

# Region 2

## *Kuskokwim, Kanektok, and Goodnews*

### Summary of Resources and Uses in the Region

#### **Region Boundary**

Region 2 is the largest of the regions in the area plan but it contains a relatively small amount of state land. Most of the land in the Region is in federal ownership and located within the Togiak, Yukon Delta, and Cape Newenham National Wildlife Refuges. See Map O-1.

The boundaries of Region 2 are defined on the southwest by the Bering Sea, on the northwest and north by the Kuskokwim Area Plan, on the northeast by Wood-Tikchik State Park, and on the southwest and south by the drainage divide between the Kanektok and Togiak River systems. The boundaries are nearly the same as the original (1984) Bristol Bay Area Plan.

Region 2 includes coastal lands along Kuskokwim Bay from Cape Newenham to the Kanetok River encompassing the Ahklun Mountains and portions of the Kilbuk Mountains. This includes all or major portions of the drainages of the westerly flowing Goodnews, Kanektok, Kwethluk, Eek, Kisaralik, Kasigluk, and Tuluksak/Fog Rivers. Elevations range from sea level to 4,068 feet. Major settlements in Region 2 include Quinhagak (pop. 567) and Goodnews Bay (pop. 263); settlements in the Region are all coastal and the interior portion of the Region is largely unpeopled. The population of Region 2 is approximately 871.

#### **State Lands: Ownership and Acreage**

State-owned lands are contained mostly within approximately 368,640 acres in sixteen townships in the central west portion of Region 2. Blocks of state-selected lands occur in the northern Kilbuk Mountains, in the vicinity of Nyac, and in a block northeast of Goodnews Bay. The plan applies to 775,619 acres of state-owned and state-selected uplands and 261,064 acres of state-owned tidelands in this region. The plan also applies to state-owned shorelands (acreages of shorelands have not been calculated).

#### **Physical Geography**

Several mountain systems, part of the greater Kuskokwim Mountains, extend from southwest to northeast through the Region; these include the Ahklun, Eek, and Kilbuk Mountains. The drainage pattern reflects the southwest to northeast structural grain of the mountains, and rivers

flow generally from southeast to northwest to the Kuskokwim River or southwest towards Kuskokwim Bay. The greatest relief is found in the northeastern portion of the region; VABM Gravel is at an elevation of 4,068 feet and the valleys below it containing the Kisaralik River are at elevations of approximately 1,200 feet – providing almost 2,900 feet of relief. This area shows enough elevation to display some lingering effects of Pleistocene glaciation – U-shaped valleys, hanging valleys, and cirque lakes. Considerable relief also occurs in the Kilbuk Mountains in the vicinity of the old mining center of Nyac. Mount Hamilton attains an elevation of 3,645 feet and Marvel Dome peaks at 3,768 feet; the surrounding valleys are at an elevation of only a few hundred feet, making for relief of 3,500 feet.

The Region displays a variety of landscapes, including mountain crags, fast-flowing rivers, deep lakes, tundra, marshy lowlands, ponds, estuaries, coastal lagoons, and sea cliffs. The broad glacial valleys of the Ahklun Mountain range cut the tundra uplands, opening into coastal plains. Trees are largely restricted to a few major river valleys such as the Tuluksak, Kisaralik, Kwethluk, and Kanektok Rivers. The sea coast north of Goodnews Bay has little relief, whereas to the south headlands and cliffs extend to the sea; significant headlands occur at Cape Newenham and Red Mountain.

### **Climate**

Climate conditions are variable depending upon proximity to the ocean. The settlements of Quinhagak, Goodnews Bay, and Platinum have a marine climate with annual precipitation of 22 inches with 43 inches of snowfall; summer high temperatures average 41° to 57° and winter lows average from 6° to 24°. Extremes are from 82° to -34°. Interior conditions are commonly somewhat drier and with greater differences in temperature extremes. At Nyac the average annual precipitation is 23 inches but with 70 inches of snowfall. The Region is underlain by ground with either discontinuous permafrost or ground with isolated masses of permafrost. The areas with discontinuous permafrost are generally those with elevations greater than 500 to 1,000 feet. North facing slopes are more likely to be underlain by permafrost than south facing mountain slopes.

### **Other**

Region 2 is within the Russian Mission, Bethel, Goodnews, and Hagemeister Island Quadrangles. It lies almost entirely within the boundaries of the Calista Regional Native Corporation Boundary. The boundary between the Calista and the Bristol Bay Native Corporations is somewhat similar to the eastern boundary of Region 2.

### **Access**

The settlements are highly dependent upon air transportation. There are six gravel airstrips in the Region at Quinhagak (2,600'), Goodnews Bay (2,850'), Nyac (3,650'), Cape Newenham (3,950'), Platinum (3,640'), and the private strip at the Platinum mine (2,000' gravel). Although coastal, there are no significant port facilities although a harbor and dock exist at Quinhagak. There is no road access to the Region; a number of trails extend from and between settlements. Trails extend into the Nyac portion of the Region from Tuluksak and Aniak paralleling the Tuluksak and Aniak Rivers. Many of these are old mining trails which were used to transport personnel and equipment into the Nyac camp to support gold mining activities. A coastal trail

connects Platinum with Goodnews Bay and Quinhagak and extends northward to Bethel. Goodnews Bay is connected to Togiak by a trail, which extends overland between the two communities. Short sections of road extend south from Platinum for 6.8 miles to the platinum ore fields of the Salmon River and to the northeast from Goodnews Bay for 12.6 miles. A trail also extends from the north shore of Goodnews Bay across the upper reaches of Carter Creek, Indian River, and Jacksmith Creek to the Faro and Keno Creek area of the Arolik River.

## **Resources and Uses**

**Cultural and Historic.** Archaeological evidence indicates that areas within the Region have been continuously occupied for at least 2,000 years. Historically the Region was peopled by the Kukowogamiut, who occupied the area from the Kuskowkim River south to Chagvan Bay and to perhaps some extent by the Togiagamiut who lived in the area from Nanvak Bay east to Cape Constantine. The people of Nanvak, Osviak, and Chagvan Bay were known as Chingigumiut or Cape people, and are considered a branch of the Togiagamiut. The present Native peoples are collectively known as Yup'ik.

The first European contact with the Native peoples of the Region took place during the expedition of Captain James Cook when his group encountered a group of Natives in kayaks north of Cape Newenham on July 16, 1778. The Russians established a fur trading business in this fur-rich area centered around a fort at Nushagak which handled up to 4,000 pelts annually. The discovery of gold in Alaska in the 1890's brought a significant influx of people and a discovery in the vicinity of Goodnews Bay brought a stampede of miners from Nome in 1900-1901. Reindeer herding was established at Goodnews and Quinhagak in 1904-1905 but a series of extreme conditions in the mid-1940's exterminated most of the reindeer. In 1926 platinum was first discovered in the valley of the Salmon River and bucket-wheel dredging took place there until 1975.

The state Office of History and Archeology lists 245 sites in Region 2 – 181 prehistoric, 47 historic, and 17 of mixed origin; however, new sites are discovered periodically and added to the Alaska Heritage Resource Database as reported. The majority of the prehistoric sites are situated along the major river drainages, especially the Goodnews, upper Kanektok, and Kwethluk Rivers.

**Economic.** Most of the employment is with the school, government services or commercial fishing. Trapping, basket weaving, skin sewing and ivory carving also provide income. Subsistence remains an important part of the livelihood; subsistence upon salmon, seal, walrus, birds, berries, moose and bear is an integral part of the lifestyle. In Quinhagak and Goodnews Bay many residents hold commercial fishing permits for salmon net and herring roe fisheries. A sea food processing plant is located in Quinhagak and processes halibut and salmon. Platinum has been a major supplier of gravel to area villages; the community desires to develop a marine repair facility and dry dock, a seafood processing plant, specialty sea foods venture, or herring roe aquaculture project.

**Recreation.** Recreation in the Region is primarily related to outdoor activities such as hunting and sport fishing, wildlife viewing, photography, hiking and backpacking, river rafting and kayaking, as well as flightseeing. Sport fishing is especially prevalent on the Kisaralik, Kanektok, Arolik, and Goodnews Rivers. Data from the Alaska Department of Fish and Game show that in 2001 approximately 14,357 days were spent on fishing in fresh waters of the Region. The Kanektok drainage shows the most fishing pressure with 9,063 days fished. Recreational fishing lodges in the Region include the Alaska West facilities near Quinhagak and Goodnews River Lodge near Goodnews Bay. Recreational float trips on the rivers in Region 2 are gaining in popularity. Charter Services for these trips are available at Aniak, Bethel, and Dillingham. Trips vary in length from three to seven days. Difficulty varies from novice to intermediate with the most difficult stretches typed as Class III rapids (on the Kisaralik River).

**Minerals.** The Region encompasses portions of the Goodnews Bay, Bethel, Aniak, and Bristol Bay mining districts and has been an important producer of platinum and gold. From 1928 to 1975 the Goodnews Bay area was the United State's only primary producer of platinum, mostly from placer deposits dredged from the Salmon River; the district produced at least 650,000 troy ounces of platinum group metals and 72,600 ounces of gold. A number of Offshore Prospecting Permit applications have been filed on Goodnews Bay and outside waters on the basis of potential for platinum and gold in the marine sediments. Placer gold has also been produced from dredges in the Nyac area where total production exceeds 500,000 ounces of gold. State-owned land in Region 2 contains a number of placer and lode metal occurrences including the Rocky Creek gold and mercury placers and the Kisaralik placer gold and tin occurrence. Lode occurrences of gold and silver are known at Gold Lake, as well as a nearby unnamed prospect, in the upper reaches of the Kisaralik River drainage. Calista Corporation has selected considerable acreage in the Nyac district with the aim of developing precious metal deposits. Nyac Mining Company has been (2003) placer mining on Spruce Creek under a lease agreement with Calista Corporation. The state has selected approximately 332 sections (212,480 acres) in the district.

Most of the mineral potential in Region 2 is for the precious, base, and platinum group metals. The potential for rare, industrial minerals, mineral sands, oil, gas, or coal is not known. However, narrow seams of lignite coal have been reported along the banks of the upper Kanektok River.

**Materials.** There are active material sites in the vicinity of Quinhagak.

**Forestry.** Only a few percent of the Region is forested. Narrow bands of riparian, black spruce-hardwood, mixed black spruce-balsam poplar, and balsam poplar woodlands extend along the major rivers and their tributaries. None of the wooded areas contain commercially harvestable timber. Lightning-caused wildfires occur every year in the Region, but the vast majority of the land is low-lying tundra interspersed with lakes and rivers. Fires rarely exceed a few acres. Forestry resources are generally insufficient to provide a dependable fuel source for year round residents. Some local residents harvest driftwood, which is particularly abundant in the Kuskokwim Bay area due to large quantities of driftwood coming from the Kuskokwim River.

**Fish and Wildlife.** Fish and Wildlife resources are very important and support a mix of subsistence, recreational, and commercial economies. Species of major importance include caribou, bear, beaver, anadromous fish, and trout. Furbearing species considered most important include wolf, red fox, marten, beaver, lynx, wolverine, river otter, coyote, and mink. Important habitat for seabirds, shorebirds, and waterfowl also occur in the Region.

Fish and wildlife habitat in Region 2 is largely protected by inclusion in the Togiak and Yukon Delta National Wildlife Refuges. The Cape Newenham State Game Refuge is also found here, focusing on the protection of resources within Chagvan Bay. The refuges provide some of the nation's most productive sub arctic goose habitat. Although most noted for waterfowl and other migratory bird habitat, the refuges also support musk ox, caribou, brown and black bears, wolves, and moose. These species are harvested by subsistence hunters.

A large portion of the Region is a vast, flat wetland/tundra complex dotted by countless ponds, lakes, and meandering rivers. The most productive wildlife habitat is the coastal region bordering the Bering Sea. This narrow strip of land is highly productive goose nesting habitat. The refuges support one of the largest aggregations of water birds in the world. Over one million ducks and half a million geese breed here annually and in some summers, up to a third of the continent's Northern Pintails can be found on the refuges. In addition, nearly 40,000 loons, 40,000 grebes, 100,000 swans and 30,000 cranes return to the Togiak NWR each spring to nest. Millions of shorebirds use the refuge for both breeding and staging. In terms of both density and species diversity, the delta is the most important shorebird nesting area in the country, and the vast intertidal zone is the most important wetland for post-breeding shorebirds on the west coast of North America.

The refuges host approximately 80% of the continental breeding population of black brant and nearly all emperor geese. Cackling Canada and Pacific greater white-fronted geese number over 175,000 and 420,000, respectively. Principal species of ducks that occur on the refuges include northern pintail, greater scaup, and wigeon. Harlequin ducks breed in many of the watersheds draining the Kuskokwim Mountains, as well as other suitable habitats. Common eiders are locally "common" in the vicinity of some brant colonies. The formerly abundant spectacled eiders have declined precipitously over the last 25 years.

Nineteen species of raptors have been recorded on the refuges, including golden eagles, bald eagles, and peregrine falcons. The Kisaralik River is among the most important of areas for nesting raptors, and supports one of the densest populations of breeding golden eagles in North America.

Region 2 is mostly within the range of the Mulchatna and Kilbuck Caribou Herds, estimated in 2000 at 150,200 animals. Historically, caribou occurred in large numbers and were the most abundant ungulate. Numbers peaked in the 1860's and during this period, caribou ranged over much of the area. Caribou subsequently disappeared from the region with the exception of small, remnant herds in the Kilbuck and Andreadfsky Mountains. In recent years, up to 40,000 animals from the Mulchatna Caribou Herd have migrated into the Region during the fall and winter period.

Including the Bering Sea, the waters provide habitat for at least 40 species of fish. The Yukon and Kuskokwim rivers, support significant salmon fisheries. Other important freshwater resident species include several species of whitefish, sheefish, Alaska blackfish, burbot, northern pike, Dolly Varden, rainbow trout, grayling, and Alaska blackfish.

Bering Sea marine mammals provide a vital subsistence resource for coastal villages.

Trapping is an important part of the culture and economy of the residents of southwest Alaska. Trapping was one of the main sources of cash income before prices paid for commercially caught salmon increased during the early 1980's. Furbearers still provide an important source of income for trappers and many furs are used domestically in the production of garments and handicrafts. Additionally, the meat from some species, particularly beaver, is highly valued as food. Commonly trapped furbearers include: beaver, red fox, river otter, wolf, wolverine, and Arctic ground (parka) squirrel. Little trapping effort is directed at the other furbearers occurring such as: mink, muskrat, Arctic fox, coyote, lynx, marten, short-tailed weasel, least weasel, red squirrel, and hoary marmot. Trapping seasons generally reflect the period of pelt primeness and typically begin in early November and finish at the end of February or March. Most trappers access their areas via snowmachines. Open water or lack of adequate snow may prohibit access and thus reduce trapping effort.

## **Management Considerations: Local and State Plans and Special Use Area**

A number of local, state, and federal management plans were considered in the development of this plan. Local plans include the Cenaliulriit CRSA Coastal Management Plan and the Bristol Bay CRSA Coastal Management Plan. The Bristol Bay Area Plan is the only state plan affecting this Region although a Special Use Designation is used to manage certain land uses within the planning area. Federal plans include the Togiak National Wildlife Refuge Comprehensive Conservation Plan.

Region 2 is situated partly within the Cenaliulriit CRSA CMP and the Bristol Bay CRSA CMP. State-owned land falls within each of these coastal management plans. The Enforceable and Administrative Policies of these Coastal Management Plans are extensive; policies affecting anadromous fish streams, bald eagle nests, oil and gas development, material extraction, and mining can be applicable, under certain circumstances, to state land. Please see the web site [www.alaskacoast.state.ak.us/](http://www.alaskacoast.state.ak.us/) for more information on enforceable policies. These policies should be consulted by the DNR prior to issuing an authorization.

The Bristol Bay Area Plan (1984) affected all state lands in the Region. This plan stated that Region 2 was to be managed for two co-designated land uses – a combination of fish and wildlife-recreation-minerals and a combination of fish and wildlife-recreation. The

management intent for state lands in the Upper Kisaralik/Kwethluk River drainages was for production of fish and wildlife and for recreation. This revision supersedes the original Area Plan.

The State of Alaska has designated a Special Use Area (SUA) for the Togiak National Wildlife Refuge and the Lower Goodnews River (May 10, 1991; ADL 226851). It applies to those lands generally described as shorelands within Togiak National Wildlife Refuge and lower Goodnews River as described in the Togiak National Wildlife Refuge Public Use Management Plan and Environmental Assessment. Setting up and using a camp is allowed as provided in 11 AAC 96.020 (a)(4)(A), except that the period of use is limited to three consecutive days at any one site. The period of use may be extended by permit. As part of the current collaborative Togiak NWR planning process, the state has agreed to review the existing SUA and has proposed several alternatives to the current three day camping limit. The alternatives only address length of stay and will be labeled as State of Alaska alternatives for management of the shorelands. The proposed State of Alaska alternatives will be incorporated into the table of alternatives presented in the Public Review Draft CCP text. The state will determine if the current SUA needs to be revised based on public comment, resource issues, and management goals.

Region 2 is within the Togiak and Yukon Delta National Wildlife Refuges. Both of these refuges have Comprehensive Conservation Plans and the Togiak Refuge plan is in the process of revision.

## **Management Summary: Uplands**

State land in Region 2 is to be managed for a variety of multiple uses, including the maintenance of sensitive wildlife habitats, dispersed public recreation, minerals exploration and development, oil and gas development, materials extraction, and public facilities development. The majority of state-owned land in Region 2 is designated General Use (Gu). In addition, all state-selected lands in Region 2 are designated as General Use. Five townships (management unit R02-03) located adjacent to Wood-Tikchik State Park are designated Public Recreation and Tourism-Dispersed (Rd); these areas have been recommended for inclusion in the Park by the DNR's Wood-Tikchik State Park Management Plan (2002). Anadromous fish streams on state-owned land are co-designated Habitat (Ha) and Public Recreation and Tourism-Dispersed (Rd). Navigable waters in Federal lands are designated either Habitat (Ha), Public Recreation and Tourism-Dispersed (Rd), General Use (Gu), or are co-designated Habitat and Public Recreation and Tourism-Dispersed (Ha, Rd). A few small management units of land at the public airports are designated Public Facilities-Retain (Pr). No state lands are designated for Settlement in Region 2.

### **Plan Designations and Management Intent**

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. 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 (Gu).** Within this Region, lands that contain one or more resource values, none of which is of sufficiently high value to merit designation as a primary use, and areas that are unlikely to be developed during the planning period, are designated General Use. This land is to be managed for a variety of uses including protection of fish and wildlife habitat and harvest, dispersed public recreation, minerals, oil and gas exploration and development, and protection of heritage resources. It is anticipated that state-selected land in the Nyac area (management unit R02-01) may be the locus of mineral exploration and development activities during periods of lucrative precious metal prices. Similarly, lands selected by the state (management unit R02-05) in the Goodnews Bay area are likely to receive minerals interest when platinum prices are elevated. Mineral exploration and development are considered appropriate uses within areas designated General Use. It is expected that little development will occur in these areas during the planning period, and it is not intended as a matter of policy that intensive forms of development occur in these areas other than occasionally and at specific sites. Areas designated General Use may be conveyed to a borough, should one be formed, under the Municipal Entitlement program.
- **Habitat (Ha).** Generally, this designation applies to areas of varied size that are important for fish and wildlife species during a sensitive life-history stage where alteration of the habitat or human disturbance could result in a permanent loss of a population or sustained yield of a species. In Region 2 this designation is applied to streams and shorelands cataloged by the Alaska Department of Fish and Game as anadromous ([http://gis.sf.adfg.state.ak.us/AWC\\_IMS/viewer.htm](http://gis.sf.adfg.state.ak.us/AWC_IMS/viewer.htm)). These lands are to be retained in state ownership.
- **Public Recreation and Tourism-Dispersed (Rd).** Lands with the designation of Public Recreation and Tourism-Dispersed are to be managed so that their public recreation values are protected and maintained. Within these areas the primary surface uses are intended to be those related to hiking, hunting, fishing, wildlife viewing, and the like. A small tract of state land adjoining the Wood-Tikchik State Park is recommended for inclusion in this Park and is designated Rd (Wood-Tikchik State Park Management Plan, October 2002, p. 11-3 and Map 11-1).
- **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 waterbodies may be (only) designated Public Recreation and Tourism-Dispersed (Rd), Habitat (Ha), or General Use (Gu).
- **Public Facilities-Retain (Pr).** This designation applies to sites that are reserved for a specific public infrastructure requirement. They are to be retained in state or public ownership. In this Region, this designation applies to lands containing public facilities,

commonly airports or schools. Only a small amount of acreage is affected by this designation.

### **Specific Management Considerations**

- **Generally Allowed Uses.** The Generally Allowed Uses in 11 AAC 96.020 can occur throughout the Region except for the area affected by a Special Use Designation. The Togiak National Wildlife Refuge and Lower Goodnews River are a special use area. Setting up and using a camp is allowed as provided in 11 AAC 96.020 (a)(4)(A), except that the period of use is limited to three consecutive days at any one site. The period of use may be extended by permit. For users going to the Kanektok River, there is a one day limit at the outlet of Pegati Lake due to its frequent use.
- **Addition to State Park.** Management unit R02-03, which includes five townships adjacent to Wood-Tikchik State Park, is to be managed for the purposes of dispersed recreation and is designated Public Recreation and Tourism-Dispersed (Rd). This management unit is part of a larger package of land that the DNR recommended for inclusion into the Park in the Wood-Tikchik State Park Management Plan. This management unit is to be managed consistent with that of the adjoining parkland as provided for in the Wood-Tikchik State Park Management Plan (October 2002, p. 11-3 and Map 11-1).
- **Mineral Closing Orders.** Except for areas closed to mineral entry under existing Mineral Closing Orders, all state lands within the Region are open to mineral entry. No additional MCOs are recommended. No leasehold location orders are recommended. See the Minerals section in Chapter 2 for more detail on subsurface management requirements.
- **Retained Lands.** Several small management units that are designated Public Facilities-Retain are designated to be retained. Also, lands designated Ha are to be retained.
- **Municipal Selections.** Areas designated General Use within this Region are considered appropriate for conveyance to a Borough in the event that one is formed.

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

## **Management Summary: Tidelands and Submerged Lands**

Tidelands within this area either adjoin federal lands administered by BLM, federal lands within the Togiak National Wildlife Refuge (NWR), or private (Native) lands, many of which adjoin Goodnews Bay. Sensitive tideland resources concentrate in three areas: Goodnews Bay, Chagvan Bay, and along the coastal promontory called Cape Newenham.<sup>5</sup> These areas contain

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<sup>5</sup> Private and Native lands adjoin Goodnews Bay. Chagvan Bay is included within both the National Wildlife Refuge and Cape Newenham State Game Refuge. Cape Newenham lies completely within the NWR.

a wide variety of wildlife and coastal resources, including pelagic birds, waterfowl and shorebirds, seabird colonies, and Pacific herring spawning and rearing areas. Less sensitive areas, primarily associated with spawning areas of Pacific herring and waterfowl concentrations (spring and fall concentrations) and occasional seabird colonies, are situated along the coast throughout the Region.

At Quinagak and Goodnews Bay a high percentage of residents are engaged in commercial fishing for salmon and herring roe, but only a small number are so engaged in the community of Platinum. Subsistence harvest occurs around these three communities consisting of marine mammals (seal and walrus), salmon, and some waterfowl and eggs. Marine mammals provide a vital resource. Pacific walruses, spotted seals, ringed seals and Pacific bearded seals are hunted on the ice in spring and some seal hunting continues during summer in bays and estuaries.

### **Plan Designations and Management Intent**

**Coastal Tidelands.** The coast in that part of the Region not adjacent to the Togiak NWR consists of mixed sand and gravel beaches interspersed with areas of gravel beaches. Pacific herring spawning areas and waterfowl concentrations occur along this coast. Pelagic birds are also present. This area is designated General Use (Gu). Development authorizations are considered appropriate in these tidelands subject to the protection of sensitive resources and areas. There are a number of offshore prospecting permits along the coast south of Goodnews Bay that were located for platinum and gold deposits. Tideland authorizations to support mineral exploration and development in this area are considered appropriate. Tideland authorizations for material sites (gravel extraction) are also appropriate in this area.

**Tidelands adjacent to Togiak National Wildlife Refuge (R02T-01).** The area north of Goodnews Bay that is part of the Togiak NWR is less productive than the Cape Newenham area to the south. Pacific herring spawning areas and waterfowl concentrations occur along this part of the coast. The Cape Newenham area provides habitat for seals, sea lions, walruses and a variety of birds, such as pelagic and diving birds, seabirds, and waterfowl. A concentration of bird colonies is present at Bird Rock. Sea lion and walrus haulouts occur at scattered sites. Tidelands adjacent to the Togiak NWR are affected by a Tideland Resource Management Zone (TRMZ). TRMZs are designated Habitat and Public Recreation and Tourism-Dispersed and extend one-half mile from the coast. See *Management Summary, Tidelands in Chapter 3* for a description of these zones.

**Tidelands within Goodnews Bay (R02T-02, R02T-03).** The tidelands within Goodnews Bay (R02T-02) provide a rich and varied habitat for Pacific herring spawning, seabird colonies, and waterfowl concentrations. The bay mainly consists of mud and sand with areas of sheltered tidal flats containing a high biomass. The management unit is designated Habitat (Ha) except for areas adjacent to the community of Goodnews Bay and sites that may be required for mineral transfer.

The area adjacent to the Goodnews Bay community is designated Waterfront Development (R02T-03). Mineral development of areas to the south of Goodnews Bay may require a transshipment site. Such a facility is considered appropriate and, when ultimately sited, is

designated Waterfront Development. The management intent within areas designated Habitat is to protect Pacific herring spawning areas, seabird colonies, and waterfowl concentrations. Authorizations to support community or mineral development are considered appropriate within areas designated Waterfront Development and may also be appropriate within areas designated Habitat, subject to the protection of sensitive resources and areas.

**Tidelands within Chagvan Bay (R02T-04).** This bay is included within the Cape Newenham State Game Refuge. Chagvan Bay consists of mud and sand with areas of sheltered tidal flats having a high biomass. Eel grass is present throughout the bay. The bay provides habitat for Pacific herring spawning areas and is known for its waterfowl concentrations. Waterfowl concentrations occur during the spring and fall and include an area of molting concentration. This area is designated Habitat and development authorizations are prohibited unless authorized under AS 16.20.060. ADF&G shall be consulted before any authorizations are issued.

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

## Resource Allocation Table for Upland Units - Region 2

Unit #: / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R02-01 Nyac	204,807 Gu -- General Use	Map O-1	If these lands are conveyed by the Federal government they are to be managed for a variety of uses including mineral exploration and development, oil and gas exploration and development, the protection of anadromous fish and other fish and wildlife resources, and dispersed recreation and tourism. Development authorizations may be appropriate subject to the protection of these resources and the requirements of Chapter 2. See specific management requirements for anadromous streams and caribou calving areas in this Chapter. Because of its remote location and lack of accessibility, it is not intended that intensive development occur within this unit during the planning period except occasionally and at specific locations, although mineral development is considered appropriate. The unit is not considered suitable for settlement. This is considered a high to medium priority selection.	This unit is comprised of various areas of state-selected land. The lands are situated in and around the Nyac mining district which is an important producer of placer gold. The lands have significant mineral potential for both lode and placer gold deposits. The area is mountainous and cut by the Tuluksak, Fog, and upper reaches of the Aniak Rivers; moist tundra and shrubs are the main vegetation types present. The area is also utilized for hunting and fishing and contains anadromous fish streams. The unit is accessed by a number of established trails including the Marvel Creek Cat trail, the Bear Creek-Saw Pit Creek trail, the Ophir Creek-Bear Creek trail, and the upper landing-Bear Creek trail.
R02-02 Kisaralik River	252,330 Gu -- General Use	Map O-1	This unit is designated General Use (Gu). These lands should be managed for a variety of uses including potential minerals exploration and development, the protection of fish and wildlife and their associated habitat, and dispersed recreation and tourism. Development authorizations may be appropriate subject to the protection of these resources and the requirements of Chapter 2. See specific management requirements for bald eagles, anadromous streams, and caribou calving areas in this Chapter. Because of its remote location and lack of accessibility, it is not intended that intensive development occur within this unit during the planning period except occasionally and at specific locations, although mineral development is considered appropriate. The unit is not considered suitable for settlement.	This unit occupies a fairly mountainous area drained by the west-flowing anadromous Kisaralik and Kwethluk Rivers. It is bounded by Bulldog Creek and the Cripple Mountains to the north, Crooked Mountain and Milk Creek to the south, unit R02-03 to the east, and the Kilbuck Mountains to the west. Vegetation is primarily tall and low shrubs as well as alpine tundra. This scenic area has significant mineral potential, is utilized for recreation, and is used for hunting and fishing. Numerous nesting sites for raptors are reported on the western margin of the area and caribou are reported to calve on the eastern margins of the unit. Bears utilize anadromous fish streams in the drainages of the Kisaralik and Kwethluk Rivers. The Alaska Heritage Resources Survey (AHRS) reports many heritage sites in this unit.

<b>Unit #: / Name</b>	<b>Acres / Designation(s)</b>	<b>MTRS</b>	<b>Management Intent</b>	<b>Resources, Uses, Additional Info</b>
R02-03 Kisaralik Lake	114,544 Rd -- Public Recreation and Tourism-Dispersed	Map O-1	This unit is designated Rd and is to be managed, generally, for the purposes of dispersed recreation and the protection of fish and wildlife. This unit is to be retained by the state and is recommended for eventual inclusion in the Wood-Tikchik State Park. DNR authorizations should be limited to those that are consistent with the eventual use of this area as part of the State Park. The management of this unit should be similar to that of the adjoining area of the State Park. Consult the management requirements of Management Unit 2 (Upper Tikchik Lakes) in the State Park Plan for specific guidance.	This unit is comprised of five townships adjacent to Wood-Tikchik State Park. The unit occupies a fairly scenic, mountainous area that extends from the North Fork Lakes and the North Fork of the Kisaralik River south to Milk Creek and Cascade Lake. It is primarily vegetated in tall shrubs and alpine tundra. The unit is reported to contain caribou calving areas. Bears utilize anadromous fish streams in the drainages of the Kisaralik and Kwethluk Rivers. The unit contains Kisaralik Lake which is used by floatplanes and recreationists that float the Kisaralik River. The Wood-Tikchik State Park Management Plan (2002) recommended that the area encompassed by this unit be retained by the state and eventually added to the State Park.
R02-04 Quinhagak Airport	77 Pr -- Public Facilities- Retain	Map O-1 S5S74W Sec. 9	This unit is to be managed by ADOT/PF according to the conditions of the Management Right (ADL 221550) and retained in state ownership as a limited state holding (LSH 237).	This unit contains public airport facilities adjacent to the community of Quinhagak and is managed by ADOT/PF according to the conditions of ADL 221550 and LSH 237.
R02-05 Goodnews River	203,770 Gu -- General Use	Map O-1	This unit is designated General Use (Gu). If these lands are conveyed by the Federal government they are to be managed for a variety of uses including mineral exploration and development, the protection of anadromous fish and other fish and wildlife resources, and dispersed recreation and tourism. Development authorizations may be appropriate subject to the protection of these resources and the requirements of Chapter 2. See specific management requirements for anadromous streams and caribou calving areas in this Chapter. Because of its remote location and lack of accessibility, it is not intended that intensive development occur within this unit during the planning period except for occasionally and at specific locations, although mineral development is considered appropriate. This is considered a medium to high priority selection.	This state-selected unit is located generally north and northwest of Goodnews Bay with a portion of the Goodnews River and the headwaters of the Arolik River flowing through the unit. The lands are in an area with significant mineral potential for platinum group metals and gold with modest potential for chromite and asbestos. The greater area has had significant past production of platinum and gold from placer deposits. For many years the Goodnews district was the only platinum producing area in the United States. The area is also utilized for commercial recreation along the anadromous Arolik and Goodnews Rivers and for hunting and fishing. The Alaska Heritage Resources Survey (AHRS) reports a number of heritage sites in this unit. The unit is accessible by the Goodnews-Arolik trail.

<b>Unit #: / Name</b>	<b>Acres / Designation(s)</b>	<b>MTRS</b>	<b>Management Intent</b>	<b>Resources, Uses, Additional Info</b>
R02-06 Goodnews Bay Airport	91 Pr -- Public Facilities- Retain	Map O-1 S12S73W Sec. 21,22,28	This unit is to be managed by ADOT/PF according to the guidelines in the Management Agreements (ADLs 22380 and 22381) and is to be retained in state ownership as limited state holdings (LSHs 269 and 270).	This unit contains public airport facilities adjacent to Goodnews Bay and the community situated there. It is managed by ADOT/PF under management agreement (ADLs 22380 and 22381) and limited state holding (LSHs 269 and 270).

# Resource Allocation Table for Tideland Units - Region 2

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R02T-01 Tidelands adjacent to Togiak NWR	17,650 Ha, Rd -- Habitat and Public Recreation and Tourism-Dispersed	Map O-1	Tidelands adjacent to the Togiak National Wildlife Refuge (NWR) are affected by a Tideland Resource Management Zone (TRMZ). TRMZs are designated Habitat and Public Recreation and Tourism-Dispersed and extend one half mile from the coast. See "Management Summary, Tidelands" in Chapter 3 for a description of these zones.	<p>Most of the tidelands in Region 2 adjoin the Togiak National Wildlife Refuge. Areas north of Goodnews Bay that adjoin the Togiak NWR consist of mixed sand and gravel beaches interspersed with areas of gravel beaches. Pacific herring spawning areas and waterfowl concentrations occur along this coast. Pelagic birds are also present. The Cape Newenham area, situated in the southern part of this region, is an especially significant coastal habitat and is associated with a rocky headland. This area, which consists of exposed rocky headlands and wave cut platforms, provides habitat for seals, sea lions, walruses, and bird colonies at Bird Rock, as well as a variety of other birds. Pelagic and diving birds, seabirds, and waterfowl are present. Sea lion and walrus haulouts occur at scattered sites.</p> <p>Harvest: A limited amount of commercial fishing and subsistence harvest occurs along this coastline. The exception is the area around Quinhagak where the residents are engaged in commercial fishing for salmon and herring roe. The village of Quinhagak provides a harbor and docking facilities for fishing boats. Subsistence harvest in this area consists of salmon, seal, walrus and some waterfowl and their eggs.</p>
R02T-02 Goodnews Bay	34,912 Ha, Hv -- Habitat and Harvest	Map O-1 S13S75W, S13S74W, S13S73W	<p>Because of the varied and widespread resources of Goodnews Bay, this unit is designated Habitat and Harvest except for areas that may be required in the future for possible mineral transfer. Mineral development of areas to the south of Goodnews may require a transshipment site; such a facility is considered appropriate and, when ultimately sited, is designated Waterfront Development.</p> <p>Management Intent: Within areas designated Habitat and Harvest, protect Pacific herring spawning areas, seabird colonies, and waterfowl concentrations. Protect areas of estuarine wetlands and anadromous streams. Authorizations to support community or mineral development is considered appropriate within areas designated Waterfront Development.</p>	<p>The tidelands within Goodnews Bay provide a rich and varied habitat for Pacific herring spawning, seabird colonies, and waterfowl concentrations that occur in the spring and fall. Numerous anadromous streams empty into the bay. The bay mainly consists of mud and sand with areas of sheltered tidal flats having a high biomass. Estuarine wetlands occur in some areas.</p> <p>Harvest: Commercial fishing occurs throughout Goodnews Bay for salmon and herring roe. Subsistence harvest in this area consists of salmon, seal, walrus and some waterfowl and waterfowl eggs.</p>

<b>Unit # / Name</b>	<b>Acres / Designation(s)</b>	<b>MTRS</b>	<b>Management Intent</b>	<b>Resources, Uses, Additional Info</b>
R02T-03 Goodnews Bay Community (Goodnews)	193 Wd -- Waterfront Development	Map O-1	This area, adjacent to the small community of Goodnews, is designated Waterfront Development. Authorizations to support community or mineral development is considered appropriate within areas designated Waterfront Development.	This is a small tideland Unit intended to accommodate tideland structures necessary for commercial, industrial, or other forms of intensive development.
R02T-04 Chagvan Bay	8,262 Ha -- Habitat	Map O-1 S16S75W, S16S74W	<p>This unit is designated Habitat. Development authorizations are prohibited unless authorized under AS 16.20.060. Alaska Department of Fish and Game (ADF&amp;G) shall be consulted prior to granting any authorizations.</p> <p>Management Intent: Protect habitat for Pacific herring spawning, areas of waterfowl concentration, and areas of eel grass. These resources are extensive throughout the unit and any authorization that may be considered must take into account effects upon each resource.</p>	Chagvan Bay is included within the Cape Newenham State Game Refuge. Chagvan Bay consists of mud and sand with areas of sheltered tidal flats having a high biomass. Eel grass is present throughout the bay. The bay provides habitat for Pacific herring spawning areas and is known for its waterfowl concentrations. Waterfowl concentrations occur there during the spring and fall, including an area for molting concentration.
R02T-05 Offshore Submerged Lands	261,064 Gu -- General Use	Map O-1	Manage for a variety of uses and resources. Protect important concentrations of pelagic birds, sea birds, and waterfowl. Maintain opportunities for commercial harvest.	This tideland unit covers the area between the three mile seaward limit of state owned submerged land and the Tideland Resource Management Zone (R02T-01). There are very few such gaps; consult Plan Map 0-1. See the "Resources, Uses, and Additional Information" of R03T-01 for an indication of the resources that may exist in these areas, which are believed to be primarily associated with pelagic birds, sea birds, and waterfowl. There may be limited harvest of the resources described in R02T-01.