, char and grayling are produced.

The Cook Inlet Aquaculture Association (CIAA) operates the Trail Lakes and Tutka Bay hatcheries, which are owned by the State of Alaska. The Port Graham Hatchery Corporation (PGHA) operates the Port Graham Hatchery. The State of Alaska (managed by the Alaska Department of Fish and Game) operates the remaining hatcheries. Hatchery locations are indicated below.

The hatchery activities most vulnerable to spill damage include fry rearing and release, terminal harvests and egg takes. However, since the timing of these activities varies by hatchery and species, it is difficult to generalize about the timing of activities, although spring and summer will tend to be the most critical periods. Hatchery managers should be contacted for specific information. Contact numbers are listed below.

For additional information on hatcheries in Cook Inlet contact:

Alaska Department of Fish and Game
Homer
235-8191 262-9

Alaska Department of Fish and Game
Soldotna
368

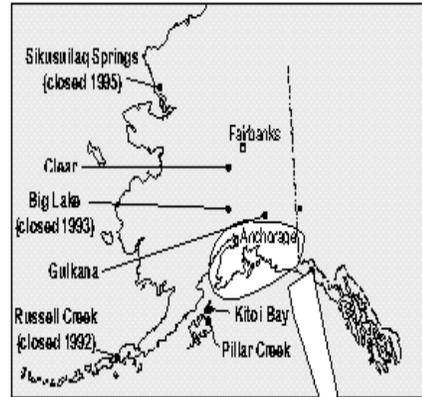
HATCHERIES OPERATED BY THE STATE OF ALASKA

<u>Hatchery, City, Phone & Operator</u>	<u>Species</u>	<u>_____</u>
Ft. Richardson Hatchery Ft. Richardson lake 428-1347/1348 Operator: ADFG	chi	nook coho salmon; rainbow and trout trout, char and grayling
Elmendorf Hatchery Anchorage 274-0065 Operator: ADFG	chinook	and coho

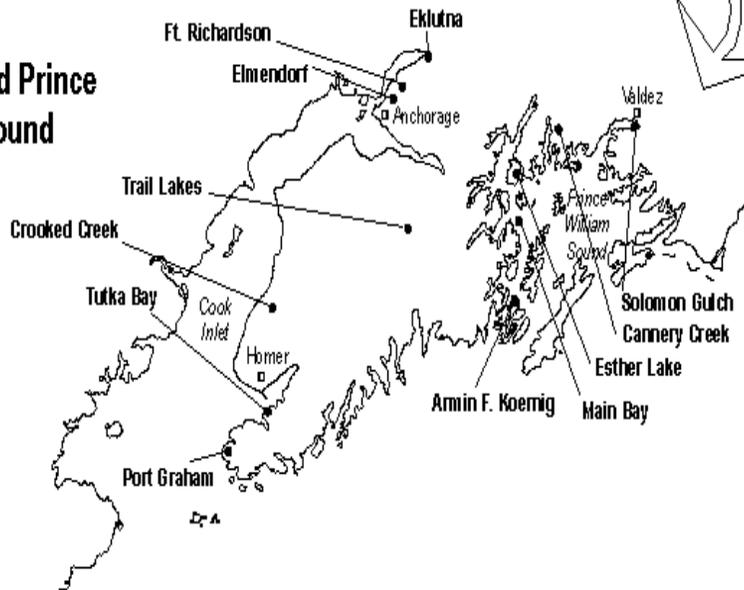
HATCHERIES OPERATED BY PRIVATE AQUACULTURE ASSOCIATIONS

Trail Lakes Hatchery Moose Pass and 283-5761 Operator: CIAA	sockey	e, chinook coho
Tutka Bay Hatchery Homer sockey 235-8486 Operator: CIAA	pink,	chum and e
Port Graham Hatchery Port Graham 284-2233 Operator: PGHA	pink	and sockeye

Locations of Hatcheries in Prince William Sound, Interior, and Southcentral Alaska



Cook Inlet and Prince William Sound



2. Aquaculture Sites

Commercial aquatic farms are concentrated in the Kachemak Bay area. These farms are primarily raising blue mussels. The number of applications for aquatic farm permits is on the rise and the number of farms may increase significantly in the near future. The locations of the 1993 permitted shellfish farms are indicated in the map and table below.

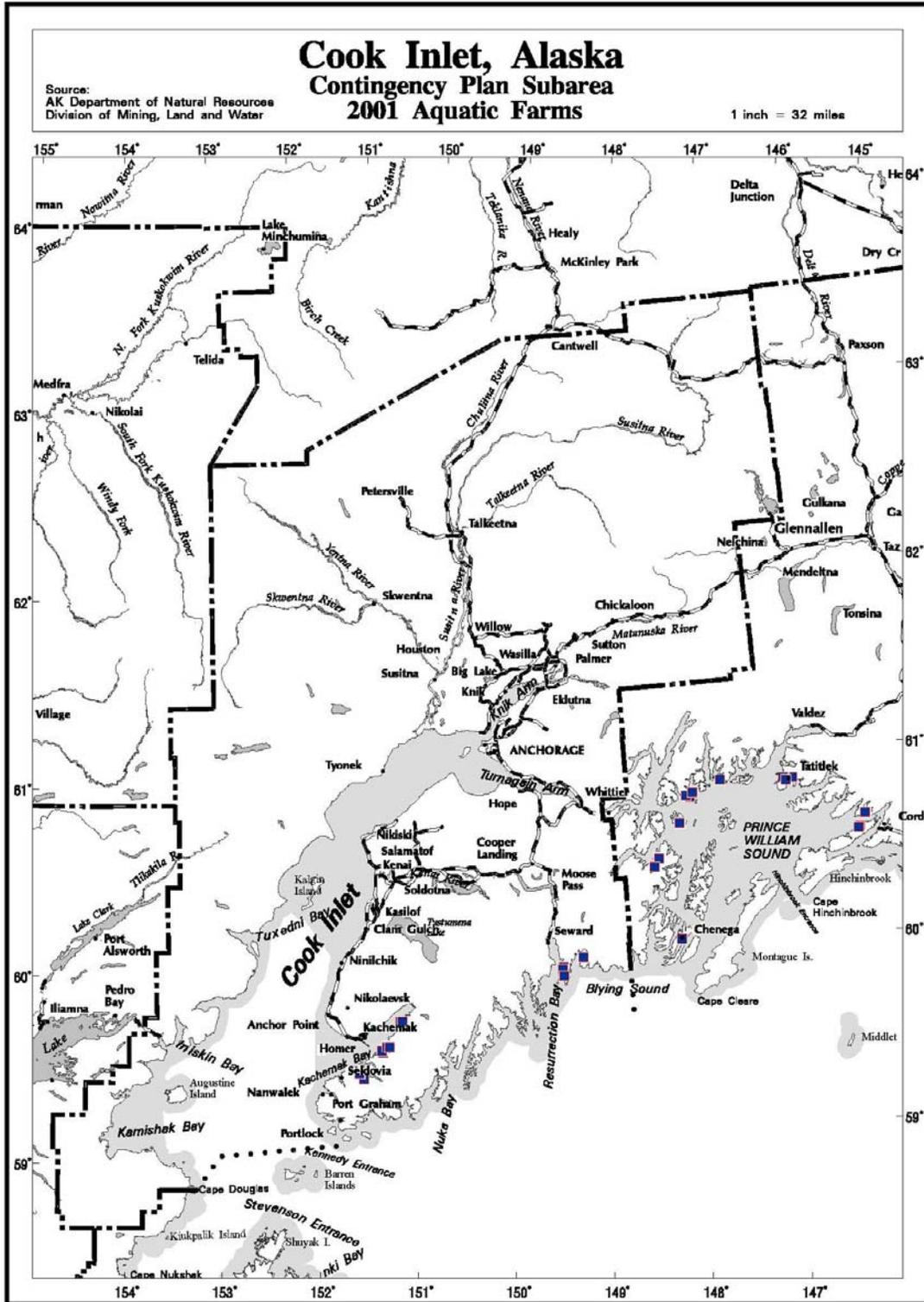
Aquatic farms are vulnerable to spill damage on a year-round basis since the shellfish are commonly suspended from anchored rafts and are continuously submerged in the water column. The timing of the harvest varies. For more information contact:

Hatchery Coordinator Juneau: 465-6152
Mariculture Coordinator Juneau 465-6150
Alaska Department of Fish and Game

Anchorage: Alaska Department of Environmental Conservation
269-7638

Anchorage: Alaska Department of Natural Resources
269-8546

Or go to the internet at <http://www.asgdc.state.ak.us/maps/cplans/cook/ci3aqua.pdf>

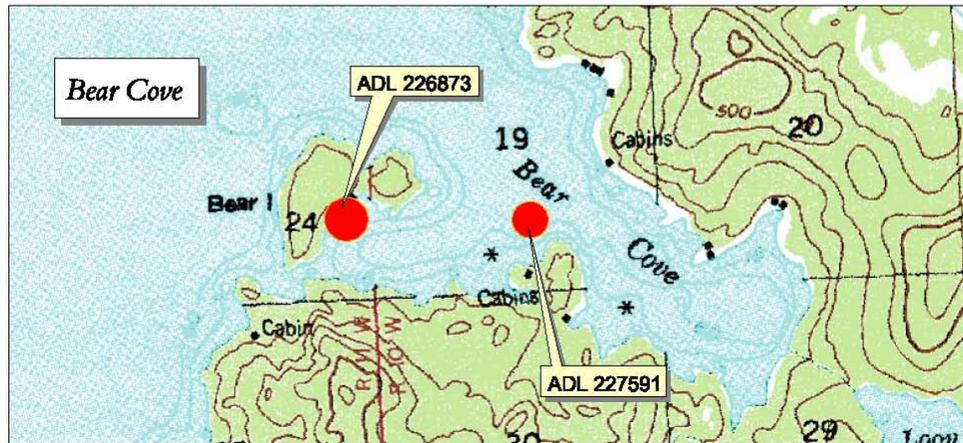
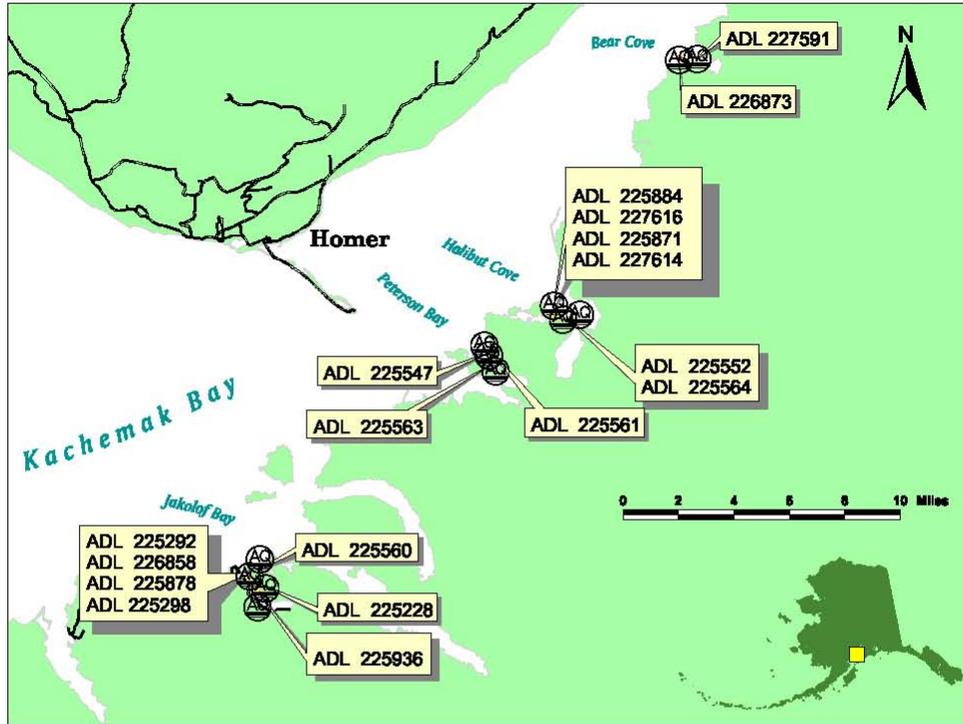


Cook Inlet Active Aquatic Farms
(Alaska Department of Natural Resources)

Map Code	Company	Contact City		Telephone
ADL 225547	Peterson Bay Oyster Co., Inc.	Robert Hartley	Kachemak Bay/Peterson Bay	235-4269
ADL 225552	Sea Farms of Alaska	Kevin Sidelinger	Kachemak Bay/Halibut Cove	235-6494
ADL 225560	Oyster Cove Seafarms	Don Fell	Kachemak Bay/Little Jakolof Bay	235-7771
ADL 225561	Seims Sea Farms	Gary Seims	Kachemak Bay/Peterson Bay	235-7156
ADL 225563	Moss Island Oyster Farm	Ronald Bader	Kachemak Bay/Peterson Bay	345-1864
ADL 225564	Snug Harbor Seafoods, Inc.	Brenda Stoops	Kachemak Bay/Halibut Cove	
ADL 225871	Ismailof Seafarms	Robert Halpin	Kachemak Bay/Halibut Cove	235-8937
ADL 225884	Halibut Cove Seafoods	Brian Miller	Kachemak Bay/Halibut Cove	
ADL 226300	Hatch Brothers	Arne Hatch	Resurrection Bay/Humpy Cove	224-3492
ADL 226553	Musselman Seafoods	Denis Douglas	Day Harbor/Day Harbor	262-6819
ADL 226563	Oyster Cove Company	Robert Linville	Resurrection Bay/Eldorado Narrows	
ADL 226566	Alaska Oyster Company	Matthew Steinberger	Resurrection Bay/Hat Island	
ADL 226864	Kachemak Shellfish Mariculture	Mark Bradley	Kachemak Bay/Halibut Cove	296-2400
ADL 226873	Bear Cove Oyster Company	John Menke	Kachemak Bay/Bear Cove	235-7905
ADL 227616	Seafarms of Alaska/ Ismailof IS Oyster Farm	Kevin Sidelinger	Kachemak Bay/Halibut Cove	296-2217

Aquatic Farms 2001

Homer, Alaska
Cook Inlet Region



Produced by:
Alaska Department of Natural Resources
July 2001

Map 1 of 2

Aquatic Farms 2001

Homer, Alaska

Cook Inlet Region

Halibut Cove and Peterson Bay



Jakolof Bay

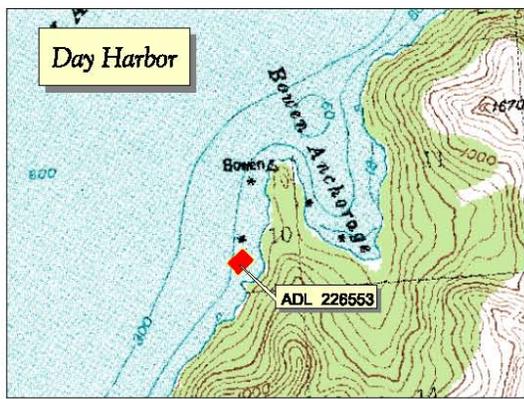
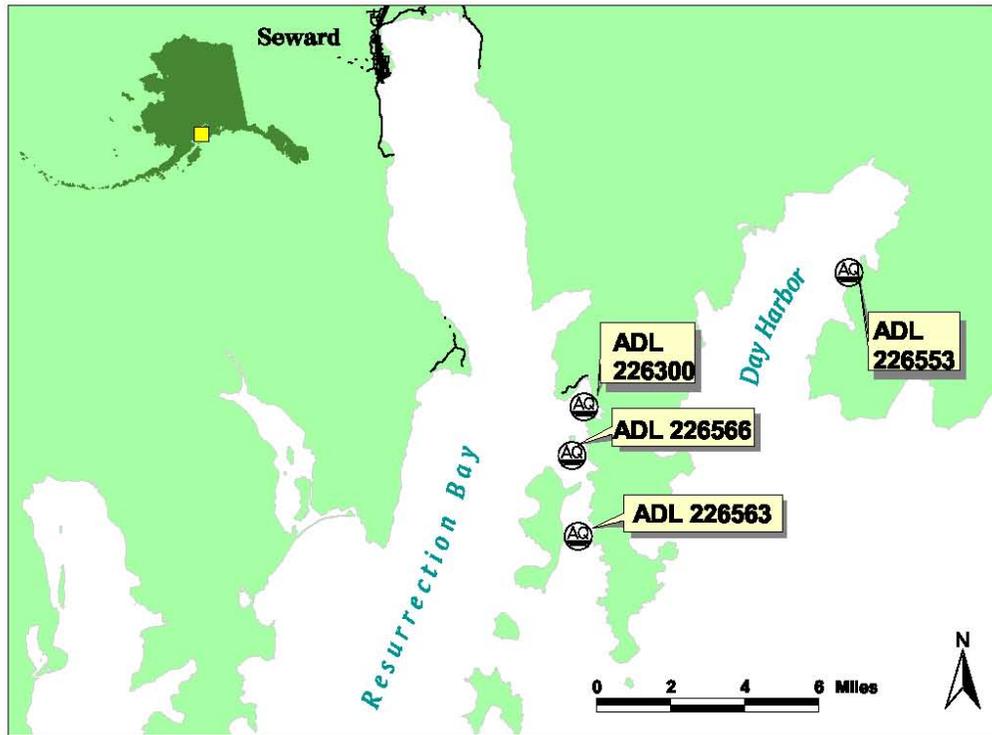


Produced by:
Alaska Department of Natural Resources
July 2001

Map 2 of 2

Aquatic Farms 2001

Seward, Alaska
Cook Inlet Region



Produced by:
Alaska Department of Natural Resources
July 2001

Map 1 of 1

3. Cultural Resources

The Cook Inlet Subarea contains a multitude of known and unidentified archaeological and historic sites. Oil spills and hazardous substance releases may result in direct and/or indirect impacts to those cultural resources. On-Scene Coordinators (OSC) are responsible for ensuring that response actions take the protection of cultural resources into account and that the statutory requirements for protecting cultural resources are met. Annex M of the Unified Plan outlines OSC responsibilities for protecting cultural resources and provides an expedited process for compliance with Section 106 of the National Historic Preservation Act during the emergency phase of a response.

4. Subsistence and Personal Use Harvests

Subsistence-related uses of natural resources play an important role in the economy and culture of many communities in the Cook Inlet Subarea. A subsistence economy may be defined as follows:

...an economy in which the customary and traditional uses of fish, wildlife and plant resources contribute substantially to the social, cultural and economic welfare of families in the form of food, clothing, transportation and handicrafts. Sharing of resources, kinship-based production, small scale technology and the dissemination of information about subsistence across generational lines are additional characteristics.

Before 1990, the State of Alaska made all decisions regarding the management of fish and wildlife resources and harvest allocation. In 1990, however, the federal government became responsible for assuring a federal subsistence priority on federal public lands and waters, and in 1999 on Federal reserved waters. The Federal Subsistence Board adopts subsistence regulations that are administered by various Federal agencies on Federal public lands. State regulations still apply on all lands, and the State is still the manager of fish and wildlife on all lands and waters in Alaska. As a consequence, the number of agencies involved in regulating subsistence uses has increased. Therefore, in the event of a spill, more extensive coordination will be required in order to address subsistence resources. Regulations regarding subsistence harvest can also be expected to undergo regular modification. Current information on harvest regulations can be obtained from the Alaska Department of Fish and Game, Subsistence Division at Anchorage: 267-2353; or the U.S. Fish and Wildlife Service Office of Subsistence Management at Anchorage: 786-3888.

For more information contact Jim Fall at the Subsistence Division of the Alaska Department of Fish and Game in Anchorage at 267-2353. Additionally, local communities should be contacted for more specific information on the locations and seasons of subsistence harvests. Contacts for potentially affected communities are identified in the Response Section, Part One.

Cook Inlet Personal Use Harvests

Personal use harvests in Cook Inlet may potentially* occur as follows:

Salmon dip net fisheries				
Kenai	River	July		10 – August 1
Kasilof	River	July		10 – August 5
Fish	Creek	July		25 – August 5
China	Poot Creek	July		1 – August 7
 Coho salmon set net fisheries				
Southern	district	August		16 – Sept 1
 Sockeye salmon set net fishery				
Kasilof	River	June		16 – June 25
 Herring fishery				
All	Northern and Central districts			April 1 – May 31 year (mostly spring)
	other districts		all	
 Smelt fishery				
In	salt water		April	1 – May 31
	In fresh water			April 1 – June 15
 Shrimp fishery				
all year				
 Dungeness crab fishery				
			no	open season
King crab fishery				
			no	open season
Tanner crab fishery				
Lower Kachemak	inlet	January		15 – December 15
	Bay	January		15 – March 15, July 15 – December 15
 Clam fishery				
all year				

***NOTE:** All personal use fisheries may be opened or closed by emergency order if the Alaska Department of Fish and Game ascertains that conditions warrant such actions. Also, harvest regulations and seasons can change from year to year. The dates given above indicate periods when fisheries are commonly, but not always, open.

5. Commercial Fishing

The following table provides seasonal information on the major commercial fisheries. It must be remembered that all fishing seasons are subject to emergency openings and closures and that most seasons are only open for a portion of the time specified in the regulations. Also, fishing regulations and seasons can change from year to year. Specific information on which species are currently being harvested may be obtained from the Alaska Department of Fish and Game's Division of Commercial Fisheries in Anchorage.

Maps of key commercial fishing areas are available in the previously referenced Alaska Department of Fish and Game publications, the Alaska Habitat Management Guide Reference Maps, Southcentral Region, Vol. 1 and 2 and the Alaska Habitat Management Guide, Southcentral Region Map Atlas.

Economically speaking, the salmon fishery is the most important commercial harvest activity. The Upper Cook Inlet sockeye drift net fishery generally brings the greatest cash return. Set net and pink salmon seine harvests are also economically significant. The Lower Cook Inlet halibut fishery is also productive. Although there has been a closure of the herring fishery since 1999 in lower Cook Inlet, a small harvest occurred in upper Cook Inlet in 2000 and 2001.

The following groups can be contacted with requests for specific information on location and timing of fish as well as local current conditions. Although the primary function of these organizations is not to provide such information, the individual members will be quite knowledgeable about environmental conditions and will often be willing to share information.

Ho	Cook Inlet Seiners Inc.		Kenai Peninsula Fishermen's Association
262-2	mer 235-2656	Soldot	na
			492 / 262-2898
260-9	United Cook Inlet Drift Association		
	Kenai		
	436 / FAX: 260-9438		

Clams are harvested commercially in Kachemak Bay and Tuxedni Bay. Beaches that have been approved for the commercial harvest of shellfish include: Polly Creek (Cook Inlet); Crescent River (Cook Inlet); Chugachik Island (Kachemak Bay); Halibut Cove Lagoon (Kachemak Bay); Jakolof Bay (Kachemak Bay); Kasitsna Bay (Kachemak Bay); and Tutka Bay (Kachemak Bay).

COMMERCIAL FISHERIES TIMING COOK INLET REGION

Times are approximated	J	F	M	A	M	J	J	A	S	O	N	D
SALMON												
Seine												
Drift Net												
Set Net												
HERRING												
Sac Roe												
Bait												
HALIBUT												
GROUNDFISH												
CRAB												
SHRIMP												
SCALLOP (Kamishak Bay)												
RAZOR CLAMS (west side only)												
HARDSHELL CLAMS (Kachemak Bay)												

6. Sport Fishing and Hunting

Sport Hunting and fishing activities are significant throughout the Cook Inlet subarea throughout the year. Seasons and harvest regulations vary depending on the species and area and may be changed from year to year. Contact the Alaska Department of Fish and Game for current seasons within the area of concern.

7. Recreational Sites and Facilities

(a) Parks, Picnic Areas, and Campgrounds

STATE: Name & Nearest Community

Chugach State Park, Anchorage
Anchor River State Recreation Area, Anchor Point
Anchor River State Recreation Site, Anchor Point
Stariski State Recreation Site, Anchor Point
Big Lake North State Recreation Site, Big Lake
Big Lake South State Recreation Site, Big Lake
Rocky Lake State Recreation Site, Big Lake
Kachemak Bay State Park and Wilderness Park, Homer
Bernice Lake State Recreation Site, Kenai
Captain Cook State Recreation Area, Kenai
Deep Creek State Recreation Area, Ninilchik
Ninilchik State Recreation Area, Ninilchik
Bonnie Lake State Recreation Site, Palmer
Finger Lake State Recreation Site, Palmer
Kepler-Bradley Lakes State Recreation Area, Palmer
King Mountain State Recreation Site, Palmer
Long Lake State Recreation Site, Palmer
Matanuska Glacier State Recreation Site, Palmer
Moose Creek State Recreation Site, Palmer
Summit Lake State Recreation Site, Palmer
Wolf Lake State Recreation Site, Palmer
Caines Head State Recreation Area, Seward
Driftwood Bay State Marine Park, Seward
Horsehoe Bay State Marine Park, Seward
Safety Cove State Marine Park, Seward
Sandspit Point State Marine Park, Seward
Sunny Cove State Marine Park, Seward
Clam Gulch State Recreation Area, Soldotna
Crooked Creek State Recreation Site, Soldotna
Johnson Lake State Recreation Area, Soldotna
Kasilof River State Recreation Site, Soldotna
Kenai River Special Management Area, Sterling
Denali State Park, Talkeetna
Montana Creek State Recreation Site, Talkeetna
Independence Mine State Historical Park, Wasilla
Little Susitna River Public Use Facility, Wasilla
Nancy Lake State Recreation Area, Willow
Nancy Lake State Recreation Site, Willow

Willow Creek State Recreation Area, Willow
McNeil River State Game Sanctuary Campground

FEDERAL: Name & Nearest Community

(Also, see the list of sites for Kenai Fjords National Park below on page D-99)

Upper
Hidden Lake Campground, (FWS) Cooper Landing
Lower Skilak Campground, (FWS) Cooper Landing
Quartz Creek Campground, (USFS) Cooper Landing
Russian River Campground, (USFS) Cooper Landing
Russian River Ferry Campground, (FWS) Cooper Landing
Skilak Lake Campground, (FWS) Cooper Landing
Begich Boggs Visitor Center, (USFS) Girdwood
Bertha Creek Campground, (USFS) Girdwood
Black Bear Campground, (USFS) Girdwood
Granite Creek Campground, (USFS) Girdwood
Tenderfoot Campground, (USFS) Girdwood
Williwaw Campground, (USFS) Girdwood
Tern Lake Campground, (USFS) Moose Pass
Trail River, (USFS) Moose Pass
Cooper Creek Campground, (USFS) Seward
Crescent Creek Campground, (USFS) Seward
Exit Glacier Campground/Visitor Center, (NPS) Seward
Kenai Fjords Visitor Center, (NPS) Seward
Porcupine Campground, (USFS) Seward
Primrose Campground, (USFS) Seward
Ptarmigan Campground, (USFS) Seward
Schooner Bend Campground, (USFS) Seward
Jim's Landing Campground, (FWS) Soldotna
Kenail Wildlife Refuge Visitor Center, (FWS) Soldotna
Swanson River Campground, (FWS) Sterling
Watson Lake Campground, (FWS) Sterling

(b) Public Use Cabins

Information available on the Internet at:

<http://www.vacationalaska.com/info/publiclands/cabins.html>

(Also, see the list of sites for Kenai Fjords National Park below on page D-99)

(c) Public Anchorages and Moorings

(Also, see the list of sites for Kenai Fjords National Park below on page D-99)

Mouth of the Kenai River
Mouth of the Kasilof River
Mouth of Deep Creek
Kachemak Bay behind the spit
Halibut Cove
Sadie Cove
Tutka Bay
Kasitsna Bay
Jakolof Bay

ALASKA STATE PARKS
Alaska Department of Natural Resources
Division of Parks and Outdoor Recreation

Alaska State Parks in the Cook Inlet Region (maps and charts)

1. Anchorage
2. Homer (Kenai Peninsula)
3. Kenai (Kenai Peninsula)
4. Palmer (Matanuska Valley)
5. Seward (Kenai Peninsula)
6. Soldotna (Kenai Peninsula)
7. Sterling (Kenai Peninsula)
8. Wasilla (Susitna Valley)

Chart Key

CS = Camp sites	W = Water, drinkable	C = Cabins
CL = Camping limit	S = Picnic shelter	D = Daily parking fee
CF = Camping fee	Tr = Trails	F = Fishing
P = Picnic sites	H = Historical feature	* = Tent camping only
T = Toilet	B = Boat launch	** = Annual passes not accepted
/a = Facilities are ADA accessible		*** = Sanitary dump station

SRA = State Recreation Area	SP = State Park	DU = Day Use
SRS = State Recreation Site	SMP = State Marine Park	GU = Group Use
SHP = State Historical Park	SWP = State Wilderness Park	CG = Campground
SHS = State Historic Site	TH = Trailhead	BL = Boat Launch

For further information: <http://www.dnr.state.ak.us> or call 269-8700 (Anchorage Office)

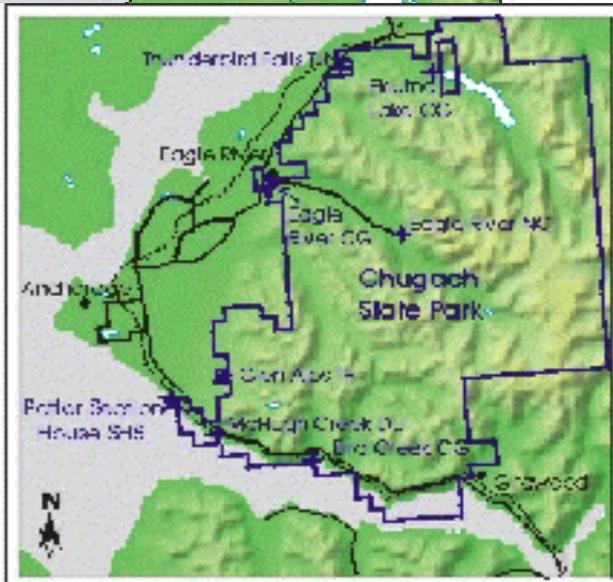
To access maps and charts: <http://www.dnr.state.ak.us/parks/aspbro/statemap.htm>

Alaska
near H
Kena

Alaska State Parks
near Anchorage



This map is not intended to be used as a navigational aid.



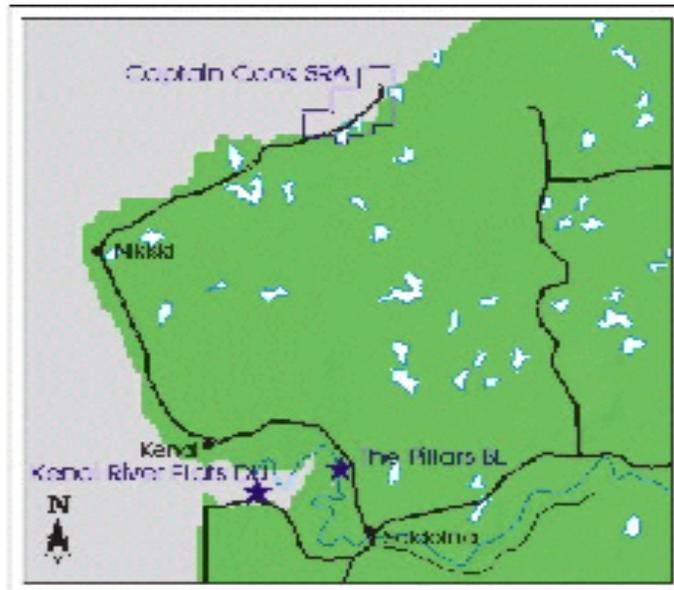
ark Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Chugach SP	495,204														
- Bird Creek CG		27	7	CF 4		Tr/a	W	S	Tr/a					F	101.2 Seward Hwy.
- Bird Ck. CG Overflow		20/a	7	CF 20		Tr/a	W/a		Tr/a					F/a	101.2 Seward Hwy.
- Bird Point DU						Tr/a	W/a		Tr/a						96.1 Seward Hwy.
- Bird Ridge TH									Tr						102.2 Seward Hwy.
- Eagle River CG ***		50/a	4	CF 2		Tr/a	W/a	S	Tr				D	F	12.6 Glenn Hwy.
- Eagle River Greenbelt						Tr/a			Tr				D	F	Eagle River Loop Rd.
- Eagle R. Nature Ctr**						Tr/a	W/a		Tr/a	H/a		C	D		12 Eagle River Rd.
- Eklutna Lake CG/GU		50	15	CF 32/a		Tr/a	W/a	S/a	Tr/a			C/a	D	F	26.5 Glenn Hwy.
- Glen Alps TH/Viewpoint						Tr/a			Tr/a				D		Upper Huffman
- McHugh Creek DU					15/a	Tr/a	W/a		Tr						111 Seward Hwy.
- North Fork Eagle Riv.						Tr/a			Tr					F	7.5 Eagle River Rd.
- Prospect Heights TH						Tr/a			Tr				D		UpO'Malley/Prospect
- Thunderbird Falls TH						Tr			Tr						25.5 Glenn Hwy.
- Turnagain Arm Trail									Tr						106-115 Seward Hwy
- Upper Huffman TH					8	Tr/a			Tr				D		Upper Huffman
Potter House SHS	.5				1	Tr/a				H/a					115 Seward Hwy.

Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Anchor River SRA	228								Tr						
- Coho CG		27	15	CF		T							D	F	157 Sterling Hwy.
- Halibut CG		21/a	15	CF	/a	T/a	W/a			H			D	F	157 Sterling Hwy.
- Silverking CG		35	15	CF		T/a							D	F	157 Sterling Hwy.
- Slidehole CG		44/a	7	CF	/a	T/a	W/a	S/a					D	F	157 Sterling Hwy.
- Steelhead CG		34	15	CF		T/a							D	F	157 Sterling Hwy.
Deep Creek SRA	172														
- Deep Creek CG		164	15	CF		T/a	W/a				B		D	F	138 Sterling Hwy.
- Deep Creek North CG		25/a	15	CF		T/a	W/a						D	F/a	137.3 Sterling Hwy.
- Deep Creek South DU					4/a	T/a							D	F	137.4 Sterling Hwy.
Kachemak Bay SP/SWP	370,399		15			T/a			Tr			C/a		F	No road access
Ninilchik SRA	93														
- Ninilchik Beach CG		35	15	CF		T/a	W				B			F	135.5 Sterling Hwy.
- Ninilchik River CG		43	15	CF	/a	T/a	W/a	S/a						F	135.2 Sterling Hwy.
- Ninilchik Overlook		25/a	15	CF	/a	T/a	W/a						D	F	135.3 Sterling Hwy.
- Ninilchik View CG ***		14	7	CF		T/a	W								135.9 Sterling Hwy.
Stariski SRS	60	13	15	CF		T/a	W	S							151 Sterling Hwy.

Alaska State Parks near Kenai on the Kenai Peninsula



This map is not intended to be used as a navigational aid.

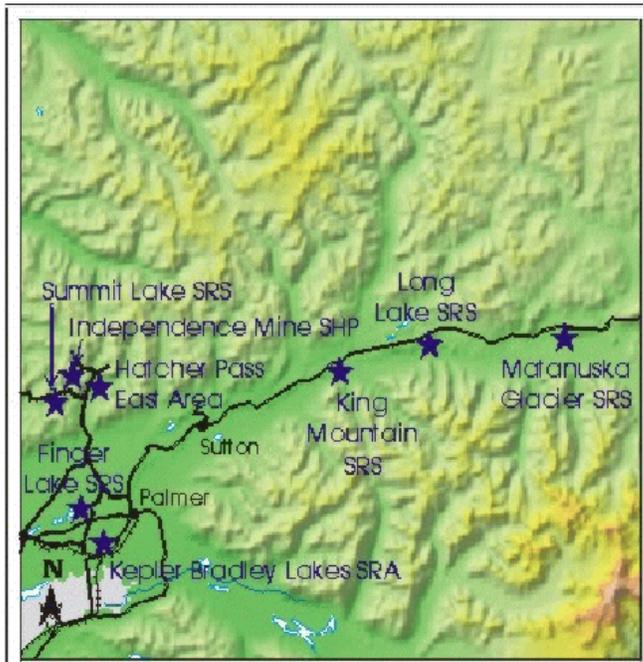


Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Captain Cook SRA	3,466														
- Bishop Creek DU					4	T	W/a		Tr					F	36 Kenai Spur Hwy.
- Discovery CG		52	15	CF		T	W		Tr					F	39 Kenai Spur Hwy.
- Discovery DU					6	T								F	39 Kenai Spur Hwy.
- Stormy Lake Beach						T	W/a							F	36.5 Kenai Spur Hwy.
- Stormy Lake BL					1	T	W/a				B			F	37.9 Kenai Spur Hwy.
- Stormy Lake DU					4	T	W/a	S/a						F	36.9 Kenai Spur Hwy.
- Swanson Riv. Landing					1	T								F	38.5 Kenai Spur Hwy.
Kenai River Special Management Area															
- Kenai River Flats DU	832					T								F	Kalifornsky Beach Rd.
- The Pillars BL **	16					T/a	W/a				B/a		D		Kenai Spur Hwy.

Alaska State Parks near Palmer in the Matanuska Valley



This map is not intended to be used as a navigational aid.

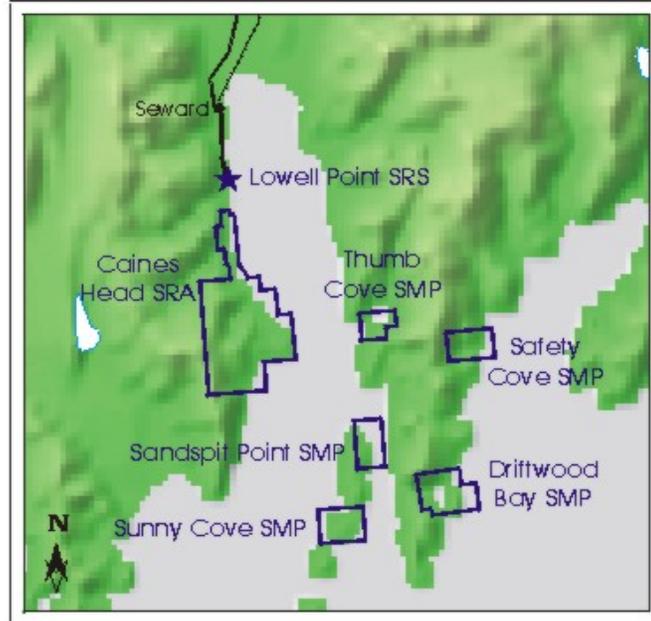


Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Finger Lake SRS	69	41	7	CF	10	T/a	W				B		D	F	0.7 Bogard Rd.
Hatcher Pass East Area	75,000								Tr						Hatcher Pass Rd.
Independence Mine SHP	761				10	T/a	W		Tr/a	H/a			D		17.3 Hatcher Pass Rd
Kepler-Bradley Lks SRA	346														
- Canoe Lake						T/a			Tr					F	38 Glenn Hwy.
- Irene Lake									Tr					F	38 Glenn Hwy.
- Long Lake						T/a			Tr					F	38 Glenn Hwy.
- Matanuska Lake					10/a	T/a	W/a		Tr/a					F/a	36.4 Glenn Hwy.
King Mountain SRS	20	22	15	CF	2	T	W	S							76 Glenn Hwy.
Long Lake SRS	480	9	15			T					B			F	85.3 Glenn Hwy.
Matanuska Glacier SRS	229	12	15	CF		T/a	W/a		Tr						101 Glenn Hwy.
Summit Lake SRS	360								Tr						19.2 Hatcher Pass Rd

Alaska State Parks near Seward on the Kenai Peninsula



This map is not intended to be used as a navigational aid.

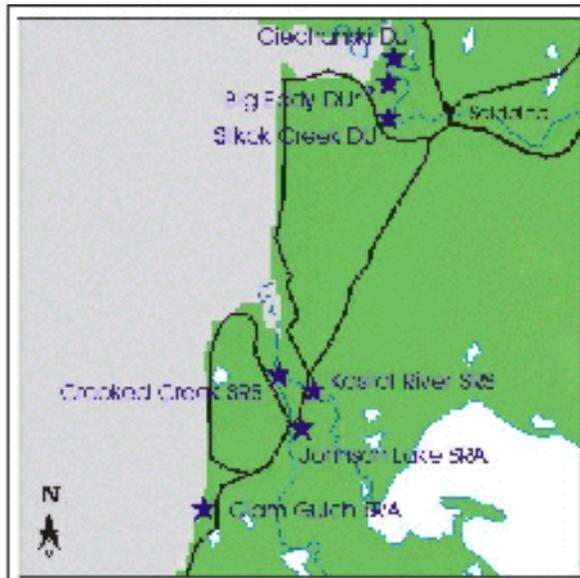


Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Caines Head SRA	5,961	4	15		4	T		S	Tr	H		C		F	No road access
Driftwood Bay SMP 1,	480			Undeveloped										F	No road access
Lowell Point SRS	19					T/a			Tr					F	2 Lowell Point Road
Safety Cove SMP 960				Undeveloped										F	No road access
Sandspit Point SMP	560			Undeveloped										F	No road access
Sunny Cove SMP 960				Undeveloped										F	No road access
Thumb Cove SMP	720	3				T/a			Tr			C/a		F	No road access

Alaska State Parks
near Soldotna on the
Kenai Peninsula

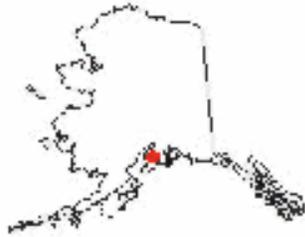


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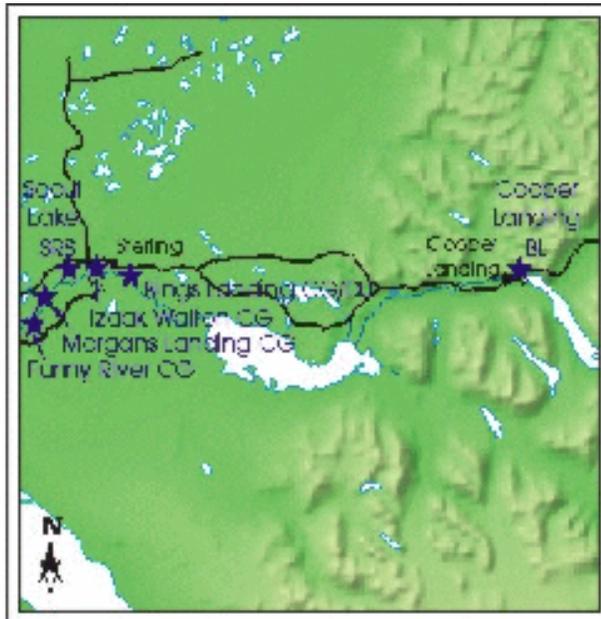


Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Clam Gulch SRA	495	116	15	CF		T/a	W/a	S/a					D	F	117 Sterling Hwy.
Crooked Creek SRS	105	79/a	7	CF	30/a	T	W		Tr				D	F/a	Coho Loop Rd.
Johnson Lake SRA	332	50	15	CF	25	T/a	W/a	S/a			B			F	110 Sterling Hwy.
Kasilof River SRS	30	10	15	CF		T/a	W		Tr		B		D	F	109.5 Sterling Hwy.
Kenai River Special Management Area															
- Big Eddy DU	16					T/a								F	River mile 15.5
- Ciechanski DU	34					T/a								F	River mile 16.5
- Slikok Creek DU	40				5	T/a								F	Kalifornsky Beach Rd.

Alaska State Parks near Sterling on the Kenai Peninsula



This map is not intended to be used as a navigational aid.

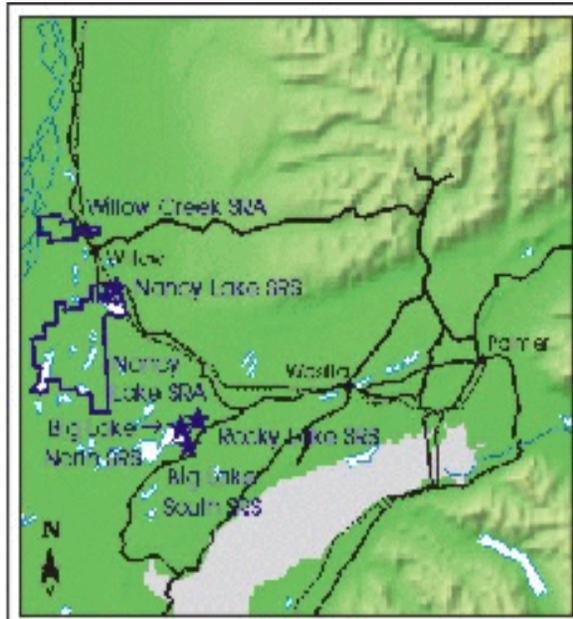


Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Kenai River Special Management Area															
- Bings Landing CG/DU	126	37/a	7	CF	6	T/a	W/a	S/a	Tr		B		D	F/a	79 Sterling Hwy.
- Cooper Landing BL	421					T/a	W/a				B/a		D		47.8 Sterling Hwy.
- Funny River CG	336	10	7	CF		T	W							F	10 Funny River Rd.
- Izaak Walton CG	8	26/a	7	CF	4	T/a	W/a				B			F	81 Sterling Hwy.
- Morgans Landing CG	279	42/a	7	CF	4	T/a	W/a		Tr				D	F	85 Sterling Hwy.
Scout Lake SRS	164				10	T	W	S	Tr				D	F	85 Sterling Hwy.

Alaska State Parks
near Wasilla in the
Susitna Valley



This map is not intended to be used as a navigational aid.



Park Unit	Acres	CS	CL	CF	P	T	W	S	Tr	H	B	C	D	F	Location
Big Lake North SRS	19	60	7	CF	24/a	T/a	W/a	S/a			B		D	F	5 N. Big Lake Rd.
Big Lake South SRS	22	20	7	CF	10	T/a	W				B		D	F	5.2 S Big Lake Rd.
Nancy Lake SRA	22,685											C			67.2 Parks Hwy.
- Canoe System TH						T			Tr				D	F	4.8 Nancy Lk. Pkwy.
- South Rolly Lake CG		98	15	CF	20	T	W		Tr		B		D	F	6.5 Nancy Lk. Pkwy.
- Winter TH						T			Tr				D		2.2 Nancy Lk. Pkwy.
Nancy Lake SRS	36	30	15	CF	30	T	W	S			B			F	66.5 Parks Hwy.
Rocky Lake SRS	49	10	7	CF		T	W				B			F	3.5 Big Lake Rd.
Willow Creek SRA	3,583	140	5	CF		T/a	W/a		Tr/a				D	F	70.8 Parks Hwy.

KENAI FJORDS NATIONAL PARK: SENSITIVE RECREATION SITES DATA

Site Name	Use	Latitude	Longitude
Seward Visitor Center	Visitor Contact	60°07'05" 14	9°26'15"
Aialik Bay Ranger Station	Visitor Contact	59°51'00" 14	9°39'30"
Aialik Bay Public Use Cabin	Public Use Cabin	59°53'15" 14	9°39'15"
Holgate Public Use Cabin	Public Use Cabin	59°49'50" 14	9°46'15"
Delight Public Use Cabin	Public Use Cabin	59°32'43" 15	0°20'09"
North Arm Public Use Cabin	Public Use Cabin	59°33'45" 15	0°31'20"
Bulldog Cove	Campsite	59°53'55" 14	9°34'15"
North Porcupine	Landing	59°52'32" 14	9°34'59"
Porcupine Cove	Campsite	59°51'40" 14	9°35'05"
Three Hole Point	Campsite	59°46'10" 14	9°38'45"
Bear Cove	Campsite	59°47'30" 14	9°36'50"
South Tooth Cove	Campsite	59°48'29" 14	9°38'31"
Tooth Cove	Campsite	59°49'05" 14	9°38'35"
North Tooth Cove	Campsite	59°50'00" 14	9°38'20"
South Coleman Bay	Campsite	59°51'18"	149°39'28"
Abra Cove	Campsite	59°53'50" 14	9°38'45"
Aialik Head	Landing	59°56'40" 14	9°40'59"
Pederson Lagoon Spit	Campsite	59°49'50" 14	9°48'00"
Quicksand Cove	Campsite	59°47'15" 14	9°46'05"
McMullen Cove	Campsite	59°45'50" 14	9°45'55"
Verdant Cove	Campsite	59°42'00" 14	9°44'00"
NW East Moraine	Campsite	59°44'35" 14	9°52'10"
Northeastern Glacier	Campsite	59°47'30" 15	0°01'00"
Redstone Glacier	Campsite	59°49'00" 15	0°02'00"
NW Otter Cove North	Campsite	59°43'50" 14	9°58'10"
NW Otter Cove South	Campsite	59°41'10" 14	9°56'40"
Paguna East	Landing	59°38'15" 15	0°02'28"
Paguna Head	Landing	59°41'32" 15	0°07'58"
Paguna West	Landing	59°39'27" 15	0°06'20"
Taroka East	Landing	59°37'22" 15	0°08'15"
Taroka West	Landing	59°37'10" 15	0°09'45"
Cloudy Mountain Spit	Landing	59°35'20" 15	0°06'40"
Thunder Bay	Landing	59°34'48" 15	0°10'17"

Site Name	Use	Latitude	Longitude
Chance Cove	Landing	59°34'48" 15	0°18'45"
Delight Spit	Campsite	59°34'48" 15	0°20'39"
South Desire Creek	Landing	59°34'48" 15	0°18'31"
Desire Creek	Campsite	59°34'50" 15	0°18'16"
Delusion Creek	Campsite	59°38'25" 15	0°16'29"
Upper McCarthy Fjord	Campsite	59°44'17" 15	0°12'50"
Dinglestadt Glacier	Campsite	59°39'13" 15	0°18'16"
James Lagoon	Campsite	59°33'39" 15	0°24'20"
Ariadne Cove	Campsite	59°28'27" 15	0°30'14"
Surprise Bay South	Landing	59°29'15" 15	0°29'15"
Palisade Lagoon	Campsite	59°31'45" 15	0°28'33"
Surprise Bay West	Campsite	59°30'20" 15	0°29'40"
Quartz Bay	Campsite	59°31'17" 15	0°31'07"
North Arm Cabin Site	Landing	59°33'45" 15	0°31'20"
North Arm Storm Mountain	Landing	59°35'55" 15	0°32'38"
Shelter Cove	Campsite	59°30'20" 15	0°38'09"
Shelter Cove South	Landing	59°30'00" 15	0°35'35"
Yalik Bay	Campsite	59°28'20" 15	0°39'12"
Agnes Cove	Anchorage	59°46'15" 14	9°34'00"
Paradise Cove	Anchorage	59°45'40" 14	9°35'00"
Three Hole Bay	Anchorage	59°47'00" 14	9°36'30"
Coleman Bay	Anchorage	59°51'45" 14	9°38'00"
Quicksand Cove	Anchorage	59°47'00" 14	9°46'30"
Verdant Cove	Anchorage	59°42'00" 14	9°44'50"
Northwestern Lagoon	Anchorage	59°39'38" 14	9°45'55"
Thunder Bay	Anchorage	59°39'08" 14	9°48'49"
McArthur Pass North Bay	Anchorage	59°41'50" 14	9°46'50"
Moonlight Bay	Anchorage	59°46'30" 14	9°56'45"
Midnight Cove	Anchorage	59°30'45" 15	0°11'00"
Desire Creek	Anchorage	59°38'32" 15	0°21'10"
Surprise Bay	Anchorage	59°29'15" 15	0°29'15"
Quartz Bay	Anchorage	59°31'00" 15	0°31'30"
Pilot Harbor	Anchorage	59°35'00" 15	0°30'00"
Shelter Cove	Anchorage	59°31'20" 15	0°38'09"
Fire Cove	Anchorage	59°39'38" 14	9°45'55"

Site Name	Use	Latitude	Longitude
Taz Basin	Anchorage	59 ⁰ 39'08" 14	9 ⁰ 48'49"
Crater Bay	Anchorage	59 ⁰ 41'50" 14	9 ⁰ 46'50"

Latitude given in degree/minute/second North and Longitude given in degree/minute/second West. Park Contact: Jeff Troutman, Chief, Resource Management Division, Kenai Fjords National Park, 907-224-3175

8. Commercial Tourism

The following organizations can be contacted with requests for specific information on location and timing of recreation and tourism activities. Although the primary function of these organizations is not to provide such information, the individual members will be quite knowledgeable about environmental conditions and will often be willing to share information.

For additional information contact:

Alaska	Division of Tourism	465-2	012
	Alaska State Chamber of Commerce		586-2323
Alaska	Native Tourism Council	274-5	400
	Alaska Wilderness Recreation & Tourism Assoc.		463-3038

9. Marinas and Ports

(Consult the Resources Section of this plan)

10. Fish Processing

The companies listed below are canneries and processors with permits issued by the Alaska Department of Environmental Conservation:

Anchorage			
243-0	Alaska Live Crab Co.	156	Great Northern Sea Products, Inc.
			522-4 182
562-3	Alaska Sausage Co.	636	Great Northern Sea Products, Inc.
			272-4 335
10	th and M Seafoods		North Alaska Fisheries
272-3		474	561-2 671
			Sahalee of Alaska, Inc.
349-8	Alaska Smoked Salmon Int'l.	234	349-4 151
			Alaskan Gourmet, Inc.
264-0	Anchorage Cold Storage	231	563-3 752
			Eagle River
Aqua	Tech		Icy Bay Seafoods
279-0		752	696-2 552
			Mike's Quality Meats
561-5	Arctic Seafoods	350	696-1 888
			Wayward Wind Seafoods
562-0	Central Seafoods Co.	705	694-2 413
			Halibut Cove
Favco,	Inc.		Saltry , Inc.
278-1		525	296-2 223
			Chenik F/V
	French Gourmet of Alaska, Inc.		235-6 494
No	number		Homer
Sagay	a Corp.		Alaska Custom Seafoods, Inc
561-5		173	235-7 512
			Coal Point Trading Co.
563-5	Specialty Fish Products	031	235-3 877
			Dragnet Fisheries
562-2	Teddy's Tasty Meats	320	235-6 023
			HIS Catch Value Added Products
Toho	America		235-7 101
248-6		678	
561-8	Trapper's Creek, Inc.	088	
Yamay	a Seafoods		
563-5		588	

235-5	Kachemak Fish Packers 493	776-8	Cook Inlet Processing-Kasilof 174
235-4	Olga Dawn at Katch Seafoods 335	262-4	Inlet Salomon/Inlet Fisheries 730
349-4	Sahalee of Alaska, Inc. 151	283-7	Trans-Aqua International, Inc. 322
235-6	Sam er-I Seafoods 767		Kenai
238-8	Seward Fisheries, Inc. 107	563-4	Alaska Choice Seafood 666
235-6	Katch Seafoods, Inc. 241	248-9	The Fish Site 502
235-2	Bay Blue Mussel Farm 165	283-9	Kenai Custom Seafood 109
235-7	Northern Lights Oyster Co. 133	262-3	Pacific Eagle Seafoods 935
235-6	Kachemak Bay Oyster Co. 210	283-4	Dragnet Fisheries - Kenai 069
235-7	Lion of Judah F/V 101	283-3	Fishhawk Fisheries of Alaska 626
	Indian	283-9	Inlet Fisheries, Inc. 275
653-7	Indian Valley Meats, Inc. 511	283-7	Pacific Star Seafoods, Inc. 787
	Kasilof	283-9	Royal Pacific Fisheries, Inc. 370
262-5	Ed's Kasilof Seafoods, Inc. 116	283-7	Salamatof Seafoods, Inc. 000
283-9	R&J Seafood 246	283-9	Wards Cove Packing, Co. 278
262-1	Carlson Seafoods 746	776-5	Select Seafoods of Alaska 498

Jaws F/V
262-2 778

Nikiski

Cook Inlet Processing - Nikiski
776-8 174

Pacific Alaska Seafoods, Inc.
776-8 050

Ninilchik

Deep Creek Custom Packing, Inc.
567-3 980

Seldovia

Eagle Rock Sea Farms
234-7 498

Seward

J-Dock Fish Co.
224-7 272

Smoke'n Alaska Seafoods
224-7 180

Seward Fisheries, Inc./Icicle Seafoods
224-3 381

Pristine Products
772-2 628

Soldotna

Eagle Smokehouse
262-7 007

Echo Lake Lockers
262-4 155

Peninsula Processors
262-4 513

Tustumena Smoke House
260-3 401

Echo Lake Gourmet Meats
283-9 456

Resurrection Bay Seafoods
224-3 366

Wasilla

Colony Gourmet Kitchen
373-1 144

11. Logging Facilities

There are no tidewater logging operations in Cook Inlet at this time.

For information concerning upland timber harvesting contact:

Kenai/Kodiak Area Forester
262-4 124 (Soldotna)

12. Water Intake/Use

See Attachment One for a list of water intake/use permits was generated from a database maintained by the Alaska Department of Environmental Conservation. The list shows "type A" water users, which are those systems serving 25 or more persons using the system for 6 or more months of the year. Additional information can be obtained from the Alaska Department of Environmental Conservation at 465-5350.

SENSITIVE AREAS: PART FIVE - AREAS OF LOCAL CONCERN

Some areas within the Cook Inlet Subarea warrant special attention due to the presence of highly productive wildlife habitat, the ability to sustain a large part of a villages' subsistence needs, the occurrence of unusual historical sites or large mineral deposits, recreation, energy development, hazardous areas, or the presence of important fisheries. These have been identified as Areas Meriting Special Attention, Important Use Areas, Special Use Areas, or Sensitive Areas through the Anchorage Coastal Management Plan, Kenai Peninsula Borough Coastal Management Program, Port Graham/Nanwalek Area Which Merits Special Attention Plan (Kenai Peninsula Borough), Matanuska-Susitna Borough Coastal Management Plan, Point Mackenzie Area Which Merits Special Attention Plan (Matanuska-Susitna Borough). They are summarized below.

DESIGNATED AREA	REASONS FOR DESIGNATION	LAND OWNERSHIP/ VILLAGES TO CONTACT
Anchor River Mouth	Area is habitat for Salmon, steelhead, dolly varden, halibut, wildlife and seabirds. Used for recreational purposes. Boat launching area.	Private, State (Anchor River Recreation Area)
Andesitic Dike at Potter Marsh on the Old Seward Highway	Unique geology.	State
Bird Creek Regional Park	Spawning ground for anadromous fish. Is habitat for moose, brown and black bear, lynx, wolverine, hare, grouse, dall sheep and birds. Used for recreational and scenic purposes.	Municipality of Anchorage
Bridge Creek Watershed	Important moose habitat. Major water supply for the City of Homer and marine-related industrial development. Used for recreational and scenic purposes.	Private, State
Cape Starichof	Area is habitat for Salmon and steelhead. Used for recreational and scenic purposes.	Kenai Peninsula Borough, private, State

DESIGNATED AREA	REASONS FOR DESIGNATION	LAND OWNERSHIP/ VILLAGES TO CONTACT
Chuitna Area	Important waterfowl habitat near Beluga. Major drainages are anadromous. Significant moose harvesting area. Contains mineral and other natural resources as well as Archeological sites. Used for recreational and scenic purposes.	Surface and subsurface: Kenai Peninsula Borough, private, State Major private ownerships: Cook Inlet Region, Inc., Tyonek Native Corporation Port and industrial sites: Kenai Peninsula Borough
Eagle River (drainage)	Used for recreational and scenic purposes. Provides flood control. Contributes to water supply.	Eklutna Incorporated, Fort Richardson Military Reservation (Seaward ownership), State
Fish Creek	Unique coastal marsh system. Visual and recreational open space resource.	Tidelands owned by the Municipality of Anchorage. Other owners include Alaska Railroad (right-of-way) and private ownership by adjacent property owners.
Goose Bay State Game Refuge	Protection and management of fish and wildlife populations and habitats. Provides limited public recreational opportunities.	State; also private, university and Federal inholdings
Kasilof River	Important habitat for salmon, moose and migratory waterfowl. Wetlands naturally retain floodwaters. Presence of historic and archeological sites. Used for recreational and scenic purposes.	Federal, Kenai Peninsula Borough, private, State
Kenai River	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 and water quality functions. Used for recreational and scenic purposes.	Federal, municipal, private, State

DESIGNATED AREA	REASONS FOR DESIGNATION	LAND OWNERSHIP/ VILLAGES TO CONTACT
Knik/Matanuska River Floodplain	Mitigates flood hazard potential along the Knik/Matanuska River. Contains areas of essential habitat for waterfowl and wildlife. Offers recreational opportunities.	State
Nancy Lake State Recreation Area	Used for recreational and scenic purposes.	Private, State
Nikiski Industrial Area	Commercial development.	Kenai Peninsula Borough, Federal, private, State
Ninilchik/Deep Creek	Area is habitat for salmon, steelhead, halibut, dolly varden, moose, shorebirds and clams. Historic Russian village and church. Used for recreational and scenic purposes.	Kenai Peninsula Borough, private, State
Old Girdwood Townsite South of Seward Highway	Provides resting and habitat area for migratory waterfowl and other birds. Site used for recreational and scenic purposes.	Private, State
Palmer Flats State Game Refuge	Protection and management of fish and wildlife populations and habitats. Offers limited public recreational opportunities.	State
Point Campbell-Point Woronzof Coastal Wetlands	Supports numerous species of wading birds and migratory waterfowl. Used for recreational and scenic purposes.	State
Point Campbell Dunes and Delta	Contains evidence of five glacial periods. Only Anchorage locality where active sand dune migration can be observed.	Municipality of Anchorage
Point Mackenzie Industrial Port/Park Site	Port development.	Matanuska-Susitna Borough, State
Point Woronzof Bluffs	Contains the only known fossil beds in the Anchorage area.	Municipality of Anchorage, State
Port of Anchorage Area	Port and marina activity.	Alaska Railroad, Municipality of Anchorage

DESIGNATED AREA	REASONS FOR DESIGNATION	LAND OWNERSHIP/ VILLAGES TO CONTACT
Port Graham/Nanwalek Area	Important area for subsistence hunting, fishing, and food gathering. Possesses unique cultural value and historical significance.	Chugach Alaska Corporation (subsurface), Nanwalek Village Corporation, Port Graham Village Corporation, State (submerged lands and tidelands)
Port Graham Waterfront	Area is habitat for salmon and clams. Contains timber resources. Presence of historic and archaeological sites (some undiscovered). Used for recreational and scenic purposes.	State
Seldovia Watershed	Black bear habitat. Potential timber resources. High scenic value.	Private
Seward Highway/ Turnagain Arm	Designated national scenic byway.	State
Susitna Flats State Game Refuge	Protection and management of fish and wildlife populations and habitats. Offers limited public recreational and commercial opportunities.	Private inholdings within the refuge, State
Upper Resurrection Bay	Area is habitat for fish, birds and wildlife. Spawning area for anadromous fish. Supports important recreational fishery. Unique geology. Used for recreational and scenic purposes.	Alaska Railroad, City of Seward, State

An August 2000 survey of Native tribes in the Subarea conducted by the Environmental Protection Agency yielded additional information about sensitive areas near villages, as viewed from the local perspective. The tribes responding to the survey, as well as the primary sites of concern and the reasons for their importance as indicated by the tribes, are listed below.

1. Chickaloon Village Traditional Council

SENSITIVE AREA	REASONS FOR DESIGNATION
Waterways None	stated
Chickaloon River	Salmon
Moose Creek	Salmon

SENSITIVE AREA	REASONS FOR DESIGNATION
Mantanuska River	Salmon, protection of inlet (affects other tribes)
Main office/school	Important to the tribe
Health and government building	Important to the tribe

2. Knik Tribe

SENSITIVE AREA	REASONS FOR DESIGNATION
Goose Bay	Subsistence activities
Fish Creek	Subsistence activities
Cook Inlet	Subsistence activities

3. Port Graham Village Council

SENSITIVE AREA	REASONS FOR DESIGNATION
Port Graham Hatchery Salm	on enhancement
Port Graham Bay	Subsistence activities
Head of Port Graham Bay	Spawning stream
Mouth of Port Graham Bay	Subsistence activities
Johnson Slough	Spawning stream

SENSITIVE AREAS: PART SIX – KEY REFERENCES

The following documents will provide information on critical fish and wildlife concentrations and other resource data. The information contained in these documents is not, for the most part, duplicated in this regional plan. Also identified, are Geographic Information System (GIS) databases, which may have automated resources information for the area.

Documents:

Agler, B. A., S. J. Kendall, P. E. Seisar, and D. B. Irons. 1995. Estimates of marine bird and sea otter abundance in lower Cook Inlet, Alaska, during summer 1993 and winter 1994. Final report, OCS Study, MMS 94-0063. 124 pp.

Alaska Department of Fish and Game. 1985. Alaska Habitat Management Guide, Southwest Region, Vol. 1 and 2. (Description of life histories, habitat requirement, distribution, abundance and human uses of fish and wildlife).

Alaska Department of Fish and Game. 1985. Alaska Habitat Management Guide, Southwest Region Map Atlas. (1:1,000,000 scale color maps of fish and wildlife distribution).

*Alaska Department of Fish and Game. 1985. Alaska Habitat Management Guide Reference Maps, southwest Region, Vol. 1-4. (1:250,000 scale maps of fish and wildlife distribution and human use).

*Alaska Department of Fish and Game. 1994. An Atlas to the Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes, Southwest Region. (Maps of locations of anadromous streams and species known to utilize them).

Alaska Department of Fish and Game. 1991. State of Alaska Refuges, Critical Habitat Areas, and Sanctuaries. (Maps of these specially designated state lands).

Bennett, A. J. 1996. Physical and Biological Resource Inventory of the Lake Clark National Park - Cook Inlet Coastline, 1994-96. Unpublished report, U. S. National Park Service, Anchorage, Alaska. 137 pp.

Cook Inlet Spill Prevention and Response, Inc. 1993. Technical Manual.

Conant, B., J. I. Hodges, and D. J. Groves. 2000. Alaska - Yukon waterfowl breeding population survey. Unpublished report, U. S. Fish and Wildlife Service, Juneau, Alaska. 32 pp.

Environmental Protection Agency and National Oceanic and Atmospheric Administration. 1994. Environmental Sensitivity Mapping for Developing and Evaluating Spill Response Plans. Working Paper Review Draft.

Gill, R.E., Jr., and T.L. Tibbitts. 1999. Seasonal shorebird use of intertidal habitats of Cook Inlet, Alaska. Final Report. U.S. Department of the Interior, U.S. Geological Survey, Biological Resources Division and OCS Study, MMS 99-0012. 55pp.

Kenai Peninsula Borough. 1989. Kenai Peninsula Borough Coastal Management Program.

Kenai Peninsula Borough. 1992. Port Graham/Nanwalek Area Which Merits Special Attention Plan.

Matanuska-Susitna Borough. 1987. Matanuska-Susitna Borough Coastal Management Plan.

Matanuska-Susitna Borough. 1995. Point Mackenzie Area Which Merits Special Attention Plan.

Michel, J. and J. Dahlin. 1993. Guidelines for Developing Digital Environmental Sensitivity Index Atlases and Databases. National Oceanic and Atmospheric Administration.

Michel, J. and S. Christopherson and F. Whipple. 1994. Mechanical Protection Guidelines. National Oceanic and Atmospheric Administration and U.S. Coast Guard.

Minerals Management Service. 1992. Shipwrecks of the Alaskan Shelf and Shore.

Minerals Management Service. 1989. Offshore Scientific and Technical Publications.

Minerals Management Service. 1990. Outer Continental Shelf Environmental Assessment Program Comprehensive Bibliography.

Municipality of Anchorage. 1979. Anchorage Coastal Management Plan.

Research Planning Institute, Inc. 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil. Cook Inlet/Kenai Peninsula, Alaska. An Atlas of Coastal Resources. (Color Atlas)

Research Planning Institute, Inc. Cook Inlet Sensitive Areas. (four seasonal summary maps)

U.S. Department of Commerce (NOAA). (Current Year's Edition). Tidal Current Tables: Pacific Coast of North America and Asia.

Geographic Information System (GIS) Databases:

Alaska Department of Natural Resources: Rich McMahon, Anchorage, 762-2377

National Park Service: George Dickison, Anchorage, 257-2489

U.S. Fish and Wildlife Service: Catherine Berg, Anchorage, 271-1630

U.S. Forest Service: Ken Holbrook, Anchorage, 271-2819

National Oceanic and Atmospheric Administration: John Whitney, Anchorage, 271-3593

Kenai Peninsula Borough: Mary Toll, 262-7750

Municipality of Anchorage: Thede Tobish, 343-4261

Cook Inlet Keeper: Bob Shavelson, 235-4068

Bureau of Land Management: Gust Panos, 271-5545

SENSITIVE AREAS: ATTACHMENT ONE

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Water Intake/Use

The following table was generated by the Alaska Department of Environmental Conservation, Drinking Water and Water Treatment Section. They include permitted water use facilities by index number, source (groundwater, surface water, purchased water), facility name, and facility location. Additional information about facility owners can be obtained from the Drinking Water and Water Treatment Section at 465-5300.

For the table, please note the following codes:

GW = Groundwater

GWP = Purchased Groundwater

SWP = Purchased Surface Water

GU = Groundwater Under the District Influence of Surface Water

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Alaskan Village TC	Anchorage	210011	GW
Turnagain House	Anchorage	210299	GW
Alaska Children's Services	Anchorage	2103 12	GW
Four Seasons TC	Anchorage	2103 20	GW
Green Acres TC	Anchorage	2103 38	GW
Greenbrook S/D	Anchorage	2103 46	GW
Inlet View MHP Chugiak	Anchorage	210354	GW
La Honda TC	Anchorage	2103 70	GW
L & LC	Anchorage	2103 96	GW
Meadow Ridge Estates	Anchorage	2104 01	GWP
Penland Park MHP	Anchorage	2104 19	GW
Rangeview TC	Anchorage	2104 35	GW
Riviera Terrace TC	Anchorage	2104 51	GW
Scenic View TC	Anchorage	2104 77	GW
Sand Lake Services	Anchorage	210485	GW
Puffin Inn	Anchorage	2105 40	GW
Top Hand TC	Anchorage	2105 66	GW
Totem Trailer Town TC	Anchorage	210574	GW
Tudor Mobile Court	Anchorage	2105 82	GW
Twin Birch TC	Anchorage	2105 90	GW
Valli Vue S/D Water System	Anchorage	210605	GW
East 98th Avenue Well Hoa	Anchorage	210639	GW
Glencaren Court	Anchorage	2106 89	GW
McKinley View Estates	Anchorage	2106 97	GW
Seventh Day Adventist School	Anchorage	2107 02	GW
ASD Girdwood Elementary School	Anchorage	2107 10	GW
Eagle River Mobile Home Park	Anchorage	210752	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Troll Knoll S/D	Anchorage	2107 78	GW
Omega Homeowner's Assn.	Anchorage	2107 86	GW
Forest Park TC	Anchorage	2107 94	GW
Brookside Manor TC	Anchorage	2108 83	GW
Snowcrest View South	Anchorage	2108 91	GW
Moa Municipality of Anchorage	Anchorage	210906	SW
East Anchorage Mhp	Anchorage	2110 25	GW
ASD O'Malley Elementary Sch	Anchorage	211033	GW
ASD Huffman Elementary School	Anchorage	2110 59	GW
Dimond Estates Trailer Court	Anchorage	211075	GW
Soa Hiland Mountain Correction	Anchorage	211083	GW
South Park Estate TC	Anchorage	211091	GW
Romig Park S/D	Anchorage	2111 14	GW
Swiss Aire S/D	Anchorage	2111 22	GW
Trails End MHP	Anchorage	2111 30	GW
Country Lane Apartments	Anchorage	2111 64	GW
Anchorage Sands Apartments	Anchorage	2111 98	GW
Alpat Water Utility	Anchorage	211229	GW
Div of Parks Bird Creek C/G	Anchorage	211261	GW
Hideaway Club	Anchorage	2112 79	GW
Camp Gorsuch Boy Scout Camp	Anchorage	211326	GW
Div of Parks Potter Sec House	Anchorage	211342	GW
Sunset Hill Baptist Church	Anchorage	211376	GW
Lazy Mountain Trailer Park TC	Anchorage	211392	GW
USAF Elmendorf AFB	Anchorage	211423	SWP
Dawn Water Company	Anchorage	2114 31	GW
Peters Creek Terrace	Anchorage	211473	GW
Baxter Road TC	Anchorage	211481	GW
Parkwood Inn	Anchorage	211512	GW
Colonial Park S/D	Anchorage	211562	GW
Mayflower TC	Anchorage	211619	GW
Hanshew Heights S/D	Anchorage	211643	GW
Homestead Hills	Anchorage	211669	GW
Southwood Manor TC	Anchorage	211677	GW
Borealis Alpha Water System	Anchorage	211708	GW
G A Phillips S/D	Anchorage	211724	GW
Era Aviation Center, Inc.	Anchorage	211758	GW
Sky Ranch Estates #1	Anchorage	211813	GW
Spenard Heights S/D	Anchorage	211821	GW
Kathy O'Estates	Anchorage	211897	GW
Dearmoun II	Anchorage	211936	GW
City of Whittier Water System	Anchorage	211952	GW
Sun Valley Heights North	Anchorage	212005	GW
Moa Alyeska Utilities	Anchorage	212021	GW
U.S. Army Fort Richardson	Anchorage	212039	SW
Lyle's TC	Anchorage	212097	GW
Glacier Terr Malas Golden Nugt	Anchorage	212128	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Birchwood Camp	Anchorage	212152	GW
Blm Anchorage District Office	Anchorage	212178	GW
Glacier Valley Water Company	Anchorage	212267	GW
Max's Bar And Grill	Anchorage	212364	GW
Abbott Loop Community Chapel	Anchorage	212380	GW
Hillside Park S/D	Anchorage	212461	GW
Camp Carlquist - Cubworld	Anchorage	212500	GW
Peters Creek Christian Center	Anchorage	212518	GW
College Gate Baptist Church	Anchorage	212623	GW
Peters Creek Trading Post	Anchorage	212746	GW
Stewart Water System (Bernard)	Anchorage	212754	GW
Our Redeemer Lutheran Church	Anchorage	212762	GW
Kingsberry Homeowners Assoc.	Anchorage	212819	GW
Izaak Walton Recreation Center	Anchorage	212851	GW
Sky Ranch Estates #2	Anchorage	212916	GW
Cohoe S/D	Anchorage	212924	GW
Judy's Cafe	Anchorage	212958	GW
Birchwood Saloon	Anchorage	212974	GW
Eklutna Gate	Anchorage	213019	GW
Hillside Motel & TC	Anchorage	213140	GW
Bear Mountain Condo Assn.	Anchorage	213239	GW
Birchwood MHP	Anchorage	213297	GW
Glenn Muldoon TC	Anchorage	213336	GW
Shoreside Petroleum Texaco	Anchorage	213352	GW
Great Wall Hall Restaurant	Anchorage	213360	GW
Double Muskie Inn	Anchorage	213409	GW
Portage Glacier Lodge	Anchorage	213425	GW
Indian House	Anchorage	213441	GW
Div of Parks Chugach SP ERVC	Anchorage	213491	GW
Hillside Baptist Church	Anchorage	213514	GW
Peters Creek Terrace Apts.	Anchorage	213530	GW
Hilltop Ski Area	Anchorage	213548	GW
Alaska Best Water Products	Anchorage	213556	GW
Spring Forest Homeowners Assn.	Anchorage	213564	GW
Alpine Woods Water System	Anchorage	213598	GW
Lake O' the Hills East	Anchorage	213603	GW
USFS Begich Boggs Portage VC	Anchorage	213718	GW
Brown Bear Saloon	Anchorage	213726	GW
Peters Creek Manor Apts	Anchorage	213768	GW
Eaglecrest Condos Assn.	Anchorage	213792	GW
ASD Ravenwood School	Anchorage	213904	GW
Indian Valley Meats	Anchorage	213946	GW
ASD Bear Valley Elementary	Anchorage	213954	GW
Sun Valley Heights South	Anchorage	213962	GW
Alyeska Chalet Condos Hoa	Anchorage	214007	GW
B-B-Q Pit	Anchorage	214015	GW
Southside Church of God	Anchorage	214023	GW
Grace Brethren Church	Anchorage	214049	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
St. Elizabeth Ann Seton Church	Anchorage	214099	GW
United Pentecostal Church	Anchorage	214104	GW
Trinity United Presbyterian	Anchorage	214112	GW
Clitheroe Detox Center	Anchorage	214138	GW
Circle S Grocery	Anchorage	214188	GW
First Baptist Church Birchwood	Anchorage	214219	GW
American Legion Post 33	Anchorage	214227	GW
Chair 5 Restaurant	Anchorage	214251	GW
Carr's Crow Creek	Anchorage	214277	GW
Seven Glaciers Restaurant	Anchorage	214340	GW
Div of Parks Eklutna Trailhead	Anchorage	214439	GW
Salvation Army - So Anchorage	Anchorage	214471	GW
Rochelle Ice Cream Stop	Anchorage	214489	GW
Amazing Grace Lutheran Church	Anchorage	214544	GW
Chugiak Benefit Association	Anchorage	214586	GW
Country Lane Estates Water Sys	Anchorage	214706	GW
Potter Creek Water Company	Anchorage	214730	GW
Shopper's Cache & Laundry Ctr	Anchorage	214861	GW
Girdwood Station Mall	Anchorage	214968	GW
Alaska Pure Water Products	Anchorage	215029	SWP
Kingdom Hall Jehovah Witness	Anchorage	215223	GU
USFS Williwaw #1	Anchorage	215362	GW
USFS Williwaw # 2	Anchorage	215370	GW
USFS Williwaw # 3	Anchorage	215388	GW
Alaska Zoo	Anchorage	215401	GW
USFS Glacier Ranger District	Anchorage	215435	GW
Anchorage Golf Course	Anchorage	215443	GW
Metro Apartments	Anchorage	215524	GW
C&S Rentals	Anchorage	215558	GW
Young Properties	Anchorage	215566	GW
Kincaid Park Chalet	Anchorage	215605	GW
Royal Roller Rink	Anchorage	215613	GW
Korean United Methodist Church	Anchorage	215621	GW
Div of Parks McHugh Creek	Anchorage	215647	GW
Chapel by the Sea	Anchorage	215663	GW
New Grace Christian Church	Anchorage	215867	GW
Greek Orthodox Church	Anchorage	215922	GW
Tom Thumb Montessori School	Anchorage	215980	GW
Nye Ford - Auto Max	Anchorage	216148	GW
Maranatha Water Utilities	Anchorage	216198	GW
Foothills Jehovah Witness	Anchorage	216449	GW
Arctic Art's Cafe	Anchorage	216512	GW
Div of Parks Eklutna Group Cg	Anchorage	216588	GW
Div of Parks Eklutna Picnic Area	Anchorage	216596	GW
Eklutna Historical Park	Anchorage	216643	GW
Estell S/D, Lot 2	Anchorage	216902	GW
Eagle River Church of Nazarene	Anchorage	216994	GW
Div of Parks Eklutna Lakes Cg	Anchorage	217021	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
USFS Black Bear Cg	Anchorage	217233	GW
Chapel of the Cross	Anchorage	217259	GW
Ikluat Gift Shop	Anchorage	217267	GW
Jewel Lake Parish	Anchorage	217291	GW
Quiet View Apts	Anchorage	217576	GW
Midway Apartments	Anchorage	217704	GW
Alpenglow Ski Lodge	Anchorage	217908	GW
Rabbit Creek Community Chrch	Anchorage	218108	GW
Moa Knik View Estates	Anchorage	218409	GW
Peters Creek Baptist Church	Anchorage	218425	GW
Clearwater of Alaska	Anchorage	218456	SWP
USAF Elmendorf - Hillberg Ski	Anchorage	218475	GW
USAF Elmendorf-Naval Sec Grp	Anchorage	218476	GW
USAF Elmendorf Golf Course	Anchorage	218477	GW
USAF Elmendorf- Munition Insp	Anchorage	218478	GW
AK Polar Glacier Water Company	Anchorage	218485	SWP
Anchorage Bible Fellowship	Anchorage	218516	GW
Laidlaw - Springbrook Vista	Anchorage	218533	GW
Grace Brethren Church E/R	Anchorage	218538	GW
Lions Club of Eagle River	Anchorage	218544	GW
USFS Williwaw #4	Anchorage	218551	GW
Home Environment Center	Anchorage	218553	SWP
Rabbit Creek Rifle Range	Anchorage	218554	GW
Chugiak Seminary Building	Anchorage	218558	GW
Matanuska Maid Wts	Anchorage	218566	SWP
Bird Ridge Cafe & Bakery	Anchorage	218574	GW
Blm Campbell Cr Env Ed Cntr	Anchorage	218579	GW
Whittier Access Tunnel	Anchorage	218582	GW
Eagle River Missionary Baptist	Anchorage	218585	GW
Lynden Inc.	Anchorage	218592	GW
Eagle River Financial Center	Anchorage	218598	GW
Manoogs Isle Mobile Home Park	Anchorage	218630	GW
Div of Parks Rocky Lake	Matsu	220008	GW
Vienna Woods TC	Matsu	220139	GW
Wasilla Church of the Nazarene	Matsu	220163	GW
Valley Polaris-Fishers Y	Matsu	220171	GW
Klondike Inn	Matsu	220189	GW
Sunridge Apartments	Matsu	220228	GW
Alcantra National Guard Camp	Matsu	220286	GW
Sacred Heart Church	Matsu	220359	GW
Kaleidoscope Corner Child Care	Matsu	220367	GW
Mat-Su Resort	Matsu	220375	GW
Meier Lake Conference Cntr	Matsu	220406	GW
Kings Lake Camp Well #1	Matsu	220422	GW
H & H Lodge	Matsu	220464	GW
Matanuska Susitna College	Matsu	220477	GW
Garden Terrace Subdivision	Matsu	220511	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Div of Parks Big Lake North	Matsu	220545	GW
Div of Parks Byers Lake	Matsu	220561	GW
Big Su Lodge	Matsu	220579	GW
Sunny's Cafe	Matsu	220626	GW
Valley Country Store & Motel	Matsu	220634	GW
Robin's Landing	Matsu	220642	GW
Yukon Sourdough Road House	Matsu	220684	GW
Islander Bar & Restaurant	Matsu	220692	GW
Big Lake Lodge	Matsu	220707	GW
Msbsd Trapper Creek Elementary	Matsu	220723	GW
Cache Creek Lodge	Matsu	220757	GW
Pioneer Lodge	Matsu	220862	GW
Sully's Sourdough Inn	Matsu	220901	GW
Msbsd Susitna Valley High	Matsu	221012	GW
Gracious House	Matsu	221127	GW
Lakeside Center	Matsu	221135	GW
Div of Parks Big Lake South	Matsu	221151	GW
Wasilla West S/D	Matsu	221208	GW
Borealis Beach Club	Matsu	221240	GW
Montana Creek Campground	Matsu	221321	GW
Mid Valley Christian Center	Matsu	221347	GW
Spenard Builders Supply	Matsu	221410	GW
Call of the Wild	Matsu	221541	GW
Willow Trading Post	Matsu	221672	GW
Trapper Creek Trading Post	Matsu	221680	GW
Maclaren River Lodge	Matsu	221745	GW
Div of Parks South Rolly Lake	Matsu	221779	GW
Div of Parks Nancy Lake	Matsu	221787	GW
Houston Lodge	Matsu	221826	GW
Settler's Bay Village	Matsu	221834	GW
Glad Tidings Full Gospel	Matsu	221973	GW
Big Lake Baptist Church	Matsu	222084	GW
YMCA Peggy Lake Camp	Matsu	222092	GW
Camp Togowoods Girl Scouts	Matsu	222107	GW
Best View RV and Trailer Park	Matsu	222246	GW
Meadowood Shopping Center	Matsu	222343	GW
Millers Market	Matsu	222351	GW
Sheep Creek Lodge	Matsu	222424	GW
Fishers Y Complex	Matsu	222610	GW
Nugen's Ranch	Matsu	222678	GW
Pole Lock Farm Bar & Motel	Matsu	222686	GW
Wasilla Bar Restaurant	Matsu	222767	GW
G & G Quick Store	Matsu	222783	GW
Sacred Heart Parish	Matsu	222806	GW
First Baptist Church Wasilla	Matsu	222822	GW
Kohring S/D	Matsu	222830	GW
Swiss Castle Estates	Matsu	222848	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Woodhaven Apartments	Matsu	222880	GW
Mary's McKinley View	Matsu	222929	GW
Wilderness East Community	Matsu	222987	GW
Speedway Inn	Matsu	223014	GW
Roadside Inn	Matsu	223080	GW
7-11 Tesoro Tract 5	Matsu	223111	GW
Pilgrims Baptist Church Was	Matsu	223129	GW
Scotwood Estates Water System	Matsu	223145	GW
Settler's Bay Condos	Matsu	223179	GW
Lake Creek Lodge	Matsu	223292	GW
Snowshoe West S/D	Matsu	223315	GW
American Legion Post 35	Matsu	223420	GW
Knik Bar & Liquor	Matsu	223438	GW
Little Beaver Camp Main Qtrs	Matsu	223454	GW
Forks Roadhouse	Matsu	223527	GW
Assembly of God Wasilla	Matsu	223593	GW
Msbsd Big Lake Elem #2 New	Matsu	223616	GW
Bluffview Acres	Matsu	223624	GW
Msbsd Cottonwood Creek Elem	Matsu	223658	GW
Lavern Griffin Youth Camp	Matsu	223713	GW
Tug Bar & Liquor Store	Matsu	223721	GW
Blm Brushkana Campground	Matsu	223747	GW
Wasilla Mission Hills SD	Matsu	223763	GW
Div of Parks Troublesome Cr #2	Matsu	223789	GW
Div of Parks Troublesome Creek	Matsu	223797	GW
Big Lake Laundromat	Matsu	223828	GW
Chugiak Children's Services	Matsu	223844	GW
Silver Fox Inn	Matsu	223894	GW
Kings Lake Camp Well #2	Matsu	223933	GW
Camp Maranatha	Matsu	223959	GW
Hill Timber Estates	Matsu	223983	GW
Big Lake Condos	Matsu	223991	GW
Forty Niner Homeowners Assoc.	Matsu	224028	GW
Elsinore Estates Subdivision	Matsu	224036	GW
Westside Center	Matsu	224052	GW
Valley Lanes & Golden Nugget	Matsu	224060	GW
Sherwood Estates #2	Matsu	224078	GW
Wasilla Lacy Lane S/D	Matsu	224109	GW
Wellingfield West Div. I/II	Matsu	224117	GW
Aleutian Estates #1	Matsu	224159	GW
Victoria Estates	Matsu	224167	GW
Homesteaders Community Club	Matsu	224175	GW
Willow Community Center	Matsu	224183	GW
Sunshine Restaurant	Matsu	224206	GW
Northern Lights Terrace	Matsu	224214	GW
Shores of Ancient Tree	Matsu	224256	GW
Msbsd Tanaina Elementary	Matsu	224272	GW
Crimson View S/D Water Assn.	Matsu	224329	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Sheena May Estates	Matsu	224337	GW
Arabian Acres PWS	Matsu	224345	GW
Mat Su RV Park	Matsu	224379	GW
Alaska R&R Laundry&RV Park	Matsu	224395	GW
Big Lake Fire Hall	Matsu	224400	GW
St. David's Episcopal Church	Matsu	224426	GW
Montana Creek State Park	Matsu	224450	GW
Riverside Camper Park	Matsu	224515	GW
First Presbyterian Church	Matsu	224523	GW
Valley Country Store	Matsu	224531	GW
B & J Rainbow Center	Matsu	224557	GW
Faith Bible Fllwshp and School	Matsu	224573	GW
East Big Lake Mall	Matsu	224581	GW
Msbsd Houston Jr/Sr High	Matsu	224604	GW
Wasilla - Spruce Ave. Main	Matsu	224646	GW
Lake Lucille Lodge Best Westrn	Matsu	224670	GW
Gospel Outreach Church	Matsu	224696	GW
Cottonwood Public Safety Bldg.	Matsu	224701	GW
Frontiersman	Matsu	224735	GW
Iditarod Headquarters Wasilla	Matsu	224743	GW
Montana Creek Baptist Mission	Matsu	224751	GW
Camp La Da Sa	Matsu	224769	GW
Trapper Creek Inn, Inc.	Matsu	224808	GW
Big Lake Library	Matsu	224832	GW
Fishhook Food Mart	Matsu	224840	GW
Msbsd Willow Elementary	Matsu	224882	GW
Little Susitna Cg Houston	Matsu	224913	GW
Div of Parks, Finger Lake Srs	Matsu	224947	GW
Willow Island Resort	Matsu	224955	GW
Big Lake Motel	Matsu	224963	GW
King Point Lodge	Matsu	225008	GW
Mat-Su Cinema	Matsu	225016	GW
Mid Valley Senior Center	Matsu	225024	GW
Talkeetna Water System	Matsu	225032	GW
Div of Parks Lake Louise	Matsu	225040	SW
Nye Ford Showroom	Matsu	225058	GW
Wasilla Bumpus Softball Fields	Matsu	225074	GW
Wasilla Christian Church	Matsu	225082	GW
MatSu Covenant Church	Matsu	225105	GW
Msbsd Knik Goose Bay Elem.	Matsu	225165	GW
Div of Parks Little Su Upper	Matsu	225199	GW
Div. of Parks, Little Su #2	Matsu	225203	GW
Nye Ford Repair Shop	Matsu	225219	GW
Transportation Museum of AK	Matsu	225241	GW
Wasilla First United Methodist	Matsu	225253	GW
Hilltop Assembly of God	Matsu	225261	GW
Sunny Knik Chapel	Matsu	225279	GW
Pt. Mackenzie Rehab. Center	Matsu	225281	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Hatcher View Business Park	Matsu	225308	GW
Alaska Artesian Bottling Co.	Matsu	225324	GW
Valley Motors	Matsu	225331	GW
Msbsd Burchell Hs	Matsu	225342	GW
Stepping Stone Child Care	Matsu	225358	GW
DJ Development	Matsu	225361	GW
Trapper Creek Pizza Pub	Matsu	225376	GW
Wasilla Seventh Day Adventist	Matsu	225384	GW
Victory Bible Camp Well	Matsu	225398	GW
Juvenile Assessment Center	Matsu	225406	GW
Grouse Ridge Sportsman Club	Matsu	225419	GW
Div of Parks Denali N. Overlk	Matsu	225425	GW
Div of Parks Willow Creek #2	Matsu	225437	GW
Willow Townsite Foodmart	Matsu	225458	GW
Upper Susitna Senior Center	Matsu	225488	GW
Meridian Tesoro	Matsu	225499	GW
Tesoro - Parks	Matsu	225502	GW
Westwood Subdivision	Matsu	225511	GW
Div of Parks AK Vet Mem Fntn	Matsu	225520	GW
MatSu RV Laundry and Showers	Matsu	225558	GW
Div of Parks Willow Creek #3	Matsu	225565	GW
Char Dees	Matsu	225585	GW
McKinley Clear Water Bottling	Matsu	225593	GW
Mt. McKinley Princess Lodge	Matsu	225601	GW
Talkeetna River Adventure RV	Matsu	225626	GW
Icworm RV Park	Matsu	225639	GW
South Port Marina	Matsu	225647	GW
Willow United Methodist Church	Matsu	225653	GW
Pizza Pro - Overlook	Matsu	225678	GW
Schwabenhof Restaurant	Matsu	225697	GW
Gee Haw Store and Bakery	Matsu	225708	GW
Mat-Su Water Bottling	Matsu	225713	GW
Talkeetna Lodge	Matsu	225728	GW
Arctic Circle of North America	Matsu	225748	GW
North Fork Professional Bldg	Matsu	225773	GW
Iditacup Espresso	Matsu	225794	GW
MatSu Services	Matsu	225835	GW
North Star Speedway	Matsu	225894	GW
Msbsd Meadow Lakes Elementary	Matsu	225967	GW
Msbsd Pathways Alternative	Matsu	225969	GW
Palmer Water System	Matsu	226020	GW
Camp Challenge	Matsu	226046	GW
Sutton Fire Station	Matsu	226054	GW
Butte Fire Station #1	Matsu	226062	GW
Matanuska Assembly of God	Matsu	226135	GW
Delrois Bar	Matsu	226169	GW
Palmer Correctional Center	Matsu	226240	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Mars Hilltop Tesoro	Matsu	226258	GW
Div of Parks King Campground	Matsu	226282	GW
Long Rifle Lodge	Matsu	226290	GW
Sheep Mountain Lodge	Matsu	226321	GW
Fishhook Bar & Liquor Store	Matsu	226355	GW
Eureka Lodge	Matsu	226397	SW
Iris Circle Water Company	Matsu	226410	GW
Violet Circle	Matsu	226428	GW
Msbsd Snowshoe Elementary	Matsu	226452	GW
Msbsd Butte Elementary	Matsu	226460	GW
Wolverine Lodge	Matsu	226478	SW
Mountain View Estates	Matsu	226509	GW
Alpine Inn	Matsu	226517	GW
Sutton Cafe	Matsu	226525	GW
Farm Loop Christian Center	Matsu	226533	GW
Motherlode Cookhouse & Saloon	Matsu	226541	GW
Victory Bible Camp Spring	Matsu	226567	GW
North Star Bible Camp	Matsu	226575	GW
Lake Louise Lodge	Matsu	226622	GW
Valley Christian School	Matsu	226656	GW
Hatcher Pass Lodge	Matsu	226779	GW
King Mountain Lodge Restaurant	Matsu	226787	GW
Butte Trailer Court & Cafe	Matsu	226795	GW
AAA Apartments	Matsu	226826	GW
A & W Windbreak Cafe	Matsu	226876	GW
Msbsd Sutton Elem School	Matsu	226884	GW
Div of Parks Chulitna (Mp 122)	Matsu	226923	GW
Msbsd Glacier View School	Matsu	227092	GW
The Store	Matsu	227157	GW
Meadow Valley S/D Add #1	Matsu	227173	GW
Equestrian Acres	Matsu	227199	GW
Midtown Estates	Matsu	227204	GW
Msbsd Pioneer Peak	Matsu	227254	GW
Mom & Pops 4 Corners Plaza	Matsu	227262	GW
Hicks Creek Roadhouse	Matsu	227270	GW
Alaska Water Conditioning	Matsu	227288	GW
Ray's Child Care	Matsu	227301	GW
Msbsd Finger Lake Elementary	Matsu	227327	GW
Div Parks Kepler Bradley	Matsu	227335	GW
Hatcher Pass Gateway Center	Matsu	227343	GW
Rivers Edge Recreation Park	Matsu	227377	GW
Homestead RV Campground	Matsu	227393	GW
Daybreak Apartments	Matsu	227408	GW
Palmer Church of God, Inc.	Matsu	227424	GW
Palmer Church of The Nazarene	Matsu	227432	GW
Lazy Mountain Church	Matsu	227440	GW
Msbsd Colony Schools	Matsu	227474	GW
Palmer Golf Course Clubhouse	Matsu	227482	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Ronda's Cafe - Butte	Matsu	227490	GW
AK State Elks Youth Camp	Matsu	227513	GW
Matanuska Research Farm	Matsu	227521	GW
Eklutna Utilities Twin Peaks	Matsu	227539	GW
Matanuska Heights Duchess	Matsu	227547	GW
Palmer Kingdom Hall	Matsu	227555	GW
Palmer Elks	Matsu	227582	GW
Palmer Bus Facility	Matsu	227599	GW
Natl Outdoor Leadership School	Matsu	227615	GW
Big Lake Super Store	Matsu	227633	GW
Matanuska Fitness Center	Matsu	227643	GW
The Laundry and Pioneer Pizza	Matsu	227663	GW
Turner Commercial Development	Matsu	227682	GW
Purely Alaskan Water Bottling	Matsu	227697	GWP
American Legion Post 15	Matsu	227701	GW
Manna Baptist Church	Matsu	227716	GW
The Point Lodge at Lake Louise	Matsu	227723	GW
Pioneer Meadows Subdivision	Matsu	227734	GW
Foxrun Campground	Matsu	227749	GW
Div of Parks Kasilof	Kenai	240074	GW
Div of Parks Stariski	Kenai	240082	GW
Div of Parks Johnson Lake #1	Kenai	240105	GW
USFS Bertha Creek Campground	Kenai	240171	GW
USFS Cooper Creek Campground 1	Kenai	240202	GW
USFS Cooper Creek North	Kenai	240210	GW
USFS Crescent Creek CG	Kenai	240228	GW
USFS Granite Creek #1	Kenai	240236	GW
USFS Kenai Lake Work Center	Kenai	240244	GW
USFS Primrose Landing	Kenai	240286	GW
USFS Ptarmigan CG South	Kenai	240294	GW
USFS Ptarmigan Creek CG North	Kenai	240309	GW
USFS Quartz Creek CG	Kenai	240317	GW
USFS Tenderfoot Campground	Kenai	240333	GW
USFS Tern Lake CG	Kenai	240341	GW
USFS Trail River Lakeside	Kenai	240367	GW
USFS Trail River Picnic Area	Kenai	240375	GW
USFS Trail River Sprucewoods	Kenai	240383	GW
USFS Porcupine # 1	Kenai	240422	GW
USFS Porcupine #2	Kenai	240430	GW
City of Kenai Water System	Kenai	240448	GW
City of Homer Water System	Kenai	240456	SW
Nanwalek	Kenai	240464	SW
Tyonek Water System	Kenai	240472	SW
Port Graham	Kenai	240498	SW
Highland Trailer Park	Kenai	240503	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Lamplight Bar & Liquor Store	Kenai	240529	GW
KPBSD Chapman Elementary	Kenai	240537	GW
KPBSD Ninilchik	Kenai	240553	GW
KPBSD Moose Pass School	Kenai	240561	GW
KPBSD Hope Elementary	Kenai	240595	GW
KPBSD Sterling Elementary	Kenai	240600	GW
KPBSD Tustumena Elementary	Kenai	240618	GW
Forelands Bar	Kenai	240634	GW
Place Bar & Motel	Kenai	240642	GW
Bishop Creek Bar	Kenai	240650	GW
Clam Shell Lodge & Bar	Kenai	240684	GW
Seldovia Water System	Kenai	240707	SW
Happy Valley Bar & Cafe	Kenai	240715	GW
Que Ana Bar	Kenai	240749	GW
City of Seward	Kenai	240757	GW
Bear Creek Mobile Home RV Park	Kenai	240773	GW
Pit Bar and Liquor Store	Kenai	240781	GW
Moose Pass Inn	Kenai	240799	GW
Trail Lake Lodge & Motel	Kenai	240804	GW
Hamilton's Place	Kenai	240820	GW
KPBSD Cooper Landing	Kenai	240838	GW
Gwins Lodge & Bar	Kenai	240846	GW
Great Alaska Fish Camp	Kenai	240854	GW
Alaskan Angler RV Resort	Kenai	240862	GW
Salamantof Seafoods	Kenai	240901	GW
Agrium Kenai Nitrogen	Kenai	240919	GW
Millie's Moose River Inn	Kenai	240927	GW
Soldotna Airport Well	Kenai	240935	GW
Kenai Peninsula College	Kenai	240943	GW
Phillips Pet Kenai Lng Plant	Kenai	240969	GW
Vagabond Inn	Kenai	240985	GW
River Terrace TC	Kenai	241012	GW
McGahan Utilities	Kenai	241020	GW
City of Soldotna	Kenai	241054	GW
Salmon Creek Trailer Court	Kenai	241062	GW
Summit Lake Lodge	Kenai	241070	GW
Nikiski Village TC	Kenai	241088	GW
Bay View Trailer Court	Kenai	241101	GW
USFWS KNWR Environmental Ed	Kenai	241169	GW
USFWS KNWR Russian River Ferry	Kenai	241177	GW
USFWS KNWR Jims Landing CG	Kenai	241185	GW
USFWS KNWR Tustumena Lake	Kenai	241193	GW
USFWS KNWR Swanson River	Kenai	241208	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
CG			
USFWS KNWR Watson Lake	Kenai	241240	GW
CG			
USFWS KNWR Lower Skilak Lake	Kenai	241274	GW
USFWS KNWR Upper Skilak Lake	Kenai	241290	GW
USFWS KNWR Hidden Lake	Kenai	241305	GW
CG			
Four Royle Parkers Bar & Rest.	Kenai	241313	GW
Unocal Anna Platform	Kenai	241321	GWP
Unocal Baker Platform	Kenai	241339	GWP
Unocal Bruce Platform	Kenai	241347	GWP
Unocal Dillon Platform	Kenai	241355	GWP
Solid Rock Memorial Lodge	Kenai	241402	GW
Trans Aqua	Kenai	241410	GW
Inlet Fisheries, Inc. Kenai	Kenai	241444	GW
Camp Kushtaka Campfire Council	Kenai	241567	GW
Bald Eagle	Kenai	241614	GW
Sterling Chevron and Food Mart	Kenai	241622	GW
Nikolaevsk Village 1 & 2	Kenai	241648	SW
Anchor Point Roadhouse	Kenai	241698	GW
Pacific Star Seafoods	Kenai	241703	GW
Tesoro Ak Petro Co. Refinery	Kenai	241745	GW
Bay View Motel	Kenai	241795	GU
Soldotna C/G Swift Water	Kenai	241800	GW
Soldotna Centennial C/G	Kenai	241818	GW
Cook Inlet Processing, Inc.	Kenai	241826	GW
USFWS KNWR Headquarters	Kenai	241868	GW
Cook Inlet Pipeline Drift RVR	Kenai	241876	GW
Unocal Granite Point Platform	Kenai	241884	SW
Unocal Grayling Platform	Kenai	241892	GWP
Unocal Monopod Platform	Kenai	241907	GWP
Ninilchik Fair Association	Kenai	242018	GW
Poachers Cove Association	Kenai	242084	GW
Cook Inlet Academy	Kenai	242204	GW
Blue Grouse Inn	Kenai	242220	GW
USFS Granite Creek #2	Kenai	242246	GW
USFS Russian River	Kenai	242270	GW
USFS Trail River Terrace	Kenai	242296	GW
Albatross (The)	Kenai	242343	GW
Cooper Landing Snack Shop	Kenai	242351	GW
Crown Point Lodge	Kenai	242369	GW
Seaview Cafe & Bar	Kenai	242385	GW
Sterling Tesoro Restaurant	Kenai	242424	GW
Unocal King Salmon Platform	Kenai	242482	GWP
Expresso Kaboose	Kenai	242490	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Kenai Princess Lodge	Kenai	242521	GW
KB Diner	Kenai	242563	GW
Saint Theresa Camp	Kenai	242571	GW
KPBSD Nikiski Elementary	Kenai	242610	GW
Nikiski Pool	Kenai	242636	GW
Lighthouse Restaurant	Kenai	242644	GW
Kalifonsky Christian School	Kenai	242660	GW
J Bar B Restaurant	Kenai	242678	GW
Inlet View Cafe	Kenai	242686	GW
Good Time Charlies Bar	Kenai	242694	GW
Tustumena Lodge	Kenai	242741	GW
Immanuel Baptist Church	Kenai	242783	GW
Div of Parks Cpt Cook Bishop CRK	Kenai	242806	GW
Div of Parks Cpt Cook Discovery	Kenai	242814	GW
Div of Parks Cpt Cook Stormy CG	Kenai	242822	GW
Div of Parks Ninilchik CMG	Kenai	242856	GW
Div of Parks Ninilchik View	Kenai	242864	GW
Div of Parks Scout Lake	Kenai	242872	GW
Peninsula Steakhouse	Kenai	242903	GW
Kpbsd McNeil Canyon School	Kenai	242929	GW
Snug Harbor Seafoods	Kenai	242953	GW
Echo Lake Gourmet Meats	Kenai	242987	GW
Red Diamond Center	Kenai	243006	GW
Bing Browns Resort	Kenai	243030	GW
Kpbsd Kalifornsky Beach Elem	Kenai	243064	GW
Healthy Changes	Kenai	243080	GW
College Park Home Owners Assoc	Kenai	243103	GW
Central Peninsula Counseling	Kenai	243111	GW
Beachside Townhouse	Kenai	243137	GW
Hitching Post	Kenai	243153	GW
Saltry	Kenai	243161	SW
Div of Parks Johnson Lake Ctr.	Kenai	243218	GW
USNPS Exit Glacier Ranger	Kenai	243420	GW
Div of Parks Clam Gulch #2	Kenai	243446	GW
Trail Lake Motel	Kenai	243488	GW
Arco Alaska Beluga Camp	Kenai	243608	GW
Beluga Power Plant	Kenai	243624	GW
Tesoro 201 Northstore	Kenai	243632	GW
Robinson Grocery & Deli	Kenai	243640	GW
KB Water Association	Kenai	243658	GW
Kasilof Riverview Restaurant	Kenai	243666	GW
Golden Intl. Restaurant & Bar	Kenai	243690	GW
Golden Dragon Restaurant	Kenai	243705	GW
Greatland Village Park	Kenai	243771	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Orca Twin Theaters	Kenai	243828	GW
Holland Park Apartments	Kenai	243836	GW
Zip Mart	Kenai	243844	GW
Div of Parks Izaak Walton Sra	Kenai	243886	GW
Div of Parks Bings Landing	Kenai	243894	GW
Ninilchik Senior Citizen Ctr	Kenai	243933	GW
Kenai Grill	Kenai	243967	GW
Soldotna Elks	Kenai	243983	GW
Nikiski Day Care Center	Kenai	243991	GW
Duck Inn	Kenai	244002	GW
Div of Parks Cpt Cook Stormy Picnic	Kenai	244010	GW
Div of Parks Cpt Cook Stormy Boat	Kenai	244028	GW
Soldier Creek Corporation	Kenai	244065	GW
Solid Rock Wagon Train Well	Kenai	244094	GW
Inlet Fisheries - Kasilof	Kenai	244117	GW
KPBSD North Star Elementary	Kenai	244125	GW
Seward Marine Industrial Cent	Kenai	244159	GW
Alaska Best Water Products	Kenai	244183	GWP
Div of Parks Crooked Creek C/G	Kenai	244191	GW
Div of Parks Deep Creek C/G	Kenai	244206	GW
KPBSD Razdolna Elementary SCH	Kenai	244222	GW
Crooked Creek RV Park	Kenai	244256	GW
Seward Chapel	Kenai	244264	GW
Le Barn Appetit	Kenai	244272	GW
River Quest RV Park	Kenai	244298	GW
Kpbsd Skyview High School	Kenai	244329	GW
Deep Creek Custom Packing	Kenai	244345	GW
Kenai Boating Facility	Kenai	244353	GW
Alaska Petroleum Contractors	Kenai	244395	GW
Alaska Wildland Adventures	Kenai	244442	GW
KPBSD Nikiski High School	Kenai	244484	GW
Lacross Subdivision	Kenai	244549	GW
Unocal Steelhead Platform	Kenai	244573	GWP
Decanter Inn	Kenai	244604	GW
North Kenai Chapel	Kenai	244612	GW
Save U More	Kenai	244662	GW
Unocal M/V Monarch	Kenai	244688	GWP
ADF&G / Doors & Windows	Kenai	244719	GW
Washout (The)	Kenai	244777	GW
Ninilchik General Store	Kenai	244793	GW
Alpine Inn	Kenai	244808	GW
Higher Ground Baptist Camp	Kenai	244824	GW
North Star U. Methodist Church	Kenai	244858	GW
Backtrack TC	Kenai	244890	GW
Voznesenka Village	Kenai	244955	SW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Big John's	Kenai	244963	GW
Apostolic Assy of Jesus Christ	Kenai	244989	GW
Offshore Systems Kenai	Kenai	244997	GW
Abundant Life Assembly of God	Kenai	245024	GW
First Baptist Church of Nikisk	Kenai	245032	GW
Alaska Village Mission	Kenai	245058	GW
Anchor Point Church of Naz	Kenai	245074	GW
Sterling Baptist Church	Kenai	245082	GW
North Kenai Baptist Church	Kenai	245090	GW
Soldotna Church of Christ	Kenai	245105	GW
Saint Peter the Fisherman's	Kenai	245155	GW
USFWS KNWR Hidden Lake Cg	Kenai	245197	GW
USFWS KNWR Hidden Lake Cg	Kenai	245202	GW
USFWS KNWR Hidden Lake Cg	Kenai	245210	GW
USFWS KNWR Hidden Lake Cg	Kenai	245236	GW
Kasilof Community Church	Kenai	245286	GW
Nikiski Church of Christ	Kenai	245294	GW
Kenai United Pentecostal	Kenai	245317	GW
Grace Evangelical Lutheran	Kenai	245325	GW
Silver King	Kenai	245359	GW
Peninsula Grace Brethren	Kenai	245406	GW
Anchor Point VFW Post 10221	Kenai	245498	GW
Saint Peter's Catholic Church	Kenai	245553	GW
Body Master	Kenai	245626	GW
Unocal M/V Champion	Kenai	245723	GW ^P
College Heights Baptist Church	Kenai	245804	GW
Soldotna C/G Swift Water	Kenai	245846	GW
Soldotna Centennial C/G	Kenai	245854	GW
Soldotna Centennial C/G	Kenai	245862	GW
Solid Rock Lakeside Center	Kenai	245935	GW
Sterling Senior Citizen Center	Kenai	245977	GW
Miller Homestead	Kenai	246020	GW
Orca Lodge	Kenai	246957	GW
Kenai Wilderness Lodge	Kenai	247238	GW
Scenic View RV Park	Kenai	247466	GW
Lowell Point Condos	Kenai	247474	GW
Anchor Point Watering Point	Kenai	247490	GW
Nikolaevsk Third Village	Kenai	247513	SW
A Creekside Park	Kenai	247610	GW
Kenai River Bend Campground	Kenai	247741	GW
Jehovahs Witness Kingdom Hall	Kenai	247767	GW
USFWS KNWR Upper Skilak	Kenai	247864	GW
East			
USFWS KNWR Upper Skilak	Kenai	247872	GW
West			
Kachemak Selo #3	Kenai	247953	GW
Nikiski Senior Center	Kenai	248014	GW
The Farm B&B	Kenai	248056	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Whaler Drive In	Kenai	248080	GW
Connelly House	Kenai	248098	SWP
Div of Parks Deep Creek North	Kenai	248111	GW
Div of Parks Ninilchik Scenic	Kenai	248129	GW
Creekside Inn and RV Park	Kenai	248179	GW
Unocal Trading Bay	Kenai	248218	GW
Div of Parks Morgans Landing	Kenai	248226	GW
Div of Parks Johnson Lake #3	Kenai	248242	GW
Happy Wok	Kenai	248250	GW
Forest Oil West McArthur	Kenai	248276	GW
Hutch (The)	Kenai	248315	GW
Kasilof RV Park	Kenai	248331	GW
Church of Lds Seward	Kenai	248381	GW
Soldotna Kiddie Care	Kenai	248420	GW
Div of Parks Cooper Landing	Kenai	248454	GW
Div of Parks Pillars	Kenai	248462	GW
Kasilof Mercantile	Kenai	248496	GW
Village Barbara RV Park	Kenai	248535	GW
Living Stones Academy	Kenai	248690	GW
Lost Creek Lodge	Kenai	248721	GW
Bear Paw Coffee Shop & Deli	Kenai	248739	GW
Cast Away Riverside RV Park	Kenai	248763	GW
Cummings Dental Clinic	Kenai	248771	GW
USFWS KNWR Visitors Contact	Kenai	248789	GW
St			
Across the River RV Park	Kenai	248802	GW
Quinntec Ice Alaska	Kenai	248828	SWP
Sunrise Inn	Kenai	248836	GW
KPB Maintenance Shop	Kenai	248878	GW
Krog's Cabins	Kenai	248886	GW
Short Stop	Kenai	248894	GW
Kenai Fjords Tours	Kenai	248925	SW
Eagle Crest RV Park	Kenai	248933	GW
Quick Draw H20 #S38	Kenai	248941	SWP
Quick Draw H20 #S36	Kenai	248959	SWP
Kenai Peninsula Food Bank	Kenai	249002	GW
Ashton Park	Kenai	249028	GW
Seward Windsong Lodge	Kenai	249086	GW
Trinity Christian Center	Kenai	249117	GW
RW Fishing and Camping	Kenai	249256	GW
Vaughan's Cabins	Kenai	249264	GW
Div of Parks Halibut	Kenai	249280	GW
Campground			
D&M RV Park	Kenai	249303	GW
Div of Parks Bings Landing	Kenai	249311	GW
Camp			
Eagle Island Lodge	Kenai	249361	GW
Resurrection Roadhouse Rest.	Kenai	249379	GW

<u>Name of System</u>	<u>Location</u>	<u>State ID No.</u>	<u>Source</u>
Willow Brook North	Kenai	249434	GW
Thomas Shin B&B	Kenai	249450	GW
Noble Laundry	Kenai	249523	GW
Silver King RV Village	Kenai	249531	GW
Glacier Building II	Kenai	249599	SWP
Soldotna Baseball Diamonds	Kenai	249612	GW
Mad Moose Cafe	Kenai	249670	GW
Diamond-M RV Park	Kenai	249701	GW
Quick Draw H2O #2	Kenai	249735	SWP
Red Diamond Bldg B	Kenai	249874	GW
Div of Parks Slidehole	Kenai	249882	GW
M/V Pioneer Service	Kenai	249905	GWP
Birch Ridge Golf Course Cabins	Kenai	249939	GW
Forest Oil Osprey Platform	Kenai	249947	GWP
Water Works	Kenai	249960	SWP
Hank's Water Company	Kenai	249961	SWP