

Region 21

NELSON LAGOON, MOFFET LAGOON

Summary of Resources and Uses in the Region

Region Area and Boundary

Region 21 encompasses a large area consisting of generally flat and lake filled topography in its central portions and by mountainous terrain in the more southern parts (Map O-4). Most of the state-owned land is associated with the low, flat, lake filled area of the northern and interior portions of this Region. Region 21 is situated at the extreme west end of the Alaska Peninsula. It is bordered on the north by Bristol Bay, on the west by the Izembek National Wildlife Refuge, on the south by the Pacific Ocean, and on the east by the eastern edge of Port Moller, a large embayment having a rich and diverse population of marine mammals, waterfowl and shorebirds, walrus and seal haulouts, and by extensive areas of eel grass. The small community of Nelson Lagoon (pop. 64) occurs within the Region.

State Lands: Ownership and Acreage

Most of this Region consists of extensive areas of state owned uplands, much of which occurs within the Port Moller Critical Habitat Area, a protected area of sensitive habitat and diverse biological resources. Essentially that area adjoining the coast and inland about 10-15 miles are owned by the state. Much of the remaining part of the Region is separated into native and federal ownership. Native-owned lands adjoin parts of Port Moller and Nelson Lagoon in the northern part of the Region but also occur along Canoe Bay and within the Sapsuk River drainage, areas situated in the southern and central parts of the Region, respectively. Portions of the Alaska Peninsula south of the state owned areas are occupied by the Alaska Peninsula National Wildlife Refuge. These principally occur near Mt. Dana or occupy portions of the large peninsula to the east of Pavlof Harbor.

The plan applies to 494,697 acres of state-owned and state-selected uplands and 495,999 acres of state-owned tidelands in this region. The plan also applies to state-owned shorelands (acreages of shorelands have not been calculated). There are relatively few areas of state-selected land, with most of these concentrated at the west end of the region along the coast and directly inland, following the Cathedral River drainage. There are few areas of municipal selections in this Region; there is one fairly large area (1,985) occupying a part of the northern coast of Pavlof Bay and a smaller area (450 acres) along the north coast at Salt Water Lagoon.

Physical Geography

This region is characterized by two types of landscapes. There are broad, flat to undulating lowlands in the north punctuated by numerous lakes and ponds and by extensive wetland areas. Mountainous terrain occupies the remainder of the Region, particularly in the southwest at the Aghileen Pinnacles and adjacent to Pavlof Volcano and its associated peaks, and in the southeast, generally coinciding with the mountainous topography of Hoodoo Mountain and Mt. Dana. The hydrology of the Region reflects the topographic differences. Lowland areas are characterized by seemingly endless lakes, ponds, and wetlands, with numerous streams. This condition is particularly true of the area north of Pavlof Bay to Nelson Lagoon where the rivers are characteristically low gradient and meandering. The principal drainages are the Sapsuk and Caribou Rivers. The relatively few major rivers occupying the areas of mountainous topography are characteristically fast, with steep gradients. The principal drainage within the more mountainous terrain is associated with the Canoe Bay River, which drains into Canoe Bay proper. There is, however, a general similarity of vegetation types, with some differentiation, reflecting the effects of altitude. Low and dwarf shrub dominates extensive areas, much of which is associated with wetland complexes in the area with a large number of lakes and ponds north of Pavlof Bay. Tall shrubs and alpine tundra/barrens dominate in mountainous areas except for a fairly small area of dwarf shrub tundra near the Aghileen Pinnacles. Palustrine wetlands occupy large areas of the flat interior and northern parts of the Region.

A special, unique physiographic feature within this Region is the Nelson Lagoon, situated in the northern part of the Region and adjoining Port Moller to the east. The area of the lagoon proper as well as some adjoining uplands are contained within the Port Moller Critical Habitat Area (CHA). Parts of Port Moller are also contained within this CHA. Both the lagoon and Port Moller are described in more detail in the ‘Tidelands and Shorelands’ section that follows.

Climate

The climate of Region 21 is considered to be maritime, with much of its weather being formed by storms emanating from either the North Pacific or the Bering Sea. Annual precipitation ranges between 25 and 60 inches, including an annual snowfall of 55 inches. The Region is generally free of permafrost.

Access

Access to and within Region 21 is poor. There are no roads, airstrips, or ports, although generally good port facilities and airstrips are available at Cold Bay and Port Heiden. Access is provided by water, and most of this is associated with commercial fishing.

Resources and Uses

Most of the uses in this Region are associated with subsistence by native peoples and a limited amount of sport fishing, most of which is associated with saltwater. There is also limited subsistence and recreational hunting of moose and caribou. Some trapping also occurs for red fox, beaver, lynx, mink, and marten. There are few people within the region; most of these cluster around Nelson Lagoon. Most use is associated with commercial fishing in offshore waters; see the use description in the section on ‘Tidelands and Shorelands’ that follows.

Cultural and Historic. Nelson Lagoon was used historically as a Unangan summer fish camp. A salmon saltery operated from 1906 to 1917, which attracted Scandinavian fishermen; however, there has been no cannery since. In 1965 a school was built and the community began to be occupied year-round. There is only one reported prehistoric site, situated on the west side of Herendeen Bay.

Economic. Nelson Lagoon is situated in the middle of a rich and productive salmon fisheries area. Many residents hold commercial fishing permits, primarily salmon gillnet. Subsistence activities balance the seasonal nature of the fishery, and some trapping occurs.

Recreation. Recreation in the Region is primarily related to outdoor activities such as hunting, sport fishing, wildlife viewing, photography, and hiking. State lands occupy the majority of this Region and therefore receive the majority of this use. However, small portions of the Alaska Maritime and Alaska Peninsula National Wildlife Refuges are in this Region and draw some recreational use.

Minerals. Region 21 contains at least eleven known mineral occurrences. A wide variety of commodities are present; these include porphyry, hot-springs, and polymetallic lode-types. Copper, gold, silver, lead, zinc, antimony, arsenic, and silver prospects are known. Mineral sand placers occur along many beaches in the Bristol Bay area. In Region 21 ilmenite sands occur on the beaches in the Nelson Lagoon and Moffet Point areas. The Herendeen coalfield extends partly into Region 21. The identified resources for the Chignik and Herendeen Bay coalfields range up to 200 million short tons; hypothetical and speculative resources range to three billion short tons. Coal occurs as Cretaceous bituminous and subbituminous coals of the Coal Valley Member of the Chignik Formation; the coal units are typically less than seven feet thick ranging from less than two to seventeen feet.

Oil and Gas. Oil and gas potential is considered to be high. Five wells have been drilled in the Region. In 1970 Pan American drilled the Hoodoo Lake No. 1 and 2 just west of Herendeen Bay to depths of 8,049 ft. and 11, 243 ft. respectively. The company also drilled the David River No. 1 (2,300 ft.) and 1-A (13,769 ft.) in 1969. In 1974, BP Exploration drilled the Cathedral River No. 1 to a depth of 14,301 feet. Oil and gas shows were encountered in the Bear Lake, Stepovak, and Tolsoi formations; these formations are absent in the Cathedral River well. State and Native landowners are currently pursuing a new hydrocarbon exploration licensing and leasing program. The Alaska Department of Natural Resources, Lake and Peninsula, Bristol Bay, and Aleutians East Boroughs have signed a memorandum of understanding (MOU) in support of oil and gas lease sales and licensing of state land in the Bristol Bay and Alaska Peninsula region (March 17, 2004). Similar MOUs are in effect between the DNR and The Aleut Regional Native Corporation (December 18, 2003) and the DNR and Bristol Bay Native Corporation (July 10, 2003).

Geothermal. Although thermal springs are found northwest, southeast, and south of Region 21, there are no known thermal waters in the Region.

Fish and Wildlife. The resources of this Region are primarily those associated with fisheries and wildlife. Most of the larger streams draining into Bristol Bay are anadromous, with chum, coho, and king salmon present. There are somewhat fewer anadromous streams that drain into the Pacific Ocean, with most concentrating within the Canoe Bay and Canoe Bay River drainages. Pink, king, and sockeye salmon are present in these streams. Brown bears congregate along the coast, along the Sapsuk and Canoe Bay River drainages, and along the drainages that flow into Bristol Bay south of Franks Point. Moose are present in the region in fewer numbers, reflecting the sparse habitat for this animal. Although present, there are no known moose rutting or calving areas. Caribou are common throughout the region and are part of the Southern Alaska Peninsula Herd, which, at a population of about 3,000, is the smallest herd in the planning area. An extensive caribou calving area occupies most of the lowland to the west of Nelson Lagoon and north of the mountain range dominated by the Pavlof Volcano, Mt. Hague, Pavlof Sister, and the Aghileen Pinnacles. There are few raptors that frequent the uplands, and most shorebirds and waterfowl are associated with near shore areas, Nelson Lagoon, and both Port Moller and Herendeen Bay. Marine resources are particularly significant and the section on ‘Tidelands and Shorelands’ should be consulted for a description of the type and distribution of these resources.

Management Considerations: Local, State, and Federal Plans

Local, state, and federal management plans affect portions of this Region.

There are no local plans that affect this area except for the Aleutians East Borough Coastal District Plan. This plan contains extensive enforceable policies and should be consulted by DNR prior to granting an authorization. See the web site www.alaskacoast.state.ak.us/ for more information on the enforceable policies of the Coastal District Plan.

The single state resource management plan that affects this Region is the DNR Bristol Bay Area Plan. It affects all state lands in the planning area, which includes uplands, shorelands, tidelands, and submerged lands, and navigable waters, and has been in force since its adoption in 1984. This revision supersedes and replaces the 1984 plan.

The Alaska Peninsula and Becharof National Wildlife Refuge (NWR) Comprehensive Conservation Plan (CCP) applies to the Alaska Peninsula NWR. There is a separate federal CCP for the Izembek NWR. See the section on *Local and Federal Plans in Chapter 3* for a more detailed description of these plans and how they apply to federal lands. DNR has consulted these plans in its preparation of the revised plan.

Municipal Selections

Two municipal selections by the Aleutians East Borough total approximately 2,207 acres in Region 21. One fairly large area (1,715) occupies a part of the northern coast of Pavlof Bay and a smaller area (492 acres) occurs along the north coast at Salt Water Lagoon. See *Plan Map O-4* for the location of these selections and refer to *Appendix C*.

Management Summary: Uplands

The Region is to be managed for a variety of multiple uses, including the maintenance of sensitive habitats, wildlife, and fisheries; and for dispersed public recreation and harvest. Because of the extent of the state land, the absence of discernible economic patterns, and the potential to accommodate a variety of uses through siting and other types of development stipulations, many areas of state land are designated General Use. Most of the state land situated in interior locations north of the mountain range dominated by Pavlof Volcano is considered an essential calving area for a portion of the Southern Alaska Peninsula Caribou Herd. Because of the importance of this area for calving habitat, development authorizations must conform to the requirements of Chapter 2 under the section ‘Caribou and Moose Rutting and Calving Areas’.

Plan Designations and Management

The plan designations that are used within this Region have the following management intent. The policies and management intent guidelines described in Chapter 2 affect all DNR authorizations. Refer especially to those guidelines relating to Fish and Wildlife Habitat and Harvest Areas, and Settlement. See also the descriptions of the plan designations in the first part of this Chapter; this section indicates which lands can be conveyed out of state ownership and those that must be retained.

- General Use (R21-01 and R21-04) (Gu). Extensive areas throughout the Region are designated General Use, for the reasons given above. Areas designated General Use are typically remote, inaccessible, and, within this Region, are generally not considered suitable for development. Within areas designated General Use, a variety of uses may occur; nonetheless, it is expected that, owing to their physical characteristics, little development will occur during the planning period and, as a matter of policy, it is not intended that intensive forms of development occur in these areas. Site specific development, such as occurs with oil and gas exploration and development, would be acceptable in these areas with protection of other resources and uses.
- Settlement (R21-02 and R21-05) (Se). The two areas of state land selected by the Aleutians East Borough under the Municipal Entitlement Act are designated Settlement. Areas designated Settlement may be conveyed to municipalities under AS 29.65.130. These areas are considered appropriate for conveyance to the borough, subject to a separate and subsequent Best Interest Finding by DNR.

- Habitat (R21T-01) (Ha). This designation is applied to the upland areas encompassed by the Port Moller Critical Habitat Area. Note: Extensive tideland areas are also affected by the Habitat designation. Anadromous streams depicted in the ADF&G Anadromous Stream Catalog are also designated Habitat.
- Public Recreation and Tourism-Dispersed and Habitat (Co-designation). Certain navigable waterbodies (lakes and streams) are co-designated Habitat (Ha) and Public Recreation and Tourism-Dispersed (Rd). Authorizations within these waterbodies should not interfere with important habitat or public recreation values. See Table 3.1 in the Navigability section of this Chapter for a listing of these streams. Note: Certain streams may be only designated Habitat or General Use.

Specific Management Considerations

- Generally Allowed Uses. The Generally Allowed Uses in 11 AAC 96.020 can occur throughout the Region; there are no areas affected by 11 AAC 96.010 requiring a permit before being authorized.
- Mineral Closing Orders and Leasehold Location Orders. Except for areas closed to mineral entry under existing Mineral Closing Orders, all lands within the Region are open to mineral entry. (There are two MCOs that affect this Region: MCO 791 closes the Region to shallow oil and gas exploration and development, and MCO 393 closes certain streams to mineral entry.) No additional MCOs are recommended; the only exception applies to the areas to be disposed of by DNR for purposes of settlement, should such areas be selected for this purpose in the future within this Region by DNR. In these instances, closure of the settlement area prior to sale is required. The MCO in areas not selected for staking within three years of the land sale shall revert to ‘open to mineral entry’. No leasehold location orders are recommended.
- Municipal Entitlement Selections. Land designated Settlement is conveyable to municipalities under the Municipal Entitlement Act. All lands so designated are appropriate for disposal, subject to a DNR Best Interest Finding.
- Retained Lands. There are no state lands within this Region that are designated by the area plan to be retained other than those affected by the Habitat designation, which coincides with the Port Moller CHA and certain anadromous streams.
- Navigable Waters. Shorelands (rivers and lakes) that are believed to be navigable are listed in Table 3.1 in the Navigability section of this Chapter. Authorizations in these waters must ensure the continued use of a waterway by the public for purposes of trade, travel, and commerce. Note: These waterbodies are assigned a plan designation of Habitat, Public Recreation and Tourism-Dispersed, a co-designation of Habitat and Public Recreation and Tourism-Dispersed, and, sometimes, General Use. Authorizations issued by DNR are to maintain the habitat and public recreation values of these waterbodies.

See the Resource Allocation Table for more details on these upland management units.

Management Summary: Tidelands and Submerged Lands

The tidelands in Region 21 stretch along the coastline from Port Moller and Nelson Lagoon, west to Moffet Lagoon on the Bristol Bay side of the Peninsula. On the Pacific Ocean side, this region extends south to include Pavlof Bay and Coal Bay. Nelson Lagoon and the northwestern part of Port Moller are the most sensitive habitat areas and include a variety of marine mammals, seabirds and seabird colonies, harbor seal and walrus haulouts, and extensive areas of waterfowl concentrations (all seasons) and waterfowl nesting. Eel grass and salt marshes are reported to occupy large areas of sheltered tidal flats in this bay and lagoon system. The Port Moller Critical Habitat Area (CHA) encompasses probably the most biologically productive and sensitive of these areas. There are also significant herring spawning areas and brown bear spring concentrations at the southern tip of Herendeen Bay.

Tidelands along the Pacific Coast are less biologically productive and are not known to include significant walrus or sea lion haulouts or rookeries, bald eagle concentrations or areas of kelp, except for specific locations in Coal Bay and the outer coast. The Pacific Coast area does provide sheltered tidal flats, sheltered rocky shore and exposed rocky headlands, which support clams, bivalves and mussels. Estuaries are created at the mouths of anadromous streams, which provide sub-tidal habitat for king and dungeness crab, and shrimp.

Commercial harvest of a variety of fish occurs along the Bristol Bay coastline in this region, particularly around the Nelson Lagoon / Port Moller area. Purse seine and drift (gill) net harvest of chinook salmon occurs in the vicinity of Cape Seniavin and for chum salmon in the eastern portions of Herendeen Bay. Several varieties of salmon are harvested by drift net in Nelson Lagoon. Extensive harvest of yellowfin sole and cod occurs in the Port Moller area, and herring sac roe are harvested in Nelson Lagoon, Port Moller bay, Herendeen Bay and around Deer Island. There are numerous set net sites within Nelson Lagoon. Subsistence harvest activity around Nelson Lagoon Village occurs during commercial off-season and consists of fishing. There is also some subsistence harvest of waterfowl and eggs.

Herring sac roe is harvested commercially in Pavlof Bay, Cape Tolstoi and Canoe Bay on the Pacific side of this region. Intensive purse seine harvest of pink, chum and some sockeye salmon occurs along the western coast of Pavlof Bay, concentrating in Canoe Bay. Red king and tanner crab are harvested along the Pacific Coast concentrating in sheltered tidal areas in bays and lagoons.

²³ Region 18 includes the tidelands adjacent to the settlement of Port Moller (R18T-03).

Plan Designations and Management Intent

Bristol Bay Tidelands

Coastal Shoreline. The Bristol Bay shoreline consists of coarse sand beaches with some mixed sand and gravel beaches. Waterfowl, shorebirds, sea otters, and harbor seals are present throughout this sub region. There are also some small, isolated Pacific herring spawning areas. This part of the Region is designated General Use and is to be managed to accommodate multiple tideland uses. Tideland authorizations are considered appropriate subject to the protection of sensitive resources and habitats.

Port Moller CHA, Port Moller West (R21T-01, R21T-02). Nelson Lagoon is the primary waterbody in this management unit and consists of extensive areas of sheltered tidal flats that are reported to consist, in part, of eel grass. It is a biologically rich and diverse lagoon system, with portions of the lagoon extending eastward to include the Kudobin Islands, which are used for harbor seal and walrus haulouts and contain a number of large seabird colonies. Most of the Lagoon is part of the Port Moller CHA, although significant areas of seabird colonies, harbor seal haulouts, and walrus haulouts are outside the CHA. Nelson Lagoon is split into two tideland management units; the area of the CHA itself (R21T-01), and the area not included in the CHA, titled Port Moller West (R21T-02). Both management units are designated Habitat and are to be managed to protect the critical biological resources of Nelson Lagoon. Tideland authorizations are not considered appropriate within this area and may only be granted if the resources of the area are protected, if there is no other feasible and prudent site, and the authorization is in the overall best interest of the state.

Port Moller Bay (R21T-03). Port Moller bay consists of extensive areas of sheltered tidal flats some of which may contain eel grass. This bay is a biologically productive area that includes a site used for walrus haulout situated near the settlement of Port Moller at Entrance Point, areas important for harbor seal haulouts in the western part of this management unit, and extensive areas important for waterfowl winter concentrations and waterfowl molting. Except for the tidelands adjacent to the settlement of Port Moller (R18T-03) that are intended to support waterfront development and are designated Waterfront Development, the remainder of the bay is designated Habitat. Authorizations within the areas designated Habitat may be appropriate, but authorizations shall ensure that walrus and harbor seal haulout areas are protected. Note: The area of harbor seal haulout concentration is included in management unit R21T-02, since it is part of the larger area used as haulouts in management unit 21T-01, Port Moller CHA.

Pacific Ocean Tidelands

Coastal Tidelands. Tidelands adjacent to the relatively small areas of Native or private lands are designated General Use except for areas within municipal selections or that are otherwise specifically designated. The northernmost part of Pavlof Bay (R21T-04) is designated Waterfront Development, to accommodate potential marine industrial development. An upland management unit, R21-03, adjoins this tideland management unit and is designated Settlement, a use designation that also accommodates these types of uses. Tideland authorizations in these areas are considered appropriate, but authorizations must protect sensitive resources and must be consistent with specific, applicable management requirements for a management unit.

Tidelands adjacent to the Alaska Peninsula NWR (R21T-05). A Tideland Resource Management Zone (R21T-05) affects tidelands adjacent to the Alaska Peninsula National Wildlife Refuge. Tidelands within this Zone are designated Public Recreation and Tourism-Dispersed and Habitat and are to be managed to protect habitat values and maintain public recreation values. For a detailed description of this Tideland Resource Management Zone, see *Tidelands Summary in Chapter 3*.

See the Resource Allocation Table for more details on these tideland management units.

Resource Allocation Table for Upland Units - Region 21

Unit #: / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21-01 Nelson Lagoon/Moffet Lagoon	432,067 Gu -- General Use	Map O-4	Unit is designated General Use (Gu) and is to be managed for a variety of uses, including the protection of fish and wildlife resources and their associated habitat, oil and gas exploration and development, the possible development of the Herendeen coalfield, and dispersed recreation. Development authorizations may be considered appropriate subject to the protection of these resources and the specific requirements of Chapter 2. See particularly the requirements for "Caribou and Moose Calving and Rutting Areas" in this Chapter. Intensive development is not expected within this unit during the planning period except occasionally and at specific sites, such as oil and gas developments, if determined practicable.	This large unit, consisting of over 432,000 acres, contains nearly all of the areas that are designated General Use (Gu) in this Region, except for those areas of state-selected land designated Gu within unit R21-04. Except for the mountainous area in the far southwestern part of the unit near and adjacent to the Aghileen Pinnacles, the terrain is generally flat to gently rolling with vegetation consisting almost entirely of low and dwarf shrub. Extensive areas of wetland occur throughout the unit and are particularly evident near and within the lower drainages of the Caribou and Sapsuk Rivers. An isolated area of spruce and broadleaf forest occurs in a single area within the southeastern part of the unit, coinciding with areas of higher elevation and better drainage near the Aghileen Pinnacles. The Southern Alaska Peninsula Caribou Herd uses most parts within the unit at some time of year and an extensive area used for rutting occurs within the middle parts of the unit, generally coinciding with the areas of poor drainage and soils. Few moose are present. Numerous anadromous streams exist, with all four species of salmon as well as Dolly Varden and Arctic char present in many streams. Few historic or prehistoric resources exist, reflecting the relatively little human use that has occurred within this Region. The unit is believed to contain oil and gas potential. The Herendeen coalfield underlies the eastern portion of this unit.
R21-02 Salt Water Lagoon	501 Se -- Settlement	Map O-4 S49S80W	Unit is designated Settlement and is considered appropriate for disposal during the planning period. Conveyance to the Aleutians East Borough is considered appropriate, subject to a separate and subsequent Best Interest Finding.	Unit consists of both water areas and uplands. The water areas occur within portions of Salt Water Lagoon; the uplands occupy the higher elevation land to the south and east of the Lagoon. Estuarine wetlands are present at the edges of the Lagoon. Upland areas are relatively well drained and are suitable for development (settlement). Dwarf and low shrub characterize the upland areas. There are no known prehistoric or historic sites. This unit is affected by a municipal selection of the Aleutians East Borough.

Unit #: / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21-03 David River	35,012 Se -- Settlement	Map O-4	The unit is designated Settlement and is considered appropriate for disposal during the planning period. Development should conform to the requirements for Remote Settlement in Chapter 2. See requirements for caribou calving areas in Chapter 2.	The unit occupies generally level terrain containing numerous wetlands and lakes, of varying size. Vegetation is either dwarf low shrub or that type characteristic of palustrine wetlands. A caribou calving area occupies much of the unit. David River, which constitutes the principal drainage of the area within the unit, is an anadromous fish stream. Unit may be suitable for settlement in areas adjacent to lakes. Access would be by means of floatplane. Portions of the unit are considered to have oil and gas potential.
R21-04 Sapsuk River - Cape Leontovich	25,401 Gu -- General Use	Map O-4	If conveyed, the unit is designated General Use (Gu) and is to be managed for a variety of uses, including subsistence and recreational harvest, the protection of fish and wildlife resources and their associated habitat, oil and gas exploration and development, and dispersed recreation. Development authorizations may be considered appropriate subject to the protection of these resources and the specific requirements of Chapter 2. See particularly the section on "Caribou and Moose Calving and Rutting Areas" in this Chapter. Intensive development is not expected within this unit during the planning period except occasionally and at specific sites, such as isolated oil and gas development, if determined practicable.	This unit consists of three separate parts (subunits), occupying areas of state selected land at Cape Leontovich and east of several large lakes near the Sapsuk River in the eastern, central part of the Region. The Cape Leontovich area, situated in the western part of the unit, occupies areas adjacent to the coast. These areas are generally low, flat and are relatively well drained, compared to other areas within this Region. They are covered by low and dwarf shrub. Moose and caribou are believed to be present at times during the year, but there are no reported caribou rutting areas. The area near the Sapsuk River is more characteristic of unit R21-01; it is low, flat, land not well drained, consisting of extensive wetland areas. The vegetation is a mix of palustrine wetlands and low and dwarf spruce, which also occupies wetland areas. A portion of the caribou rutting area is believed to occur within the Sapsuk River subunits. There are no known historic or prehistoric resources in the subunit. There are several anadromous streams within the subunits, most of which contain sockeye salmon, although other species may also be present. The potential for oil and gas development may exist in several areas.

Unit #: / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21-05 Pavlof Bay	1,716 Se -- Settlement	Map O-4 S52S79W Sec. 26,34, 35,36	The unit is designated Settlement and is considered appropriate for disposal during the planning period. Conveyance of this unit to the Aleutians East Borough is considered appropriate, subject to a separate and subsequent Best Interest Finding.	The unit is situated on fairly flat terrain at the head of Pavlof Bay in an area characterized by low and generally flat to gently rolling topography. The predominate vegetation is dwarf shrub. There are numerous ponds, lakes, and wetlands. There are no known anadromous streams or historic/prehistoric sites. This area has been considered at various times as appropriate for various forms of commercial or industrial development associated with a transportation related marine facility. This unit is affected by a municipal entitlement selection of the Aleutians East Borough.

Resource Allocation Table for Tideland Units - Region 21

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21T-01 Port Moller CHA	129,164 Ha -- Habitat	Map O-4	<p>The unit is designated Habitat. Unit is to be managed to protect the sensitive upland and tideland resources associated with this Critical Habitat Area. Only development authorizations that meet the requirements of AS 16.20.520 and AS 16.20.530 are appropriate. Applications must be submitted to ADF&G for review and approval. Also consult with NMFS and USFWS prior to granting authorizations.</p> <p>Note: The management of the sensitive tideland resources in the Port Moller area requires consideration of those resources in the adjacent tideland units, R21T-02 and R21T-03. This larger tideland area is to be managed as an integrated unit. See management intent for R21T-02 and R21T-03.</p> <p>Development authorizations to support the needs of the Nelson Lagoon community may be appropriate, subject to the protection of sensitive resources and consistency with overall unit management intent.</p>	<p>The Port Moller CHA, established under AS 16.20.550, consists mostly of an area of lagoon (Nelson Lagoon) as well as most adjoining uplands. Nelson Lagoon consists of extensive areas of sheltered tidal flats that are reported to consist, in part, of eel grass. It is a biologically rich and diverse lagoon system, with portions extending eastward to include the Kudobin Islands, which are used for harbor seal and walrus haulouts and contain a number of large seabird colonies. There are a variety of sensitive resources within the lagoon. These include eel grass beds and an extensive area used for harbor seal haulouts, while the entirety of the CHA is important as a waterfowl seasonal concentration area (spring, fall, and winter) and as a waterfowl concentration area for molting. Large concentrations of sea otters have been reported in Nelson Lagoon. A walrus haulout is located at the end of the Kudobin Islands, at Walrus Island. Most of the Lagoon is part of the Port Moller CHA, whose purpose is to protect the marine resources of this area. However, large portions of the lagoon are not included within the CHA yet contain important sea bird colonies, harbor seal haulouts, and walrus haulouts. These resources are contained in tideland unit R21T-02.</p>

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21T-02 Port Moller West	87,626 Ha, Hv -- Habitat and Harvest	Map O-4	This unit is designated Ha and is to be managed as an integrated unit with the adjacent tideland unit, R21T-01, which contains the Port Moller CHA. Tideland authorizations may be appropriate within this unit but are to ensure that the sensitive resources of this unit and the adjoining unit, R21T-01, are protected. Consult with NMFS, ADF&G, and USFWS prior to granting authorizations.	<p>This tideland unit is situated immediately to the east of the Port Moller CHA, which is tideland unit R21T-01, and contains many of the same resources. A large harbor seal haulout area is included within this unit, and is an extension of the same haulout area in the CHA. The remainder of the unit is important as a waterfowl seasonal concentration area (spring, fall, winter) and as a waterfowl molting concentration area. Herring spawning areas occur at the head of Herendeen Bay around the mouths of anadromous streams emptying into the bay. Spring concentrations of brown bear also occur along this coastline. Large rafts of sea otters have been observed in Herendeen Bay.</p> <p>Harvest: Domestic trawl for cod occurs in the tidelands along the northern coastline of this unit. Herring sac roe harvest occurs in Nelson Lagoon and the northern part of Herendeen Bay around Deer Island. There are a few set net sites in this area. Purse seine and drift net harvest for sockeye chinook, chum and coho salmon occurs throughout this unit. The village of Nelson Lagoon is sited on a long spit which encloses the western portion of Nelson Lagoon. Residents rely on commercial drift net (gill net) harvest of salmon. Subsistence harvest of salmon by area residents also occurs during commercial off-season, and seabirds and eggs are also harvested.</p>
R21T-03 Port Moller bay	68,726 Ha, Hv -- Habitat and Harvest	Map O-4	Port Moller Bay is designated Habitat. Development authorizations may be appropriate within this unit but are to ensure that impacts upon the extensive waterfowl concentrations found throughout the Bay are minimized.	<p>This unit includes the main portion of Port Moller bay. Not included in this tideland unit are tideland units R21T-01 and R21T-02. The resources of the main part of Port Moller bay are associated with waterfowl seasonal concentration areas (primarily winter). Large rafts of sea otters have been observed in Port Moller bay.</p> <p>Harvest: Yellowfin sole and cod are harvested in the Port Moller bay area and sac roe is also harvested in this bay.</p>

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21T-04 Pavlof Bay	860 Wd -- Waterfront Development	Map O-4 S50S75W, S50S76W, S51S75W	Unit is to be managed to accommodate tideland industrial uses, including those related to a potential oil and gas terminal. Development in tidelands must be coordinated with upland development, which, if it were to occur, would take place within state land designated General Use. The use of upland areas (Unit R21-03) for commercial/industrial purposes is considered appropriate.	Unit consists of a tideland tract at the head of Pavlof Bay in an area that is considered to have potential for an oil and gas terminal. Adjacent uplands are situated on state land and are designated Settlement.
R21T-05 Tidelands adjacent to Alaska Peninsula NWR	26,996 Ha and Rd -- Habitat and Public Recreation and Tourism-Dispersed	Map O-4	Tidelands adjacent to the Alaska Peninsula NWR are to be managed to protect sensitive habitat values, fisheries and wildlife resources, and the public recreation resources of the NWR. A Tideland Resource Management Zone (TRMZ) affects these tidelands. See "Management Summary, Tidelands" in Chapter 3 for a more detailed description of TRMZs and the management intent and requirements for such zones. As appropriate, consult with Alaska Peninsula NWR; USFWS; and NMFS prior to issuing authorizations.	Unit adjoins the Alaska Peninsula NWR. Tidelands adjacent to the NWR are not known to include significant walrus or sea lion haulouts or rookeries, concentrations of bald eagle nests, or areas of kelp, except for specific locations in Coal Bay and the outer coast. Harvest: Herring sac roe is harvested commercially in the tidelands along the southern coast of this region in Pavlof Bay, around Cape Tolstoi and in Canoe Bay. There is a concentration of commercial purse seine harvest of pink, chum and sockeye salmon in Pavlof Bay and Canoe Bay. Red king and tanner crab are harvested in the many bays and lagoons along this southern coastline. Sport fishing is prevalent in the tidelands along the southern coast of the Alaska Peninsula.

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R21T-06 Bristol Bay and Pacific Ocean, South	495,999 Gu -- General Use	Map O-4	Manage unit for a variety of uses and resources. Protect areas of Pacific herring spawning, sea bird colonies, sea otter concentration and established population areas, and eel grass beds. Consult with USFWS and NMFS prior to issuing authorizations. Maintain opportunities for commercial, subsistence, and sport fish harvest.	<p>This unit consists of extensive areas of coast adjacent to state owned uplands on Bristol Bay and areas along the Pacific Ocean. Areas along the Pacific Ocean are either owned by the state, Native corporations/private individuals, or are part of a Tideland Resource Management Zone. On the Bristol Bay side, the units at Nelson Lagoon (R21T-01 through -03) are excluded; while on the Pacific Ocean side, the TRMZ and R21T-04, in Pavlof Bay, are excluded.</p> <p>The shoreline on the Bristol Bay side is characterized by coarse sand beaches with some mixed sand and coarse gravel beaches. The Pacific Ocean side is pocketed with both small and large bays, in contrast to the nearly continuous curvilinear coastline along Bristol Bay.</p> <p>The majority of the sensitive biological resources are included within the Nelson Lagoon and Port Moller bay units and within the TRMZ. Nonetheless, significant resources exist in this unit. On the Bristol Bay side, waterfowl, shorebirds, and sea otter concentrations occur throughout. Some isolated, small Pacific herring spawning areas also occur. On the Pacific Ocean side sea otter concentrations or established populations of sea otter are reported, there are numerous sea bird colonies situated on rocks within Pavlof Bay, and fairly extensive eel grass beds exist south of the community of Pavlof, at the headland between Pavlof Bay and Beaver Bay.</p> <p>Domestic trawl for cod occurs in the tidelands and submerged lands along the north coast, and there are several set net sites. It is also likely that purse seine and drift net harvest for sockeye chinook, chum, and coho salmon occurs, although most commercial and subsistence harvest occurs in Nelson Lagoon and Port Moller. Sac roe is harvested commercially in the tidelands along the southern coastal area in Pavlof Bay, around Cape Tolstoi and in Canoe Bay. Red king and tanner crab are harvested in some of the bays and lagoons. Sport fishing is prevalent along the southern coast.</p>