



**PEBBLE PROJECT
ENVIRONMENTAL BASELINE DOCUMENT
2004 through 2008**

**CHAPTER 46.
LAND AND WATER USE
Cook Inlet Drainages**

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ACRONYMS AND ABBREVIATIONS

ACMP	Alaska Coastal Management Program
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation and Public Facilities
ANCSA	Alaska Native Claims Settlement Act
AS	Alaska Statute
BLM	Bureau of Land Management
CIRI	Cook Inlet Region, Inc.
KAP	Kenai Area Plan
KPB	Kenai Peninsula Borough
NPS	National Park Service
RMP	Resource Management Plan
SUA	Special Use Area

46. LAND AND WATER USE

46.1 Introduction

This chapter addresses existing land and water use in the Cook Inlet drainages study area.

46.2 Study Objectives

The purpose of this land use baseline study is to describe the existing ownership, use, and management of land and surface waters in the Cook Inlet drainages study area. (This chapter considers all land uses except subsistence uses, which are addressed in Chapter 51.)

46.3 Study Area

The Cook Inlet drainages study area for land use (Figure 46-1) comprises two elements: the larger regional study area, which encompasses the smaller central study area (Figure 46-2), as described below. The boundary between the Cook Inlet and Bristol Bay drainages generally defines the inland boundary of the Cook Inlet drainages study area. The drainage boundary is roughly similar to the jurisdictional boundary between the Kenai Peninsula Borough (KPB, east of boundary) and the Lake and Peninsula Borough (west of boundary). The jurisdictional boundary generally follows section lines that straddle or lie west of but close to the drainage boundary. For purposes of this study, this incongruity is largely immaterial.

46.3.1 Regional Study Area

The regional study area for the land use study in the Cook Inlet drainages encompasses an extensive region on the western Cook Inlet coast and nearby offshore islands and coastal waters (Figure 46-1). The regional study area includes the coastal strip of uplands and tidelands between Lake Clark National Park and Katmai National Park. Portions of the two national parks are in the Cook Inlet drainages, but for simplicity these parks are discussed in their entirety in the land use chapter for the Bristol Bay drainages (Chapter 18).

The regional study area for land use and the land use portion of the study area for recreation (Chapter 53) in the Cook Inlet drainages are identical in geographic coverage.

46.3.2 Central Study Area

Within the regional study area, a smaller study area, termed the central study area, was defined in the more immediate vicinity of possible Pebble Project facilities for more detailed examination (Figure 46-2). The central study area consists of the uplands, tidelands, nearby offshore islands, and nearshore waters near possible Pebble Project facilities.

46.4 Scope of Work

This chapter addresses in detail the ownership and use of major public and private landholdings in the central study area. It also describes state and federal land management regimes, and applicable local governmental land use and coastal management plans and activities. The ownership, use, and management of lands in the regional study area are more generally described. The work was conducted by Kevin Waring Associates.

46.5 Methods

The method of study was to review and analyze relevant existing land use studies, plans, management documents, and land records developed by state, federal, and local governments. These sources were supplemented through interviews with persons with relevant information about land use in the study area.

46.6 Results and Discussion

46.6.1 Regional Study Area

46.6.1.1 Land Ownership and General Usage

The regional study area encompasses approximately 902 square miles (577,313 acres) of uplands. Additionally, the study area includes approximately 1,100 square miles (704,000 acres) of tidelands and submerged lands within the three-mile offshore limit, all of which are owned by the State of Alaska.

Figure 46-3 shows the general land ownership in the area. The State of Alaska is the largest landowner, with patent or tentative approval for approximately 538.6 square miles (344,734 acres). The McNeil River State Game Refuge (120,120 acres) and Sanctuary (128,000 acres) account for approximately 388 square miles (248,120 acres) of the state's lands. Most of the balance is adjacent to the refuge or sanctuary.

Regional and village Native corporations established under the Alaska Native Claims Settlement Act (ANCSA) are the next largest landowners, with patent or interim conveyance to approximately 259.7 square miles (166,213 acres). Native corporations, under ANCSA, have selected an additional 99.6 square miles (63,744 acres), the final ownership of which remains to be resolved.

Lesser private landowners include Alaska Native allotment¹ owners or applicants and other private landowners. These landowners and allotment applicants account for approximately 3.8 square miles (2,444 acres). The federal Bureau of Land Management (BLM) administers approximately 0.3 square miles (182 acres), but retains management authority over the Native corporation ANCSA selections pending their conveyance or relinquishment. The KPB does not have any landholdings or selections in the regional study area.

1. The 1906 Native Allotment Act entitled Alaska Natives to obtain allotments of up to 160 acres of land traditionally used and occupied by the applicant. Under federal law, allotment applications supersede other nonfederal claims for federal lands that arose after the original use and occupancy by an allotment applicant. The Native Allotment Act was repealed by ANCSA.

Most state and ANCSA corporation landholdings are in large blocks. Non-ANCSA private landholdings are generally modest in size, typically 160 acres or less. These private tracts, including Native allotments, are all located on or near the coast, usually at sites with good marine access or with high value for subsistence and recreation.

There are no permanent settlements in the study area. Intensive human uses are localized, limited in extent, and often seasonal in nature. The prevalent land uses are wilderness and natural habitats that support a variety of low-intensity recreational activities such as hunting, sportfishing, wildlife viewing, and flight-seeing. Access for recreation is by small plane or boat. There are no improved boat harbors, port facilities, public airports, or public transportation improvements, except the Williamsport barge landing and the Williamsport-Pile Bay Road.

46.6.1.2 State of Alaska Land Management

The uplands and tidelands owned by the State of Alaska are all within the area that is subject to the state's Kenai Area Plan (KAP, see below). The McNeil River State Game Refuge and Sanctuary, though within the KAP area, is managed by the Alaska Department of Fish and Game (ADF&G) according to a separate management plan. Similarly, the Kamishak Special Use Area (SUA) and the tidelands in the Lake Clark SUA are managed by the Alaska Department of Natural Resources (ADNR) according to their specific management plans. ADNR manages the balance of state-owned uplands and tidelands consistent with the KAP.

Kenai Area Plan

The boundaries of the KAP area (Figure 46-4) are virtually the same as those for the KPB. The KAP was adopted in 2001. It governs ADNR management of 2,331,000 acres of state-owned uplands and 2,580,000 acres of state-owned tidelands and submerged lands in the KPB, only a small part of which are in the study area. The KAP does not apply to non-state-owned lands within its boundary. Minor parts of the uplands and submerged lands within the KPB also are covered by the Bristol Bay Area Plan. The Bristol Bay Area Plan supersedes the KAP where they overlap.

The KAP planning area is divided into twelve regions, one of which—Region 12—includes the state-owned lands in the study area (Figure 46-4). Region 12 contains 505,121 acres of state-owned uplands and 703,734 acres of state-owned tidelands and submerged lands. The state owns all the tidelands in Region 12.

The KAP's assessment of the resources and uses for state lands and tidelands in the northern, central, and southern areas of Region 12 is excerpted below (ADNR, 2001, p. 3-334 and 3-335).

1. The first area contains the lands adjacent to Lake Clark National Park. Most of the state lands in this area are tidelands and are within the Lake Clark Special Use Lands Designation. There are also some state selections on the uplands. The tidelands support large seabird colonies and salt marshes used by brown bears. There is timber harvest and mineral resource potential on the Native-owned uplands. Resource transfer sites may be needed in the vicinity of Squarehead Cove, Point Iliamna, or Fossil Point.

Seabird colonies are located on Chisik and Duck islands. The west side of Cook Inlet ranks second only to the Copper River Delta in terms of the diversity and total number of shorebirds supported during spring migration throughout Southeastern and Southcentral Alaska. Each spring, large numbers of birds utilize the vegetated and unvegetated intertidal flats in this region. Areas within the region that receive particularly heavy use include northern Tuxedni Bay from Crescent River to Rusty Mountain. There are also seal haulouts within this area.

2. The second area includes state lands between Chinitna Bay and the north boundary of the McNeil River State Game Refuge. Most of the lands on and around the Iniskin Peninsula are Native-owned, but there are four state-owned sections that are School Trust lands. Access to these units is limited because of surrounding Native-owned lands. These state owned parcels may have commercial timber value. In the 1930s and 1950s, the Iniskin Peninsula was studied in detail by oil company geologists. Wells were drilled where oil seeps occurred. As part of the work in the 1950s, the road to Chinitna Bay was rebuilt and dock facilities, oil storage tanks, a construction camp, and an airstrip were built. Activity there was suspended in 1960.

Iliamna Bay is noted for the access it provides to the Iliamna Lake area (through Dutton and Williamsport) and for the large seabird colonies at the mouth of the bay. Nesting colonies of marine birds are found on Iniskin, Vert, White Gull, and Mushroom islands. Harbor seals haul out at the mouth of Clearwater and Chinitna creeks and near Pomeroy and Iniskin islands. Pacific herring are known to spawn in the tidelands in this area, and extensive eelgrass beds are found here, which provide important habitat and cover for rearing salmon and shellfish. The tidelands also include extensive salt marshes that support a large population of brown bears. Other wildlife species found in this area include moose, and waterfowl, and shorebirds.

3. The third area includes the state lands surrounding McNeil River State Game Refuge and Sanctuary and the Kamishak Special Use Area. The McNeil River State Game Sanctuary and Refuge were established to provide permanent protection for brown bear and their habitat. The primary purpose of the Special Land Use Designation for the Kamishak Area is to regulate commercial recreation users, particularly along the lower Kamishak River.

This area also includes Augustine Island. Researchers from the University of Alaska have conducted geophysical research on the island for the last 25 years. The UAF Geophysical Institute has two permanent camps on the island.

The rivers of the area support several species of salmon, with chum being the predominant species, as well as resident fish species. Both commercial and sport fisheries occur within the area. The area also supports brown bear, moose, ducks and geese, bald eagles, seabirds, and Pacific herring.

Region 12 includes 51 separate management units. The KAP assigns planning designations to each management unit (Figures 46-5 through 46-11) based on an inventory of the unit's resources and uses.

Some units have two or more co-designated uses. Generally, all designations allow other uses that are compatible with the primary designation.

Nearly ninety percent of the state uplands in Region 12 is designated as habitat (Table 46-1). The balance is designated for general use, heritage, and forestry. About two-thirds of the state tidelands and submerged lands—almost 591,000 acres—are designated for Public Recreation and Tourism–Dispersed Use,² with most of the balance designated as habitat.

Most (38 out of 51) of the Region 12 management units and most of the Region 12 state uplands and tidelands, as measured by area, are outside the central study area. Several management units, however, are within the central study area. These include state-owned uplands on the Iniskin Peninsula, as well as tidelands and submerged lands at Iniskin Bay, Iliamna Bay, and Chinitna Bay. The KAP planning designations for state uplands, tidelands, and submerged lands in those specific management units are discussed in more detail Section 46.6.2.

McNeil River State Game Refuge and Sanctuary, and Kamishak Special Use Area

The McNeil River State Game Refuge and Sanctuary are located on the Cook Inlet coast of the Alaska Peninsula within the KPB. The refuge and sanctuary abut, and at one corner slightly overlap, the northeast boundary of Katmai National Park (Figure 46-12). The sanctuary (128,000 acres) and refuge (120,120 acres) together comprise 248,120 acres.

The KAP prescribes that the McNeil River State Game Refuge and Sanctuary will be managed consistent with state legislation and ADF&G’s management plans for those areas. The management goals established by state law (AS 16.20.041) for the refuge and sanctuary stress management to provide permanent protection for brown bear and other wildlife and fish populations and their habitats. Human activities are to be managed in a manner compatible with that purpose. The prime activity in the sanctuary and refuge is wildlife viewing, mainly brown bear viewing (Schempf and Meehan, 2008).

The Kamishak SUA was established in 1990. It comprises two state parcels, totaling 102,846 acres. The uplands of the larger eastern parcel are partly within the McNeil River sanctuary and partly within Katmai National Park; the smaller western parcel is situated between the sanctuary and the national park (Figure 46-12). The parcels are managed “primarily for wildlife habitat and harvest with public recreation as a secondary value. Public recreation is an important value, but will be allowed only if compatible with wildlife management objectives” (ADNR, 1990).

The Kamishak SUA is closed to brown bear hunting. In March 2005, the Alaska Board of Game rejected two proposals to open parts of the Kamishak SUA to brown bear hunting in 2006, but directed ADF&G to submit a proposal to allow bear hunting for Board consideration in March 2007.

2. The KAP defines “Public Recreation and Tourism–Dispersed Use” as follows: “Areas that attract recreationists or tourists who range throughout the area. Also, areas that offer high potential for dispersed recreation or tourism because of desirable recreation conditions that are scattered or widespread rather than localized. Developed facilities are generally not necessary other than trails, trail signs, primitive campsites, and other minor improvements. Land in this designation may be conveyed to municipalities depending on the unit’s management intent and the relative value of the recreation resources for which the unit was designated. These lands cannot be sold to individuals.” (ADNR, 2001.)

The State of Alaska and the National Park Service (NPS) have had inconclusive discussions about trading Kamishak SUA lands to the NPS's Katmai National Park in exchange for other federal lands elsewhere.

Lake Clark Coastline Special Use Area

In 2000, ADNR established the Lake Clark Coastline SUA for habitat, public recreation, and tourism (ADNR, 2000). This SUA consists of extensive tidelands in and adjacent to Lake Clark National Park and Tuxedni National Wildlife Refuge between Tuxedni and Chinitna bays (Figure 46-13). These tidelands are managed for their valuable brown bear, fish, seabird, and waterfowl habitat and breeding grounds. This SUA is almost entirely outside the study area

Alaska Coastal Management Program

The Alaska Coastal Management Program (ACMP) is in transition because of a combination of state legislative revisions in 2003 (Alaska State Legislature, 2003) and 2005 (Alaska State Legislature, 2005) and a gubernatorial action (Executive Order 106, April 15, 2003). In 2003, the legislature transferred overall administrative responsibility for the ACMP from the Division of Governmental Coordination to ADNR. ADNR also was given regulatory authority to adopt statewide standards and criteria for district coastal management plans governing the coastal management-implementation activities of state agencies and coastal resource districts.

The legislative revisions also narrowed the policy and geographic scope for oversight of local coastal resource districts. For example, local districts may no longer adopt policies that address air, land, and water quality issues or mining activities (except gravel and materials) in their coastal zones. Additionally, the legislation provided that an existing local district plan would lapse after March 1, 2007, unless the local district submitted to ADNR for review an amended plan consistent with the new ADNR regulations by March 1, 2006, and ADNR approved the amended plan to take effect by March 1, 2007. The 2007 legislature subsequently extended the ADNR approval date to September 1, 2007 (Alaska State Legislature, 2007).

The status of the KPB's local coastal resource district plan is discussed later in this chapter.

46.6.1.3 Federal Government Land Management

Bureau of Land Management

BLM recently completed its *Ring of Fire Proposed Resource Management Plan and Final Environmental Impact Statement* (USDOI, 2006). The planning area for the resource management plan (RMP) covers BLM-managed lands in a coastal arc that extends from southeast Alaska to the western end of the Aleutian Islands. The purpose of the RMP is as follows (USDOI, 2006):

. . . provide the basis for developing future site-specific activity planning on 1.3 million acres of public land and their underlying subsurface estate, as well as certain BLM-managed subsurface estate. BLM will follow the RMP when initiating subsequent implementation actions. . . The plan will provide a single, over-arching, comprehensive land use plan to guide management of these public lands.

BLM administers a very limited amount of land in the regional study area and none in the central study area. (Because BLM does not administer any land in the central study area, the Department of the Interior's recently issued *Review of D-1 Withdrawals under Section 207 of the Alaska Land Transfer Acceleration Act* has no practical implications there.) BLM is also interim manager for unconveyed, unrelinquished ANCSA Native-corporation land selections in the study area. The RMP has potential significance for BLM's management of these ANCSA land selections. As interim manager, BLM is required to seek and consider comments from the appropriate ANCSA Native Corporation for any authorization to use Native-selected lands.

Under the RMP's proposed action, most lands retained by BLM would be open to oil and gas leasing and development and mineral location. RMP recommendations for management of ANCSA selections would be implemented only upon relinquishment of the selections. For practical purposes, the recommendations of the final RMP would have no immediate or autonomous application in the central study area, since all the BLM-managed lands located there are state or Native-corporation selections.

National Park Service

Parts of Lake Clark National Park and Katmai National Park are in the Cook Inlet drainages regional study area. While nominally within the regional study area, those parklands are peripheral to the Pebble Project central study area. For the sake of a unified treatment of those parklands, the two national parks are addressed in their entirety in Chapter 18.

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service manages the Alaska National Maritime Refuge, an expansive refuge which extends from southeast Alaska to Cape Lisburne on the Arctic Ocean. Several islands in the refuge fall within the study area; those that are near possible locations for Pebble Project facilities are discussed further in Section 46.6.2.

46.6.1.4 Kenai Peninsula Borough Land Management

The regional study area is wholly within the jurisdiction of the KPB; however, the borough does not own any land or have any land selections within the study area.

As authorized by state law, the KPB may exercise land use planning and regulatory powers and, as authorized under the ACMP, may manage or advise on the management of coastal resources within its jurisdiction. Three KPB planning functions—land use, transportation, and coastal management—focus on the more populous and developed settled areas on the Kenai Peninsula, but also apply generally to the part of the study area within the borough.

In June 2005, the KPB assembly adopted the 2005 *Kenai Peninsula Borough Comprehensive Plan* (COC and MG, 2005) to replace its 1992 borough comprehensive plan (KPB, 1992). The new comprehensive plan does not specifically address or make recommendations about possible Pebble Project facility sites within the borough. The comprehensive plan does note the intent of the Alaska Department of Transportation and Public Facilities (ADOT&PF) to upgrade the Williamsport to Pile Bay road and the barge landing at Williamsport.

The KPB's zoning ordinance designates all lands outside the cities of Homer, Kenai, Seldovia, Soldotna, and Seward and eight local option zoning areas on the Kenai Peninsula as "unrestricted" with no specific use limitations. There are no borough zoning restrictions on land uses in the study area. The borough does regulate certain land-related actions such as subdivisions of private land, operation of gravel pits and material sites, and coastal zone development; these regulations may apply to Pebble Project development on private land within the study area.

The new comprehensive plan incorporates the KPB transportation plan (HDR, 2003) as its transportation-plan element. The transportation plan notes the existing barge landing and road head at Williamsport and the Williamsport/Pile Bay road. It also stresses the importance of port and harbor improvements for economic development. The plan does not make specific recommendations for port or road improvements at Williamsport.

In August 2007, the KPB assembly adopted its amended coastal management program (LaRoche + Associates, 2008). The plan defines the landward boundary of the KPB's coastal zone as the 1,000-foot-elevation contour and all islands in their entirety. The seaward limit is the three-mile limit of state jurisdiction (Figure 46-14). The plan does not specifically address or make specific recommendations regarding possible Pebble Project facility sites. The plan does provide for borough participation in state consistency reviews of coastal projects and for borough participation in review of major projects proposed for the coastal zone, such as transportation corridors and facilities.

46.6.1.5 Private Lands

Alaska Native Corporations

The regional study area is within the region of Cook Inlet Region, Inc. (CIRI), an Alaska Native regional corporation established pursuant to ANCSA. ANCSA Native corporation regions are areas within which regional corporations were entitled to select lands under ANCSA, but the region boundaries do not signify jurisdictional boundaries of a governmental nature. Two ANCSA village corporations based outside the study area (Seldovia Native Association, Inc., and Tyonek Native Corporation) also had land selection rights in the study area.

Figure 46-3 shows the general location and status (patented or interim conveyed, or selected) of lands in the regional study area that are owned or selected by CIRI, Seldovia Native Association, or Tyonek Native Corp. CIRI owns both the surface and subsurface rights to its patented and interim-conveyed ANCSA lands. Additionally, CIRI owns or will own the subsurface estate of lands obtained by village corporations pursuant to ANCSA Sections 12(a) and 12(b).

Native corporation lands are discussed further in Section 46.6.2.

Other Private Lands

In addition to ANCSA Native-corporation lands, there are a variety of private landholdings in the central study area (Figure 46-3). These include Native allotments and other private landholdings. The private landholdings in the central study area are identified more specifically in Section 46.6.2.

46.6.1.6 Other Management Plans

The Nature Conservancy, a private land-conservation organization, recently published the *Alaska Peninsula and Bristol Bay Basin Ecoregional Assessment* (The Nature Conservancy, 2004). The Nature Conservancy does not have any management authority beyond its rights as a private land owner. Nonetheless, by analytic methods similar to those used in public resource planning, the ecoregional assessment identifies “areas of biological significance” that have exceptional natural-resource values. The selection criteria stress “critical life stage habitat” and “habitat for endemic, endangered and vulnerable species”, mainly on public lands.

The ecoregional assessment defines the Kamishak Area of Biological Significance (Figure 46-15), part of which overlaps the central study area. Within the Area of Biological Significance, the assessment identifies “core areas,” which are “places consistently used by species for particular purposes, such as spawning or calving.” The outstanding core area identified in the assessment is the brown bear habitat centered on the McNeil and Kamishak watersheds, and the marine and freshwater habitat enriched by those rivers. The assessment also rates as core areas all the state waters within the three-mile limit and the coastal upland fringe between Cape Douglas and the southern half of the Iniskin Peninsula. Resources of note in the central study area include seabird colonies and brown bear habitat in the Iniskin River valley.

46.6.2 Central Study Area

This section presents information on land and water use in the central study area. Figure 46-16 displays land ownership in central study area. The primary landowners are CIRI, Seldovia Native Association, and Tyonek Native Corporation. The State of Alaska owns the right-of-way for the Williamsport-Pile Bay Road and all tidelands. There are many small private parcels in the vicinity of Seal Spit (on the southern shore of Chinitna Bay), Cottonwood Bay, and Williamsport. Federal ownership is limited to a few islands that are part of the Alaska Maritime National Wildlife Refuge.

Table 46-2 identifies the KAP management units that are wholly or partly within the central study area and their land use designations. Table 46-3 presents the KAP’s management intent for these units, along with its evaluation of their resources and uses. Figures 46-7 and 46-8 show the locations and land use designations for these management units. The largest management unit (522A) consists of tidelands in the Lake Clark SUA designated for dispersed recreation and tourism. The tidelands at Williamsport (Unit 588B) are designated for waterfront development; those offshore of the Iniskin Peninsula and in Iniskin Bay (Unit 587) are designated as habitat.

46.6.2.1 Transportation Corridor Study Area

The State of Alaska owns and maintains the existing Williamsport-Pile Bay Road. The roadbed is within a 100-foot-wide right-of-way that the state acquired by “prescription,” that is, by uninterrupted public use for ten years or more. Approximately two miles of the existing road are on the eastern side of the boundary between the Bristol Bay and Cook Inlet drainages. The road surface is in poor condition. ADOT&PF budgeted about \$200,000 to improve the road surface in 2006. The 2006-2008 statewide transportation improvement program—the state’s three-year funding plan for surface transportation projects—planned \$4,100,000 for road design and construction in fiscal year 2007 and \$500,000 for right-of-way acquisition in fiscal year 2008 (ADOT&PF, 2006).

The *Iliamna Regional Transportation Corridor Analysis* (PND, 2007) identified a possible road corridor, with three suboptions, for a road between the Pebble Deposit and western Cook Inlet. Subsequently, a preferred corridor approximately 86 miles long was selected for further refinement and engineering and economic analysis. The state's preferred corridor generally follows the "Cook Inlet to Bristol Bay Corridor" identified in the Southwest Alaska Transportation Plan, Revised (PB Consult, Inc., September 2004). The final report for the Iliamna regional transportation corridor analysis is pending.

Between Williamsport and the boundary between the Bristol Bay and Cook Inlet drainages, the state's preferred corridor partly follows the existing state right-of-way and partly deviates south through land owned by the Seldovia Native Association to avoid the steep avalanche-prone grade the existing road takes to the divide.

The State of Alaska owns rights-or-way and easements across certain privately owned lands in the study area. The *Kenai Easement Atlas* (ADNR, 1993) documents state right-of-way and easement locations in the central study area.

Under Revised Statute 2477 (RS 2477) from the Mining Act of 1866, the State of Alaska also claims two rights-of-way in the central study area. RS 2477 granted public rights-of-way across unreserved federal land to guarantee access as federal land was transferred to state or private ownership. The two RS 2477 rights-of-way in question are RST 496, the Iniskin Peninsula Road, and RST 529, the Iniskin Bay-Oil Bay Trail. (Go to http://dnr.alaska.gov/mlw/trails/rs2477/rst_quad.cfm to see descriptions of the routes of these rights-of-way.)

46.6.2.2 Possible Port Sites

The *Iliamna Regional Transportation Corridor Analysis* (PND, 2007) identifies several possible deep-water port sites in the vicinity of Iniskin and Iliamna bays. One of the sites was selected by the State of Alaska as its preferred port site and eastern road head for a possible road to the Pebble mine (Figures 46-1 and 46-2). The state's preferred port site is located on a privately owned tract near Knoll Head at the mouth of Iniskin Bay. CIRI currently holds title to the surface and subsurface estate of the tract, but under terms of the 1976 Cook Inlet Land Exchange, the surface estate is open to selection by one of CIRI's village corporations (Cunningham, pers. comm., 2007). Disposition of the village selections is a complex matter involving several village corporations, as well as CIRI. At end of 2008, the selection process and ultimate ownership of this surface estate were unresolved (CIRI, 2009).

There are numerous nearshore small islands off the southwest coast of the Iniskin Peninsula near the mouths of Iniskin Bay and Iliamna Bay. Many of these islands are within the boundary of the Alaska Maritime National Wildlife Refuge (Figures 46-7 and 46-8). The refuge boundary encloses both federal property managed by the U.S. Fish and Wildlife Service and non-federal property within the boundaries of but not part of the refuge. Pomeroy Island and several nearby, small, unnamed islands west of it are federal property and are managed as part of the refuge. Several other islands within the refuge boundary (Mushroom Islets, Iniskin Island, Scott Island, Vert Island, White Gull Island, and nearby, unnamed, small islands) have been conveyed to ANCSA Native corporations and are not part of the refuge.

Marine routes in this general area cross or abut state-owned tidelands and submerged lands that are part of several management units subject to the KAP. These units include tidelands and submerged lands up to three miles offshore of the outer coast near the Iniskin Peninsula and Iniskin and Iliamna bays, plus most

of Cottonwood Bay south of Iliamna Bay. Table 46-3 identifies and Figures 46-7 and 46-8 depict these tideland and submerged-land management units. Table 46-3 also summarizes the land use designation and management intent for these units. Briefly, these units are as follows:

- Unit 522A, general use tidelands, designated for dispersed recreation and tourism uses.
- Unit 587, Iniskin Peninsula and Bay tidelands, designated as habitat.
- Unit 588A, Iniskin, Mushroom, Vert, White Gull islands and other islands at mouth of Iniskin Bay, designated as habitat.
- Unit 588B, Williamsport tidelands in Iliamna Bay, designated for waterfront development.
- Unit 589, Dutton tidelands in Cottonwood Bay, designated for resource management—high value.
- Unit 590, Head of Cottonwood Bay tidelands, designated as habitat.
- Unit 594, Ursus Cove tidelands, designated as habitat.

46.7 Summary

This baseline description of land and water use in the Cook Inlet drainages regional study area generally describes the existing ownership, use, and management of the coastal uplands, tidelands, and submerged lands on and offshore of the western coast of lower Cook Inlet. The regional study area extends from the southern boundary of Lake Clark National Park to the northern boundary of Katmai National Park. Particular attention is given to land and water uses in the central study area.

The regional study area encompasses approximately 902 square miles of uplands and 1,100 square miles of tidelands and submerged lands. The State of Alaska is the largest landowner in the regional study area and holds patent or tentative approval to 538.6 square miles of uplands. Most state uplands, approximately 388 square miles, are managed as the McNeil River State Game Refuge and Sanctuary. The state also owns all tidelands and submerged lands within the three-mile limit in the regional study area.

Except for McNeil River State Game Refuge and Sanctuary and the Kamishak SUA, the state uplands, tidelands, and submerged lands in the study area are managed according to the planning designations and management policies of the KAP. Most state uplands are designated as wildlife habitat, and most tidelands and submerged lands are designated for dispersed public recreation and tourism.

Several state-owned tideland and submerged-land management units are situated in the study area:

- Tidelands and submerged lands at a possible port site near the mouth of Iniskin Bay.
- Tidelands in Iliamna Bay near Williamsport.
- Tidelands and submerged lands near Seal Spit on the north coast of the Iniskin Peninsula.
- Tidelands and submerged lands off the south coast of the Iniskin Peninsula.

These management units are designated, respectively, for habitat, waterfront development, habitat or high-value resource management, and habitat.

The state also owns a 100-foot-wide right-of-way along the existing Williamsport-Pile Bay Road. The State of Alaska's preferred possible route for an improved road west from Williamsport partly follows this existing alignment and partly crosses into Native-corporation lands to avoid a steep avalanche-prone section of the existing road.

Most of the uplands in the Cook Inlet drainages central study area are owned by one of several ANCSA Alaska Native corporations: Cook Inlet Region, Inc., Seldovia Native Association, and Tyonek Native Corporation.

The prevalent existing land and water uses in the regional study area are wilderness and natural habitats that support a variety of low-intensity recreational activities such as hunting, sportfishing, wildlife viewing, and flight-seeing. Access for recreation is by small plane or boat. There are no improved boat harbors, port facilities, public airports, or public transportation improvements, except the Williamsport barge landing and the Williamsport-Pile Bay Road.

There are no permanent year-round settlements in the study area. There are two clusters of Native allotments and homesteads or homesites: one at Seal Spit on the northern coast of the Iniskin Peninsula and another around Cottonwood Bay south of Williamsport.

46.8 References

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TABLES

TABLE 46-1
Primary Land Use Designations for Kenai Area Plan Region 12: West Side of Cook Inlet—South of Redoubt Bay

Primary Use Designation ^a	Designation Abbreviation	Uplands (acres)	Tidelands (acres)
Forestry	Fo	2,560	0
General use	Gu	25,689	0
Habitat (fish and wildlife)	Ha	421,154	221,574
Harvest (fish and wildlife)	Hv	0	6,997
Heritage (cultural resources)	Hr	22,035	0
Public recreation and tourism—dispersed use	Rd	0	590,696
Resource management—high value	Rh	0	1,141
Waterfront development	Wd	0	1,989

Notes:

a. Some planning units have multiple designated uses.

Source: ADNR, 2001.

TABLE 46-2
Primary Land Use Designations for Kenai Area Plan Management Units in the Central Study Area

Unit No.	Name	Uplands (acres)	Tidelands (acres)	Land Use Designation
25	Rich Creek, Iniskin Peninsula	640		Forestry
26	Upper Bowser Creek, Iniskin Peninsula	640		Forestry
27	Bowser and Paveloff creeks, Iniskin Peninsula	640		Forestry
35	Irish Creek, Iniskin Peninsula	640		Forestry
522A	General use tidelands		512,715	Recreation and tourism—dispersed
582	Gull Island (Chinitna Bay)	493		Habitat
583	Seal Spit tidelands (Chinitna Bay)		147	Resource management—high value
587	Iniskin Peninsula and Bay tidelands		32,902	Habitat
588A	Iniskin, Mushroom, Vert and White Gull islands and other islands at mouth of Iniskin Bay	2,824		Habitat
588B	Williamsport tidelands in Iliamna Bay		1,314	Waterfront development
589	Dutton tidelands at head of Cottonwood Bay		49	Resource management—high value
590	Head of Cottonwood Bay tidelands		343	Habitat
594	Ursus Cove tidelands		18,072	Habitat

Source: ADNR, 2001.

TABLE 46-3
Management Intent for Kenai Area Plan Management Units in the Central Study Area

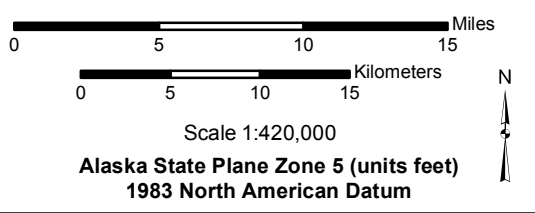
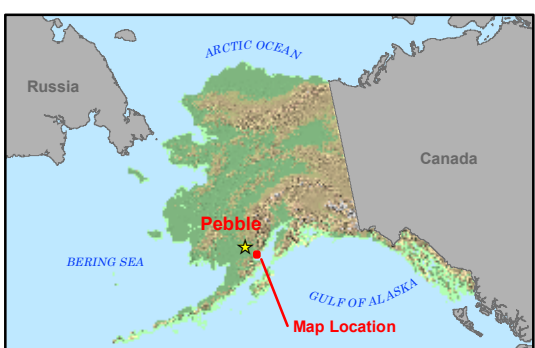
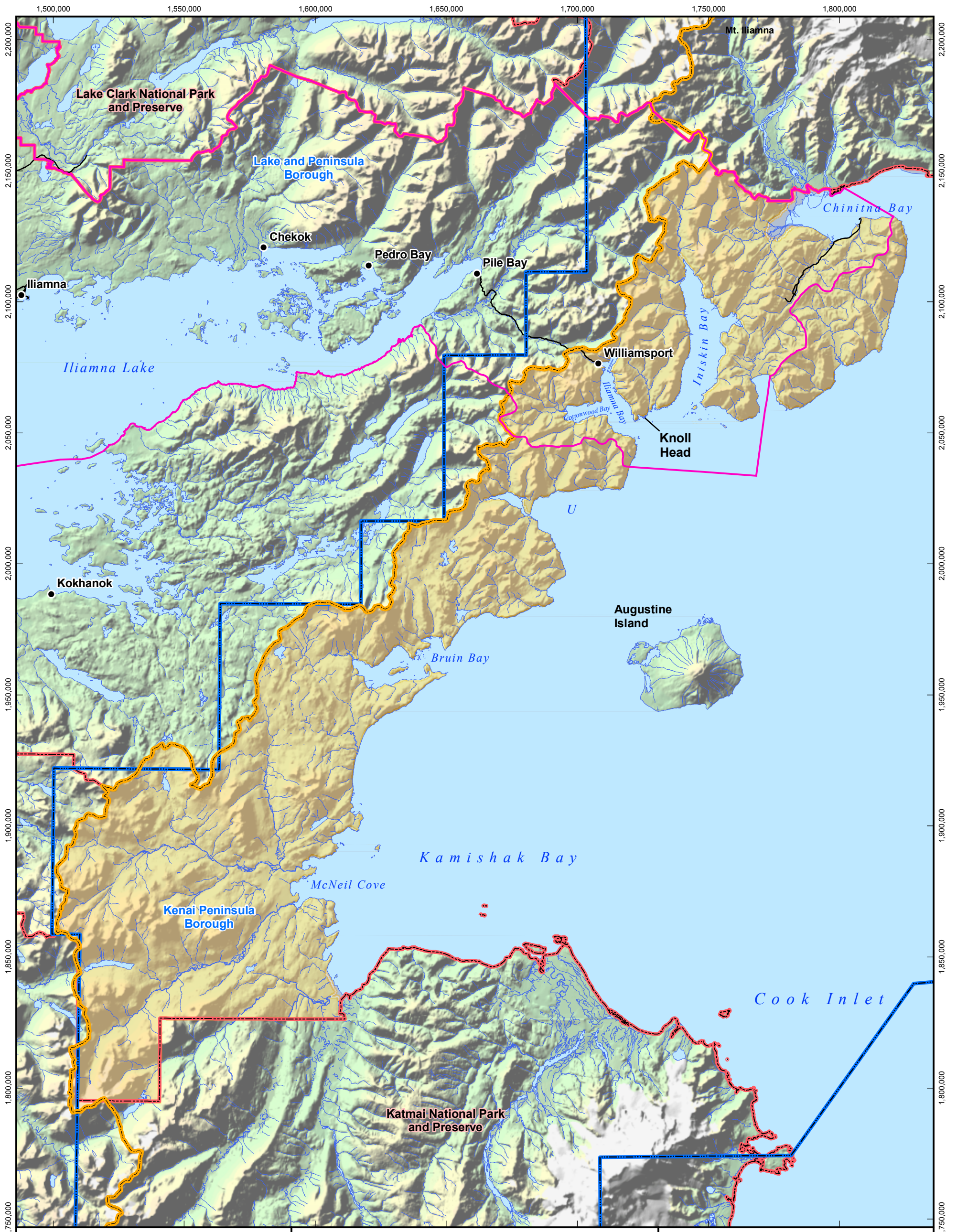
Unit Number and Name	Land Use Designation	Area (acres)	Management Intent	Resources, Uses, Additional Information
25 Rich Creek, Iniskin Peninsula	Forestry	640	Timber values in this unit. ADNR may sell its timber when timber on adjacent Native-corporation land is sold. No immediate schedule for harvest.	Salmon spawning/rearing. This unit was conveyed to the state as School Trust land (see ADNR, 2001, Chapter 4).
26 Upper Bowser Creek, Iniskin Peninsula	Forestry	640	Timber values.	Anadromous-fish spawning habitat. This unit was conveyed to the state as School Trust land (see ADNR, 2001, Chapter 4).
27 Bowser and Paveloff creeks, Iniskin Peninsula	Forestry	640	Timber values.	Brown bears, steelhead trout run, salmon spawning/rearing. Anadromous-fish spawning habitat. This unit was conveyed to the state as School Trust land (see ADNR, 2001, Chapter 4).
35 Irish Creek, Iniskin Peninsula	Forestry	640	Timber values.	Moose, general distribution; Dolly Varden/arctic char, general distribution; ducks and geese, general distribution. This unit was conveyed to the state as School Trust land (see ADNR, 2001, Chapter 4).
522A General use tidelands	Recreation and tourism—dispersed	512,715	Much of this area is adjacent to Lake Clark National Park, and a Special Use Land Designation applies to part of this unit (ADNR, 2001, Appendix D).	Beaches used by aircraft for landing. Herring spawning habitat, herring/salmon migration corridor, juvenile fish/shellfish rearing habitat, commercial fishing activity. Anadromous stream mouths. Beluga whale habitat. Cultural sites present. Herring spawn along coast south of the mouth of Amakdedori Creek.
582 Gull Island (Chinitna Bay)	Habitat	493	Gull Island supports a seabird colony of over 1,000 adult birds and is a seal haulout area. Consult with National Marine Fisheries Service before authorizing development in this unit because of harbor seal concentrations. A Special Use Land Designation applies to part of this unit (ADNR, 2001, Appendix D).	

Unit Number and Name	Land Use Designation	Area (acres)	Management Intent	Resources, Uses, Additional Information
583 Seal Spit tidelands (Chinitna Bay)	Resource management— high value	147	There are dock facilities on this unit that once supported oil-drilling operations on Upper Fritz Creek. Cultural sites present. May have potential for waterfront development if resources (such as timber) on the Iniskin Peninsula are harvested. Retain in state ownership.	
587 Iniskin Peninsula and Bay tidelands	Habitat	32,902	Waterfowl concentration area, harbor seal concentration. Pacific-herring spawning area, particularly on the east side of Iniskin Bay. Herring spawning habitat, herring/salmon migration corridor, juvenile fish/shellfish rearing habitat, commercial fishing activity. Anadromous stream mouths. Bears feed on sedge flats at head of Iniskin Bay at low tide.	Potential requests for mooring buoys for ships to tie up to when loading logs. Cultural sites present.
588A Iniskin, Mushroom, Vert, and White Gull islands and other islands at mouth of Iniskin Bay	Habitat	2,824	Large marine-bird nesting colonies on Iniskin, Vert, White Gull, and Mushroom islands. Seal haulout northwest of Pomeroy Island and north of Iniskin Island. Herring spawning area around Mushroom, Scott, and Vert islands. Herring/salmon migration corridor, juvenile fish/shellfish rearing habitat, commercial fishing activity.	The uplands in this unit are within the Alaska Maritime National Wildlife Refuge.
588B Williamsport tidelands in Iliamna Bay	Waterfront development	1,314	The Lake and Peninsula Borough is currently requesting federal and state funds to upgrade the existing road between Williamsport and Pile Bay (on Iliamna Lake) and for tideland dredging. The primary use of the road would be to transport commercial fishing vessels between Cook Inlet and Bristol Bay. The road also would be used to transport goods, services, people, and fuel to the villages on Iliamna Lake (rather than using the more circuitous Kvichak River barge route). Potential means of access to Pebble mine. Manage unit for purposes of access to the uplands.	

Unit Number and Name	Land Use Designation	Area (acres)	Management Intent	Resources, Uses, Additional Information
589 Dutton tidelands at the head of Cottonwood Bay	Resource management—high value	49	Potential site for future tideland facilities that would access the Chigmit Mts. and Iliamna Lake area. Eelgrass beds provide important habitat and cover for rearing salmon and shellfish. Herring/salmon migration corridor, commercial fishing activity. Anadromous stream mouth. Cultural sites present. Manage unit for purposes of access to the uplands.	
590 Head of Cottonwood Bay tidelands	Habitat	343	Eelgrass beds provide important habitat and cover for rearing salmon and shellfish. Herring/salmon migration corridor, commercial fishing activity.	
594 Ursus Cove tidelands	Habitat	18,072	Herring spawning area particularly south of Ursus Cove. Anadromous stream mouths. Herring/salmon migration corridor, juvenile fish/shellfish rearing habitat, commercial fishing activity.	

Source: ADNR, 2001.

FIGURES








- Legend**
- Cook Inlet Drainages Regional Study Area
 - Bristol Bay/Cook Inlet Drainages Boundary
 - Central Study Area
 - Borough Boundary
 - National Park or Preserve
 - Existing Roads

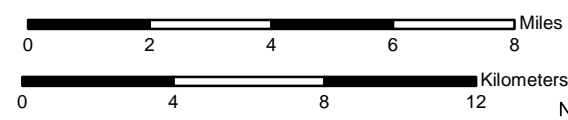


**Figure 46-1
Cook Inlet Drainages,
Regional Land Use Study Area**

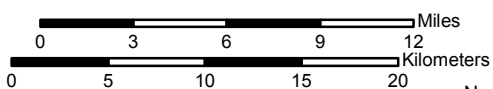
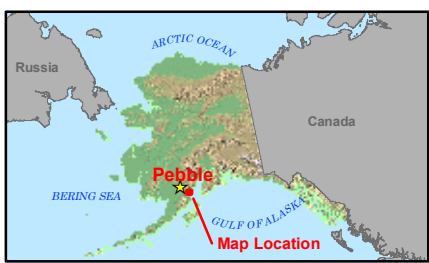
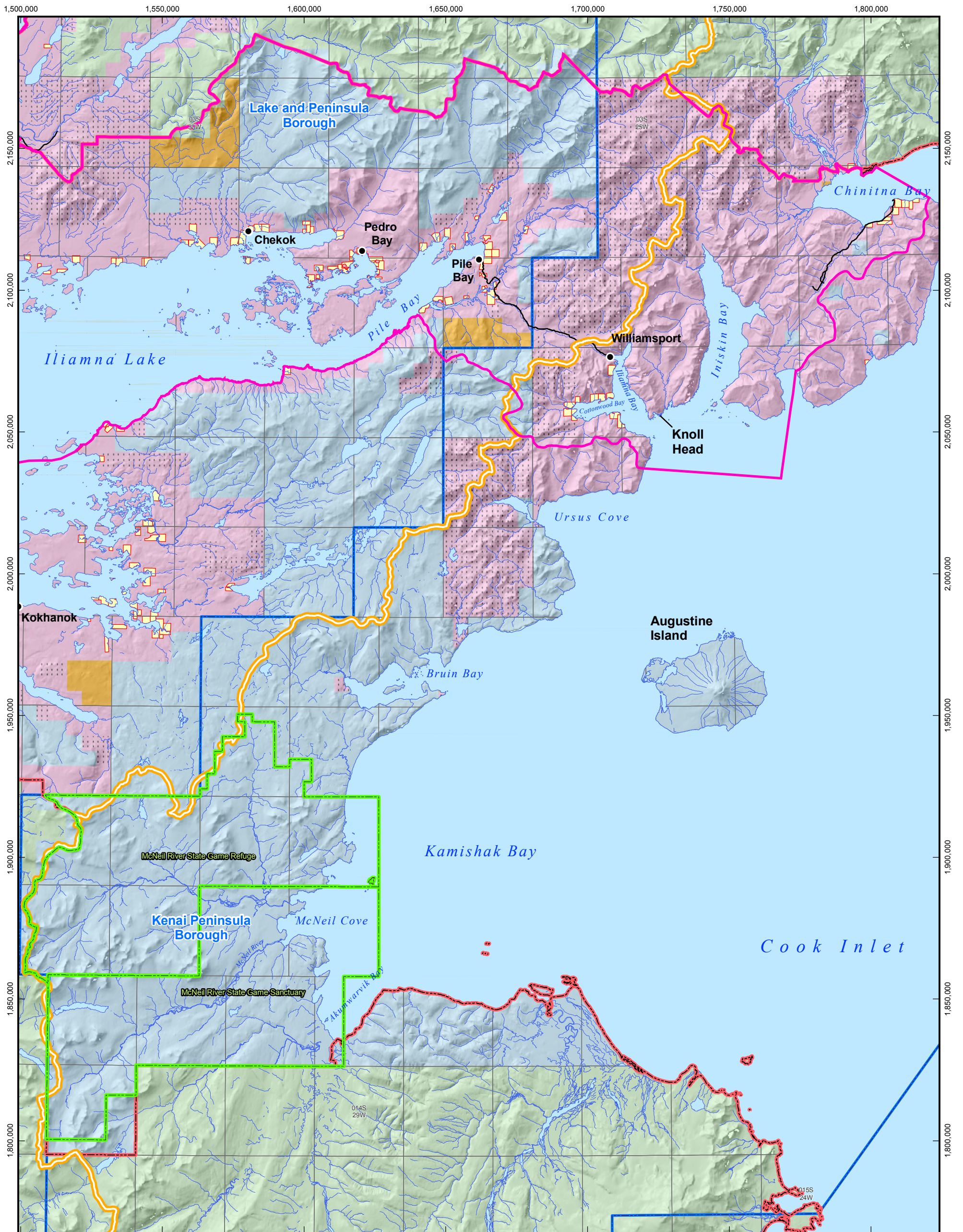
Figure 46-2
Cook Inlet Drainages,
Central Land Use Study Area

Legend

-  Central Study Area
-  Bristol Bay/Cook Inlet Drainages Boundary
-  Borough Boundary
-  Lake Clark National Park Boundary
-  Lake Clark Wilderness Boundary



Scale 1:200,000
Alaska State Plane Zone 5 (units feet)
1983 North American Datum



Scale 1:390,000
 Alaska State Plane Zone 5 (units feet)
 1983 North American Datum

Legend

- Bristol Bay/Cook Inlet Drainages Boundary
- Central Study Area
- McNeil River State Game Refuge/Sanctuary
- National Park or Preserve
- Borough Boundary
- Existing Roads
- General Land Status (BLM, 2006)
- Native Patent or Interim Conveyance
- Native Selected
- State Patent or Tentative Approval
- State Selected
- National Park Service
- Bureau of Land Management
- Native Allotments/Private Lands (based on BLM, various)



Figure 46-3
Cook Inlet Drainages
General Land Ownership

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Version: 7 Author: RDI-LS

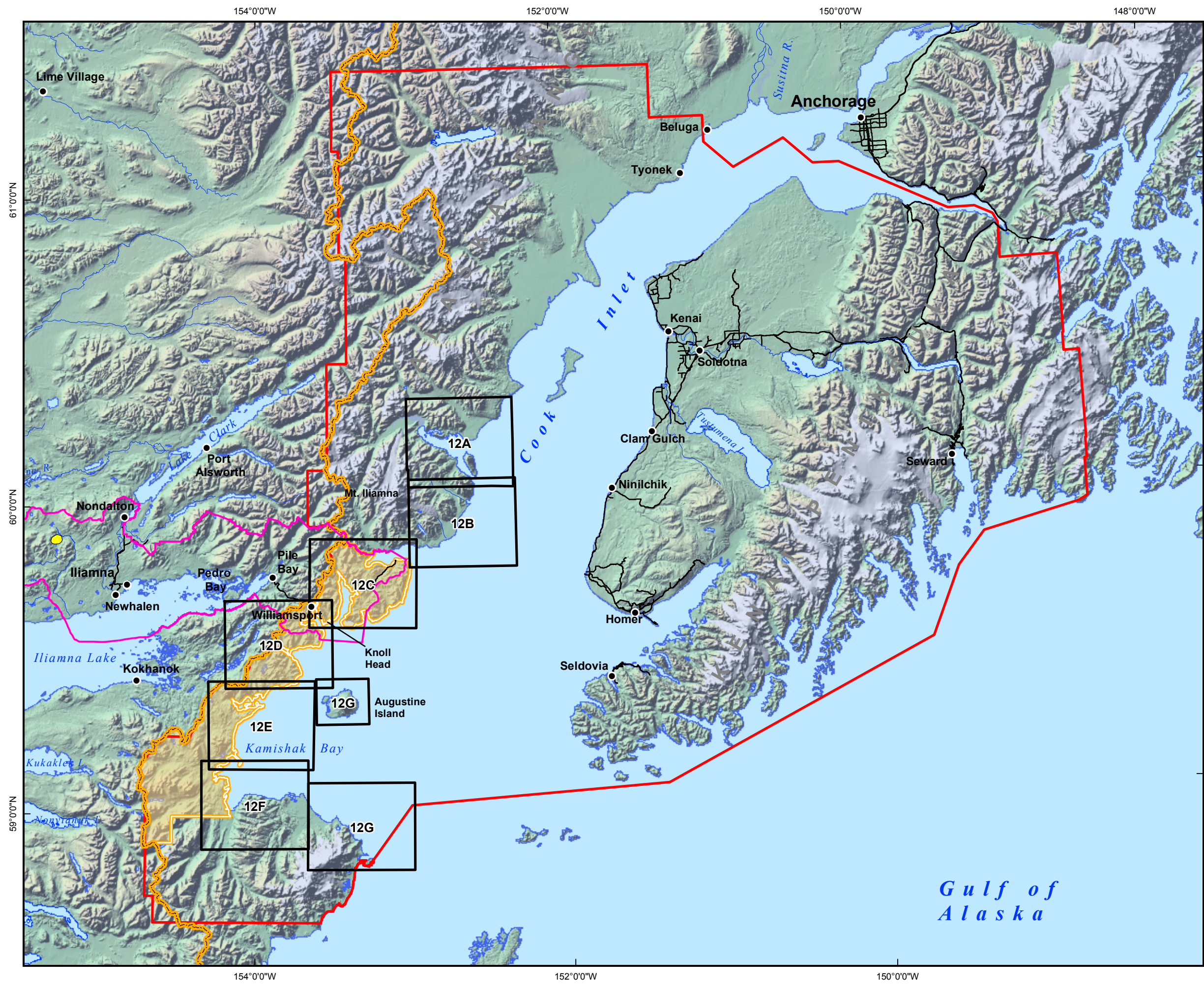
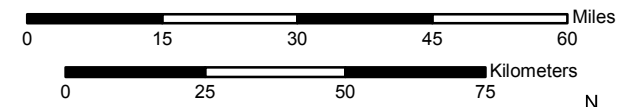
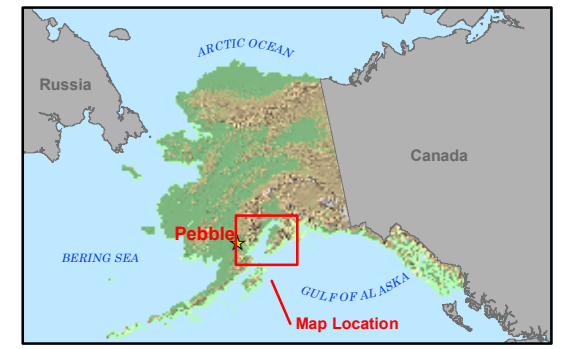


Figure 46-4
Kenai Area Plan Boundary
and Region 12 Map Boundaries

- Legend**
- Kenai Area Plan Boundary
 - KAP Region 12 Map Boundary
 - Cook Inlet Drainages Regional Study Area
 - Central Study Area
 - Bristol Bay/Cook Inlet Drainages Boundary
 - General Deposit Location
 - Existing Roads

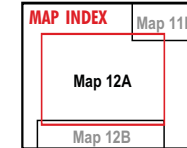
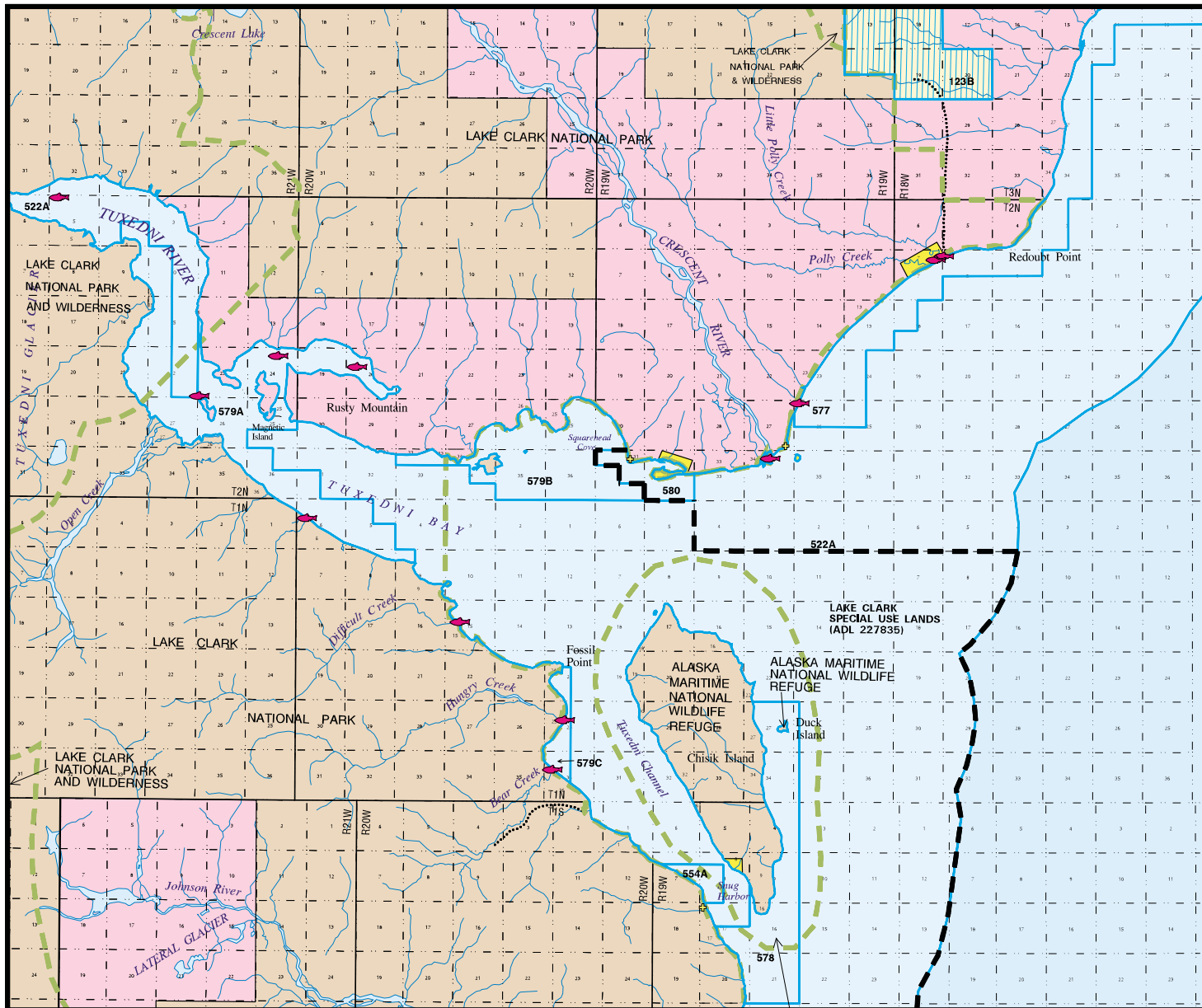


Scale 1:1,350,000
Alaska State Plane Zone 5 (units feet)
1983 North American Datum

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Version: 7	Author: RDI-LS

REGION 12

Map 12A - Tuxedni Bay



Unit	Designation
123B	gu
522A	rd
554A	rh
577	ha hv
578	ha
579A	ha
579B	ha
579C	ha
580	wd

LEGEND

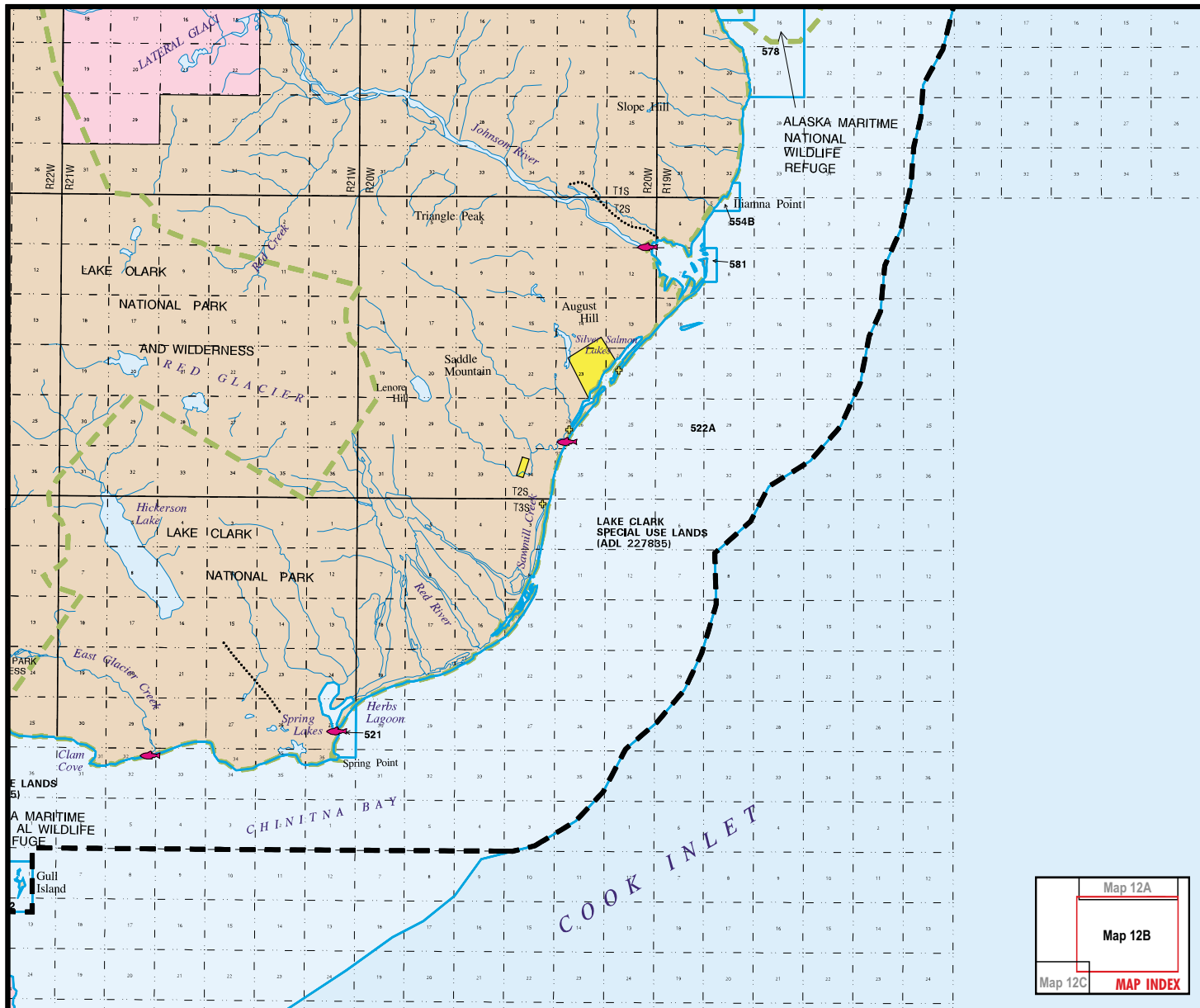
- State owned
- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- Anchorage
- Anadromous stream mouth
- 35A Unit number

Figure 46-5, Kenai Area Plan, Map 12 A - Tuxedni Bay (ADNR, 2001)

REGION 12

Map 12B - South of Tuxedni Bay

Unit	Designation
521	ha
522A	rd
554B	rh
578	ha
581	ha



LEGEND

- State owned
- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- Anchorage
- Anadromous stream mouth
- 35A Unit number

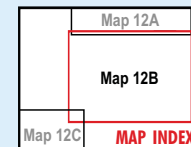
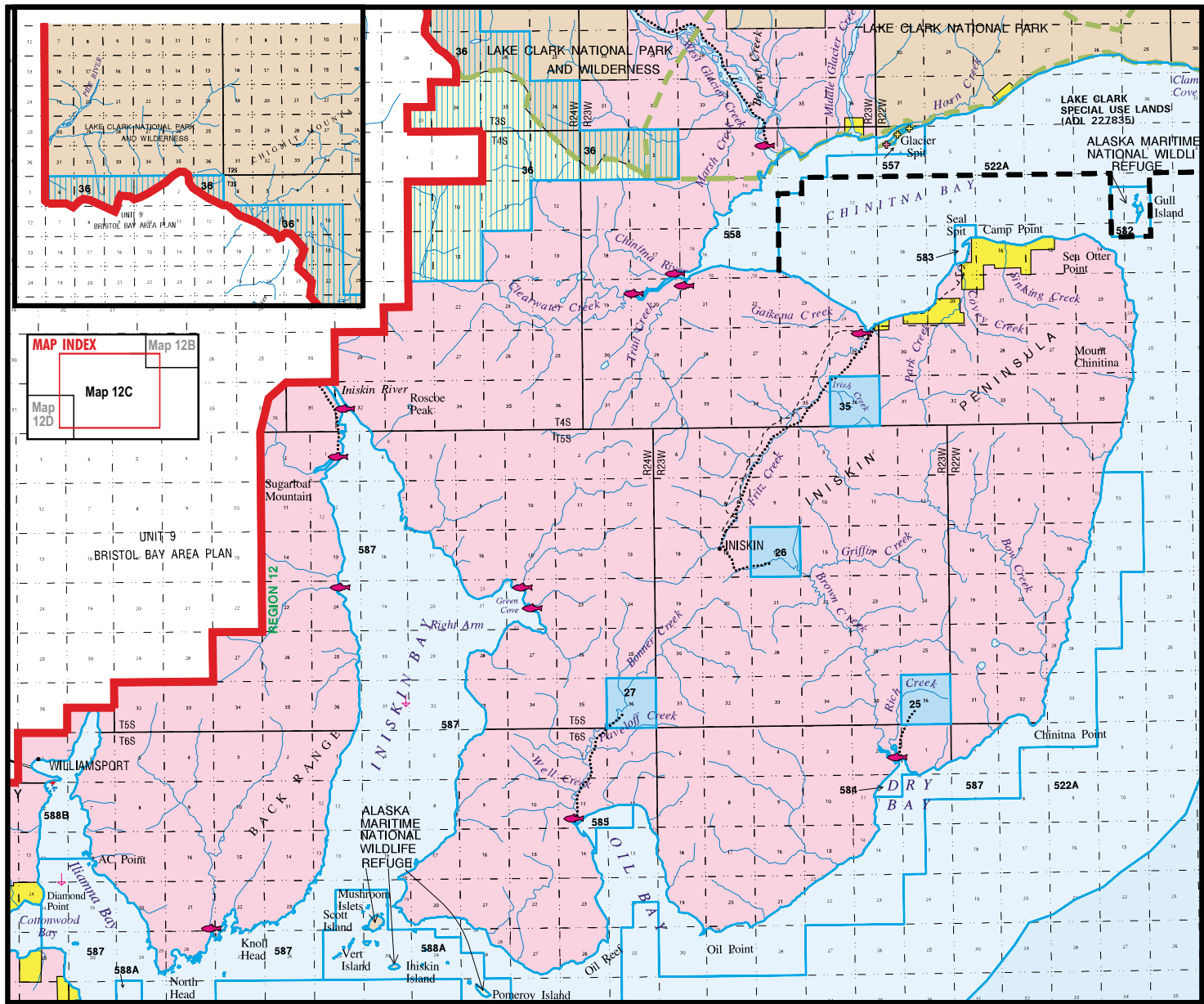


Figure 46-6, Kenai Area Plan, Map 12 B - South of Tuxedni Bay, (ADNR, 2001)

REGION 12

Map 12C - Chinitna & Iniskin Bays



Unit	Designation	Unit	Designation
25	fo	587	ha
26	fo	588A	ha
27	fo	588B	wd
35	fo	301	gu
36	gu	506A	gu
522A	rd	506B	gu
557	ha		
558	ha		
582	ha		
583	rh		
584	rh		
585	rh		

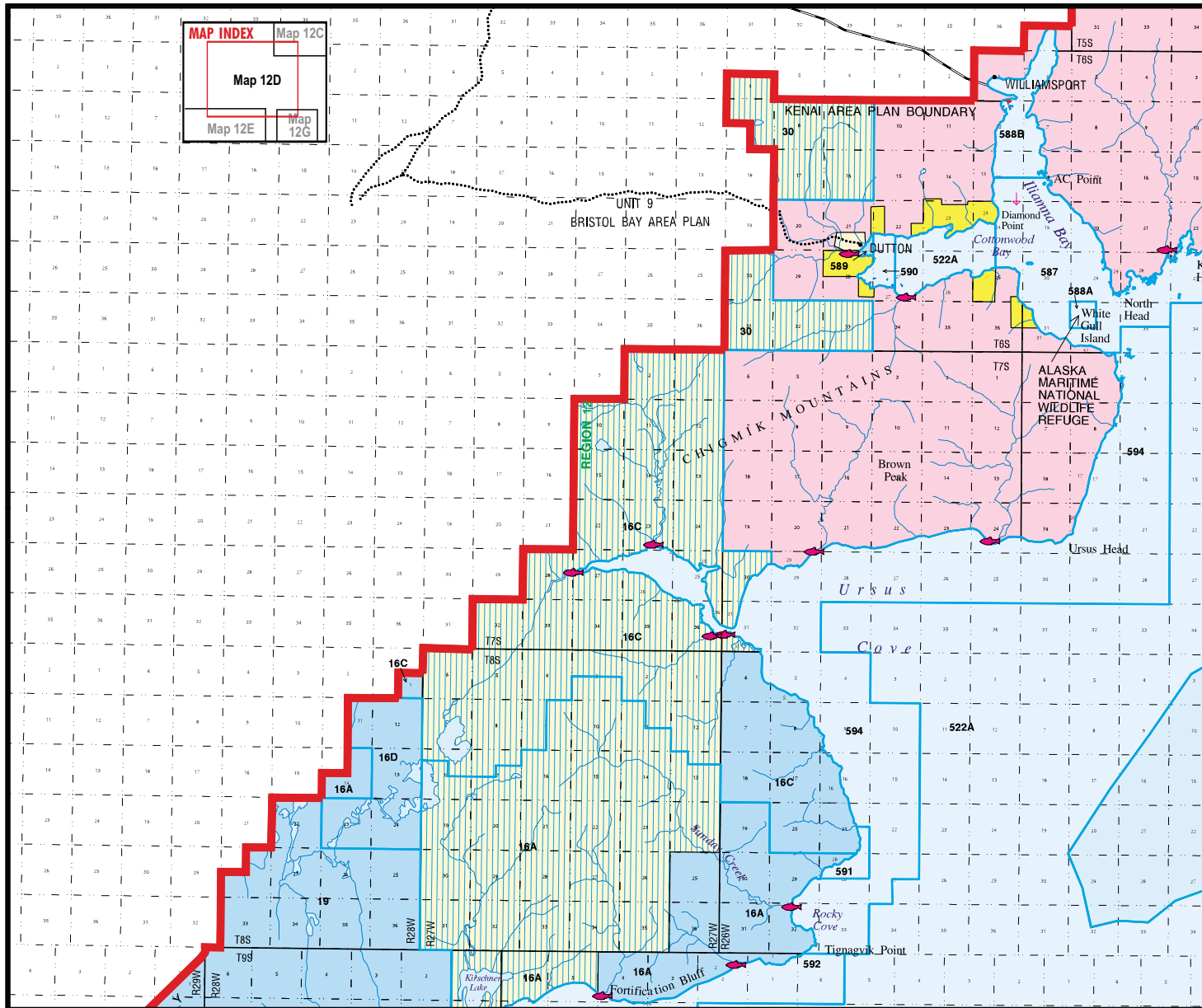
LEGEND

- State owned
- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- Anchorage
- Anadromous stream mouth
- 35A** Unit number

Figure 46-7, Kenai Area Plan, Map 12 C - Chinitna & Iniskin Bay (ADNR, 2001)

REGION 12

Map 12D - Iliamna & Ursus Cove



Unit	Designation
16A	ha
16C	ha
16D	ha
19	ha
30	gu
522A	rd
588A	ha
588B	wd
589	rh
590	ha
591	ha
592	ha
594	ha

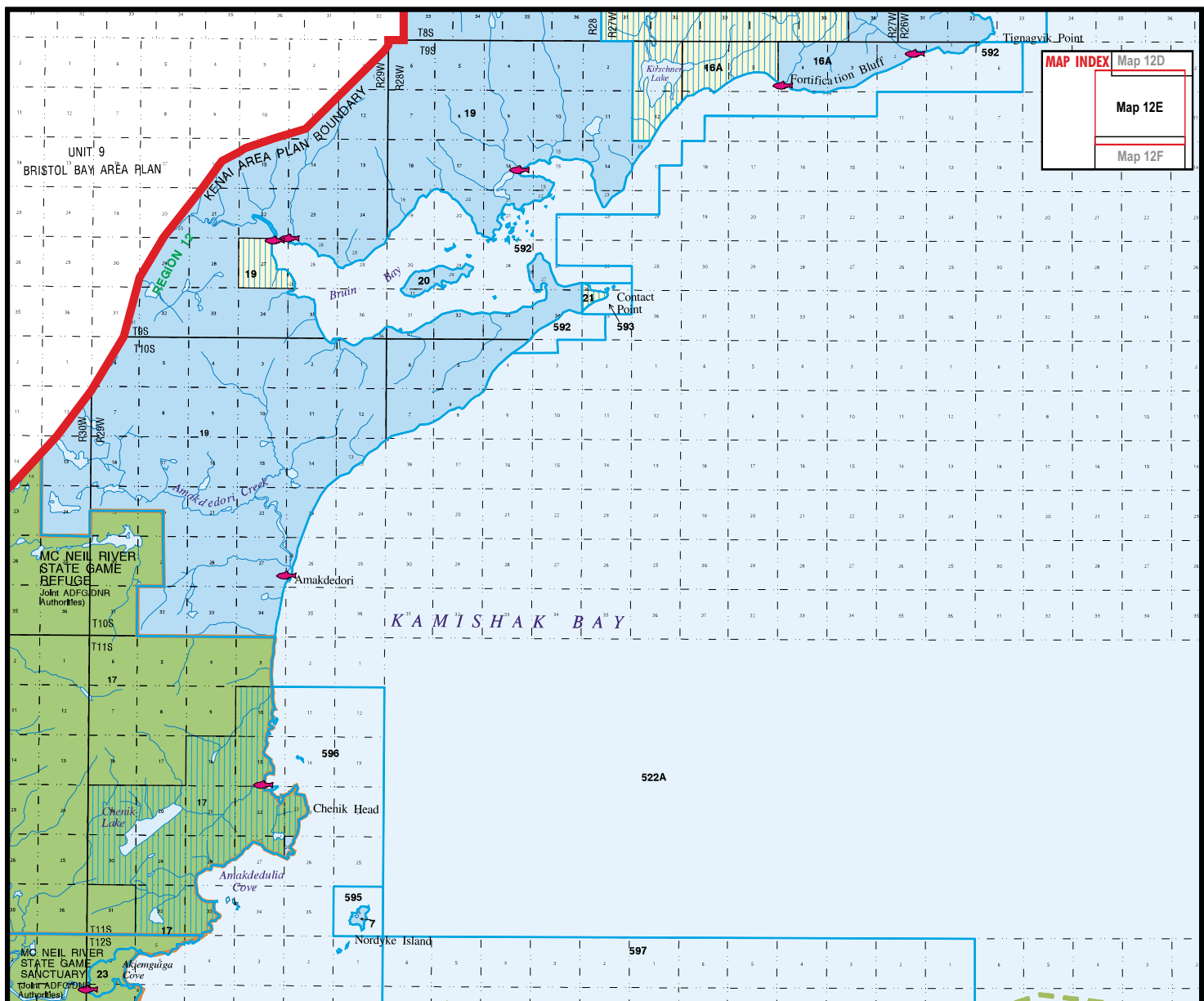
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- State owned
- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- Anchorage
- Anadromous stream mouth
- 35A Unit number

Figure 46-8, Kenai Area Plan, Map 12 D - Iliamna & Ursus Cove (ADNR, 2001)

REGION 12

Map 12E - Bruin Bay



Unit	Designation
7	ha
8	ha
9	ha
17	ha
23	ha
522A	rd
596	ha
597	ha

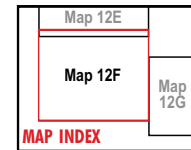
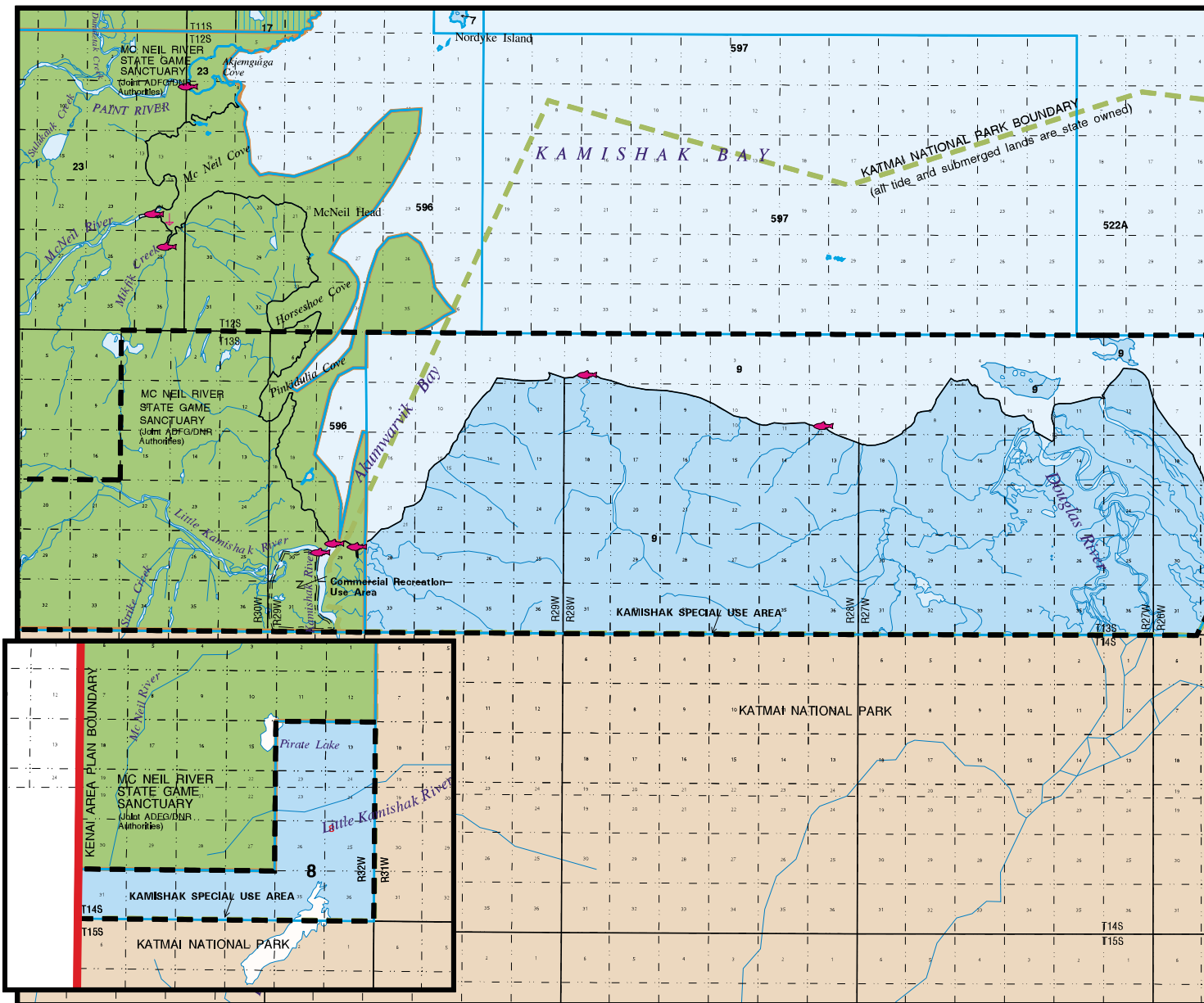
LEGEND

- State owned
- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- Anchorage
- Anadromous stream mouth
- 35A** Unit number

Figure 46-9, Kenai Area Plan, Map 12 E - Bruin Bay (ADNR, 2001)

REGION 12

Map 12F - Kamishak Bay



Unit	Designation
7	ha
8	ha
9	ha
17	ha
23	ha
522A	rd
596	ha
597	ha

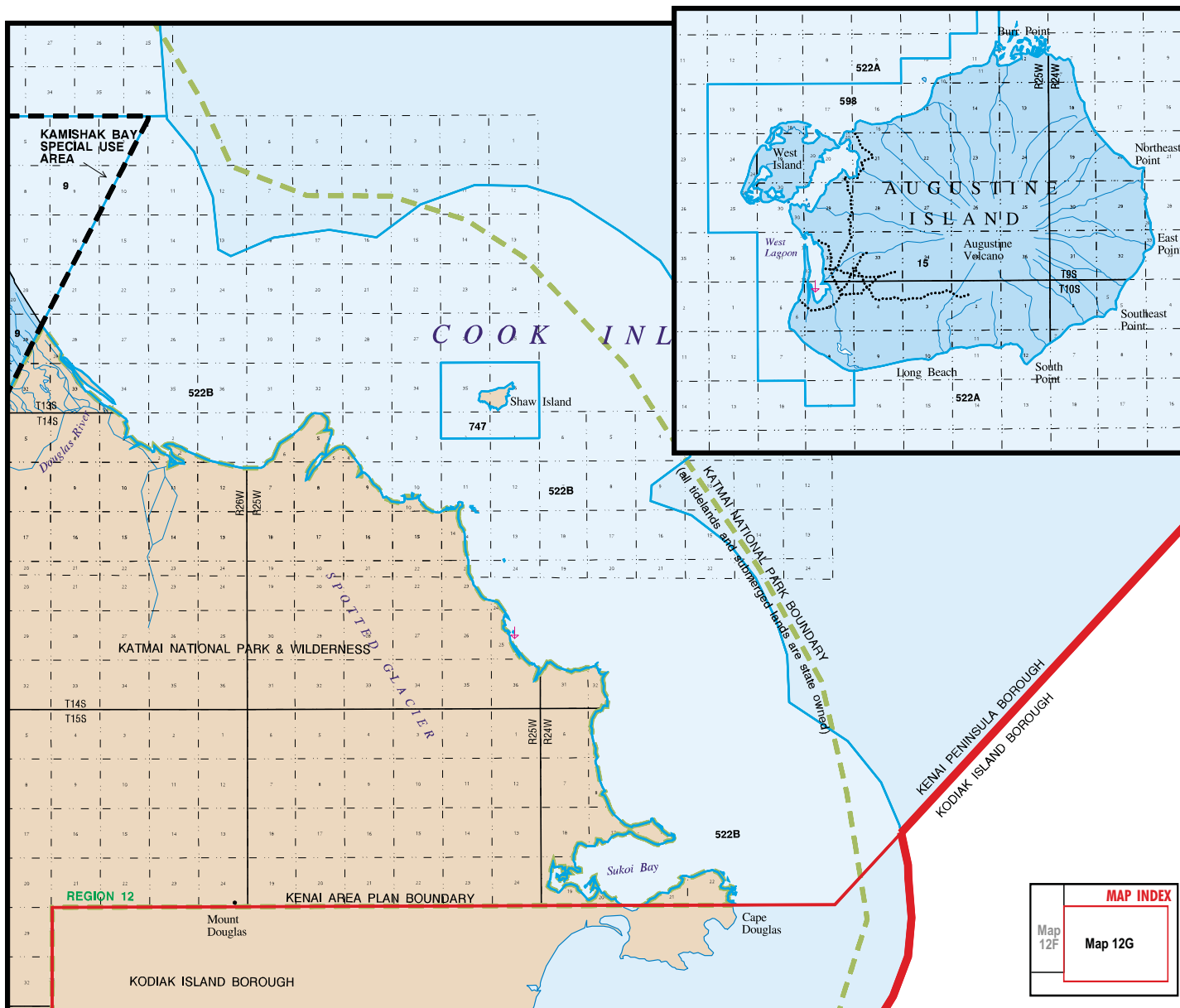
LEGEND

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- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- ↓ Anchorage
- ↘ Anadromous stream mouth
- 35A Unit number

Figure 46-10, Kenai Area Plan, Map 12 F - Kamishak Bay (ADNR, 2001)

REGION 12 Map 12G - Cape Douglas

Unit	Designation
9	ha
15	hr
522A	rd
522B	ha rd
598	ha rd
747	hard



LEGEND

- State owned
- State Park
- Ak. Dept. of Fish & Game
- Ak. Dept. of Trans. & Pub. Facilities
- Borough, City owned
- Natl. Park, Wildlife Refuge or Forest
- Bureau of Land Management
- Native Corporation
- Private
- Mental Health Trust
- State Selected
- Proposed addition to Kenai River SMA
- Proposed addition to State Park system
- Exxon Valdez Oil Spill acquisition
- Borough/City Selected
- City Tidelands
- Legislatively designated area
- Unit boundary
- Special Use Lands
- Region and/or Plan boundary
- Natl. Park, Wildlife Refuge or Forest bdy.
- Anchorage
- Anadromous stream mouth
- 35A** Unit number

MAP INDEX

Map 12F	Map 12G
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Figure 46-11, Kenai Area Plan, Map 12 G - Cape (ADNR, 2001)

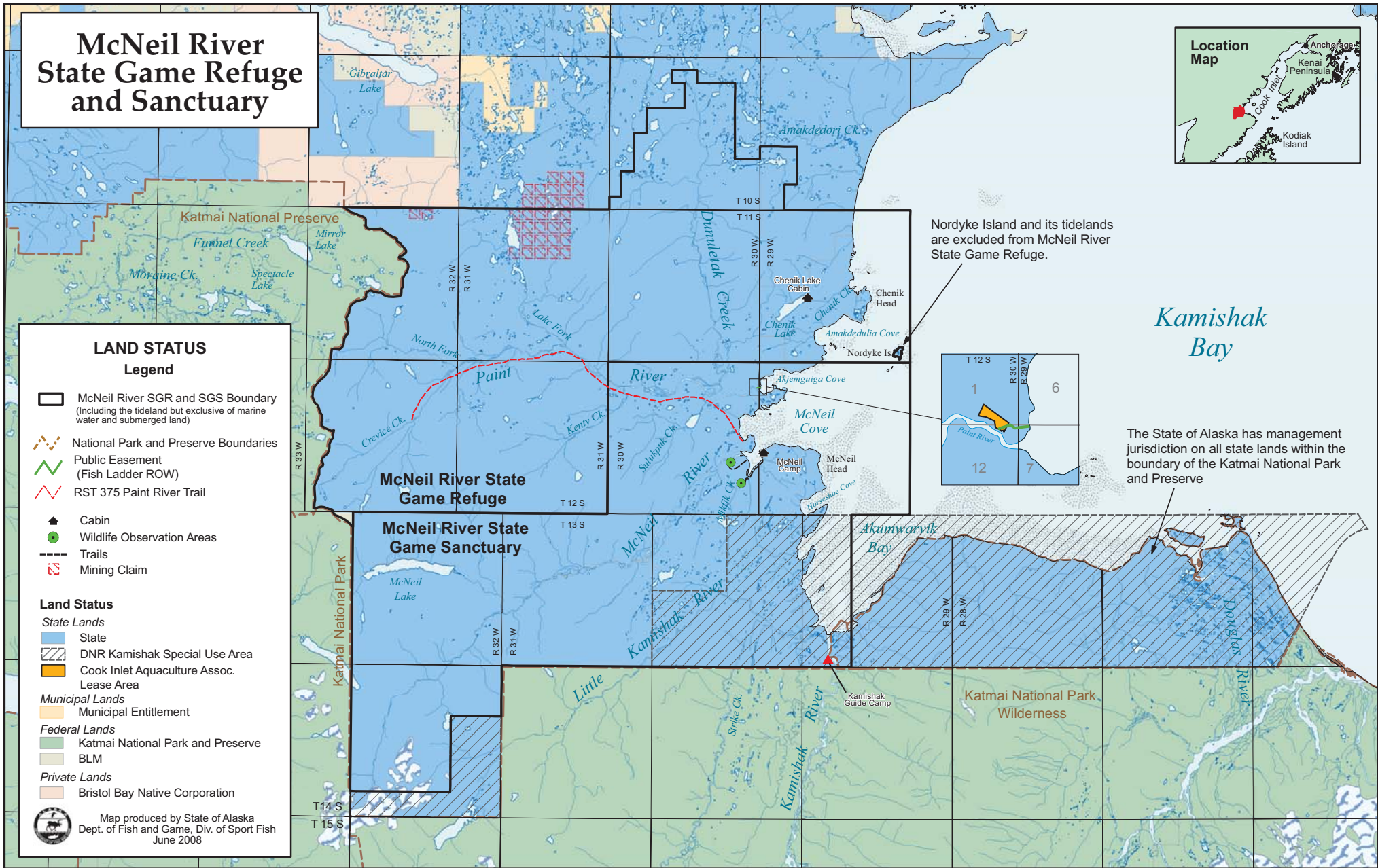
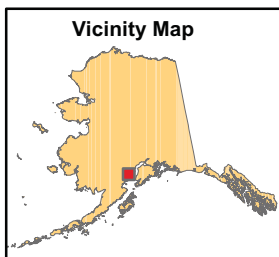
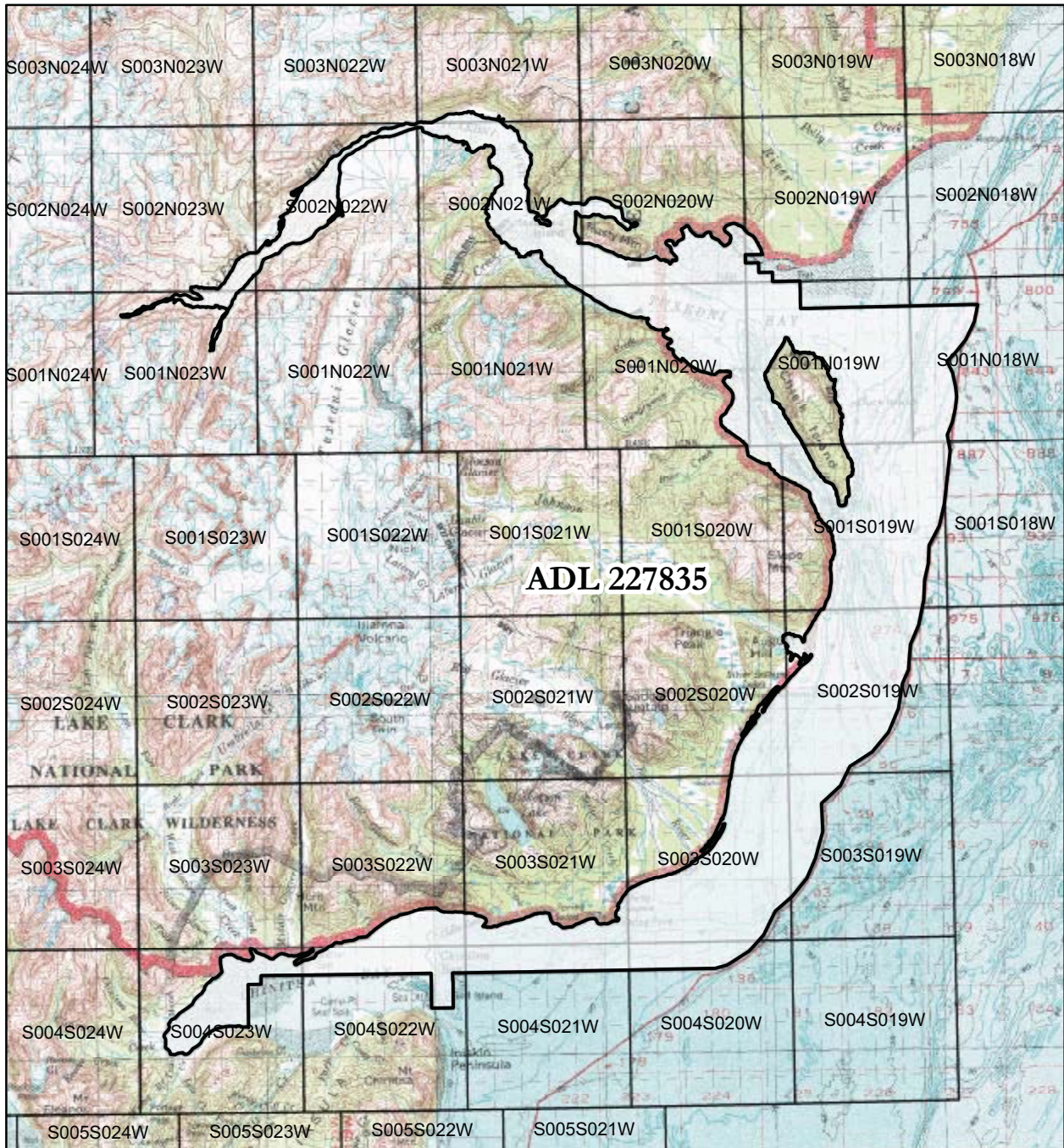


Figure 46-12: Cook Inlet Drainages, McNeil River State Game Refuge and Sanctuary, and Kamishak Special Use Area (ADF&G SFD, 2008)

Lake Clark Coastline Special Use Area

Authorized: January 11, 2000



Legend

 Lake Clark Coastline SUA

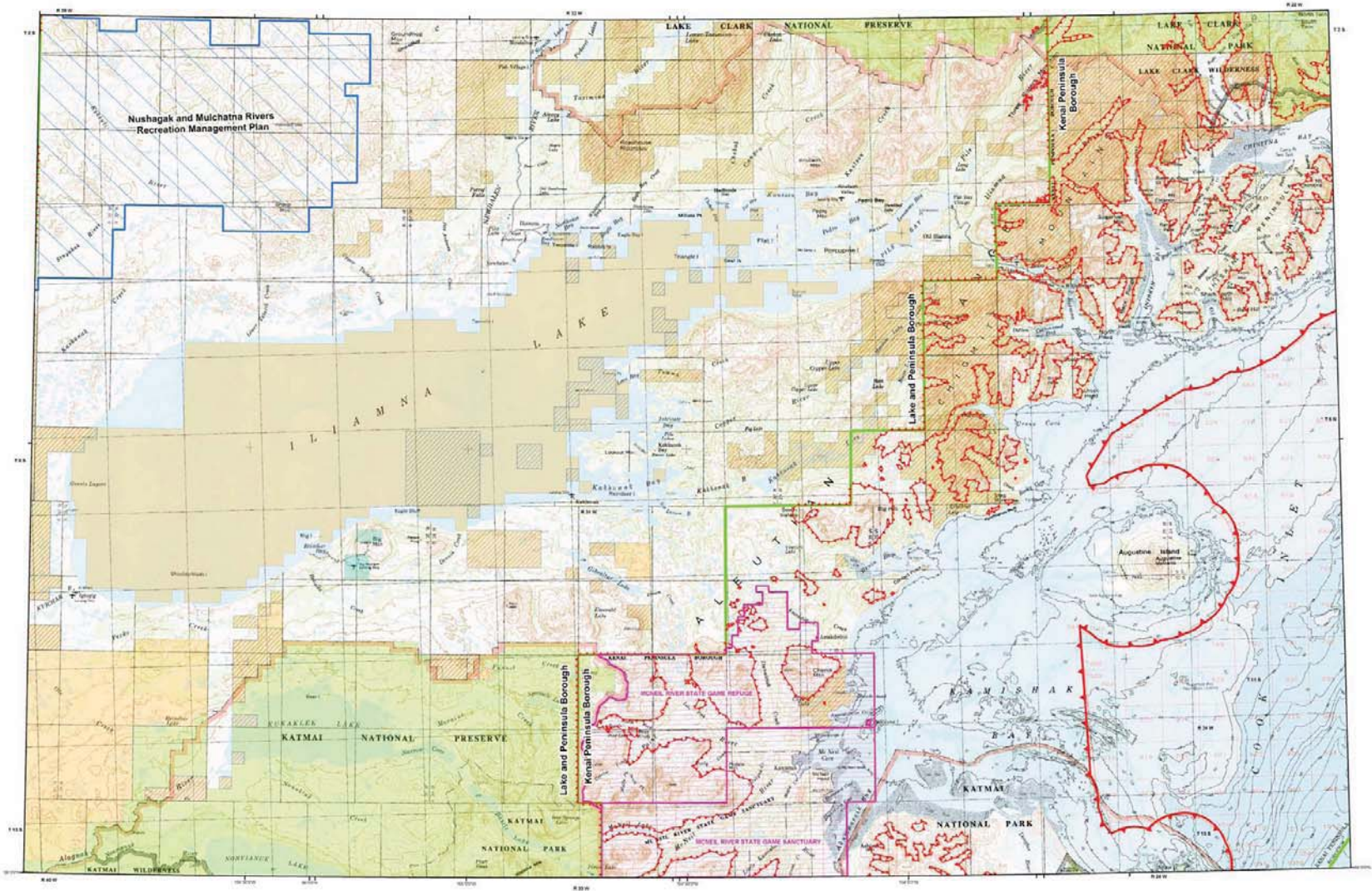


Map Created On October 16, 2002

Alaska Department
of Natural Resources
Division of Mining, Land & Water

Figure 46-13, Lake Clark Coastline SUA (ADNR, 2000)

Coastal Zone Boundaries of Alaska



Iliamna #58



ILOR MTS 55	LAKE CLARK 97	KENAI 92
LINDSAY 55	ILIAMNA 55	SELDOVA 93
NANAIK 81	MT KATMAI 80	AFOGNAK 55

- Coastal Zone Boundary**
- Seaward Boundary
 - Inland Boundary
- Generalized Federal Land Status**
- Bureau of Land Management (BLM)
 - BLM Managed
 - National Park Service
 - Military

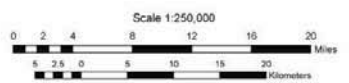
BOUNDARY DESCRIPTION

Federal Lands: Excluded from Alaska's coastal zone boundaries are "those lands owned, leased, held in trust or whose use is otherwise by law subject solely to the discretion of the Federal Government, its officers or agents." (15 CFR 923.33) Activities on these lands are subject to the consistency provisions of Section 307 of the Coastal Zone Management Act of 1972, as amended. Reference to BLM Master Title Plats may be necessary to determine if these criteria apply.

Seaward Boundary: The seaward coastal zone boundary is the "outer limit of the United States territorial sea" (15 CFR 923.32), which is the "three geographical mile line" (43 CFR 3301.1). The seaward boundary depicted on this map was extracted from the Digital Offshore Cadastre - Alaska83 - Submerged Lands Act (SLA) Boundary Line (Minerals Management Service, 2002).

Lake and Peninsula Borough: The inland coastal zone boundary of the Lake and Peninsula Borough includes all lands and waters within the Lake and Peninsula Borough, except for glaciers, active volcanic peaks, and perennially snow-capped mountains.

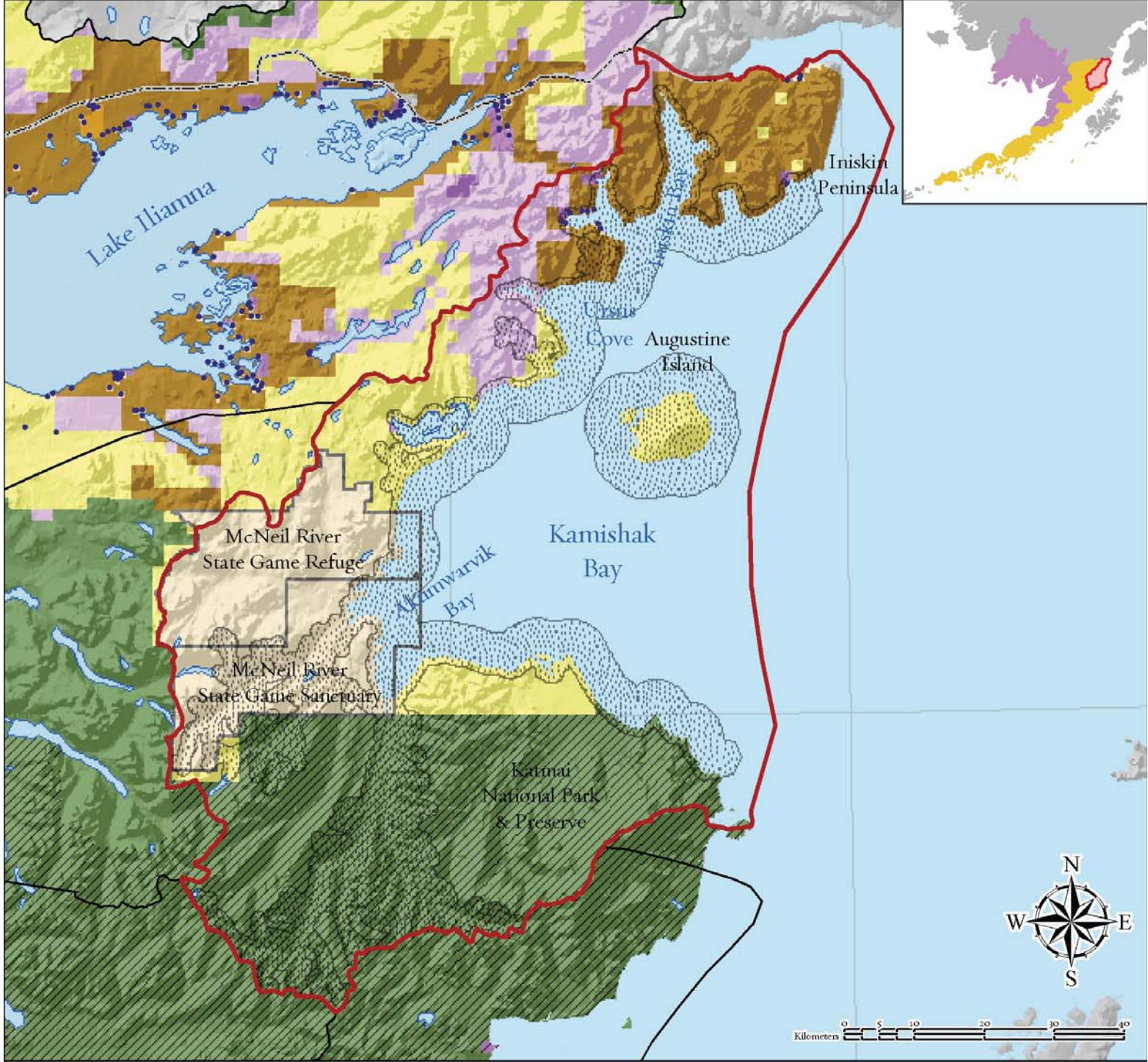
Kenai Peninsula Borough: The inland coastal zone boundary in the Kenai Peninsula Borough includes all islands and the ards and waters within the 1000-foot elevation contour.



Based on USGS Map
Universal Transverse Mercator Projection
May 2006



Figure 46-14, Kenai Peninsula Borough Coastal Zone Boundaries, Cook Inlet Drainages Study Area (ADNR, 2006)



Kamishak Area of Biological Significance

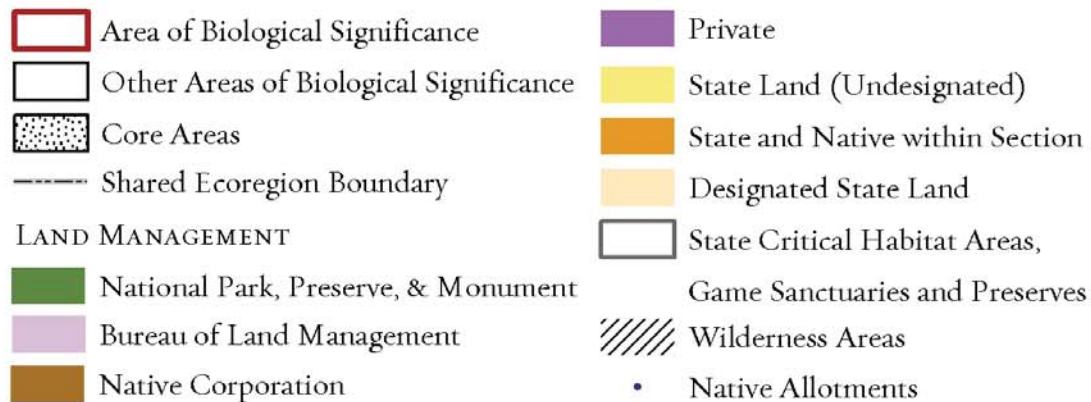


Figure 46-15, Kamishak Area of Biological Significance (The Nature Conservancy, 2004)

153°40'0"W

153°20'0"W

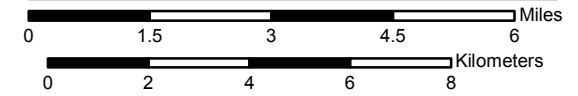
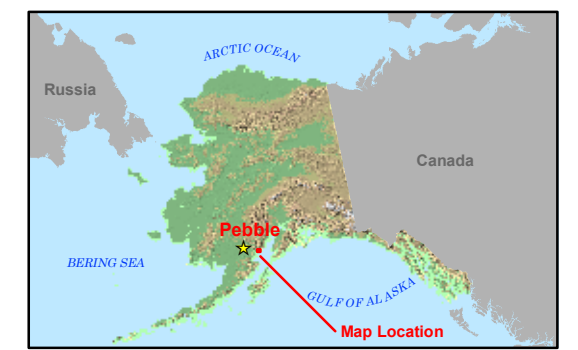
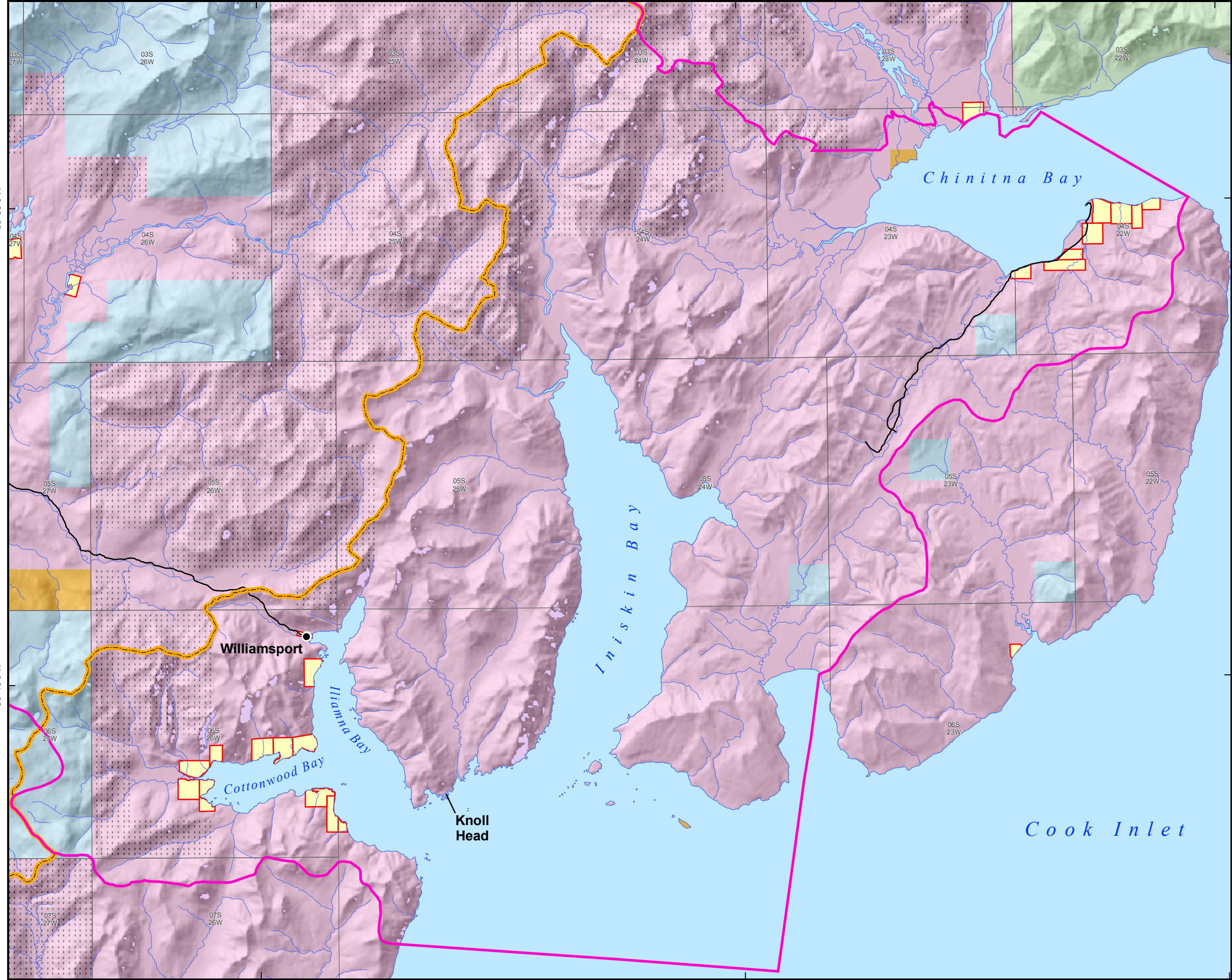
153°0'0"W



Figure 46-16
Cook Inlet Drainages,
Central Land Use Study Area,
General Land Ownership

Legend

- Central Study Area
 - Bristol Bay/Cook Inlet Drainages Boundary
 - Existing Roads
 - Native Allotments/Private Lands (based on BLM, various)
- General Land Status (BLM, 2006)**
- Native Patent or Interim Conveyance
 - Native Selected
 - State Patent or Tentative Approval
 - National Park Service
 - Bureau of Land Management



Scale 1:150,000
Alaska State Plane Zone 5 (units feet)
1983 North American Datum

153°40'0"W

153°20'0"W

153°0'0"W