

Region 6: Nushagak, Mulchatna

Summary of Resources and Uses in the Region

Region Boundary

Region 6 is the second largest of the planning regions in the Bristol Bay Plan and encompasses the most state-owned land. See Plan Map 3-6. The Region includes much of the Nushagak and Mulchatna River drainages. The boundaries of the Region are defined by Wood-Tikchik State Park on the west, the drainage divide to the Kuskokwim (Holitna and Aniak Rivers) on the north, and the divide between the Nushagak River system and the Kvichak on the southeast. The eastern boundary is somewhat arbitrary and attempts to separate the upper Mulchatna River drainage from the Region. Elevations range from less than 200 feet in the south to over 3,000 feet in the Shotgun Hills. However, the Region is not very mountainous; it encompasses the southern portion of the Shotgun Hills and Nushagak Hills in the north and the Muklung Hills in the southwest. There are few settlements in the Region; the largest is New Stuyahok (pop. 452). The boundary of Region 6 is virtually the same as that of the original (1984) Bristol Bay Area Plan.

State Lands: Ownership and Acreage

The majority of land within Region 6 is owned by the State of Alaska. Much of the land along the middle and lower Nushagak River is Native-owned, flanked by Federal lands. The plan applies to 4,340,384 acres of state-owned and state-selected uplands.

Physical Geography

The Region is within four physiographic provinces: the central and southern portion is dominated by the Bristol Bay Lowlands; the northwest portion is within the Ahklun Mountain Province; the north part is within the Kuskowkim Mountain physiographic province; and the northeast portion is part of the Lime Hills province. The Nushagak-Mulchatna drainage basin is large and incorporates the east flowing rivers from Wood-Tikchik State Park such as the Iowithla, Kokwok, Nuyakuk, Klutuspak, and King Salmon Rivers. Northern tributaries include the Klutapak Creek, and the Chichitnok and Mosquito Rivers. Eastern and Southeastern tributaries include the Swan, Kaktuli, and Stuyahok Rivers. Topographic relief is modest with most of it developed in the west and north. The highest elevations occur in the glaciated Shotgun Hills where over 2,000 feet of relief is present. Most other mountainous areas of the Region show relief of less than 1,500 feet.

The Region displays a variety of landscapes, including mountains, fast-flowing rivers, tundra, marshy lowlands, and ponds. The glacial valleys of the Wood River Mountains and the Shotgun Hills open into the broad rolling Bristol Bay lowlands. Forested areas occur only sparingly; they are found at restricted locales in the western margins of the Region, near the border with Wood-Tikchik State Park and in the eastern-southeastern portion of the Region at higher elevations near the drainage divide which separates Region 6 and Region 10. Most terrain above 1,000 feet in elevation is vegetated with tall shrubs. Terrain below 1,000 feet is largely covered by low shrub and or lichen tundra with low lying areas marked by wet sedge tundra.

Climate

The climate of Region 6 is transitional from the maritime influence of Bristol Bay to the continental influences to the north. As distance from the coast increases, temperature variations increase whereas cloudiness, humidity, and precipitation tend to decrease. The settlement of New Stuyahok is located in a climatic transition zone. The primary influence is maritime, although a continental climate affects the weather. Average summer temperatures range from 37° to 66°; winter temperatures average 4° to 30°. Annual precipitation ranges from 20 to 35 inches. Fog and low clouds are common during the summer and strong winds often preclude access during the winter. The Nushagak River at New Stuyahok is generally ice-free from June through mid-November. Most of the Region is underlain by isolated masses of permafrost. Generally the areas immediately under or adjacent to the main course of the Nushagak and Mulchatna Rivers are free of permafrost.

Other

Region 6 is within the Dillingham, Taylor Mountains, Lake Clark, and Iliamna Quadrangles. It is entirely within the boundaries of the Bristol Bay Regional Native Corporation. The eastern portion of the Region is within the Lake and Peninsula Borough.

Access

Settlements in Region 6 include Ekwok, New Stuyahok, and Koliganek. Access to the Region is predominantly through air or river transportation. Region 6 contains airstrips at each of the three settlements: a state-owned 1,800-foot lighted gravel airstrip at New Stuyahok; a new 3,000-foot state-owned runway at Koliganek; and a state-owned 2,720-foot-long gravel strip at Ekwok. A new runway at New Stuyahok was under construction in 2004. During summer months, goods can be lightered to all three communities from Dillingham but no good docking facilities are present. Skiffs, ATV's, and snowmachines are prevalent forms of local transportation. There are no improved trails linking the settlements.

Resources and Uses

The Nushagak and Mulchatna River drainages support a major salmon resource for subsistence and recreational harvest. Caribou, moose, and some brown bear are also used heavily by subsistence and recreational hunters. Over one quarter of the caribou harvested annually in Alaska are taken from the Mulchatna Caribou Herd. Exploration by mining companies has brought about the development of significant metal resources at Pebble Copper and Shotgun; the Region contains significant mineral potential for base, precious, rare, and strategic minerals. Part of the Nushagak oil and gas basin extends into the southern part of the area; it is currently the locus of renewed interest in oil and gas exploration. Recreation use is heaviest along the Nushagak, Mulchatna, Koktuli, Nuyakuk, King Salmon, Stuyahok, and Mosquito Rivers. There is little in the way of agricultural resources within the Region except for village gardens. There are no commercial forestry activities but the resource does support uses for house logs and fuel. In the past, sawmills were located at Ekwok, New Stuyahok, and Nondalton.

Cultural and Historic. Hunting and fishing camps along the Naknek River date from 3,000 to 4,000 B.C. In 1818, the first Russian traders arrived. The Russians explored and maintained dominance of the area until the U.S. purchase of Alaska in 1867. U.S. interests were directed primarily at the fur and fishery potential of the region. In 1883, the first salmon cannery in Bristol Bay was opened which brought an influx of non-Native fishermen and cannery workers. A flu epidemic in 1918 was tragic to the Native population. Reindeer were introduced to assist the survivors, but the experiment eventually failed. The state Office of History and Archeology lists 71 sites in Region 6 – 33 historic, 24 prehistoric, and 14 of mixed origin. The majority of these sites are located along the Nushagak and Mulchatna Rivers.

New Stuyahok is located on the Nushagak River, about 12 miles upriver from Ekwok and 52 miles northeast of Dillingham. The present location is the third site that villagers can remember. The village moved downriver to the Mulchatna area from the “Old Village” in 1918. During the 1920s and 30s, the village was engaged in herding reindeer for the U.S. government. However, by 1942 the herd had dwindled to nothing; the village had been subjected to flooding; and the site was too far inland even to receive barge service. So in 1942, the village moved downriver again to its present location. Stuyahok appropriately means “going downriver place.” The first school was built in 1961.

Koliganek is located on the left bank of the Nushagak River, and lies 65 miles northeast of Dillingham. It is an Eskimo village first listed in the 1880 Census as “Kalignak.” The name is local, recorded by the U.S. Geological Survey in 1930. Since that time, the village has moved four miles downstream from the original site.

Ekwok is the oldest continuously occupied Yup'ik Eskimo village on the river. During the 1800s, the settlement was used in the spring and summer as a fish camp, and in the fall as a base for berry-picking. By 1923, it was the largest settlement along the river. In 1930, a BIA school was constructed. Mail was delivered by dog sled from Dillingham until a post office opened in

1941. Many of the earliest homes in Ekwok were located in a low, flat area near the riverbank. After a severe flood in the early 1960s, villagers relocated on higher ground, to the current location.

Economic. The primary economic base is the salmon fishery; many residents hold commercial fishing permits. Many people trap as well. The entire community relies upon subsistence foods and subsistence items are often traded between communities. Salmon, moose, caribou, rabbit, ptarmigan, duck and geese are the primary sources of meat and fowl.

Recreation. Recreation and tourism is experiencing modest growth in the Region. In general, southwest Alaska shows the lowest level of tourism compared to all other areas of the state. Approximately 17% of Alaska visitors report traveling to Southwest and only 3% report that southwest Alaska is their sole destination; the majority of these visits are to Katmai National Park and Preserve and Wood-Tikchik State Park. Tourism in Region 6 is primarily related to sport hunting and fishing. Most recreational or back-country lodges and camps are located on the lower Nushagak River below Ekwok. This lower stretch of the Nushagak River experiences the most commercial recreational activity of the Region. One commercial lodge site is located on the upper Mulchatna River. In general, most recreational activity in Region 6 is concentrated along the major drainage corridors and is primarily related to river rafting and floating or sport fishing activities.

Minerals. Region 6 geology consists of several tectonic-stratigraphic terranes. The northern portion of the Region is underlain by Cretaceous flysch of the Kuskokwim Group. The southeast portion of the Region is underlain by a mixture of Late Cretaceous to Tertiary granitic rocks and middle Tertiary volcanics. Much of the central and southern portions of the Region are underlain by Tertiary clastic sedimentary rocks, which thicken southwards as part of the Bristol Bay oil and gas basin. Region 6 contains a significant mineral endowment. It has a number of important base and precious metal deposits and prospects; these include deposits such as the Shotgun gold deposit, which has in excess of one million ounces of contained gold, and the Pebble Copper deposit which contains over a billion tons of low-grade copper-gold mineralization. Other significant mineral potential occurs at Kemuk Mountain for iron, titanium, and platinum group metals and Sleitat Mountain for tin and tungsten with associated arsenic and zinc.

The Shotgun prospect is located in the south part of the Shotgun Hills, a rugged, glaciated upland at the divide between the King Salmon and Kogruklu/Holitna River drainages. A large granitic pluton makes up the core of the Shotgun Hills and Shotgun is located in hornfels adjacent to the granitic rocks. Novagold Resources Inc. (2000) made the following resource estimates: using a cutoff pf 0.018 ounce of Au per ton, the resource is 32,765,000 tons grading 0.033 ounce of Au per ton; using a cutoff of 0.026 ounce of Au per ton, the resource is 16,550,000 tons grading 0.045 ounce of Au per ton; using a cutoff of 0.035 ounce of Au per ton, the resource is 11,650,000 tons grading 0.05 ounce of gold per ton.

Pebble Copper is located in the extreme eastern part of Region 6 in hills drained by the upper reaches of the Koktuli River. The Pebble porphyry copper-gold-molybdenum deposit was discovered and generally outlined by Cominco American through drilling on the property to 1997. Recent geochemical and geophysical surveys have substantiated that the Pebble deposit is only part of a much larger series of metal-rich, coalescing hydrothermal sulfide systems¹⁶. The mineralized zone is approximately 1.7 kilometers by 1.3 kilometers in size. A recently-completed (2003) independent mineral resource estimate has established the Pebble deposit as one of the world's largest gold and copper resources, containing 13.1 million ounces of gold and 6.8 billion pounds of copper¹⁷.

The Kemuk deposit is located 12 miles east-northeast of the summit of Kemuk Mountain. The site is at the south end of the boundary between sections 19 and 20, T5SR49W, (Seward Meridian). This is an area of extensive surficial deposits with few conspicuous topographic features. Buried below 90 to 140 feet of unconsolidated Quaternary deposits, the deposit consists of a large, composite ultramafic and mafic pluton. This prospect is believed to contain 2.6 billion tons averaging 15 to 17 percent total iron. The average grade is 10.5 to 12 percent magnetic iron and 15 to 17 percent total iron. The platinum-group metal (PGM) potential of this prospect is unknown but may be significant.

The Sleitat prospect is centered on a saddle at an elevation of 1,725 feet, between the two high peaks of Sleitat Mountain (1,979 and 1,903 feet elevation). Sleitat Mountain is the highest part of northeast-southwest trending uplands between the valleys of Harris Creek and the Nushagak River. The occurrence of granite and peripheral gold-bearing quartz gash veins was reported as early as 1938, but subsequent exploration has shown that the principal mineral deposit is a tin-, tungsten-, and silver-bearing sheeted greisen system. A bulk sample contained 0.37 percent tin, 0.04 percent tungsten, and 17 ppm silver; the Sleitat deposit is estimated to contain a total of 28.6 million tons with the average grade of this bulk sample. This size and grade is consistent with that found in other large cassiterite-bearing greisen deposits around the world.

Oil and Gas. The southwestern portion of Region 6 is underlain by the Nushagak Basin, which is one of two basins in the Bristol Bay Area (along with the Bristol Bay basin). The Alaska Peninsula-Bristol Bay basin is 500 miles long and up to 100 miles wide. In Region 5 (the northwestern part of the peninsula) the basin is underlain by up to 18,000 feet of Tertiary sediments that thicken to the south and thin to the north. The offshore Bristol Bay basin is a sediment-filled structural depression that underlies the northern continental shelf of the Alaska Peninsula. Northern coastal plain hydrocarbon potential is moderate to locally high for gas and

¹⁶ The deposit consists of disseminated chalcopyrite and molybdenite, accompanied by minor to trace galena, sphalerite, and arsenopyrite in a stockwork vein system. This mineralization is hosted in early Tertiary granodiorite porphyry that intrudes Tertiary dacite tuffs, lahars, and breccia.

¹⁷ The mineral inferred resources include 1.0 billion tonnes grading 0.61% copper-equivalent (0.40 grams gold per tonne, 0.30% copper, and 0.015% molybdenum above a cut-off grade of 0.30% copper-equivalent). Importantly, Snowden estimates that the Pebble deposit contains significant amounts of high-grade resources: 141 million tonnes of 0.67 grams gold per tonne, 0.48% copper and 0.019% molybdenum, or 0.97% copper-equivalent above a cut-off grade of 0.80% copper-equivalent. The resource estimate is based on approximately 18,353 meters of drilling in 110 core holes. During 2003 North Dynasty Minerals conducted an additional 30,000 feet of drilling in 18 holes at Pebble and other nearby prospects.

low to moderate for oil; both are believed to occur in structural and stratigraphic traps. Oil and gas seeps occur along the peninsula's southeastern flank; some along large anticlinal crests. Source rock data indicate gas prone Tertiary organic shales. Oil may be derived from deeper Mesozoic strata. Tertiary and Mesozoic sandstone reservoir characteristics are locally conducive to hydrocarbon production.

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).

Materials. There are few active materials sites in the Region except for those found near villages such as New Stuyahok.

Forestry. Region 6 and 7 contain most of the forest resources of the Bristol Bay Area. These non commercial forests are found primarily in the Nushagak-Mulchatna drainages. The trees are largely concentrated in the river valleys and consist of spruce, birch, and aspen. Some are large enough for house and saw logs. Most resources are for personal use to meet some modest building needs and for fuel. Upland mixed forests occur in the Muklung Hills and east of the Wood River Mountains. The most valuable of the forest resources for local use are located in the lower Nushagak area near New Stuyahok, Ekwok, and Portage Creek; in the Nushagak and Nuyakuk River above Koliganek; and the Mulchatna River.

Fish and Wildlife. All five species of Pacific salmon – chinook (king), sockeye (red), pink, coho (silver), pink (humpy), and chum (dog) – spawn in the Nushagak-Mulchatna River systems. Sockeye are the most important commercially. Freshwater sport fish including rainbow trout, Arctic grayling, lake trout, Arctic char, Dolly Varden, and northern pike are generally prolific throughout the area.

Caribou are an important resource in the area. The Mulchatna Caribou Herd has been increasing in size and expanding its range since the 1930's. Serious efforts to conduct a census of the herd have taken place since 1973; between 1981 and 1996, the Mulchatna Caribou Herd increased from 19,000 to 200,000. In recent years the herd has peaked in size, and has decreased to what is presently estimated at approximately 30,000 individuals (<http://www.adfg.alaska.gov/index.cfm?adfg=species.main>). Important areas for Caribou include the calving area which extends from the upper Koktuli drainage south to Iliamna Lake and from Kemuck Mtn. east to the Nushagak River.

Moose are relatively new to the Bristol Bay area, possibly moving into the area from the middle Kuskokwim drainages during the last 100 years. During the last twenty years, moose numbers have increased and moose are now common along the Nushagak/Mulchatna Rivers and all of their major tributaries. They also occur throughout the Wood/Tikchik Lake area and have extended their range westward.

Brown bears are common throughout the north Bristol Bay area and are seasonally abundant along salmon spawning areas in the Nushagak, Mulchatna River drainages as well as long the Wood River Lakes. These bears are also observed near aggregations of the Mulchatna Caribou Herd. Important denning areas occur in the Muklung Hills and the Shotgun Hills.

Birds nesting in the area include a variety of waterfowl, gulls, bald eagle, golden eagle, Arctic tern, various loons, willow ptarmigan, and spruce grouse. Numerous transients pass through as well. Eagle nests occur only sporadically along the Nushagak River; nesting sites for eagles and other raptors are slightly more abundant on the Mulchatna and lower Koktuli Rivers.

Trapping has been an important part of the culture and economy of the Northern Bristol Bay area and provided a ready means to acquire cash prior to development of the commercial fishing industry. Historically beaver have been the most important furbearer in the Region. Population trends of furbearers in the Region are favorable – either stable or increasing. This is true for important species found in Region 6 such as land otter, wolverine, and red fox, although populations of the latter can fluctuate greatly due to outbreaks of rabies.

Management Considerations: Local and State Plans and Special Use Area

A number of local, state, and federal management plans were considered in development of this plan. Local plans include the Bristol Bay CRSA Coastal Zone Management Plan, the Lake and Peninsula Borough Coastal Zone Management Plan, the Lake and Peninsula Borough Comprehensive Plan, the Nushagak & Mulchatna Rivers Recreation Management Plan, and the Southwest Alaska Comprehensive Economic Development Strategy 2003-2008. State plans include the Bristol Bay Area Plan, the Wood-Tikchik State Park Management Plan, the Nushagak & Mulchatna Rivers Recreation Management Plan, and the Southwest Alaska Transportation Plan. Federal plans include the Nushagak and Wood Rivers Flood Plain Management Study.

Region 6 is within the Bristol Bay CRSA Coastal Zone Management Plan. Most state-owned land falls within the CRSA but is on land outside the coastal zone. 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.us¹⁸ for more information on enforceable policies. These policies should be consulted by the DNR prior to issuing an authorization.

The eastern portion of Region 6 is located within the boundaries of the Lake and Peninsula Borough. Both the Comprehensive Plan and the District Coastal Management Plan of the Lake and Peninsula Borough apply to this portion of Region 6. The Comprehensive Plan focuses on economic and infrastructure development issues and does not contain specific land use standards or a land use map. The Enforceable Policies of the District Coastal Management Plan

¹⁸ The Alaska Coastal Management Program was terminated on July 1, 2011, pursuant to AS 44.66.030.

are extensive; policies affecting anadromous streams, bald eagle nests, oil and gas development, material extraction and mining can be applicable, under certain instances, to state lands. See www.alaskacoast.state.ak.us¹⁹ for more information on enforceable policies. These policies should be consulted by DNR prior to issuing an authorization.

Region 6 is also subject to the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP; April 2005). This plan treats recreation uses on the two river systems and was adopted as an amendment to the Bristol Bay Area Plan (1984) and as part of the Coastal Zone Management Plan. The RRMP provides the basis for the management of recreation use in areas co-designated Habitat and Public Recreation and Tourism-Dispersed within the Nushagak-Mulchatna drainage.

Region 6 is also within the area covered by the Southwest Alaska Comprehensive Economic Development Strategy 2003-2008, which was developed for the U.S. Department of Commerce Economic Development Administration by the Southwest Alaska Municipal Conference (July 2003). This document developed a number of goals, objectives, and strategies to facilitate and support efforts that retain and grow the region's wealth, including diversifying the economic base.

The Bristol Bay Area Plan (1984) affected all state lands in the Region. This version of the area plan stated that Region 6 was to be managed in conjunction with Region 7 for fish and wildlife habitat and harvest and for recreation. Land use designations in Region 7 included fish and wildlife habitat, minerals, and recreation. This revision supersedes the 1984 area plan. The Area Plan (2005) provides the basis for the management of all state land within the Region except for recreational uses, which are managed under the auspices of the RRMP.

The Southwest Alaska Transportation Plan (ADOT/PF, November 2002) identified a Dillingham/Bristol Bay Area Transportation Corridor, which in general extends from Levelock to Dillingham, connecting with the communities of Ekwok and Aleknagik. It includes a crossing of the Wood River at Aleknagik and a major crossing of the Nushagak River. There are several possible tie-in locations to the Bristol Bay to Cook Inlet transportation corridor. The plan models a corridor from Aleknagik to Igiugig via Levelock.

The State of Alaska has issued a Special Use Area (ADL 226852) defining three Public Use sites on the Nushagak River at the mouth of the Iowithla River (PU6), near Ekwok (PU9), and at New Stuyahok (PU21). These public use sites limit uses not requiring a permit to seven consecutive days.

Municipal Selections

Municipal selections by the Lake and Peninsula Borough occur along the Mulchatna River, in the upper Koktuli drainage, and at an unnamed lake in the upper Stuyahok River drainage. These selections total approximately 11,705 acres in Region 6 and are distributed along streams

and lakes with attractive recreation and development features. See Maps 3-2 to 3-22, Appendix C, and the Municipal Entitlement section of Chapter 4.

Management Summary: Uplands

State land in Region 6 is to be managed for a variety of multiple uses, including settlement, materials extraction, public facilities development, dispersed public recreation, mineral exploration and development, and maintenance of sensitive wildlife habitats. Oil and gas potential, although only moderate to low, may lead to exploration and development in the future, and is considered appropriate within the Region. The majority of lands in Region 6 are designated General Use (Gu). Most of the major river corridors have been co-designated Habitat (Ha) and Public Recreation and Tourism-Dispersed (Rd); they mostly correspond to the river corridors as defined in the Nushagak & Mulchatna Rivers Recreation Management Plan. The Minerals (Mi) land use designation (or co-designation with Habitat) has been applied to four areas where mineral resources are known and activity is expected during the planning period. A management unit adjacent to the Wood-Tikchik State Park in the Muklung Hills is designated Habitat (Ha). The corridor of the Mulchatna River, within the Lake and Peninsula Borough, is co-designated habitat (Ha) and dispersed recreation (Rd). Public Use Sites (identified in the Nushagak & Mulchatna Rivers Recreation Management Plan and used for recreation) have been designated Public Recreation and Tourism-Public Use Sites (Rp). A large number of small management units associated with airport or other such facilities are designated Public Facilities-Retain (Pr). Active materials sites are designated Materials (Ma).

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 (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. The 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 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. Municipal land selections, under the Municipal Entitlement program, are conveyable to the municipality subject to a Best Interest Finding by the State. The Lake and Peninsula Borough has made a small land

selection on General Use lands in the vicinity of the south fork of the Koktuli River. Except for lands that may be conveyed to the Borough, lands with this designation are to be retained by the state.

- **Habitat (Ha).** Generally, this designation applies to areas of various 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 6 this designation is applied to waterbodies cataloged by the Alaska Department of Fish and Game as anadromous (<http://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.interactive>) and to an area important for caribou, moose calving, and brown bear denning in the Muklung Hills. The designation is to be retained in state ownership. This designation is also applied as a co-designation with Public Recreation and Tourism-Dispersed in certain areas affected by the Nushagak & Mulchatna Rivers Recreation Management Plan.
- **Materials (Ma).** Lands designated materials are those where active or inactive materials sites are present. These can include common varieties of sand, gravel, and stone or are site associated with materials extraction that contain conveyors, crushing, sizing, and other processing equipment. Until the materials have been exhausted, material sites are to be retained by the state; thereafter, other authorizations or disposals may be appropriate. Authorizations should be done in consultation with the Department of Transportation and Public Facilities.
- **Minerals (Mi).** Areas associated with significant resources, either measured or inferred that may experience minerals exploration or development during the planning period are designated Minerals. Some areas are also important as habitat areas, and these units are co-designated Minerals and Habitat. Land designated Minerals are to be retained in state ownership. This designation (or co-designation) has been applied at the Shotgun, Kemuk, and Pebble Copper deposits.
- **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. Selections on these lands may be appropriate for conveyance to a Borough under the Municipal Entitlement program (subject to a Best Interest Finding by the state). This designation is applied to a specific section of the Mulchatna River that is affected by a municipal selection of the Lake and Peninsula Borough.
- **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 (only) be designated Public Recreation and Tourism-Dispersed (Rd), Habitat (Ha), or General Use (Gu). This co-designation is applied to the river corridors

within the Nushagak & Mulchatna Rivers Recreation Management Plan. In Region 6 this includes the corridors of the Iowithla, Kokwok, Nuyakuk, upper Nushagak, and Mulchatna drainages.

- **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.
- **Public Recreation and Tourism-Public Use Site (Rp).** This designation applies to areas with a concentration of recreational users or tourists or that are likely to have such concentrations. Within this Region this designation applies to specific recreation sites – such as the public use sites identified in the Nushagak & Mulchatna Rivers Recreation Management Plan. Unless otherwise indicated in the Resource Allocation Table, these sites are to be retained by the state. In some instances they may be conveyed to a Borough, subject to the Borough retaining them in public ownership and ensuring that they remain available for public use.

Specific Management Considerations

- **Generally Allowed Uses.** The Generally Allowed Uses in 11 AAC 96.020 can occur throughout the Region.
- **Proposed Transportation Corridor.** The area identified on the Region Map as a “Potential Transportation Corridor” should be retained by the state during the planning period. Authorizations granted by DNR within or adjacent to this corridor should not preclude the future development of transportation access. Authorizations or disposals within and adjacent to this corridor should only be allowed after consultation with ADOT/PF.
- **Except for areas closed to mineral entry under existing Mineral Closing Orders, all state lands within Region 6 are open to mineral entry. No additional MCOs are recommended; the only exception applies to the areas to be disposed of by DNR for purposes of Community Settlement. Closure to mineral entry is recommended at or before plat adoption. No leasehold location orders are recommended. See the Minerals section in Chapter 2 for more detail on subsurface management requirements.**
- **Mineral Closing and Opening Orders.** This revision of the Bristol Bay Area Plan retains the mineral closing and opening orders largely implemented by DNR at the time of original plan adoption. These MCOs either close a proposed settlement area or close a number of major streams to mineral location. These include the following:
 - MCO 393 – Major streams in the Nushagak and Mulchatna drainage basin
 - MCO 294 – Jack Rabbit Hills (T1R, R40W, Seward Meridian)

- Leasehold Location Orders. Leasehold Location Order No. 1 covers small portions of Region 6, much of Region 7, portions of Region 8, and 9. Under this order, rights to locatable minerals may be acquired only under the Leasehold Location System, AS 38.05.205, and may not be acquired by locating a mining claim under AS 38.05.195. In the affected area, an approved Plan of Operations for a mineral lease takes the place of a Land Use Permit required for unleased land. If the proposed lease activities are minor, a plan of operations is not required (11 AAC 86.800). The Plan of Operations must show how the operator proposes to comply with the lease stipulations and other pertinent guideline in this plan.
- Retained Lands. There are no state lands within this Region that are designated to be retained except for those that are reserved as a ‘Potential Transportation Corridor’, and those designated Public Facilities-Retain (Pr), Mineral (Mi), or Habitat (Ha). Note: Certain management units designated Pr in the Resource Allocation Table may be conveyed out of state ownership and to a Borough, should one be formed as part of the Municipal Entitlement Act, providing the land conveyed remains public land and the public retains access to the public use site. State lands not conveyed to the Borough under the Municipal Entitlement Program are to be retained in state ownership.
- 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 or a co-designation of Habitat and Public Recreation and Tourism-Dispersed. Authorizations issued by DNR are to maintain the habitat and public recreation values of these waterbodies.

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

Resource Allocation Table for Upland Management Units - Region 6

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R06-01 RRMP 14	754,087 Gu - General Use	Map 3-6	The 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 habitats, mineral exploration and development, and dispersed recreation. Some forms of recreation use, including commercial recreation, may be appropriate if these recreational uses are found to be compatible with the management intent for adjacent river corridors designated Ha-Rd or Rd in the Area Plan. Development authorizations may be appropriate subject to the protection of these resources, consistency with the recreation uses specified in the RRMP, and the specific requirements of Chapter 2; see particularly the requirements for Management Guideline K, “Caribou and Moose Calving and Rutting Areas”, in the Fish and Wildlife Habitat and Harvest Areas section and with Management Guideline J, “Nushagak & Mulchatna Rivers Recreation Management Plan”, in the Recreation, Tourism, and Scenic Resources section of Chapter 2. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional (recreational) uses by RRMP Management Unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2 specifically defines the relationship between the RRMP and the BBAP, and must be consulted in adjudication decisions. Intensive development is not expected within this unit during the planning period except occasionally and at specific locations associated with recreation uses and mineral exploration and development. The unit is to be retained in state ownership during the planning period. Settlement is not considered an appropriate use.	The unit encompasses uplands in the upper Nushagak River, King Salmon River, and Chichitnok River drainages and coincides with that of Management Unit 14 of the Nushagak & Mulchatna Rivers Recreation Management Plan. Vegetation consists primarily of tall shrublands. These major drainages are cataloged as anadromous and contain moose rutting areas (although not part of the unit) and brown bear denning areas (in the Shotgun Hills). Caribou and moose calving and wintering are also known to occur within this unit. The management of this unit is governed by the requirements of the Bristol Bay Area Plan. (Previous to this revision, DNR authorizations relating to recreation uses and structures were guided by the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP).) The requirements of the RRMP have been carried over except for prohibitions on structures, trapping cabins, boat storage and docks.
R06-02 Corridor of the Nushagak River system	316,313 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	This unit, which consists of the navigable portions of the Nushagak River and its adjoining uplands as depicted in Map 3-6, is co-designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Unit is to be retained by the state and managed to maintain the recreational uses of the Nushagak River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Units 10, 12, and 13. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses by RRMP management unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions. In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate uses if compatible with the management intent for this unit or if in the best interest of the state.	This unit is the corridor of the upper Nushagak River as depicted in the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The unit consists of that portion of RRMP Management Units 10, 12, and 13 within state-owned lands in Region 6. The RRMP calls for these management units to be managed for either a ‘primitive’ or ‘semi-primitive’ experience. The RRMP also specifies those recreational uses that are appropriate. It includes the Nushagak, King Salmon, and Chichitnok River corridors as well as that of lower Vukpalik Creek. The width of the corridor varies, and may be up to four miles wide. Vegetation consists of lichen tundra and low and tall shrublands. The corridors contain streams cataloged as anadromous; these are utilized by brown bear, especially during the salmon spawning season. Moose use the corridors as calving areas. The Alaska Heritage Resources Survey (AHRS) reports many heritage sites in this unit. The unit is partly affected by MCO 393. This corridor does not include the specific public use sites identified in the RRMP. These are specific, individual units.

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R06-03 Shotgun	35,437 Mi - Minerals Ha - Habitat	Map 3-6 S004N051W; S003N051W	The land is co-designated Minerals (Mi) and Habitat (Ha), and is to be managed for the exploration and development of mineral deposits, subject to state permitting requirements and the protection of sensitive habitats. Any mineral development must consider effects on brown bear denning areas and shall follow the requirements of Management Guidelines A and B in the Fish and Wildlife section of Chapter 2. The unit is to be retained in state ownership. The Nushagak & Mulchatna Rivers Recreation Management Plan does not apply within this unit (p. 1-2; p.2-11). Refer to the Recreation, Tourism, and Scenic Resources section of Chapter 2 for a listing of allowed and prohibited uses. However, permanent facilities related to commercial recreation are prohibited in this unit.	This land is located in the Shotgun Hills. Vegetation is primarily tall shrubs and barren land. The unit encompasses the Shotgun Hills mineral district, which consists of a number of known prospects, occurrences, and the Shotgun gold deposit. The Shotgun deposit has a drill measured resource of approximately 979,660 ounces of gold. Areas along the main valley of the King Salmon River, immediately south of the unit, are used by moose for calving. The area is utilized by brown bear for denning. Exploration and other mining related activities are permitted throughout the DNR's Annual Placer Mining Permit. This unit was affected by the 2013 Plan Amendment process.
R06-04 PU20/Chichitnok River	202 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S003N046W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	The unit consists of a campsite at the mouth of the Chichitnok River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU20).
R06-05 RRMP 19	1,076,848 Gu - General Use	Map 3-6	The 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 habitats, mineral exploration and development, and dispersed recreation. Some forms of recreation use, including commercial recreation, may be appropriate if these recreational uses are found to be compatible with the management intent for adjacent river corridors designated Ha-Rd or Rd in the Area Plan. Development authorizations may be appropriate subject to the protection of these resources, consistency with the recreation uses specified in the RRMP, and the specific requirements of Chapter 2; see particularly the requirements for Management Guideline K, "Caribou and Moose Calving and Rutting Areas", in the Fish and Wildlife Habitat and Harvest Areas section and with Management Guideline J, "Nushagak & Mulchatna Rivers Recreation Management Plan", in the Recreation, Tourism, and Scenic Resources section of Chapter 2. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional (recreational) uses by RRMP Management Unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2 specifically defines the relationship between the RRMP and the BBAP, and must be consulted in adjudication decisions. Intensive development is not expected within this unit during the planning period except occasionally and at specific locations associated with recreation uses and mineral exploration and development. The unit is to be retained in state ownership during the planning period. Settlement is not considered an appropriate use.	The unit encompasses uplands in the lower Mulchatna drainage basin and coincides with Management Unit 19 of the Nushagak & Mulchatna Rivers Recreation Management Plan. The unit contains anadromous fish streams which include Keefer Creeks and the Swan River. This unit also contains areas of moose wintering, and caribou wintering and calving habitat. Vegetation consists of scattered spruce woodlands and tall shrublands at higher elevations and low shrub and lichen tundra. The unit contains some moose calving areas, and tundra swans in the general vicinity of the Swan River. Considerable mineral potential is present and a large block of claims has been staked on state land east of the mouth of the Mulchatna River. The management of this unit is governed by the requirements of the Bristol Bay Area Plan. (Previous to this revision, DNR authorizations relating to recreation uses and structures were guided by the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP).) The requirements of the RRMP have been carried over except for prohibitions on permanent facilities and docks. Parts of the unit are affected by MCOs 393 and 249. The configuration of this unit changed appreciably with the revisions under the 2013 Plan Amendment. See unit R06-05A.
R06-05A Wetlands adjacent to Mulchatna River	23,452 Wr - Water Resources	Map 3-6	Manage unit to protect and maintain habitat and wetlands as well as wetland hydrologic connections to adjacent streams and wetlands. Retain in state ownership. Dispersed recreation is considered an appropriate use in this unit. Other than utilities, communication, roads/bridges, and similar facilities providing a public service, development is not appropriate within this unit. Any authorizations that may be issued will need to avoid impacts or mitigate impacts to wetlands, riverine areas, and moose habitat.	Unit consists of five separate subunits, with a northern concentration area at the intersection of the Mulchatna River with the Moose and Portage Creeks and the Mosquito River. A separate subunit, situated to the south, connects wetland areas between the Mulchatna and Kaktuli Rivers. Extensive wetlands exist throughout each of the subunits. This unit was created during the 2013 Plan Amendment process in order to encompass wetland complexes of significant size. The northern concentration area abuts streams contained in units R06-57 and R06-58.

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R06-06 PU33/Upper Mulchatna River	161 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004N037W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2. Conveyance of the unit to the Lake and Peninsula Borough is appropriate with the stipulation that the unit remain in public ownership as a Public Use Site.	Unit consists of a campsite and floatplane and wheeled plane landing area on the upper Mulchatna River 5 miles downstream from Springway Creek. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU33). The unit is part of a land selection by the Lake and Peninsula Borough under its municipal entitlement.
R06-07 Corridor Middle Mulchatna River	19,851 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	<p>This unit, which consists of the navigable portions of the Mulchatna River and its adjoining uplands as depicted in Map 3-6, is designated Public Recreation and Tourism-Dispersed (Rd). Except for those areas that may be conveyed under the Municipal Entitlement program, the unit is to be retained by the state and managed to maintain the recreational uses of the Mulchatna River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Unit 20. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses related to recreational facilities by RRMP Management Unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions. If the adjudicatory decision of a municipal entitlement selection determines that it is appropriate to convey state land, the classification of the selection converts to Rd (Dispersed Recreation).</p> <p>In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate if consistent with these management objectives or if in the best interest of the state. The municipal selections affecting this unit are considered appropriate for conveyance, subject to a separate and subsequent Best Interest Finding by DNR. If conveyed to the Borough, neither the requirements of the RRMP or the Area Plan will apply.</p>	This unit consists of the uplands corridor adjacent to either side of the Mulchatna River upstream of the boundary of the Lake and Peninsula Borough and within Region 6. Its outer boundary corresponds to that of Management Unit 20 of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The width of the corridor, adjacent to the streams, varies, and may be up to four miles wide, measured from each side of the river system. Vegetation consists of lichen tundra and low shrub, tall shrub, and scattered spruce-birch-alder woodlands. The river is cataloged as an anadromous fish stream and is utilized by brown bear, especially during the salmon spawning season. Moose and caribou are known to winter in this unit, and moose also utilize the area for calving. Raptors nest along the river. The unit is partly affected by MCO 393 and LLO 1. This corridor does not include the specific public use sites identified in the RRMP. These are specific, individual units. The unit contains a large number of land selections by the Lake and Peninsula Borough under the Municipal Entitlement program.
R06-08 PU32/Mulchatna River	173 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S003N039W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite on the north bank of the Mulchatna River, 2 miles southeast of Red Bluff. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU32).
R06-09 Corridor of the Lower Mulchatna River Note: The Stuyahok and Lower Koktuli Rivers are included	255,566 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	This unit, which consists of the navigable portions of the Mulchatna River and its adjoining uplands as depicted in Map 3-6, is co-designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Unit is to be retained by the state and managed to maintain the recreational uses of the Mulchatna River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and	The unit is the corridor of the Lower Mulchatna River as depicted in the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The unit consists of that portion of RRMP Management Units 15, 18, and parts of 16, 17, and 20 within state-owned lands in Region 6. It includes the Mulchatna River up stream to the boundary of the Lake and Peninsula Borough and includes the corridors of the Stuyahok and lower Koktuli Rivers. The width of the corridor varies, and may be up to four miles wide. Vegetation consists of lichen tundra and low shrub in the lower reaches and tall shrubland and scattered spruce woodlands in the upper reaches of the

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in this unit.			<p>Management Guidelines in the RRMP for Management Units 15, 18, and 20. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses by RRMP management unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions.</p> <p>In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate uses if compatible with the management intent for this unit or in the best interest of the state.</p>	<p>river corridors. The rivers are cataloged as anadromous fish streams and utilized by brown bear for feeding, especially during the salmon spawning season. Moose utilize the river corridors as calving and winter concentration areas. Raptor nests occur along the main course of the Mulchatna River and especially along the lower reaches of the Koktuli River. The Alaska Heritage Resources Survey (AHRs) reports many heritage sites in this unit. The unit is partly affected by MCO 393. This corridor does not include the specific public use sites identified in the RRMP. These are specific, individual units.</p> <p>Note: This unit was enlarged from its previous extent during the 2013 Plan Amendment process to encompass extensive moose wintering areas.</p>
R06-10 PU18/King Salmon River	170 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S002N051W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite and floatplane landing area on unnamed lake near the headwaters of the King Salmon River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU18).
R06-11 PU19/Nushagak River	160 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S002N046W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite on the east bank of the Nushagak River 2 miles north of the mouth of the King Salmon River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU19).
R06-12 PU15/King Salmon River	161 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S002N046W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite and floatplane landing area at the mouth of the King Salmon River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU15).
R06-13 RRMP 11	580,615 Gu - General Use	Map 3-6	The 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 habitats, mineral exploration and development, and dispersed recreation. Some forms of recreation use, including commercial recreation, may be appropriate if these recreational uses are found to be compatible with the management intent for adjacent river corridors designated Ha-Rd or Rd in the Area Plan. Development authorizations may be appropriate subject to the protection of these resources, consistency with the recreation uses specified in the RRMP, and the specific requirements of Chapter 2; see particularly the requirements for Management Guideline K, "Caribou and Moose Calving and Rutting Areas", in the Fish and Wildlife Habitat and Harvest Areas section and with Management Guideline J, "Nushagak & Mulchatna Rivers Recreation Management Plan", in the Recreation, Tourism, and Scenic Resources section of Chapter 2. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional (recreational) uses by RRMP Management Unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2 specifically defines the relationship between the RRMP and the BBAP, and must be consulted in adjudication decisions. Intensive development is not expected within this unit during the planning period except occasionally and at specific locations associated with recreation uses and mineral exploration	The unit encompasses uplands east and west of the Nushagak River generally in the drainages of the Nuyakuk River as well as Klutuspak, Cranberry and Vukpalik Creeks. The unit coincides with that of Management Unit 11 of the Nushagak & Mulchatna Rivers Recreation Management Plan. Vegetation consists of tall shrub lands and lichen tundra. The unit contains moose and caribou calving and wintering areas, and waterfowl molting concentrations; the major streams, including Klutuspak Creek are cataloged as anadromous. The management of this unit is governed by the requirements of the Bristol Bay Area Plan. (Previous to this revision, DNR authorizations relating to recreation uses and structures were guided by the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP).) The requirements of the RRMP have been carried over except for prohibitions on permanent facilities and docks.

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			and development. The unit is to be retained in state ownership during the planning period. Settlement is not considered an appropriate use.	
R06-14 PU16/Klutuspak Creek	197 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S001N048W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit includes a wheeled airplane landing area on upper Klutuspak Creek. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU16).
R06-15 PU17/Vukpalik Creek	239 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S001N045W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Wheeled plane landing area in uplands 3 miles southeast of Vukpalik Creek. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU17). Caribou are known to winter in portions of this unit.
R06-16 Upper Chulitna Area	107,151 Gu - General Use	Map 3-6	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, mineral exploration and development, wetlands, and dispersed recreation. Development authorizations may be considered appropriate subject to the protection of these resources and the specific requirements of Chapter 2. Intensive development is not expected within this unit during the planning period, and the unit is to be retained in state ownership during the planning period.	The unit encompasses portions of the upper Chulitna River in Region 6. Vegetation consists of tall and low shrublands and lichen tundra. Caribou are known to winter in portions of this unit. Wetlands are scattered throughout the unit. The unit is partly affected by LLO 1. Note: Area is not included as part of the Nushagak & Mulchatna Rivers Recreation Management Plan.
R06-17 PU14/Klutuspak Creek	205 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S001S047W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and tourism. The unit is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite on the Nushagak River at the mouth of Klutuspak Creek. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU14).
R06-18 Sleitat	17,869 Mi - Minerals	Map 3-6	The land is designated Minerals (Mi) and is to be managed for the exploration and development of mineral deposits. The unit is to be retained in state ownership. The Nushagak & Mulchatna Rivers Recreation Management Plan does not apply within this unit (p. 1-2; p.2-11). Refer to the Recreation, Tourism, and Scenic Resources section of Chapter 2 for a listing of allowed and prohibited uses. However, permanent facilities related to commercial recreation are prohibited in this unit. Impacts to caribou wintering habitat are to be taken into consideration during mine permit review. Consult with ADF&G and other appropriate agencies to determine appropriate best management practices.	This land is located east of the Nushagak River in the vicinity of Sleitat Mountain and Harris Creek. Vegetation consists of low shrub and lichen tundra. Caribou are known to winter in this unit. The area is the locus of significant tin-tungsten-silver mineralization with peripheral gold. The Sleitat deposit has inferred resources of 64,000 to 106,000 tons of tin contained in 29 million tons of ore. One drill hole intercept contains 85 feet averaging 1.8% tin and 0.4% tungsten.
R06-19 Stuyahok	34 Hr - Heritage Resources	Map 3-6 S004S043W Sec. 16	This unit is designated Hr - Heritage Resources and is to be managed for the protection of the heritage resources present. Development authorizations are inappropriate except for those facilities related to the scientific examination or preservation of the site. No surface disturbance is authorized unless related to scientific inquiry. The site is to be retained in state ownership.	This unit is located at the former Eskimo village of Old Stuyahok (Stuyahok) near the confluence of the Stuyahok River with the Mulchatna River. The site is approximately 985 feet by 250 feet in a semicircular clearing. The foundations of ten to fifteen cabins are present. These cabins were probably dismantled when the village was abandoned in 1939-1940 due to persistent flooding. Two dilapidated cabins are also present.

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R06-20 PU27/Koktuli River	29 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S002S040W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite on the Koktuli River at the mouth of the Swan River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU27).
R06-21 PU23/Mulchatna River	80 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S003S042W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite and floatplane landing area on the Mulchatna River at the mouth of the Koktuli River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU23).
R06-22 PU22/Mulchatna River	137 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S003S042W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. The unit is to be retained in state ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit consists of a campsite and floatplane landing area on the Mulchatna River 1.5 miles downstream from the mouth of the Koktuli River. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) as a public use site (PU22).
R06-23 Pebble	31,735 Mi - Minerals	Map 3-6	<p>The general resource management intent for the Pebble Copper area is to consider mineral exploration and development and to allow DNR the discretion to make specific decisions as to how development may occur, through the authorization process. Also, see plan designations and management intent for the two units that border the area – R06-24 and R10-02.</p> <p>Mineral development in this unit may be authorized after a public process that is as extensive as this Area Plan, and with the benefit of site-specific data and design that is prepared for the development and not now available. For that reason, mineral development that is subject to an extensive public and agency process that involves public meetings and comment in the area, and that involves site-specific design may require different widths and habitat-protection measures than those specified in Chapter 2.</p> <p>The Pebble Copper road corridor transects the unit; the actual position of the road alignment has yet to be determined. No authorizations or disposals should be considered that are within or near the corridor until the road alignment is known or without consultation with the ADOT/PF. Notes: 1) The requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan do not apply within this unit; the requirements of the Area Plan apply instead. Refer to Recreation, Tourism, and Scenic Resources Management Guideline J in Chapter 2 for a listing of allowed and prohibited uses. Permanent facilities related to commercial recreation are prohibited in this unit. 2) The habitat resources of the two stream corridors that traverse this unit (R06-24) are to be protected. (See management intent for R06-24.)</p>	<p>This land is located generally in the upper Koktuli River drainage in the area of Groundhog mountain and Sharp Mountain. The unit is adjacent to another minerals unit (R10-02) and is bisected by two stream corridors (R06-24). The terrain is of low to moderate relief and vegetation consists of low to tall shrub. The unit is host to several mineral deposits, prospects, and discoveries and hosts the Pebble Copper deposit. The Pebble deposit is a very large copper-gold resource; the drill indicated resource is estimated at over 2 billion tons. Upper portions of the Koktuli River support anadromous fish. Note to adjudicators: See units R06-24 and R10-02.</p> <p>The size and shape of this unit changed appreciably during the 2013 Plan Amendment process. Then new geophysical data provided the basis for these changes.</p>
R06-24 Pebble Streams	22,076 Mi - Minerals	Map 3-6	<p>The general resource management intent for the Pebble Copper area is to consider mineral exploration and development and to allow DNR the discretion to make specific decisions as to how development may occur, through the authorization process. Also, see plan designations and management intent for the two units that border the area – R06-23 and R10-02.</p> <p>Mineral development in this unit may be authorized after a public process</p>	The unit consists of the two separate stream corridors that adjoin units R06-23 and R10-02, the Pebble Copper deposit. The area of Upper Talarik Creek is utilized by moose as a wintering area. Talarik Creek is an anadromous fish stream and supports a recreational sports fishery for trout. Portions of the western part of the unit are used by moose for wintering. The unit is affected by MCO 393. The unit is part of the Pebble unit which contains the Pebble Copper copper-gold deposit -- a very large copper-gold resource; the

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			<p>that is as extensive as this Area Plan, and with the benefit of site-specific data and design that is prepared for the development and not now available. For that reason, mineral development that is subject to an extensive public and agency process that involves public meetings and comment in the area, and that involves site-specific design may require different widths and habitat-protection measures than those specified in Chapter 2.</p> <p>Mineral development within R06-24 should be performed in such a manner as to ensure that impacts to the anadromous and high value resident fish streams are avoided or reduced to levels deemed appropriate in the state/federal permitting processes related to mineral deposit development. Specifically, such development is to ensure the protection of the streams affected by MCO 393 and their associated riverine habitats, which includes the area within 100' of OHW. Mineral entry and location within the two streams is not allowed pursuant to MCO 393. Impacts to moose wintering habitat are to be taken into consideration during mine permit review. Consult with ADF&G and other appropriate agencies to determine appropriate best management practices. This general management intent replaces and supersedes the management requirement of the Nushagak & Mulchatna Rivers Recreation Management Plan.</p>	<p>drill indicated resource is estimated at over 2 billion tons. Note to adjudicators: The requirements of the Area Plan apply to these corridors, not the RRMP. The requirements of the 2005 RRMP have been incorporated into the revised Area Plan.</p> <p>The size and shape of this unit changed appreciably during the 2013 Plan Amendment process. Then new geophysical data provided the basis for these changes.</p>
R06-25 Corridor of the Nuyakuk River	66,356 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	<p>This unit, which consists of the navigable portions of the Nuyakuk River and its adjoining uplands as depicted in Map 3-6, is co-designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Unit is to be retained by the state and managed to maintain the recreational uses of the Nuyakuk River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Units 10, 12, and 13. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses by RRMP management unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions.</p> <p>In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate uses if compatible with the management intent for this unit or if in the best interest of the state.</p>	<p>The unit is the corridor of the Nuyakuk River as depicted in the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The unit consists of that portion of RRMP Management Unit 8 within state-owned lands in Region 6. The width of the corridor varies, and may be up to four miles wide, measured from each side of the river system. Vegetation consists of lichen tundra, tall and low shrublands, as well as scattered spruce woodlands. The river is cataloged as an anadromous fish stream. Brown bear use the corridor for feeding, especially during the salmon spawning season. Moose use the corridor as a calving and wintering area. It also functions as a caribou calving area. The Alaska Heritage Resources Survey (AHRS) reports a heritage site in this unit. The unit is partly affected by MCO 393.</p> <p>This unit was enlarged during the 2013 Plan Amendment to include certain moose calving and wintering areas, particularly in S002S050W and S001S050W.</p>
R06-26 Corridor of the Lower Nushagak River	10,055 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	<p>This unit, which consists of the navigable portions of the Nushagak River and its adjoining state-selected uplands as depicted in Map 3-6, is co-designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Unit is to be retained by the state and managed to maintain the recreational uses of the Nushagak River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management</p>	<p>The unit consists of a number of scattered, non-contiguous small land blocks of state-selected lands along the lower Nushagak and lower Mulchatna Rivers and within the river corridor of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). One small selection is located on the Kokwok River corridor. The scattered land units are parts of the RRMP Management Units 4, 5, 15, 7, and 9. The area contains moose calving areas, anadromous fish streams, raptor nesting sites, and streams utilized by</p>

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			<p>Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Units 1, 3, 5, and 7. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses by RRMP management unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions.</p> <p>In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate uses if compatible with the management intent for this unit or if in the best interest of the state.</p>	<p>brown bear. Some portions may be affected by MCO 393. Many cultural and historic sites are located along the river corridor.</p>
R06-27 PU21/Nushagak SUA	244 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004S043W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation, consistent with the requirements of the Special Use Designation. The unit is to be retained in state ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.</p>	<p>This unit contains a campsite and floatplane landing area on the Mulchatna River at the mouth of the Stuyahok River. It is affected by a Special Use Area (ADL 226852), which limits use to personal, non-commercial uses for a period of seven consecutive days. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU21). Includes Old Stuyahok site.</p>
R06-28 PU28/Koktuli River	161 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004S038W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2. Conveyance of the unit to the Lake and Peninsula Borough is appropriate with the stipulation that the unit remain in public ownership as a Public Use Site.</p>	<p>Unit consists of a wheeled plane landing area on the Koktuli River 1 mile downstream from the confluence of the north and south forks. The unit is part of a land selection by the Lake and Peninsula Borough under its municipal entitlement.</p>
R06-29 PU29/Koktuli River	43 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004S038W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.</p>	<p>Unit consists of a campsite on the Koktuli River at the confluence of the north and south forks. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU29).</p>
R06-30 Corridor Upper Koktuli River	37,560 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	<p>This unit, which consists of the navigable portions of the Upper Koktuli River and its adjoining uplands as depicted in Map 3-6, is designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Except for those areas that may be conveyed under the Municipal Entitlement program, unit is to be retained by the state and managed to maintain the recreational uses of the Koktuli River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Unit 17. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses related to recreational facilities by RRMP Management Unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the</p>	<p>This unit consists of the uplands corridor adjacent to either side of a portion of the Koktuli River. Its outer boundary corresponds to that of Management Unit 17 of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The width of the corridor, adjacent to the streams, varies, and may be up to four miles wide, measured from each side of the river system. Vegetation consists of lichen tundra and low and tall shrublands. The river is cataloged as an anadromous fish stream, and moose use this area as wintering and calving habitat. The unit is partly affected by MCO 393. This corridor does not include the specific public use sites identified in the RRMP. These are specific, individual units. The unit contains a land selection by the Lake and Peninsula Borough under the Municipal Entitlement program.</p>

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			<p>relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions. If the adjudutory decision of a municipal entitlement selection determines that it is appropriate to convey state land, the classification of Habitat is extinguished and converts to Rd (Dispersed Recreation). See also the requirements for Management Guideline K, "Caribou and Moose Calving, Wintring, and Rutting Areas", in the Fish and Wildlife Habitat and Harvest Areas section of Chapter 2.</p> <p>In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate if consistent with these management objectives or if in the best interest of the state.</p>	
R06-31 PU30/Koktuli River	491 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004S037W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and tourism. The unit is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2 and the requirements for Management Guideline K, "Caribou and Moose Calving, Wintering, and Rutting Areas", in the Fish and Wildlife Habitat and Harvest Areas section. Conveyance of the unit to the Lake and Peninsula Borough is appropriate with the stipulation that the unit remain in public ownership as a Public Use Site.</p>	<p>This unit consists of a floatplane landing area on unnamed lake 1 mile south of the upper Koktuli River and campsite on the Koktuli River, connected by a trail. The unit is part of a land selection by the Lake and Peninsula Borough under its municipal entitlement. Moose are known to use portions of this unit for wintering habitat.</p>
R06-32 PU31/Upper Koktuli River	241 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004S035W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in state ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2. Conveyance of the unit to the Lake and Peninsula Borough is not appropriate since the preponderance of land surrounding the unit is designated Minerals (Mi).</p>	<p>This unit consists of a floatplane landing area on unnamed lake on the south side of the upper Koktuli River 2.5 miles northeast of Sharp Mountain. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU31). The unit is part of a land selection by the Lake and Peninsula Borough under its municipal entitlement.</p>
R06-33 PU13/Nuyakuk Creek	359 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S004S047W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. The unit is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.</p>	<p>This unit consists of a campsite and floatplane landing area on shorelands on the Nushagak River at the mouth of Nuyakuk Creek. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU13).</p>
R06-34 PU12/Kemuk Mountain	161 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S006S053W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.</p>	<p>Campsite and floatplane landing area on an unnamed lake 15 miles north of Okstukuk Lake. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU12).</p>
R06-35 Corridor of the Kokwok River	149,611 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	<p>This unit, which consists of the navigable portions of the Kokwok River and its adjoining uplands as depicted in Map 3-6, is co-designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Unit is to be retained by the state and managed to maintain the recreational uses of the Kokwok River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain</p>	<p>The unit is the corridor of the Kokwok River as depicted in the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The unit consists of that portion of RRMP Management Unit 4 within state-owned lands in Region 6. The width of the corridor varies, and may be up to four miles wide, measured from each side of the river system. Vegetation consists of lichen tundra and low shrub in the lower reaches and tall shrubland in the upper reaches of the river corridor. The drainage is cataloged as an anadromous fish stream. Brown bear utilize the upper reaches of the</p>

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			<p>types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Unit 4. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses by RRMP management unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions.</p> <p>In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate uses if compatible with the management intent for this unit or if in the best interest of the state.</p>	<p>drainage for feeding during the salmon spawning season and moose use the upper reaches as a calving area. The Alaska Heritage Resources Survey (AHRS) reports a heritage site in this unit. The unit is partly affected by MCO 393. This corridor does not include the specific public use sites identified in the RRMP. These are specific, individual units.</p> <p>This unit was enlarged during the 2013 Plan Amendment to include certain moose calving and wintering areas, particularly in the northern extremity of the unit and, more specifically, in S005S052W and S005S053W.</p>
R06-35A Wetlands adjacent to Corridor of Kokwok River	96,100 Wr - Water Resources Ha - Habitat Rd - Public Recreation and Tourism-Dispersed	Map 3-6	<p>Manage unit to protect and maintain wetlands and wetland hydrologic connections to adjacent streams and wetlands, and to protect moose and caribou prime habitat. Retain in state ownership. Dispersed recreation is considered an appropriate use in this unit.</p> <p>Other than utilities, communication, roads/bridges, and similar facilities providing a public service, development is not appropriate within this unit. Any authorizations that may be issued will need to avoid impacts or mitigate impacts to wetlands, riverine areas, and moose/caribou habitat.</p>	<p>Unit consists of two subunits that adjoin the Kokwok River, unit R06-35. Both subunits occupy generally level terrain although there is some mild relief toward the extremities of the subunits. Wetland and shrub vegetation are characteristic of these central areas whereas a mixture shrub and evergreen forest occupy the remaining areas. The predominant feature of the unit is, however, its general flatness and presence of extensive wetland complexes. Both caribou calving and moose calving/wintering habitat occupy the western parts of the two subunits.</p> <p>This unit was created during the 2013 Plan Amendment process to include wetland complexes that are widespread throughout this unit.</p>
R06-36 Kemuk	78,426 Mi - Minerals Ha - Habitat	Map 3-6	<p>The land is designated Minerals (Mi) and is to be managed for the exploration and development of mineral deposits and to maintain important habitat areas, subject to state permitting requirements. Any mineral development must consider potential effects upon caribou calving and moose and caribou wintering areas and shall follow the requirements of Management Guidelines A and B in the Fish and Wildlife section of Chapter 2. Unit is to be retained in state ownership. The Nushagak & Mulchatna Rivers Recreation Management Plan does not apply within this unit (p. 1-2; p.2-11). Refer to the Recreation, Tourism, and Scenic Resources section of Chapter 2 for a listing of allowed and prohibited uses. However, permanent facilities related to commercial recreation are prohibited in this unit.</p>	<p>This land is located generally west of Koliganek and on the upper reaches of Napotoli and Klutuk Creeks, to the east of Kemuk Mountain. This land is the locus of a mafic-ultramafic hosted iron deposit with potential for titanium, platinum group metals, and chromium. A moose wintering area occupies the western part of this unit, and caribou wintering and calving are known to occur in this unit.</p> <p>This unit was affected by the 2013 Plan Amendment process.</p>
R06-37 Koliganek Airport	167 Pr - Public Facilities-Retain	Map 3-6 S005S047W Sec. 21,28	<p>This land is to be managed consistent with FAA and ADOT/PF guidelines for airport use and in accordance with the Management Right. Unit is to be retained in state ownership.</p>	<p>This unit is located at the Koliganek public airport and is managed by the Department of Transportation and Public Facilities (ADOT/PF) for airport use pursuant to Management Rights (ADLs 200348 and 200341).</p>
R06-38 PU24/Stuyahok River	400 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S005S041W	<p>This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and tourism and retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2. See specific management requirements for caribou wintering areas in this Chapter.</p>	<p>Unit consists of a wheeled plane landing area on the Stuyahok River 20 miles southeast of old Stuyahok. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU24). Caribou are known to use this unit as part of a wintering area.</p>

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R06-39 PU25/Stuyahok River	440 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S005S041W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2. See specific management requirements for caribou wintering areas in this Chapter.	Unit consists of a floatplane and wheeled plane landing area near the Stuyahok River on an unnamed lake 21 miles southeast of old Stuyahok. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU25). Caribou are known to use this unit as part of a wintering area.
R06-40 PU26/Unnamed Lake	671 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S005S040W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp), is to be managed for public recreation, and retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2. See specific management requirements for caribou wintering areas in this Chapter. Conveyance of the unit to the Lake and Peninsula Borough is appropriate with the stipulation that the unit remain in public ownership as a Public Use Site.	Unit consists of a campsite and floatplane landing area on an unnamed lake drained by the Stuyahok River 23 miles southeast of old Stuyahok. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU26). The unit is part of a land selection by the Lake and Peninsula Borough under its municipal entitlement. Caribou are known to use this unit as part of a wintering area.
R06-41 Stuyahok Hills	2,129 Rd - Public Recreation and Tourism-Dispersed	Map 3-6 S005S040W	The unit is designated Public Recreation and Tourism-Dispersed (Rd). Land selections by the Lake and Peninsula Borough as part of its municipal entitlement are considered appropriate for conveyance. See specific management requirements for caribou wintering areas in Chapter 2.	This relatively small unit consists of state-owned land south of the Stuyahok River in the vicinity of Public Use Site 26 as identified in the Nushagak & Mulchatna Rivers Recreation Management Plan. The Public Use site itself is a separate unit. Vegetation consists of spruce woodland. The unit contains a land selection by the Lake and Peninsula Borough under the Municipal Entitlement program. Caribou are known to use this unit as part of a wintering area.
R06-42 RRMP 6	323,544 Ha - Habitat Rd - Public Recreation and Tourism-Dispersed	Map 3-6	Manage unit for its habitat and dispersed recreation values. Retain in state ownership. Other than utilities, communication, roads/bridges, and similar facilities providing a public service, development is not appropriate within this unit. Mineral development, including mining support, may also be appropriate within this unit. Any authorizations that may be issued will need to avoid impacts or mitigate impacts to wetlands, riverine areas, and sensitive moose and caribou wintering areas and caribou calving habitat.	The unit consists of a number of non-contiguous upland blocks of state-owned land in the lower Nushagak drainage that are part of Management Unit 6 in the Nushagak & Mulchatna Rivers Recreation Management Plan. Vegetation consists of tall and low shrub lands and lichen tundra. Scattered wetlands are present. The uplands are within the Kokwok and Klutuk drainages, which are tributaries to the Nushagak River. The unit includes moose calving and over wintering areas and caribou wintering areas. The management of this unit is governed by the requirements of the Bristol Bay Area Plan. (Previous to this revision, DNR authorizations relating to recreation uses and structures were guided by the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP).) The requirements of the RRMP have been carried over except for prohibitions on permanent facilities and docks. Moose and caribou are known to use this unit as wintering and calving habitat, and moose are known to rut in portions of this unit. Unit R6-42 was extensively revised during the 2013 Plan Amendment process. The part west of the Nushagak River, occupied by significant habitat areas, retained the R06-42 unit designation, while the area east of the Nushagak was assigned the R06-42A unit identifier. The latter does not contain the habitat areas to the same degree.
R06-42A Stuyahok Hills, East	260,040 Gu - General Use	Map 3-6	The 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 habitats, mineral exploration and development, and dispersed recreation. Some forms of recreation use, including commercial recreation, may be appropriate if these recreational uses are found to be compatible with the management intent for adjacent river corridors designated Ha-Rd or Rd	The unit consists of a number of non-contiguous upland blocks of state-owned and state-selected land in the lower Mulchatna drainage that are part of Management Unit 6 in the Nushagak & Mulchatna Rivers Recreation Management Plan. Portions of the western part of the unit include moose calving and over wintering areas (primarily in S010S048-049W). Vegetation is predominately shrub and dwarf shrub, although there are of

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
			in the Area Plan. Development authorizations may be appropriate subject to the protection of these resources, consistency with the recreation uses specified in the RRMP, and the specific requirements of Chapter 2; see particularly the requirements for Management Guideline K, “Caribou and Moose Calving, Wintring, and Rutting Areas”, in the Fish and Wildlife Habitat and Harvest Areas section and with Management Guideline J, “Nushagak & Mulchatna Rivers Recreation Management Plan”, in the Recreation, Tourism, and Scenic Resources section of Chapter 2. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional (recreational) uses by RRMP Management Unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2 specifically defines the relationship between the RRMP and the BBAP, and must be consulted in adjudication decisions. Intensive development is not expected within this unit during the planning period except occasionally and at specific locations associated with recreation uses and mineral exploration and development. Settlement is not considered an appropriate use. The unit is to be retained during the planning period.	deciduous forest as well as scattered wetlands. The management of this unit is governed by the requirements of the Bristol Bay Area Plan. (Previous to this revision, DNR authorizations relating to recreation uses and structures were guided by the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP).) The requirements of the RRMP have been carried over except for prohibitions on permanent facilities and docks. Unit R6-42 was extensively revised during the 2013 Plan Amendment process. The part west of the Nushagak River, occupied by significant habitat areas, retained the R06-42 unit designation, while the area east of the Nushagak was assigned the R06-42A unit identifier. The latter does not contain the habitat areas to the same degree.
R06-43 PU11/Okstukuk Lake	247 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S008S053W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and tourism. The unit is to be retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	This unit contains a campsite and floatplane landing area near the outlet of Okstukuk Lake. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU11).
R06-44 PU10/Kokwok River	161 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S008S052W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation and tourism. The unit is to be retained in public ownership. See also the Management Guideline for “Public Use Sites” in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	This unit consists of a campsite on the Kokwok River near the Okstukuk Hills. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU10).
R06-45 New Stuyahok Airport	71 Pr - Public Facilities-Retain	Map 3-6 S008S047W	The unit is to be managed consistent with FAA and ADOT/PF guidelines for airport use and in accordance with provisions of the Management Right (ADL 221465; OSL 900). The unit is to be retained in state ownership.	This unit of land is located at the New Stuyahok public airport and contains airport facilities managed by the ADOT/PF.
R06-46 New Stuyahok School	7.89 Pr - Public Facilities-Retain	Map 3-6 S008S047W Sec. 29	This land is to be managed consistent with the management right (ADL 201852; OSL 707) for a new school site. The unit is to be retained in state ownership.	This unit is located in New Stuyahok and is managed by the Department of Transportation and Public Facilities (ADOT/PF) and is a school site.
R06-47 New Stuyahok	41 Ma - Materials	Map 3-6 S008S048W Sec. 29	This unit is designated Materials (Ma) and is to be managed consistent with Alaska regulations and the management guidelines for materials sites specified in Chapter 2. See specific management requirements for caribou wintering areas in this Chapter. Unit is to be retained in state ownership.	This unit (ADL 23739) is located in New Stuyahok on shorelands of the Nushagak River and has been used for the production or staging of material extraction. Caribou are known to winter in this unit.
R06-48 Iowithla River	51,929 Ha - Habitat Rd - Public Recreation and Tourism-Dispersed	Map 3-6	The unit is designated Habitat (Ha) and Public Recreation (Rd) and is to be managed for the protection of fish and wildlife habitat and recreation resources. Development authorizations may be appropriate, subject to the protection of these resources and the requirements of Chapter 2. This is considered to be a low priority state selection.	This management unit is state-owned and state-selected land located generally in the Muklung Hills, both west and east of the Iowithla River. The Iowithla River is cataloged as an anadromous fish stream and is utilized by brown bear during the spawning season. Brown bear also use the area for denning. The area contains calving and wintering areas for moose and is used for subsistence and recreational fishing and hunting. This unit also

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				contains waterfowl molting concentrations and caribou calving habitat. Note: This unit was enlarged in size at its northernmost part, particularly in S009S054W, S010S054W, and S010S053W in order to encompass areas of waterfowl molting concentrations, caribou calving, and moose calving and wintering areas.
R06-49 Corridor of the Iowithla River	44,940 Rd - Public Recreation and Tourism-Dispersed Ha - Habitat	Map 3-6	This unit, which consists of the navigable portions of the Iowithla River and its adjoining uplands as depicted in Map 3-6, is co-designated Public Recreation and Tourism-Dispersed (Rd) and Habitat (Ha). Unit is to be retained by the state and managed to maintain the recreational uses of the Iowithla River and the adjoining upland corridor, its fish and wildlife resources, and public recreation values. The management requirements of the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP) are to be followed by DNR in the granting of authorizations related to certain types of recreational uses and structures. See the Management Intent and Management Guidelines in the RRMP for Management Unit 2. For convenience, Table 2.2 contains a listing of allowed, prohibited, and conditional uses by RRMP management unit. Management Guideline J in the Recreation, Tourism, and Scenic Resources section of Chapter 2, which more specifically defines the relationship between the RRMP and the BBAP, also applies and should be consulted in adjudication decisions. In general, authorizations should not be issued for non-recreational uses that are incompatible with the management intent of this unit and the management objectives of the RRMP. Oil, gas, and mineral exploration and development are considered appropriate uses if compatible with the management intent for this unit or if in the best interest of the state.	The unit is the corridor of the Iowithla River as depicted in the Nushagak & Mulchatna Rivers Recreation Management Plan (RRMP). The unit consists of that portion of RRMP Management Unit 2 within state-owned lands in Region 6. The width of the corridor varies, and may be up to four miles wide, measured from each side of the river system. Vegetation consists of lichen tundra and low shrub in the lower reaches and tall shrubland in the upper reaches of the river corridor. The Iowithla River is cataloged as an anadromous fish stream and is utilized by brown bear, especially during the salmon spawning season. The river corridor is used as a calving area by moose. The unit is partly affected by MCO 393. This corridor does not include the specific public use sites identified in the RRMP. These are specific, individual units. Note: This corridor continues into Region 5.
R06-50 PU8/Muklung Hills	277 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S010S053W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	Unit contains a campsite and floatplane landing area on an unnamed lake near the Muklung Hills. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU8).
R06-51 PU7/Iowithla River	345 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S010S053W	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation. It is to be retained in public ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	This unit consists of wheeled plane landing area on the Iowithla River near the Muklung Hills. It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, (April 2005) as a public use site (PU16).
R06-52 Ekwok Airport	103 Pr - Public Facilities-Retain	Map 3-6 S009S049W Sec. 35,36	This unit is to be managed consistent with FAA and ADOT/PF guidelines for airports and according to the Management Right and the Limited State Holding. It is to be retained in state ownership.	This land contains airport facilities at the Ekwok public airport and is managed by ADOT/PF under a Management Right (ADLs 220376 and 224131) and requirements of a Limited State Holding (LSH 268). (OSL 850)
R06-53 Ekwok School	5.66 Pr - Public Facilities-Retain	Map 3-6 S009S049W Sec. 35	Unit is to be managed for public purposes and retained in state ownership.	This land (OSL 496) is located at Ekwok and utilized by the public school system.

Unit # / Name	Acres / Designation(s)	MTRS	Management Intent	Resources, Uses, Additional Info
R06-54 PU9/Nushagak SUA	147 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S001S049W Sec. 19	Unit is to be retained in state ownership and managed to support public recreation, consistent with the requirements of the Special Use Area. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	This unit is located on the Nushagak River near the junction with the Kokwok River. This unit is a portion of a Special Use Area (ADL 226852). It is identified in the Nushagak & Mulchatna Rivers Recreation Management Plan, April 2005, as a public use site (PU9).
R06-55 PU6/Nushagak SUA	40 Rp - Public Recreation and Tourism-Public Use Site	Map 3-6 S005S005W Sec. 31	This unit is designated Public Recreation and Tourism-Public Use Site (Rp) and is to be managed for public recreation, consistent with the requirements of the Special Use Designation. The unit is to be retained in state ownership. See also the Management Guideline for "Public Use Sites" in the Recreation, Tourism, and Scenic Resources section of Chapter 2.	This unit is located on the Nushagak River near the junction of the Iowithla River. It contains a campsite and floatplane landing area on shoreland at the mouth of the Iowithla River and is affected by a Special Use Designation (ADL 226852). Personal, non-commercial use of the land is limited to seven consecutive days. The Nushagak & Mulchatna Rivers Recreation Management Plan (April 2005) identifies this unit as a public use site (PU6). (Note: The location of this land is improperly shown in some state records; but is shown correctly on Map 3-6.)
R06-56 Old Man Creek	21,186 Ha - Habitat Rd - Public Recreation and Tourism-Dispersed	Map 3-6 Various	Manage unit to protect and maintain wetlands and wetland hydrologic connections to adjacent streams; and habitat and recreation values. Retain in state ownership. Other than utilities, communication, roads/bridges, and similar facilities providing a public service, development is not appropriate within this unit. Any authorizations that may be issued will need to avoid impacts or mitigate impacts to wetlands, riverine areas, and moose habitat.	Unit encompasses the river and adjacent riverine area associated with Old Man Creek. Terrain is level and vegetation consists of a mixture of shrub and deciduous forest. A significant moose wintering, rutting, and calving area occupies this unit. This unit was affected (created) by the 2013 Plan Amendment process.
R06-57 Portage, Moose Creeks and Mosquito River	6,756 Ha - Habitat Rd - Public Recreation and Tourism-Dispersed	Map 3-6 S003N040W S004N040W	Manage unit to protect and maintain habitat and dispersed recreation values. Other than utilities, communication, roads/bridges, and similar facilities providing a public service, development is not appropriate within this unit. Any authorizations that may be issued will need to avoid impacts or mitigate impacts to wetlands, riverine areas, and moose habitat.	Unit encompasses the river and adjacent riverine areas associated with three proximate creeks – Portage and Moose Creeks and Mosquito River, which are tributaries to the Middle Mulchatna River. Each of these streams exhibit meandering and their floodplain contain a variety of remnant riverine features. Terrain is level and vegetation consists of a mixture of shrub, wetlands, and deciduous forest. A significant moose wintering, rutting, and calving area occupies this unit. Unit created through 2013 Plan Amendment.
R06-58 East Fork, Mosquito River	12,981 Ha - Habitat Rd - Public Recreation and Tourism-Dispersed	Map 3-6 S994N039W S005N038W	Manage unit to protect and maintain habitat and dispersed recreation values. Retain in state ownership. Other than utilities, communication, roads/bridges, and similar facilities providing a public service, development is not appropriate within this unit. Any authorizations that may be issued will need to avoid impacts or mitigate impacts to wetlands, riverine areas, and moose habitat.	Unit encompasses the river and adjacent riverine areas of the East Fork of Mosquito River, which is a tributary to the Middle Mulchatna River. It exhibits many of the characteristics of the adjacent creeks in unit R06-57. It exhibits extensive meandering and the floodplain contains a variety of remnant riverine features. Terrain is level and vegetation consists of a mixture of shrub, wetlands, and deciduous forest. A significant moose wintering, rutting, and calving area occupies this unit. Unit created through 2013 Plan Amendment.