



**PEBBLE PROJECT  
ENVIRONMENTAL BASELINE DOCUMENT  
2004 through 2008  
(with updates in 2010)**

**CHAPTER 47.  
TRANSPORTATION  
Cook Inlet Drainages**

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## ACRONYMS AND ABBREVIATIONS

ADOT&PF	Alaska Department of Transportation and Public Facilities
CIRI	Cook Inlet Region, Inc.
IDC	Iliamna Development Corporation
IRTCA	<i>Iliamna Regional Transportation Corridor Analysis</i>
KPB	Kenai Peninsula Borough
MLLW	mean lower low water
RS2477	Revised Statute 2477
RST	revised statute trail
SWATP	<i>Southwest Alaska Transportation Plan</i>



## 47. REGIONAL TRANSPORTATION

### 47.1 Introduction

The Pebble Project may include construction of a new industrial road and a port on Cook Inlet to import project materials and supplies and export mine product. The possible road would link the deposit area to a possible port in the general vicinity of Williamsport at Iliamna Bay on west Cook Inlet (Figure 47-1).

This chapter describes mainly existing and planned transportation facilities and services on the west Cook Inlet coast. (For this chapter, “planned” or “proposed” transportation facilities pertain to facilities being considered or undertaken by federal, state, and local governments.) Because the Port of Homer on the western Kenai Peninsula could serve as a marine staging area for Pebble Project development, this chapter also describes its existing port facilities and services.

### 47.2 Study Objectives

The study objective was to document existing and proposed overland, water, and air transportation facilities and services in the Cook Inlet drainages study area.

### 47.3 Study Area

The Cook Inlet drainages study area is the coastal strip of west Cook Inlet between Lake Clark National Park and Katmai National Park (Figure 47-1). Within this study area, particular attention is directed to the vicinity of Williamsport where possible Pebble Project facilities could be located. In addition, because of Homer’s possible role as a marine support center for Pebble Project development, its port facilities are profiled.

### 47.4 Scope of Work

The scope of the study comprises existing and proposed facilities and services for water, overland, and air transportation in the study area. Kevin Waring and Associates conducted the work.

### 47.5 Methods

This study is descriptive in nature. The study methods relied on review of existing transportation studies, plans, and documents for relevant information about existing and planned transportation facilities and services. These sources are listed in the Section 47.8, References. This information was supplemented with interviews of several providers of transportation services in the study area.

## 47.6 Results and Discussion

The following sections first describe existing transportation facilities and services by mode (overland, water, air) for western Cook Inlet, and selected water transportation facilities only for the Port of Homer. Then, recent and ongoing transportation studies and plans that address proposed transportation improvements in the study area are reviewed.

### 47.6.1 Existing Regional Transportation Facilities and Services

The western Cook Inlet part of the study area is a remote area with a rugged coastline, often harsh weather and sea conditions, no permanent year-round settlements, minimal local transportation requirements, and few transportation improvements. These characteristics pose economic, engineering, and environmental obstacles to the development of overland and marine transportation infrastructure, and limit the options for transportation services in the study area. Most uplands in the study area are state lands that are designated for habitat and recreational use (ADNR, 2001). The State of Alaska owns all tidelands. Most private land in the study area is undeveloped, with the exception of two clusters of Native allotments and homesteads or homesites: one at Seal Spit on Chinitna Bay on the northern Iniskin Peninsula and another on Cottonwood Bay south of Williamsport (see Figures 46-7 and 46-8 in Chapter 46). There are a few other scattered small private tracts. The primary human uses are wilderness recreation, wildlife viewing, and flight-seeing.

#### 47.6.1.1 Western Cook Inlet

##### *Overland*

The Williamsport-Pile Bay Road (Figure 47-2) is the only publicly maintained road in the study area. It is a 15.03 mile-long unpaved one-lane state road between Williamsport at Iliamna Bay on west Cook Inlet and Pile Bay at the eastern end of Iliamna Lake. It was developed in the 1920s and 1930s by the Alaska Road Commission to accommodate prospectors' need to transport machinery to the Iliamna Lake region (Naske, 1986). The Williamsport-Pile Bay Road roadbed is on a 100-foot-wide state right-of-way. Approximately 2 miles of the Williamsport-Pile Bay Road are in the Cook Inlet drainages study area east of the divide between the Cook Inlet drainages and the Bristol Bay drainages, and approximately 13 miles are in the Bristol Bay drainages study area. The road section from Williamsport to the divide is subject to severe avalanche hazard. Figures 19-2A, 19-2B, and 19-3 in Chapter 19 show aerial views of the Williamsport-Pile Bay Road corridor and the Pile Bay landing.

The Williamsport-Pile Bay Road has traditionally been mainly used to transfer commercial fishing vessels and gear between Cook Inlet and Iliamna Lake and then to/from Bristol Bay communities via Iliamna Lake and the Kvichak River. This route shortens the hazardous 1,100-mile marine route between Homer and Bristol Bay via the southern tip of the Alaska Peninsula. In spring, fishing boats are trailered out of the water at Williamsport and hauled to the Pile Bay landing. At Pile Bay, the boats are refloated to travel on to Iliamna Lake communities or to Bristol Bay destinations via the Kvichak River. The process is reversed in the fall. The landing operator estimated that approximately 50 fishing boats are transferred between Cook Inlet and Pile Bay yearly.

Before 2009, the Williamsport-Pile Bay Road was used to truck limited amounts of freight from the Williamsport barge landing to the Pile Bay landing. From there, freight was barged to Iliamna Lake communities by Igiugig Transport, which operates a lake-barge service to distribute freight from Pile Bay to Iliamna Lake destinations. In 2009, Iliamna Development Corporation (IDC) started a new combination barge-road-barge service to ship fuel and freight from Homer to Iliamna Lake communities. In summer and fall of 2009, IDC trucked approximately 22 barge loads of bulk fuel and freight from Williamsport to Pile Bay for forwarding by barge to Iliamna and other Iliamna Lake communities (Klouda, 2009).

The Williamsport-Pile Bay road is not maintained in winter. It is usually open for seasonal use between June and November. The Alaska Department of Transportation and Public Facilities (ADOT&PF) estimates that average daily traffic count for the road in 2008 was 10 vehicles (ADOT&PF, 2009).

In 2009, ADOT&PF completed improvements to the Williamsport-Pile Bay Road. The improvements consisted of drainage repairs, culvert installation and replacement, erosion protection, 12-inch grade raise, and road widening (to 14 feet) with turnouts, ditching, and signing from milepost 3 to milepost 9. As of 2010, no further improvements are planned for the road.

There are no rail facilities or non-local pipelines in the study area.

The State of Alaska claims several RS2477 rights-of-way in the study area. RS2477 refers to Revised Statute 2477 from the Mining Act of 1866. That act granted a public right-of-way across unreserved federal land to guarantee continued access as federal land was transferred to state or private ownership.

RS2477 rights-of-way in the greater vicinity of Williamsport include the following RSTs (Revised Statute Trails):<sup>1</sup>

- RST 496, the Iniskin Peninsula Road—an old mining road that heads south from Camp Point near Seal Spit on Chinitna Bay along the bottom of Fritz Creek Valley for approximately 8 miles.
- RST 1876, Cottonwood Bay-Old Iliamna route—an early 20-mile-long overland trade route between Cottonwood Bay and Old Iliamna Village on Iliamna Lake.
- RST 529, the Iniskin Bay-Oil Bay Trail—a 2.5-mile-long trail from Oil Bay on the south coast of the Iniskin Peninsula to an oil-drilling site abandoned a century ago.
- RST 1873, Dry Bay Trail—a 2.5-mile-long miner’s trail inland from Dry Bay on the south coast of the Iniskin Peninsula.
- RST 311, Portage Creek Trail—a 5-mile-long trail from Chinitna Bay over Portage Pass to Iniskin Bay.

There are also numerous easements on Native-corporation lands in the study area that were reserved under Section 17(b) of the Alaska Native Claims Settlement Act. The *Kenai Easement Atlas* (ADNR, 1993) documents the locations and allowed uses for these easements.

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1. At the time of this writing in June 2010, information on the physical location and history of these claimed RS2477 rights-of-way was available at [http://dnr.alaska.gov/mlw/trails/rs2477/rst\\_srch.cfm](http://dnr.alaska.gov/mlw/trails/rs2477/rst_srch.cfm).

## *Water*

The only marine-transportation improvement in the study area is the privately owned barge landing and small-boat haulout at Williamsport at the relatively protected head of Iliamna Bay. The landing is also the eastern terminus of the Williamsport-Pile Bay Road to eastern Iliamna Lake. The Williamsport landing and road were originally developed in 1936 to transport commercial fishing boats and small cargo between Cook Inlet and Bristol Bay. It is a quicker and safer route than the 1,100-mile trip around the Alaska Peninsula. Weather conditions, including avalanche hazards along the road, usually limit the use of this transportation option to between June and mid-September (Williams, pers. comm., 2006).

The Williamsport landing is reached by a meandering channel through the Iliamna Bay mudflats. There are no onshore loading facilities. Figures 47-3 and 47-4 provide an aerial view of the access channel and barge landing on the west side of upper Iliamna Bay.

The *United States Coast Pilot* (USDC, 2006) describes the marine conditions, facilities, and capabilities at Williamsport:

Williamsport, in a cove on the W shore of Iliamna Bay 1 mile from the N end of the bay, is the E terminus of a 14.5 mile, state-maintained, gravel road between Williamsport and Pile Bay. The road is open from June to October and is constrained by 2 vehicle fords and a 12'2" wide bridge. Vessels less than 12 feet wide, 32 feet long, and 9½ feet high are hauled, by truck, between Williamsport and Pile Bay. From Pile Bay the vessels transit Iliamna Lake (chart 16013) to the Kvichak River and down the river to Bristol Bay. The controlling depth in the river was reported to be 2 feet in 1996. This depth may be more or less, depending on the runoff.

Williamsport consists of a boat ramp. The wharf ruins and boat ramp dry at +14 feet. The operator of the hauling service monitors VHF-FM channel 10 when prior arrangements have been made. Because of working limitations and tides, boats have to wait for a 17-foot tide to be hauled out. Due to the tidal requirements and the privately-marked meandering channel, local knowledge is required.

The *United States Coast Pilot* (USDC, 2006) also reports a diurnal (daily) tidal range of 14.5 feet in lower Iliamna Bay. Iliamna Bay reportedly does not freeze but sometimes harbors large quantities of drift ice from upper Cook Inlet. The landing operator states that a 20-foot tide is now advisable for barges to navigate the channel to the landing. This limits the delivery window to 4 or 5 days a month (Williams, pers. comm., 2006).

Before 2009, there was no scheduled barge service to Williamsport. Several barge services based in Homer or in Anchorage were available by prior arrangement. Homer-based Alaska Coastal Freight made most barge deliveries, approximately 10 to 12 yearly depending on demand. Typical cargo was building materials, fuel, vehicles, and general cargo. Alaska Coastal Freight operated a 176-foot-by-32-foot landing vessel that offloaded to shore (Flanigan, pers. comm., 2006). Other barge services have used 180-foot-by-50-foot barges (Crandall, pers. comm., 2006). In 2009, IDC contracted with Homer-based Alaska Marine Transport to barge 22 loads of fuel and freight from Homer to Williamsport on its 152-foot-by-34-foot landing craft *Polar Bear*. IDC then transshipped the cargo by truck and barge to Iliamna Lake destinations.

There are no small-boat harbor facilities or services for recreational or commercial fishing vessels in the study area.

### *Air*

Williamsport is approximately 80 air miles from Homer, 105 air miles from Kenai, and 170 air miles from Anchorage.

There are no public airport facilities in the study area. Private gravel or dirt landing strips are at Williamsport; at Seal Spit on the north coast of the Iniskin Peninsula on Chinitna Bay; at Dutton, a long-abandoned mining camp at the head of Cottonwood Bay; and at Iniskin, an abandoned mining camp on Fritz Creek on the Iniskin Peninsula. Float planes are commonly used for air access for sportfishing, hunting, wildlife viewing, and other wilderness recreation in the study area. Several charter-flight services based in Homer, Kenai, Iliamna, and at lodges in the study area are available. Helicopters have been used to conduct Pebble Project baseline and engineering studies in the Cook Inlet study area.

#### **47.6.1.2 Port of Homer**

The City of Homer's port is a possible marine logistics base and staging area during Pebble Project development. The Port of Homer is the major port in lower Cook Inlet. The Transportation Security Administration has designated it as a backup port for the Port of Anchorage.

The Port of Homer is located near the bayside end of Homer Spit in Kachemak Bay, approximately 80 air miles almost due east of Williamsport. Figure 47-5 provides an aerial view of the port's two deep-draft piers (Deep Water Dock with its 35-acre upland staging area and Pioneer Dock) and the small boat harbor.

Deep Water Dock, built in 1990, has a 345-foot-long face and, with mooring dolphins and buoys, a total berthing space of 774 feet (City of Homer, n.d.[a]). The depth at the dock face is 40 feet mean lower low water (MLLW). The dock is equipped with a 140-ton mobile crane. In recent years, the dock has served general cargo- and container-ship traffic, large cruise ships, and a wood-products shipping operation. The dock is equipped to offload roll-on/roll-off trailer ships.

Pioneer Dock, completed in 2002, has a 469-foot-long face, plus mooring dolphins, and a dockside depth of 40 feet MLLW (City of Homer, n.d.[a]). It can moor ships of 750 feet or more in length. The dock serves Alaska Marine Highway ferries, U.S. Coast Guard vessels, cruise ships, general-cargo vessels, and petroleum tankers.

#### **47.6.2 Transportation Plans and Proposed Improvements**

The study area is remote, lacks settlements or existing resource developments, and has low transportation volumes and high construction and maintenance costs. For all these reasons, new major transportation infrastructure is likely to be driven by new large-scale resource development projects.

Three regional plans address possible improvements for marine and road transportation in the study area.

- The *Southwest Alaska Transportation Plan (Revised)* (SWATP; PB Consult Inc., 2004) is a long-term multi-modal transportation plan for an extensive region that includes the Lake and Peninsula, Bristol Bay, Kodiak Island, and Aleutians East boroughs, plus the Dillingham Census Area, the Pribilof Islands, and the rest of the Aleutian Islands.
- The *Iliamna Regional Transportation Corridor Analysis* (IRTCA; PND et al, 2007) was commissioned by ADOT&PF as part of its Industrial Ports and Roads Program (or Roads to Resources program). That program aims to provide access to prospective resource development projects (ADOT&PF, 2005). The IRTCA identified and evaluated several road corridors that might connect the Pebble deposit area to a deep-water port site in the general vicinity of Williamsport.
- The *Kenai Peninsula Borough Transportation Plan* (HDR Alaska, Inc., 2003) is the Kenai Peninsula Borough's official regional transportation plan.

Additionally, the City of Homer is pursuing a multi-year, \$26 million project to upgrade its deep-water dock facilities, enlarge its upland marine staging area, and improve road access to the staging area and dock facilities.

#### **47.6.2.1 Western Cook Inlet**

##### ***Southwest Alaska Transportation Plan***

The SWATP proposes two transportation improvements in the Cook Inlet drainages study area—Williamsport navigation improvements and dock facility, and Williamsport to Pile Bay roadway improvements. A third improvement in the Bristol Bay drainages study area—Pile Bay public dock and boat-launch facility—is closely linked to the two improvements in the Cook Inlet drainages. These three proposed port and road improvements are generally regarded as a complementary set of projects that comprise an integrated transportation system; therefore, they are discussed together here.

The Cook Inlet transportation study area for the Pebble Project comprises only a small part of the SWATP planning region, which is illustrated on Figure 47-6. The SWATP was largely completed before the possible Pebble Project became a consideration; nonetheless, the SWATP plan incorporates a key transportation-planning concept—a Cook Inlet to Bristol Bay corridor—that is reflected in the IRTCA (see section on IRTCA below) and may meet possible Pebble Project transportation requirements.

The SWATP identified this Cook Inlet to Bristol Bay corridor to connect Williamsport by road to Iliamna and, eventually, to Naknek and Dillingham (Figures 47-6 and 46-7). Only the easternmost part of this corridor is in the study area. The SWATP assigned high priority to the Williamsport-Pile Bay Road and related harbor and dock improvements because they offer immediate savings in freight costs. The SWATP proposed a set of three projects, mentioned above, that together would reduce impediments to low-cost freight shipment between Cook Inlet and Iliamna Lake (PB Consult Inc., 2004). Although only the Williamsport navigation improvements and part of the road improvements are in the study area, all three projects are essential parts of a single effort to improve shipment of freight to and through the study area.

The following excerpts from the SWATP characterize each the projects (PB Consult Inc., 2004).

- Williamsport Navigation Improvements and Dock Facility

The basic scope of this project is addressed in the report *Navigation Channel Feasibility Report and Environmental Assessment: Williamsport* (US Army Corps of Engineers Alaska District, December 1995). The report describes a 2500-meter dredged channel with a 55-meter wide turning basin, a 30-meter face sheetpile dock and a 12-meter wide boat-launch ramp. The facility would be accessible at extreme high tides, weekly by landing craft and twice monthly by tug and barge. This access frequency is well suited to meeting the current freight needs of the Iliamna Lake communities. Williamsport, however, may not meet the port requirements for a mining operation such as the Pebble Gold-Copper Mine. A reconnaissance engineering study is currently under way that is examining the development of a port on Iniskin Bay, with a road connection to the north side of Iliamna Lake.

- Williamsport to Pile Bay Roadway Improvements

The existing road between Williamsport and Pile Bay is already in use for the transport of fishing vessels from winter refitting in Homer to the summer fishing grounds in Bristol Bay and back. Much of the time it is the only route that provides access for heavy equipment to reach the Iliamna area. The road itself has not been adequately maintained over the years, is exceedingly narrow in places, and several bridges need upgrading. But the reason the plan endorses this project is because of its value. Coupled with navigation improvements at Williamsport and a public-use dock and ramp at Pile Bay, this route becomes the essential conduit for the movement of freight and commodities via barge from the rail belt to the communities around Iliamna. The potential volume of fishing vessels being transported to and from Bristol Bay increases as well. Improving this facility immediately lowers cost to users and residents and opens the Cook Inlet to Bristol Bay corridor to new transportation possibilities in the private and public sector.

- Pile Bay Public Dock and Boat Launch Facility

This project is a necessary part of the Williamsport-Pile Bay road project. The current road terminates on private property owned by the Iliamna Transport Company. A necessary precondition for road improvements is reasserting public right of way throughout the entire road corridor. At Pile Bay this most likely will involve realigning the road and identifying a suitable site for a dock and boat launch ramp facility. The facility characteristics could be very similar to the Williamsport dock and launch ramp, except that in Pile Bay no need for a dredged channel or turning basin is anticipated.

The SWATP estimated the cost of improvements for the Williamsport to Pile Bay Road at \$22,285,000, the Williamsport navigation improvements at \$3,822,000, and construction of the Pile Bay dock and boat-launch facility at \$1,200,000 (Table 47-1; PB Consult Inc., 2004). The estimated cost of road improvements may be partly reduced by the road improvements completed in 2009.

The cost-benefit analysis for the combined projects estimated that their annual capital and maintenance costs in 2020 would be \$2,786,800, compared to an estimated annual freight-cost savings of \$3,848,400. The annual savings to six Iliamna Lake communities (Igiugig, Iliamna, Kokhanok, Newhalen, Nondalton, and Pedro Bay) consisted of \$2,765,900 in lower cargo-shipping costs and \$1,082,500 in lower gillnet-fleet transfer costs (PB Consult Inc., 2004). The greatest annual savings were estimated to accrue to

Nondalton (\$1,110,100) from lessened dependency on long-distance air delivery of freight (Table 47-2). All study-area communities in the Bristol Bay drainages (Chapter 19) except Port Alsworth and Levelock were expected to benefit from these transportation improvements. The projects were not expected to provide a cost-effective alternative for shipping bulk fuels to Iliamna Lake communities or other cargo to Levelock or Port Alsworth.

At present, there are no plans to develop public landing strips or other aviation facilities in the study area.

### ***Iliamna Regional Transportation Corridor Analysis***

The IRTCA, prepared as part of the state's Industrial Roads Program, examined alternatives for a deep-water port and an overland transportation route to support development of the possible Pebble Project. The analysis identified four possible port site alternatives and eight possible road alignment options between the Pebble deposit area and a new tidewater port on Cook Inlet (Figure 47-8; note that alignment options are identified in the figure legend). Based on engineering, cost, and environmental factors, the analysis selected a preferred port site and road alignment (Port Site 1 and Alignment Option A on Figure 47-8). The preferred road route is 94.1 miles in length. From the preferred port site, the route follows the coastal perimeter from lower Iniskin Bay to the head of Iliamna Bay, and then crosses Iliamna Bay to Williamsport, where it connects to the existing Williamsport-Pile Bay Road. Between Williamsport and the divide between the Cook Inlet and Bristol Bay drainages, the preferred alignment partly follows the existing state right-of-way and partly deviates south through land owned by the Seldovia Native Association. This deviation avoids a steep avalanche-prone portion of the existing road. The preferred corridor generally follows the Cook Inlet to Bristol Bay corridor identified in the SWATP.

The IRTCA also identified several alternative deep-water port sites in the vicinity of Iniskin and Iliamna bays. IRTCA's preferred port site is located on a privately owned tract near the mouth of Iniskin Bay (Port Site 1, Figure 47-8). Cook Inlet Region, Inc. (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. As of January 2008, ultimate ownership of the surface estate was unresolved, as CIRI and its member village corporations continued to work to conclude surface estate selections (Cunningham, pers. comm., 2008).

### ***Kenai Peninsula Borough Transportation Plan***

Williamsport and the first 6 miles of the Williamsport-Pile Bay Road are in the Kenai Peninsula Borough (KPB). KPB adopted its borough transportation plan in 2003. The plan was later incorporated into the KPB comprehensive plan. 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.

#### **47.6.2.2 Port of Homer**

The City of Homer has initiated a major program to upgrade its Deep Water Dock. The preliminary program for improvements proposes:



- Lengthening the dock face from 345 feet long to 744 feet long and deepening it from 40 feet water depth to 88 feet.
- Strengthening the dock structure to support heavier loads.
- Installing a gantry crane for offloading containerized cargo.

These improvements are estimated to cost \$26 million (City of Homer, 2009). The city is currently determining the scope, schedule, and funding sources for these proposed improvements.

## 47.7 Summary

The Cook Inlet drainages study area can be generally characterized as a remote region without developed resources. Its rugged terrain, climate, and lack of opportunities to make a livelihood make it inhospitable to human settlement. Most of the uplands are state-owned lands that are designated for habitat and low-intensity recreational use. Private lands are mostly owned by Alaska Native corporations. There are a few dozen Native allotments and homesites, but no permanent year-round settlements. The main human land use is wilderness recreation such as sportfishing, hunting, wildlife viewing, and flight-seeing.

The study area's only significant transportation infrastructure capitalizes on a circumstantial geographic asset: the isthmus-like neck of land between Williamsport and Pile Bay. Via the low pass through the Chigmit Mountains, this neck of land offers a shortcut between Cook Inlet and Iliamna Lake, and beyond to Bristol Bay. This route is an alternative to the circuitous, weather-beaten, 1,100-mile sea route around the Alaska Peninsula from Homer to Bristol Bay.

The transportation infrastructure in the study area consists of the privately owned Williamsport barge landing and the state-owned, 15.03-mile, unpaved Williamsport-Pile Bay Road to the Pile Bay Landing on the eastern shore of Iliamna Bay. Iliamna Transportation owns the Williamsport landing and operates a trucking service that hauls commercial fishing vessels and small cargo loads between Cook Inlet and Pile Bay. From Pile Bay, fishing vessels may proceed under their own power via Iliamna Lake and the Kvichak River to destinations in Bristol Bay. Igiugig Transport barges cargo to destinations on Iliamna Lake.

Channel conditions at Williamsport limit barge delivery opportunities to high tides during 4 or 5 days a month. Weather conditions usually limit the seasonal window of use of the port and the Williamsport-Pile Bay Road to between June and mid-September.

Iliamna Transportation estimates that it hauls approximately 50 fishing vessels annually between Cook Inlet and Pile Bay. Until 2009, Homer-based Alaska Coastal Freight made most barge deliveries to Williamsport, an estimated 10 to 12 deliveries yearly depending on demand. In 2009, IDC began a new integrated transportation service between Homer and Iliamna Lake communities. It contracted to barge fuel and freight from Homer to Williamsport, then forwarded cargo overland by truck from Williamsport to Pile Bay and then by barge to Iliamna Lake destinations.

The Port of Homer may serve as a possible marine logistics base and staging area for Pebble Project development. The port has two deep-draft docks and is equipped to support general-cargo vessels, roll-on/roll-off trailer ships, and petroleum tankers. The port has 35 acres of upland open storage. The Port of

Homer is now developing plans for proposed improvements to lengthen and strengthen its deep-draft docks, deepen the dockside channel, and upgrade cargo-handling equipment. The City of Homer estimates the cost of the proposed port improvements at \$26 million.

The State of Alaska's *Southwest Alaska Transportation Plan* proposes a set of navigation improvements, road construction, and dock improvements to upgrade the Williamsport-Pile Bay transportation system. The estimated cost of the improvements is \$27,307,000. The cost-benefit analysis estimates the capital and operating/maintenance costs at \$2,786,800 annually in 2020 and the freight-cost savings at \$3,848,400, for an estimated net savings of more than \$1,000,000 annually. These improvements are the first leg of a proposed Cook Inlet to Bristol Bay corridor that might eventually provide a road link between western Cook Inlet and the community of Iliamna.

As part of its Industrial Roads Program, the State of Alaska completed the IRTCA to evaluate alternatives for a deep-water port site and a road corridor between Cook Inlet near Williamsport and the Pebble Deposit northwest of Iliamna. The analysis identifies a preferred port site near the mouth of Iniskin Bay and a road corridor that would link the port site to the Williamsport-Pile Bay Road.

## 47.8 References

Alaska Department of Natural Resources (ADNR). 2001. Kenai Area Plan. ADNR Division of Mining, Land and Water, Anchorage, AK.

———. 1993. Kenai Easement Atlas. ADNR Division of Land, Anchorage, AK.

Alaska Department of Transportation and Public Facilities (ADOT&PF). 2009. Central Region Traffic Volume Report, 2006-2007-2008. Anchorage, AK.

———. 2005. Industrial Roads Program Status Report. Prepared by Mike McKinnon.

City of Homer. 2009. Capital Improvement Funding Request, State of Alaska FY 2011.

———. n.d.[a]. Port of Homer Alaska. <http://port.ci.homer.ak.us/ad.jpg> (accessed May 2010).

———. n.d.[b]. Slide Show on Deep Water Dock Expansion. Port and Harbor Department, Homer, AK. (Image used with permission.)

Crandall, John. 2006. Cook Inlet Marine. Personal communication. September.

Cunningham, Kim. 2008. Cook Inlet Region, Inc. Personal communication. January.

Flanigan, Bruce. 2006. Alaskan Coastal Freight. Personal communication. September.

HDR Alaska, Inc. 2003. Kenai Peninsula Borough Transportation Plan. December.

Klouda, Naomi. 2009. "New shipping trade route opens with Williamsport." Homer Tribune, October 14, 2009.

Lake and Peninsula Borough (L&PB) and Alaska Department of Commerce, Community and Economic Development (ADCCED). 2005. Williamsport Community Maps. Obtained from <http://www.dced.state.ak.us/dca/profiles/profile-maps.htm> (August 2007). (Reproduced with permission.)

PB Consult Inc. 2004. Revised Southwest Alaska Transportation Plan. Prepared for the Alaska Department of Transportation and Public Facilities, Central Region, Anchorage, AK. September. (Maps reproduced with permission.)

PND Engineers, Inc., in association with AES Lynx Enterprises, Inc., and RA Krieg & Associates (PND, et al). 2007. Iliamna Regional Transportation Corridor Analysis (IRTCA), Volume 1. Prepared for the Alaska Department of Transportation and Public Facilities, Central Region Planning, Anchorage, AK. (Map reproduced with permission.)

U.S. Department of Commerce (USDC). 2006. United States Coast Pilot 9, Pacific and Arctic Coasts Alaska: Cape Spencer to Beaufort Sea. 24th edition. USDC, National Oceanic and Atmospheric Administration, National Ocean Service, Washington D.C.

Williams, Linda. 2006. Iliamna Transportation. Personal communication. September.

## TABLES

**TABLE 47-1**  
**Estimated Costs of Proposed Improvements, Cook Inlet to Bristol Bay Corridor, Cook Inlet Drainages Study Area**

<b>Improvement</b>	<b>Estimated Capital Cost</b>
Williamsport to Pile Bay road	\$22,285,000
Williamsport navigation	\$3,822,000
Pile Bay public dock and boat launch	<u>\$1,200,000</u>
<b>TOTAL</b>	<b>\$27,307,000</b>

Source: PB Consult Inc., 2004.

**TABLE 47-2**  
**Estimated Cost Savings for Cargo Other than Petroleum Deliveries to Iliamna Lake Communities with Williamsport-Pile Bay Road and Navigation Improvements <sup>a</sup>**

<b>Community</b>	<b>2020 Costs With No Change</b>	<b>2020 Costs With Improvements</b>	<b>Possible Savings With Improvements</b>
Igiugig	\$490,000	\$286,100	\$203,900
Iliamna/Newhalen	\$1,745,500	\$989,000	\$756,500
Kokhanok	\$1,356,500	\$794,800	\$561,700
Nondalton	\$1,992,200	\$882,100	\$1,110,100
Pedro Bay	\$324,500	\$190,800	\$133,700
<b>TOTAL</b>	<b>\$5,908,700</b>	<b>\$3,142,800</b>	<b>\$2,765,900</b>

Notes:

a. Based on 1999 shipping costs.

Source: PB Consult Inc., 2004, Appendix C, Table C-8.

## FIGURES

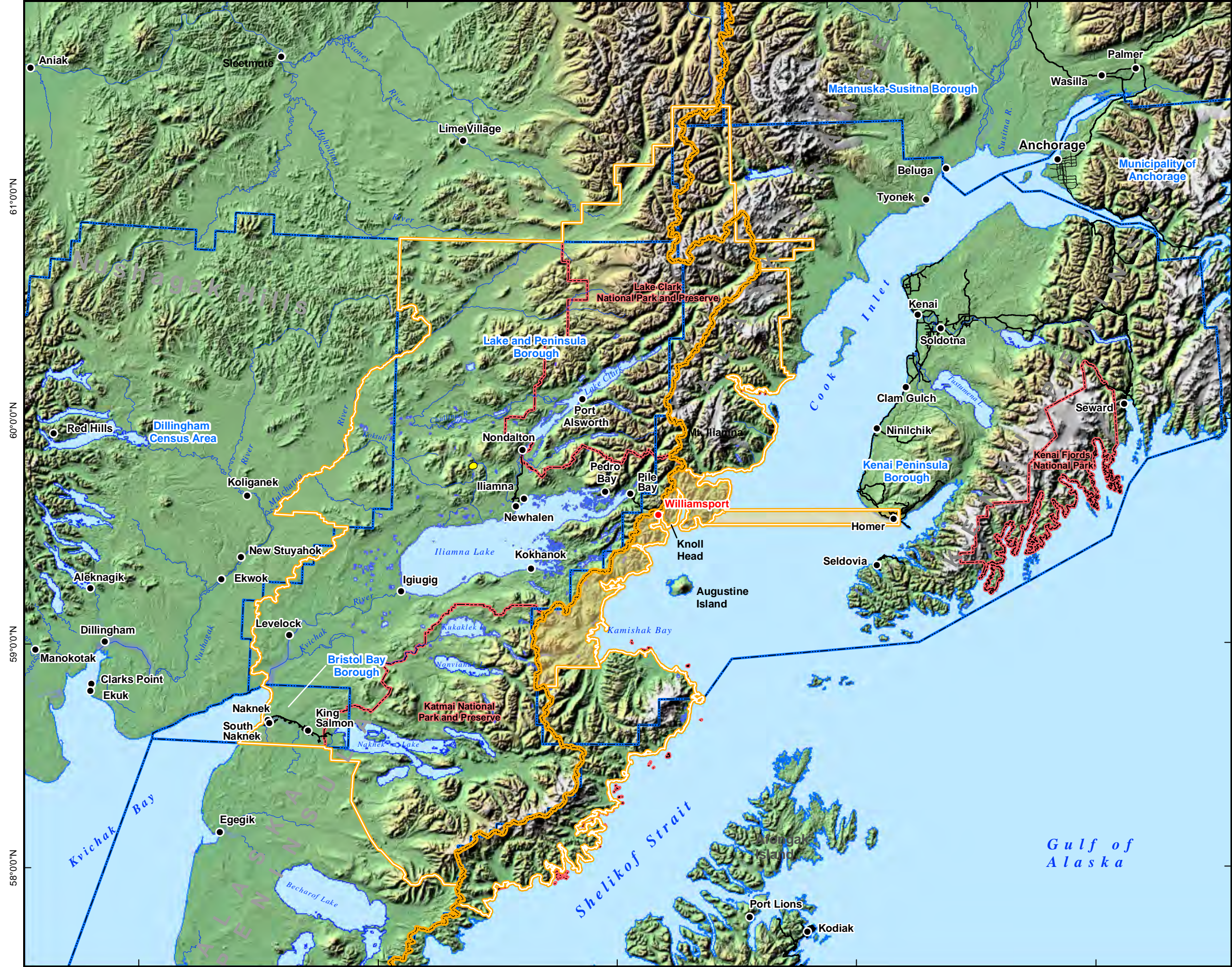


158°0'0"W 156°0'0"W 154°0'0"W 152°0'0"W 150°0'0"W

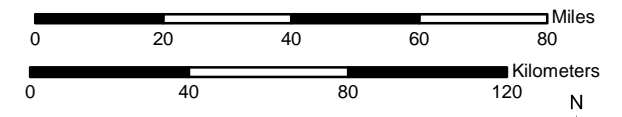
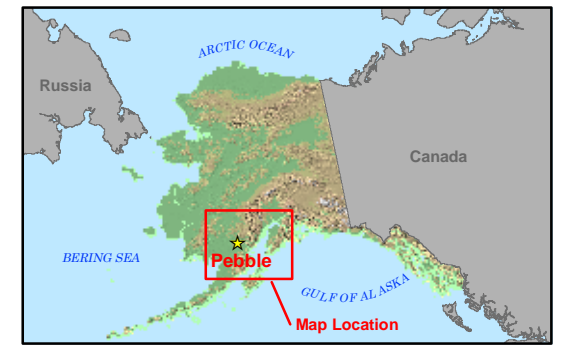


Figure 47-1  
Transportation Regional Study Areas  
Cook Inlet Drainages

- Legend**
- Study Area Communities
  - Communities
  - ▭ Cook Inlet Drainages Study Area
  - ▭ Bristol Bay Drainages Study Area
  - ▬ Bristol Bay/Cook Inlet Drainages Boundary
  - General Deposit Location
  - ▭ Political Boundary
  - ▭ National Park and Preserve
  - ▬ Existing Roads



61°0'0"N  
60°0'0"N  
59°0'0"N  
58°0'0"N



Scale 1:1,900,000  
 Alaska State Plane Zone 5 (units feet)  
 1983 North American Datum

File: RDI_KW_CI_Fig47-1_11X17L_1of1_D07.mxd	Date: August 30, 2010
Version: 7	Author: RDI-LS

158°0'0"W 156°0'0"W 154°0'0"W 152°0'0"W 150°0'0"W



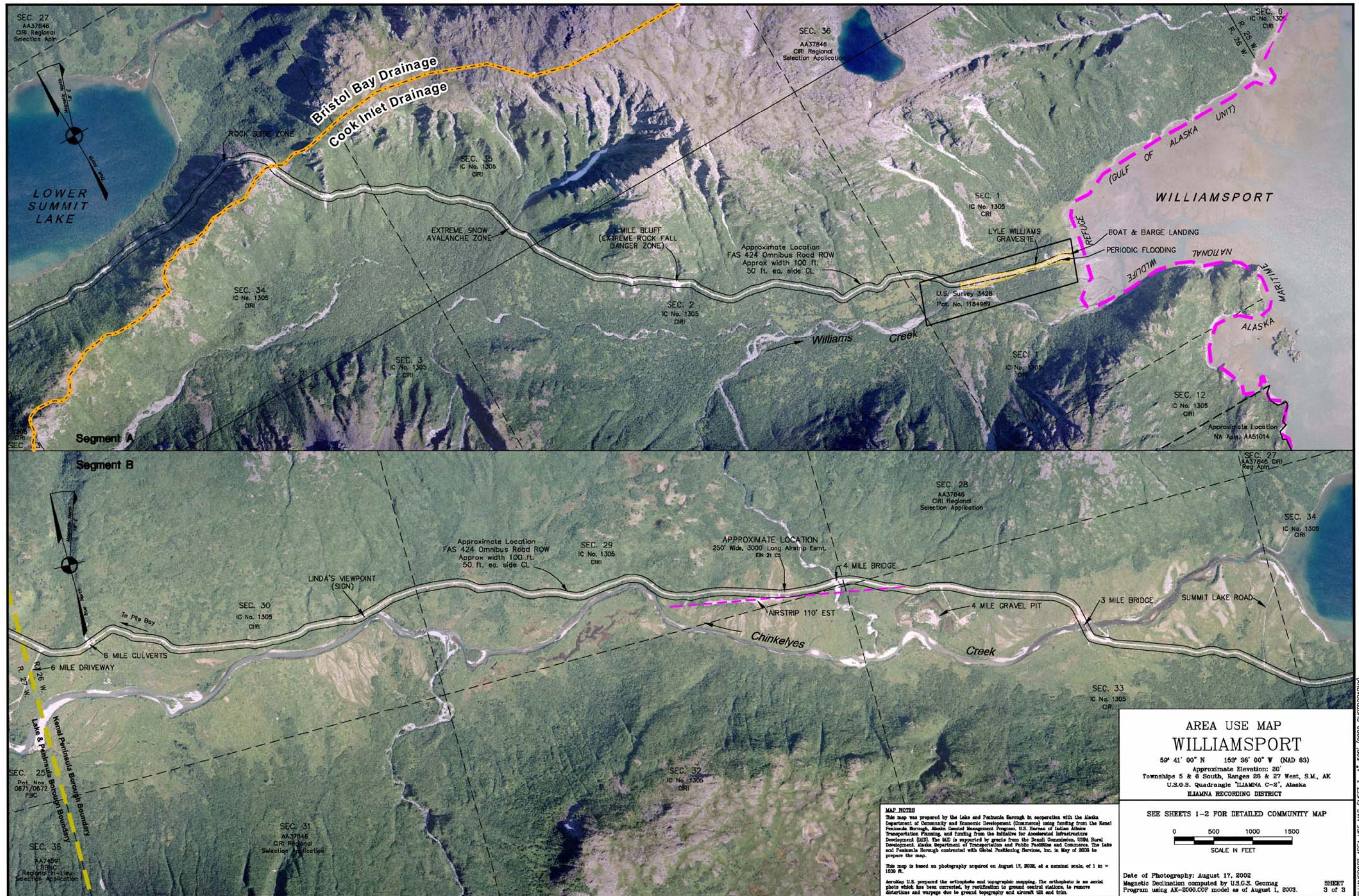


Figure 47-2, Williamsport-Pile Bay Road Corridor, Williamsport End (L&PB and ADCCED, 2005, drainage divide label added).



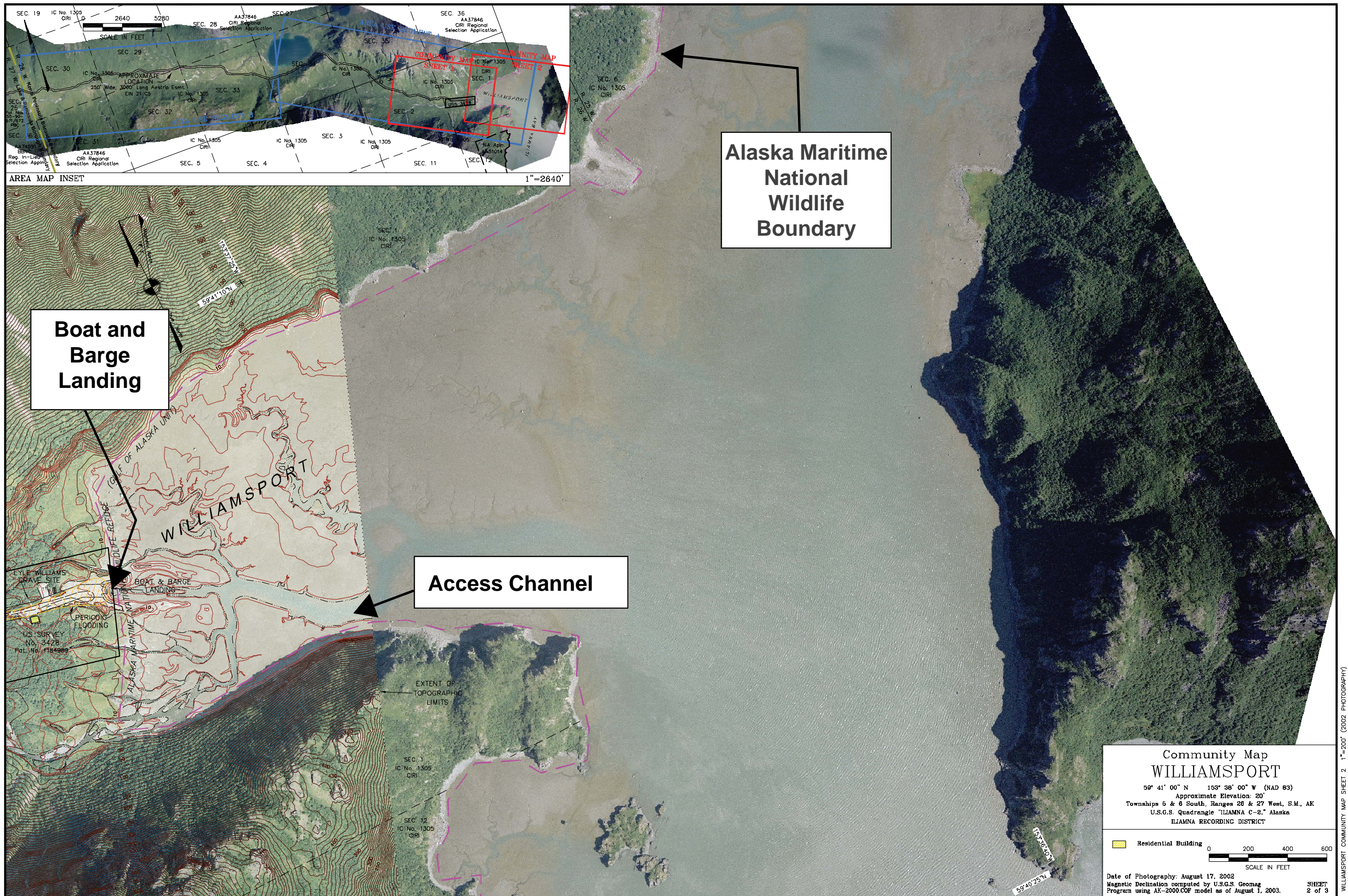


Figure 47-3, Williamsport Barge Landing (LP&B and ADCCED, 2005, labels added).





Figure 47-4, Williamsport Barge Landing and Williamsport-Pile Bay Roadhead (LP&B and ADCCED, 2005, labels added).





Figure 47-5, Aerial photo, Port of Homer (City of Homer, n.d.[b], labels added).

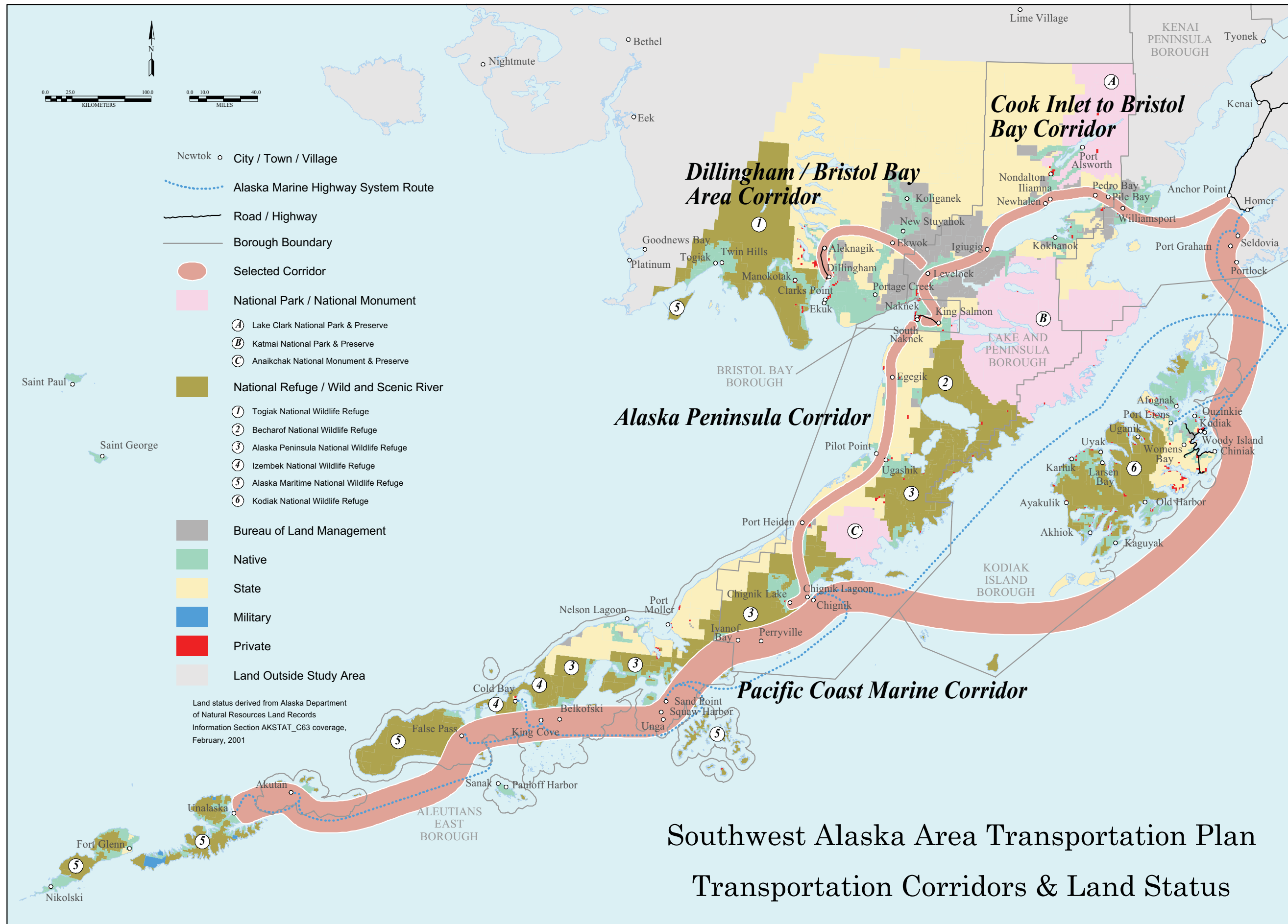


Figure 47-6, Transportation Corridors from Southwest Alaska Transportation Plan (PB Consult Inc., 2004).

# Southwest Alaska Area Transportation Plan

## Cook Inlet to Bristol Bay Corridor

- |          |                                    |   |
|----------|------------------------------------|---|
| ○ Newtok | ● City / Town / Village            | ■ National Refuge / Wild and Scenic River |
| —        | Alaska Marine Highway System Route | ■ Bureau of Land Management               |
| —        | Road / Highway                     | ■ Native                                  |
| —        | Borough Boundary                   | ■ State                                   |
| —        | Cook Inlet to Bristol Bay Corridor | ■ Military                                |
| ⋯        | Alternate Corridor                 | ■ Private                                 |
| ■        | National Park / National Monument  | ■ Land Outside Study Area                 |

Land status derived from Alaska Department of Natural Resources Land Records Information Section AKSTAT\_C63 coverage, February, 2001

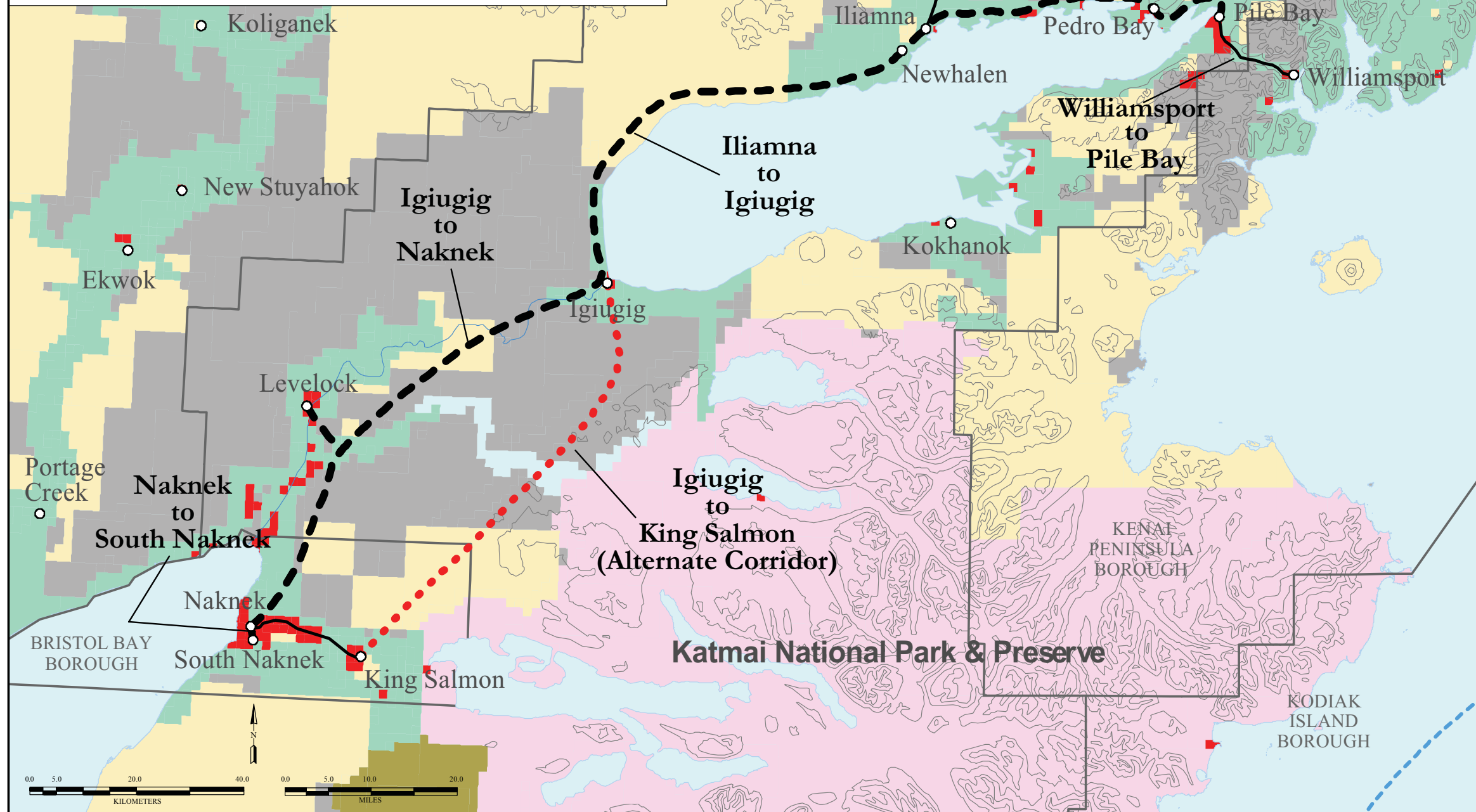
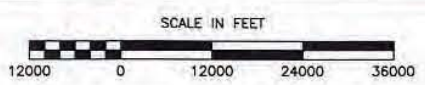


Figure 47-7, Cook Inlet to Bristol Bay Corridor, Southwest Alaska Transportation Plan (PB Consult Inc., 2004).





- ALIGNMENT OPTION A 1-2-3-4-5
- ALIGNMENT OPTION A-1 1-2-3-4-5A
- ALIGNMENT OPTION B 1-2-3-4-6
- ALIGNMENT OPTION C 1-2-7-8
- ALIGNMENT OPTION D 1-9-10-4-5
- ALIGNMENT OPTION D-1 1-9-10-4-5A
- ALIGNMENT OPTION E 1-9-10-4-6
- ALIGNMENT OPTION F 1-9-11-8

REV	DATE	DESCRIPTION

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 www.pndengineers.com

PROJECT: <b>STATE OF ALASKA INDUSTRIAL ROADS</b>	
TITLE: <b>CORRIDOR ANALYSIS PRIMARY CORRIDORS</b>	
DRAWN BY: WRJ	DATE: FEB 2007
DESIGNED BY: TG	CHECKED BY: JWP
PROJECT NO: 041018	

Figure 47-8, Alternative Port Sites and Road Corridors, Iliamna Regional Transportation Corridor Analysis (PND et al., 2007).