Chapter 3

Land Use Designations and Management Policies for Planning Regions and Management Units

Introduction

This chapter presents specific land management policies for all state uplands, tidelands and submerged lands, and shorelands within the planning area. Information on these state lands is organized by region. There are twenty Regions and the numbering system from the 1984 Bristol Bay Area Plan has been retained for the convenience of the users. These twenty Regions include a total of 221 upland management units, 45 tideland management units, and 7 tideland resource management zones. Within the planning area, there are approximately 12 million acres of uplands and 7 million acres of tidelands and submerged lands. The management requirements of this area plan do not apply to non-state lands, which include University of Alaska lands and Mental Health Trust Authority lands, and state parks. The management requirements of this area plan also do not apply to other state-owned lands directly administered by the ADOT/PF and governed by a separate set of regulations.

Organization of Chapter 3

The chapter is organized into the following sections:

- **Land Use Designations and Management Intent.** This section describes land use designations, management intent and management guidelines, and policies pertaining to the disposal and retention of state land.
- **Plan Structure.** This section describes the regions and management units used in the area plan, the types of plan maps used and their limitations, and the attributes that are identified for management units in the Resource Allocation Tables of Chapter 3.
- **Description of the Planning Area.** This section provides a generalized description of the Bristol Bay Planning Area. State lands are described, to include their size (acreages), access, physical attributes, resources and uses. Both tidelands and uplands are discussed.
- **Local and Federal Plans.** This section describes relevant community, state, and Federal agency plans that were considered in developing this plan.

- **Management Summary.** This section describes how the state-owned and state-selected uplands and tidelands are to be generally managed in the future under the Area Plan.
- **Region Descriptions.** This section constitutes the bulk of Chapter 3 and provides a generalized description of each region within the planning area, general management intent for state uplands and tidelands, and specific land use designations and management intent requirements for each management unit within a region.
- **Navigable Rivers and Lakes.** This section explains the concept of the Public Trust Doctrine and describes the management intent and designations for navigable waters within federal conservation units and state-owned and state-selected land. A table listing the principal navigable waters within the planning area and their corresponding plan designations is also provided.

Land Use Designations and Management Intent Planning Tools

A land use **designation** recognizes uses or resources that are of major importance in a particular management unit. Management unit designations are based on current and projected future use patterns and the most significant resources identified in each management unit. DNR will manage activities in the management unit to encourage, develop, or protect the uses or resources for which the unit is designated.

When the plan assigns a designation to a management unit, the designation is accompanied by region-wide management guidelines and management intent specific to that unit. These three pieces of information – designations, management guidelines, and management intent – promote the most beneficial use and set conditions for allowing for non-designated uses.

Primary designated use. Many management units have a primary designated use (versus units designated General Use). Primary designated uses may take precedence over other uses. Generally, however, DNR allows multiple uses on state land. DNR initially presumes that all other uses are compatible with the primary use. However, if DNR determines that a use conflict exists and that the proposed use is incompatible with the primary use, the proposed use shall not be authorized or it shall be modified so that the incompatibility no longer exists (from 11 AAC 55.040 (c)). The plan may assign a designation to ensure a future use that will best serve the public interest, even if that use is not imminent.

Co-designated use. Where a management unit has two or more designated uses, DNR will avoid or minimize conflicts between designated uses by applying the management intent statement and guidelines for the unit, the regional intent, and the Chapter 2 guidelines from this plan together with existing statutes, regulations, and procedures. Only those co-designations that are generally complementary to, or compatible with, each other are included in this plan. Co-designated uses should, therefore, be viewed as compatible unless, at the time the department is considering an authorization, specific conditions exist that indicate otherwise.

Designations Used in This Plan

The following land use designations are used in one or more management units in this Area Plan. Other types of land use designations exist but were not applied. The selected designations convey the intent of future state land management. Designations may be applied to uplands, shorelands, tidelands and submerged lands unless indicated otherwise.

Gu - General Use. This designation is applied to land that contains a variety of resources, none of which is sufficiently high value to merit designation as a primary use, or is large enough to accommodate a variety of uses with appropriate siting and design considerations. General use may also apply where there is a lack of resource, economic, or other information with which to assign a specific land use designation, and/or where there is a lack of current demand implying that development is unlikely within the planning period. Uplands with this classification are available for conveyance to municipalities, unless stated otherwise in the unit's management intent, but cannot be sold to individuals. Tidelands with this designation cannot be conveyed except to municipalities under AS 38.05.820 and AS 38.05.825.

The General Use designation would apply to tidelands, shorelands and submerged lands not designated in tideland management units or tideland resource management zones for specific habitat, harvest, economic, or recreation functions. These areas are generally considered appropriate for a wide variety of uses such as set net sites, mariculture facilities, or other typical uses of tidelands. Whether and how a tideland area designated General Use is to be managed will be decided through formal state and federal permitting procedures. Tidelands and submerged lands fall within the purview of the Alaska Coastal Zone Management Program, and most development proposals require a Coastal Zone Consistency Determination before a use or facility can be authorized. In instances where the Coastal Zone Management Program does not apply, tideland use will be decided by DNR permitting actions. Most tidelands and submerged lands within the planning area are recognized to contain important subsistence, recreational, or commercial fisheries. Areas not specifically identified with a designation on the plan maps, not otherwise classified in this plan, or that are acquired by the state subsequent to the approval date of this plan, are designated General Use (unless circumstances of the acquisition dictate otherwise).

Ha – Habitat. This designation applies to areas of various size for fish and wildlife species during a sensitive life-history stage where alteration of the habitat or human disturbance could result in the permanent loss of a population or sustained yield of a species. This land will remain in state ownership. Except for those portions of anadromous, non-navigable streams within areas determined appropriate for conveyance under the Municipal Entitlement program.

Hv – Harvest. Fish and wildlife harvest areas are subsistence, recreational and/or community harvest areas of varied size where alteration of habitat could permanently limit sustained yield to traditional users; or are areas of intense harvest where the level of harvest has reached, or is projected to reach, the harvestable surplus for the resource. This land will remain in state ownership.

Hr – Heritage Resources. Land designated Heritage Resources is land where there is active preservation of, or research for, significant historical, prehistoric, paleontological, or other cultural values or where there is reason to believe that these values exist.

Ma – Materials. Sites suitable for extraction of materials which include common varieties of sand, gravel, stone, peat, pumice, pumicite, cinders, clay, and sod. Management units designated Materials are closed to new mineral location at the time the plan is signed. This land will remain in state ownership until the material on the site is no longer required for state purposes (such as road construction and maintenance, materials storage, and public or state facilities) after which these lands may be conveyed to municipalities. These lands cannot be sold without redesignation and reclassification although some sites may be suitable for settlement after material resources are exhausted. This designation applies to uplands only.

Mi – Minerals. Areas associated with significant resources, either measured or inferred, that may experience minerals exploration or development during the planning period are designated Minerals. This is a designation that includes surface uses in support of minerals exploration and development, including tailings deposition, waste rock disposal, mineral processing facilities, administrative facilities, and residential living quarters. Land designated Minerals is to be retained in state ownership.

Pr – Public Facilities-Retain. These sites are reserved for specific infrastructure to serve state interests. Land with this designation is to remain in state ownership except that it is selectable by municipalities under the special provisions of AS 38.05.810. This designation applies to uplands only.

Rd – Public Recreation and Tourism-Dispersed. This designation applies to those areas that offer or have a high potential for dispersed recreation or tourism and where desirable recreation conditions are scattered or widespread rather than localized. Developed facilities are generally not necessary other than trails, trail signs, primitive campsites, and other minor improvements. Land in this designation may be conveyed to municipalities depending on the management unit's management intent and the relative value of the recreation resources for which the unit was designated. These lands cannot be sold to individuals.

This designation can also apply to tidelands. If used as a tideland designation, it applies to areas that are widely used for recreation by either commercial recreation operators or the public, and are usually associated with the use of fisheries or the viewing of a unique or scenic area. Use patterns are dispersed over a fairly large area, and few public facilities are provided other than boat launches, docks, and mooring buoys. Tidelands can be conveyed to municipalities under certain conditions, but cannot be transferred to individuals.

Rp – Public Recreation and Tourism-Public Use Site. These are areas used by concentrations of recreationists or tourists compared to the rest of the planning area, or areas with high potential to attract concentrations of recreationists and tourists. These areas offer localized attractions, or ease of access, or developed facilities. Examples include camping sites, marinas, cabins, lodges, anchorages, scenic overlooks, and road-accessible shore locations that

are used for picnicking, sports and fishing. The recreation and tourism uses for which these units are designated may be either public or commercial. The primary management intent is to protect the opportunity of the public to use these sites, and their resource values for recreation. This land will remain in state ownership unless otherwise noted in the management intent for the management unit.

Se – Settlement. This designation applies to state uplands suitable for sale, leasing, or permitting to allow private recreational or residential use. This designation will generally be used for areas appropriate for land offerings and for residential uses. Unsettled or unsold land in the management unit will be managed for uses compatible with settlement. This may include uses such as selling additional lots, laying out new subdivisions, identifying greenbelts through subdivisions, reserving materials sites for subdivision roads and building lots, placing easements on access routes, or reserving lots for community facilities and open space. Areas designated Settlement or Settlement-Commercial should be closed to mineral entry prior to sale. This land may be conveyed to municipalities and individuals.

Sc – Settlement-Commercial. This designation applies to uplands suitable for sale, leasing, or permitting of state lands to allow private commercial, industrial, recreational, or community use. Residential use may also be appropriate in portions of an area designated Settlement-Commercial. This designation will generally be used for areas appropriate for land offerings for industrial or commercial uses. Unsettled or unsold land in the management unit will be managed for uses compatible with eventual commercial or industrial activities. Areas designated Settlement-Commercial should be closed to mineral entry prior to sale. This land may be conveyed to municipalities and to individuals.

Wd – Waterfront Development. This designation applies to areas of tidelands, submerged lands, or shorelands for water-dependent or water-related facilities, usually for industrial or commercial purposes. Waterfront development includes: piers, wharves, harbors, mineral transfer facilities, seafood processing facilities, commercial recreation facilities, and other resource development support facilities except for activities related to forestry, which is covered by the Forestry designation. Approving authorizations in these areas will be conducted in compliance with the coastal development standards in the Alaska Coastal Management Act (6 AAC 80.040). This land may be available for conveyance to municipalities under AS 38.05.820 and AS 38.05.825 but cannot be sold to individuals.

Land Use Designations and Minerals

Except where state land is closed to mineral entry, DNR will treat mining as if it were a co-designated use. This is important to note because DNR plans do not always apply mineral resource designations to large areas. The problems in locating and measuring subsurface resources make it difficult and potentially misleading for a plan to apply designations to subsurface resources in the same way they are applied to surface resources. However, in a few locations, where drilling results and resource estimates are available, management units designated as Mineral Lands have been identified in this plan. Chapter 2, Mineral Resources, also includes additional guidelines and a summary of statutes regulating mining and reclamation activities.

Management Intent

The plan can provide management guidance for a resource without designating it. For example, the plan may address the resource by providing management intent for a specific area, or through area wide guidelines. In addition, other state, federal, or local regulations will determine the conditions for using undesignated resources.

In some cases, the management intent for a management unit discourages specific uses because these uses may create conflicts with designated uses. **Discouraged uses** may be allowed if DNR determines that the use does not conflict with the management intent, designated uses, and the management guidelines. Discouraged uses include activities that should not be authorized or will not be allowed if there are feasible and prudent alternatives. If DNR determines that the discouraged use conflicts with the management intent or designated uses, and cannot be made compatible by following the management guidelines, DNR will allow it only through a plan amendment.

The plan also identifies **prohibited uses**. These are uses that have significant conflicts with other uses or resources and will not be permitted without a plan amendment. Prohibitions are rare because the plan seeks to minimize land use conflicts through plan guidelines and intent rather than through prohibitions.

Management intent statements for each management unit refer only to state management of state land. While these statements accommodate certain proposed uses on tidelands and submerged lands, there is no guarantee that other regulatory agencies will issue permits necessary for the proposed use. All proposed development uses referenced in the management intent statements are assumed to employ best management practices in siting and operating the proposed use.

Disposal or Retention in State Ownership. Certain land use classifications, by statute, allow land to be conveyed to municipalities under the Municipal Entitlement program. The same statute identifies those land classifications that may not be conveyed.[1] Another portion of statute (AS 38.04.015) identifies the general public interests in retaining areas of state land in public ownership. These principles were applied in developing the recommendations for retaining of state land that are identified for specific management units.

In this plan, the land use designation and classification is the general indicator of whether land should be retained in state ownership or be made available for disposal. In some cases specific recommendations for the disposal of state land are identified in the management intent for a management unit. Also, some management units have management intent that precludes disposal although the designation and classification might otherwise allow disposal. This includes management units already under management by another state agency or that contain certain unique or sensitive uses or resources that merit retention by the state. In addition,

[1] AS 29.65.130 identifies those land use classifications that permit conveyance under the Municipal Entitlement Act. In this area plan, the designations of General Use, Settlement, and Settlement-Commercial are considered appropriate for the conveyance of lands out of state ownership. These convert to the classifications of Resource Management Land and Settlement Land, respectively.

management units already under management agreements with other state agencies are usually not available for conveyance. In no case can DNR convey the subsurface estate to municipalities or individuals. Submerged lands, tidelands, and shorelands must be retained in state ownership unless law requires conveyance or the conveyance is to a political subdivision of the state. These conveyances are subject to the Public Trust Doctrine, described in this chapter in the Navigability section.

Tidelands, Submerged Lands, and Shorelands. DNR will provide reasonable access across state tidelands to upland owners. Upland access across state tidelands, including developed access facilities, may be allowed within all land use designations where DNR determines the proposed facilities are consistent with the management intent and applicable guidelines of the plan. However, state tideland use designations do not give the public access rights to adjacent private uplands.

Management Guidelines

Most state lands will be managed for multiple uses. Exceptions are lands that will be offered for private lease or ownership, and recreation sites that are less than 640 acres. For this reason, the plan establishes management guidelines that allow various uses to occur without serious conflicts. Management guidelines can direct the timing, amount, or specific location of different activities to make the permitted uses compatible. For example, the plan provides guidelines that require land disposals to be designed to protect public access and recreational opportunities.

Duration and Flexibility of Plan

This plan guides land uses for the next twenty years, subject to periodic review of designations involving settlement, industrial or commercial uses, mining, or other forms of economic or community development.

The land use designations shown on the maps and identified in the Resource Allocation Tables in this chapter are intended to be flexible. DNR may permit uses not originally designated if DNR determines they are consistent with the management intent for the management unit and consistent with applicable management guidelines.

This plan will not provide direct answers to many of the site-specific issues frequently encountered by state land managers. The plan can, however, clarify the general management objectives for the area and thereby provide the basis for a more informed decision.

Boundaries of land use designations shown on the following maps may be modified through implementation activities, such as site planning or disposal, as long as modifications adhere to the intent of the plan and follow the guidance in Chapter 4 under the section Types of Plan Changes.

Glossary

Definitions of terms used frequently in the plan are found in the Glossary, Appendix A.

Plan Structure

Plan Regions

Within the boundary of the Bristol Bay Area Plan are twenty planning Regions. Regions are typically large geographic areas with generally similar characteristics that occupy a defined spatial unit. This plan revision uses the same planning regions and numbering system as those employed in the original 1984 Area Plan; the boundaries of these Regions generally correspond with large drainage basins. These are numbered 2 through 19, and 21 and 22. However, this (current) plan revision includes both tidelands and submerged lands in addition to uplands within a region. Some lands within the Bristol Bay Area Plan are not part of any of the twenty planning Regions. These include certain lands in the northeastern part of the planning area covered by Lake Clark National Park and Preserve, some lands in the eastern part of the planning area within Katmai National Park and Preserve, and all lands within the Aniakchak National Monument and Preserve. These areas were added to the planning area in order to classify state-owned shorelands and tidelands. Neither the original Bristol Bay Area Plan (1984), the Kodiak Area Plan, nor the Kenai Area Plan include these areas within their planning boundaries.

Management Units[2]

In the area plan, portions of state uplands and tideland have been separated into smaller geographic units called management units. State resource management is specific to this level. Management units may be large or small but usually have generally similar attributes. They may be specific legal management units, like a tract within a residential subdivision, or they might be a discrete area of state land affected by a management agreement that is to be administered for a public purpose, like a port, vehicle storage facility or airport.

All management units have a discrete identifying number (i.e., unit number). These are depicted on the plan maps and are included in the Resource Allocation Tables specific to each region. Essentially this number provides a cross-reference between the plan maps and the tables containing information about the management unit. The Tables contain information on management unit designation, management intent, management guidelines, and management unit resources and uses.

Management unit numbers consist of a two-part identifier where the first part indicates the Region in which the unit is located and the second part is the unit number. Generally, management units are numbered from north to south and from west to east within the regions. Upland management unit identifiers start with “R” and are followed by the Region number; the final part is the specific management unit number (such as R06-22). With tideland management units, ‘RT’ is used in the first part of the identifier to indicate it is a tideland management unit (such as R03T-09). In some cases tidelands management units may incorporate upland areas if a particular resource is found in both tidelands and adjoining upland areas.

[2] Sometimes also referred to as “parcel”.

Region Descriptions
Each Region of the Bristol Bay Area Plan is described separately. The format is similar for each, with a description of the characteristics of the Region followed by a section on its resources and their uses, a section on land use management, and resource allocation tables. Maps O-1 to O-5 depict the Regions and management units (Figure 3.1). Components of each Region usually include:

Region Boundary. This part describes how the region's boundaries are defined and provides a general description of the region and its important features.

State Lands: Ownership and Acreage. The distribution of state lands within the region is explained in this part, including tideland management units. Estimated acreages are given for uplands and tidelands/submerged lands. Land status is also specified (Tentative Approval, Patent, or Selection status).

Physical Geography. The geography and physical characteristics of the Region are described along with important geographic features such as peaks, rivers, and lakes.

Climate. Characteristics of the Region's climate are described such as temperature averages and minimums and maximums, snowfall, etc.

Other. This section contains useful information such as the topographic quadrangles that contain the Region, and where the Region is situated with respect to the organized Boroughs and Regional Native corporations.

Access. This component describes how access is gained to the Region and the nature of the transportation and its infrastructure.

Resources and Uses. The current uses of state land, both uplands and tidelands, as well as their resources, are described. Descriptions of cultural and historic, economic, recreational, mineral, oil and gas, materials, forestry, and fish and wildlife resources and uses are provided, to the extent that they are present in the Region and information exists to adequately describe a resource or use.

Management Considerations – Local and State Plans. This component describes the local, state, and federal land and resource plans affecting each Region.

Municipal Entitlements. A general description of the location of any municipal selections is provided, should the Region be within an organized Borough that has selections pending adjudication.

Management of State Land. This section describes the way in which state uplands, tidelands, and submerged lands are to be generally managed. It also provides information on plan designation and management for certain categories of management units as well as specific management considerations.

Resource Allocation Tables. A table is included that provides detailed information on specific management units within the Region, to include land use designation, resources and uses, and management guidelines. If the Region contains coastal areas, a second similar table is provided for tideland management units.

Region Plan Maps

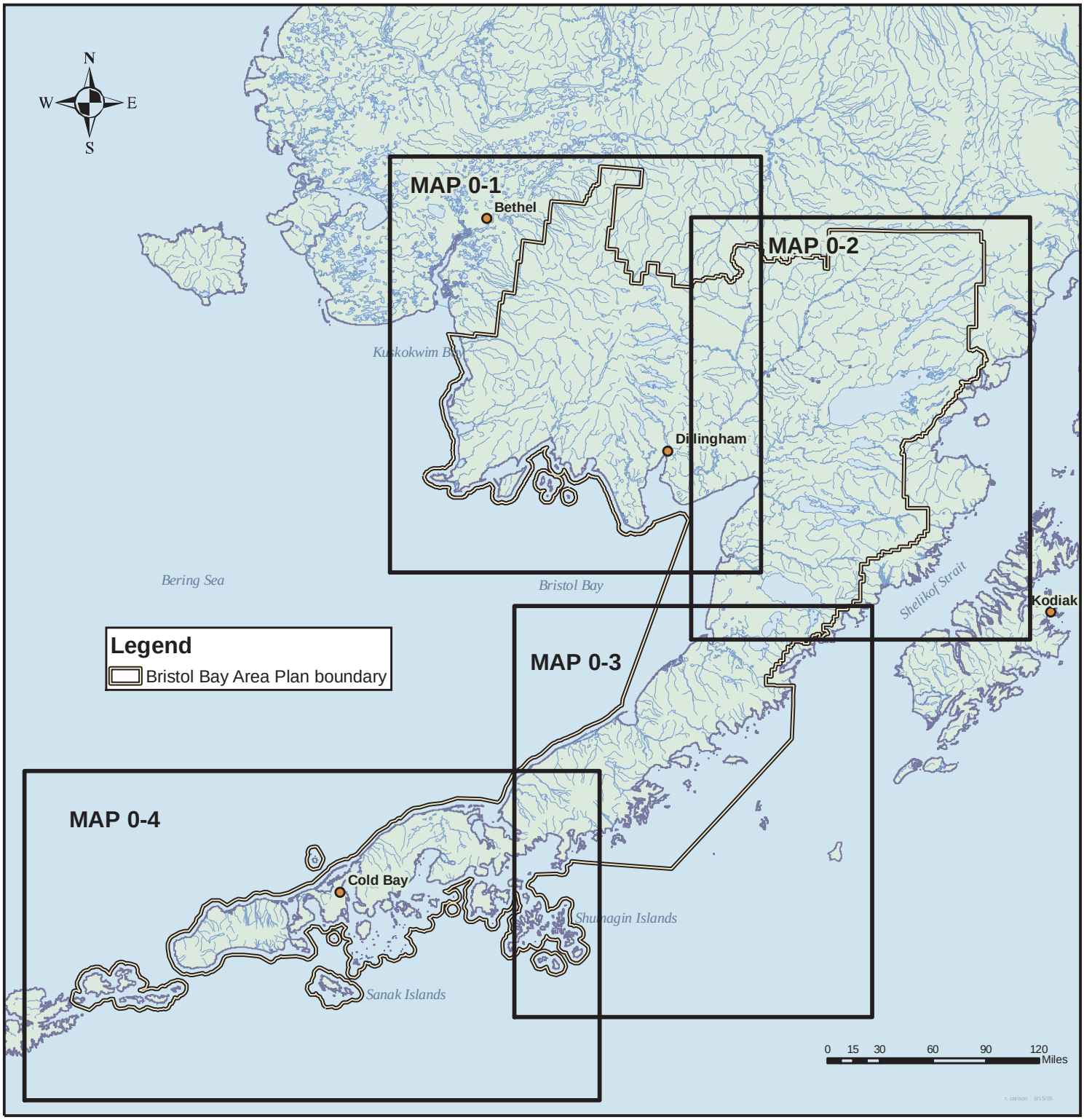
Plan maps (O-1 through O-5) show land ownership, management unit numbers, and identify land use designations (Figure 3.1). The land use designations provide the general managementintent for each management unit. However, they must be considered together with the statements of management intent and guidelines (management unit and area-wide) for a complete explanation of the management policy affecting particular units. This is essential in order to get a comprehensive understanding of the overall management intent of the area plan. The management guidelines contained in Chapter 2 are particularly critical and must be consulted in adjudication decisions affecting individual management units of state land.

Land Status Depicted In Plan Maps

The maps referred to in Chapter 3 (O-1 through O-4) are not intended to be detailed land ownership maps. Instead, they are a representation of state and federal land records current to the time of the plan's formulation. Land status for management units is derived from the Department's land status records and Geographic Information System coverages. This information is generalized and for this reason the land status for a particular area can be misleading. In the category labeled "private", there may be lands of uncertain ownership. The Department has tried to depict general land status on the plan maps as accurately as possible, but the ownership patterns of non-state entities may not be correct. The location of state-selected land information comes from federal Master Title Plat records and the Department's land records. The plan attempts to accurately portray the status and spatial boundaries of these areas; but because state land status changes with time, caution should be used for these areas as well. For complete information, consult the land records of the Department of Natural Resources, Fish and Wildlife Service, National Park Service, Bureau of Land Management, Native corporations, and the boroughs.

The plan maps (O-1 through O-4) show general patterns of land ownership by color. This includes the various types of federal ownership (National Wildlife Refuges, National Parks, Preserves, and Monuments, BLM, and military lands), the various types of state land (general grant and other state land, Legislatively Designated Areas, limited state holdings, and lands under management agreement to another state agency), as well as municipal, Native corporation, Native-selected, and private lands. Because of the way that GIS maps are created, which entails a decision hierarchy on what land status to represent in priority sequence, the colors that represent an ownership pattern may not coincide with the actual pattern of such ownership.

Figure 3.1 Bristol Bay Area Plan - Planning Area with Map Extents



Resource Allocation Table

At the end of each Region write-up, a Resource Allocation Table provides information on specific upland and tideland management units. It follows the plan text and includes the land use designation and the management intent for each specific upland or tideland unit, and is directly related to the plan maps by the use of the management unit identifier. If present, a description of tideland management units follows that of the upland units. Essentially, the Table details the generalized description of state management intent included under "Region and Areas Summary".

For each management unit the table gives the unit identification number; general geographic name; general location by Meridian, Township, and Range (some sections); and size expressed in acreage. Also included is a description of the resources and uses of a management unit, the designation(s), management intent, and specific management guidelines.

More specifically, the tables include:

Unit Identifier. Each management unit of state land has a unique identifier with characters that indicate the Region and unit number and contain a “T” if it is a tideland unit.

Management Unit Name. Each management unit has a unique name that is geographic in nature and can be used to identify it.

MTRS. The Meridian, Township, Range and Section is indicated if it is a small management unit; large management units refer to the map. In all cases the Seward Meridian applies. The data provide only information on the general location of the unit and it is not intended to constitute a legal description.

Acreage. The approximate acreage in each management unit is indicated.

Land Use Designation. Land use designations indicate the primary and co-primary uses and resources for each management unit. There may be only one designation (primary) for a given management unit although there may be two (termed "co-designations"). Where co-designations have been used, the uses reflected in the designations are believed to be generally compatible and complementary to each other. There are instances where various parts of a single management unit are given specific designations.

Management Intent. This column indicates the management direction for a specific management unit. It is consistent with the recommended designation, but includes more information on how state land is to be managed. In some small-sized management units, the management intent is likely to be brief since the designation itself is often sufficient to indicate the management intent. This is not the case with large management units, and, in these instances, the management intent statement is critical to an understanding of how the various resources within the management unit are to be managed. This section also indicates if the

management unit is to be retained in state ownership, if it is appropriate for transfer to a city or borough, and those unit resources that must be taken into consideration for land disposals or other forms of development or use. In some instances the development of a management unit is not appropriate during the planning period, and this is identified.

Resources, Uses, and Additional Information. This column summarizes the resources and uses for which the management unit is designated and which are considered important in the management unit. It also provides a generalized description of the unit, and may indicate the presence (or absence) of certain other resources that are important to land management decisions. Typical among this type of information is whether the management unit contains a heritage site or significant concentration of wildlife, fisheries, or habitat(s), the current use of the management unit, adjacent land ownership, and applicable local zoning or comprehensive plan requirements, if known.

Description of the Planning Area

Background

The Bristol Bay area plan encompasses the Lake and Peninsula Borough, the Aleutians East Borough, the Bristol Bay Borough, and much of the Dillingham census area. It includes those drainage basins in southwest Alaska that flow into Kuskokwim Bay and Bristol Bay and all of the Alaska Peninsula. The planning area has been divided into twenty Regions that are based mostly on drainage boundaries and commonalities of habitat, and to a lesser extent on political boundaries. In the description that follows, state uplands and tidelands have been described in general along with those management requirements that apply to all Regions. This description is meant to be brief, focusing on general geographic themes, with general management strategy. More detailed information on state lands, including plan designations and management intent, is provided in the individual Region descriptions that follow in this Chapter.

State Lands

Uplands. State-owned and state-selected uplands in the Bristol Bay Area total approximately 12 million acres[3]. Although terrain varies greatly, the majority of these lands are not mountainous and consist of rolling hills and lowlands. State land occurs in two mostly contiguous blocks – a large block in the Nushagak-Mulchatna-Iliamna Lake drainage and a large swath of acreage along the Bristol Bay side of the Alaska Peninsula. These two areas are mostly in separate physiographic regions. The northern block of state land is part of the Bristol Bay Lowlands and Lime Hills ecoregions; the southern block of state land is part of the Bristol Bay lowlands and the Alaska Peninsula ecoregions. The uplands contain a broad range of resources and uses including fish and wildlife, minerals, recreation and tourism, oil and gas, cultural and historic, and settlement; they support an economy heavily dependent upon these natural resources.

[3] Not including Wood-Tikchik State Park (1.6 million acres) or major lakes like Iliamna and Becharof.

The majority of lands in the Bristol Bay planning area are owned by the federal government and the vast majority of these are within federal conservation system units (19 million acres out of a total of 21 million acres). These include: the Yukon Delta NWR, Togiak NWR, Alaska Maritime NWR, Becharof NWR, Alaska Peninsula NWR, Izembek NWR, Lake Clark National Park and Preserve, Katmai National Park and Preserve, and Aniakchak National Monument and Preserve. The State of Alaska also has created a number of Legislatively Designated Areas, a status of protection established in Alaska Statute. These include: Wood-Tikchik State Park (the largest public State Park in the United States), several state game refuges (Cape Newenham and Izembek), the Walrus Islands State Game Sanctuary, the Bristol Bay Fisheries Reserve, and a number of critical habitat areas, including the Egegik, Pilot Point, Port Moller, Cinder River, Port Heiden, and Ugashik Bay. Accordingly, there exists a large amount of land dedicated to the protection of fish and wildlife as well as recreational resources.

Tidelands. The state owns the tide and submerged lands to three miles out from the mean high water line on the coast. State tidelands and submerged lands occur in those Regions that have coastlines along Kuskokwim Bay, Bristol Bay, or the Pacific and Gulf sides of the Alaska Peninsula. Many tideland areas front National Wildlife Refuges, Parks, Preserves, and Monuments[4]. Another significant concentration of tidelands occurs within protected state areas, including state game refuges, critical habitat areas, and state game sanctuaries, which are scattered throughout the planning area. There are over 270,000 acres of tidelands within protected state areas. Another significant amount of state tidelands occur in areas that adjoin private, municipal, Native, other federal and state land (about 6.7 million acres).

Most of the particularly sensitive and biologically productive tideland areas either occur adjacent to Federal Conservation Units or within protected state areas, found in state game refuges (SGR), state game sanctuaries (SGS), or critical habitat areas (CHA). There are nine state owned or managed protected areas: the Egegik, Pilot Point, Cinder River, Port Heiden, and Port Moller CHAs; the Izembek and Cape Newenham SGRs; and the Walrus Island SGS. Both federal and state protected areas are depicted on Region plan maps. The purpose of the state protected areas is generally to "protect and preserve habitat areas especially critical to the perpetuation of fish and wildlife, and to restrict all other uses not compatible with that primary purpose." Use of these areas may be permitted, but the submittal of plans and specifications of the proposed use and construction work is required, and the ADF&G Commissioner must approve all such plans or specifications. The Izembek and Cape Newenham SGRs are designated, under AS 16.20.030 as SGRs, to coincide with similar Federal National Wildlife Refuges; both lands and waters are included in the SGRs.

These tidelands provide habitat for walrus rookeries and haulouts, harbor seal and spotted seal haulout concentrations, sea otter pupping and rearing areas, seasonal concentrations of waterfowl, whale calving areas (beluga), Pacific herring spawning and rearing areas, and for a wide variety of pelagic, diving, and seabirds, many of which group in colonies of large size. Many of these tideland areas consist of shallow tidal flats, which contain significant

[4] Included are the Togiak, Becharof, Alaska Peninsula, Alaska Maritime, and Izembek National Wildlife Refuges, and Aniakchak National Monument and Preserve.

concentrations of eel grass or salt marsh. Most kelp beds occur in offshore environments, typically adjacent to islands that are part of the Alaska Maritime NWR, the Izembek NWR, and the Port Moller CHA.

The distribution of these resources is uneven within these protected areas. Pacific herring spawning areas occur along northern Bristol Bay adjacent to the Togiak NWR and within the CHAs that occupy intertidal areas south of Pilot Point in Bristol Bay, and also on the Pacific side of the Alaska Peninsula adjacent to the Alaska Peninsula and Alaska Maritime NWRs. Sea otters collocate with kelp beds, and both are extensive around the offshore islands of the Alaska Maritime NWR and within the Izembek SGR and the various CHAs of southern Bristol Bay unaffected by winter ice scour, generally south of Port Moller. Walrus rookeries and haulouts concentrate within the Walrus Islands State Game Refuge south of Togiak and on the north side of the Alaska Peninsula at Amak Island, which is within the Alaska Maritime NWR. A significant concentration also occurs on state land at Cape Seniavin. Most seabird colonies, including the larger of these colonies, are situated along the southern Alaska Peninsula coast and its offshore islands within the Alaska Peninsula and Alaska Maritime NWRs. Another concentration of seabird colonies occurs on the islands south of the Togiak NWR within the Walrus Islands SGS. Other marine resources are somewhat more evenly distributed throughout the planning area. Harbor seal haulouts, waterfowl, and the various types of birds characteristic of tideland areas (shorebirds and diving) occur in the northern part of Bristol Bay adjacent to the Togiak NWR and within CHAs that occupy sheltered intertidal areas along southern Bristol Bay.

Other less sensitive areas exist that are not within these protected tideland areas, but they are more scattered and smaller in number. Whale calving (beluga) occurs in Kvichak and Nushagak Bays in northern Bristol Bay. Harbor seal haulout concentrations occur in eastern and central Kvichak Bay and in several protected embayments near CHAs in southern Bristol Bay (Port Heiden, Egegik, and Pilot Point). Harbor seal haulouts are also concentrated at the Seal Islands, situated south of the Port Heiden CHA in a protected lagoon. Spring brown bear concentrations occur south of the Port Heiden, Cinder River and Egegik CHAs and in the area of the Seal Islands. Seasonal concentrations of waterfowl are common throughout the planning area.

There are other sensitive areas, but these occupy comparatively small sites and are associated with walrus haulouts, particularly at Cape Seniavin and at several sites east of Port Moller.

A special management area [Bristol Bay State Fisheries Reserve [(AS 38.05.140(f))]] affects the waters of eastern Bristol Bay. No surface entry permit or tideland lease to develop an oil or gas lease or oil and gas exploration license may be issued on state owned or controlled land until the legislature specifically finds that the entry will not constitute a danger to the fishery. Tideland resources within the federal and state protected areas vary, reflecting the extensive size of the planning region, the configuration and bathymetry of the coast, the presence of sea ice, and unique local conditions.

Acreage

Acreage estimates for the state upland and tideland management units are given below:

Geographic Areas	Acreage
Upland Management units – State-Owned	10,330,000
Upland Management units – State-Selected	1,585,000
Tidelands and Submerged Lands	7,003,000

Access

The Bristol Bay planning area is huge and distances between communities are great. For instance, the distance between Akutan and Port Alsworth is 600 miles; the distance between Quinhagak and Port Alsworth is 263 miles. This far flung region hosts forty-seven populated settlements, four have first class city status and sixteen are second class cities. The population fluctuates from summer to winter within the planning area but consists of approximately 10,600 residents. The majority of travel in or out of the area is by air from Anchorage. Important air transport facilities are located at King Salmon, Dillingham, and Cold Bay.

Air and marine transportation are the mainstays of access to the Bristol Bay Planning Area and this is likely to remain so for the foreseeable future. For those in coastal areas or on navigable waterways, travel between communities is usually accomplished by boat. In winter, snowmachines are utilized to range over wide areas and between settlements. Air transportation is the principal mode of year-round access to and between communities. The planning area has sixty-eight air transportation facilities recognized by the Department of Transportation and Public Facilities. Of these sixty-eight, fifty-six are landing strips, eleven are seaplane facilities, and one is a recognized heliport. The Alaska Marine Highway system provides access to Chignik, Sand Point, King Cove, Cold Bay, False Pass, and Akutan.

In general, except for management units situated in the vicinity of Dillingham, Naknek, and King Salmon, some of which can be reached by road, most other management units must be accessed by floatplane, wheeled aircraft, boat, off-road vehicles, or snowmachines.

There is a road that extends into the planning area from Cook Inlet – the Williamsport-Pile Bay road – which is used to transport Bristol Bay fishing boats and supplies to Iliamna Lake where the boats are off-loaded and ply the waters of the Lake and down the Kvichak River to Bristol Bay. This road is considered difficult to use. A combined road and hovercraft system began construction in 2004 to join King Cove and Cold Bay.

Physical Features: Uplands

The Bristol Bay area is quite varied, extending from the coastal lowlands of Kuskokwim Bay on the Bering Sea to the Kilbuck and Ahklun Mountains, whose summits rise to 2,000 to 5,000 feet. From these mountain ranges, which are separated by broad, flat valleys, lying in a northeast-southwest alignment, the Togiak River and its tributaries flow south into Bristol Bay, and the Kanektok and Goodnews Rivers flow west into Kuskokwim Bay.

The Wood-Tikchik Lakes system is composed of long, narrow glacial lakes separated by steep-walled mountains ranging in elevation from 3,000 to 5,000 feet. The lakes and rivers of the area drain into Bristol Bay via the Wood, Nuyakuk, and Nushagak Rivers.

The Nushagak Hills, Taylor Mountains, and Big River Hills comprise a low rolling terrain that forms the northern border of the area. These hills, and the Alaska-Aleutian Range within Lake Clark National Park and Preserve, surround the Nushagak and Kvichak River basins, which drain into Bristol Bay. The Nushagak River Basin is broad and relatively flat, containing many ponds and lakes that increase in number as they near the coast. The Kvichak River drains Iliamna Lake and all of its tributaries. Iliamna Lake is the largest lake in Alaska, 80 miles long by 20 miles wide, and the second largest in the United States.

The Alaska Peninsula consists of coastal lowlands, on the Bristol Bay side, from which the terrain rises into the Aleutian Mountains on the Pacific Ocean side. These coastal lowlands are dotted by thousands of small lakes and ponds and laced with meandering rivers that flow into extensive estuaries as they meet Bristol Bay. Naknek, Becharof, and Upper and Lower Ugashik Lakes are four large bodies of water on the northern peninsula. The peaks of the Aleutian Mountains generally average from 1,000 to 4,000 feet but may rise to volcanic peaks such as Mount Chiginagak (6,900 feet), Mount Veniaminof (8,225 feet), and Mount Pavlof (8,261 feet). Several other active and inactive volcanoes are also found along the Alaska Peninsula. The rivers and streams flowing into the Pacific Ocean are short and steep, emptying into small bays. The Pacific shoreline is imbricate, very rugged, and steep with many cliffs, offshore spires, and islets, in contrast to much of the Bristol Bay coastline which is smooth, of low relief, and characterized by wide beaches.

Unimak and the Krenitzin Islands are separated from the Alaska Peninsula – Unimak by the narrow and treacherous waters of False Pass. Unimak is dominated by five volcanoes including Shishaldin Volcano (9,387 feet) and Isanotski Peaks (8,025). Between Unimak Island and the Krenitzin Islands is Unimak Pass, a deep 10 to 20-mile wide strait between the Pacific Ocean and the Bering Sea, that provides passage for fish, marine mammals, waterfowl, and seabirds, as well as for commercial vessels.

Over 56% of the uplands in the Bristol Bay area are covered by various types of tundra – shrub/grass, open heath or grass, or lichen shrub tundra. Approximately 7% of the area is marsh-very wet bog or wet bog-meadow. Ten percent of the area is vegetated by miscellaneous deciduous vegetation such as birch, cottonwood, and tall, low, or dwarf willow. Forest comprises less than 5% of the uplands and occurs mostly along major lakes and rivers in the Nushagak-Wood River drainages and in the eastern Iliamna Lake and Lake Clark drainages. Common forest species include black spruce, white spruce, quaking aspen, balsam poplar, and white birch. There are essentially no trees south of the Naknek River. The remaining uplands are lichen covered, snow covered, or barren.

Hydrology

Latitude, position with respect to the ocean, and elevation play significant roles in determining climate. Most of the planning area is affected by maritime climatic influences, but transition zones in the northern parts of the planning area are impacted by continental influences. In winter, as sea ice forms in northern Bristol Bay, the coastal areas are less influenced by marine climatic conditions and continental influences are felt.

Non-Marine Hydrology. The largest rivers in the planning area include the Nushagak, Togiak, Kvichak, Naknek, Egegik and Ugashik Rivers. The Nushagak is the largest with a drainage area of 14,100 square miles and a length of nearly 300 miles. Generally, rivers in the region are short to moderate in length, and often have a lake storage component within the basin. The lakes serve to store runoff and moderate runoff to streams. Although glaciers are present, outside of a few exceptions, regionally they do not significantly affect storage or runoff due to limited size and distribution. Streams without lakes in the drainage experience peak flows at spring breakup, a summer drop in flow, and a secondary peak during late summer and early fall in response to rainfall events. Streams with lakes usually have a spring flow peak during the late summer early fall rainy season. Local variations in this pattern are common due to differences is aspect, geology, and precipitation.

Mean annual runoff for the region varies but usually averages between 2 and 4 cfs/mi^2. Mean annual peak runoff averages 10 cfs.mi^2 in the lowland areas and up to 25-50 cfs.mi^2 in the more upland areas.

Most rivers and streams in the planning region freeze over by December and remain in the frozen state until April or May. Stream flow usually begins a steady decline in October after the rainy late summer-early fall period, and continues to decline until March or April, with discharges increasing dramatically with the onset of breakup in April or May. Peak annual flows generally occur in June when snowmelt is at its highest, with secondary peaks in response to high precipitation/runoff events in late summer and early fall. Winter flooding in upland streams is possible from extreme channel icing.

Storage provided by lakes is an important feature to many stream systems in the Bristol Bay region. Of the approximately 90 lakes in Alaska that exceed 10 square miles in size, 33 of them occur in the Bristol Bay area, including the state's two largest lakes – Iliamna and Becharof. Geomorphically, lakes in the Bristol Bay area are of three primary types. Most of the larger lakes are in glacially carved basins that may be dammed by glacial moraines; these are commonly elongated and deep such as the Wood River Lakes. The second type are lowland tundra lakes, which are usually small, shallow, and often unnamed. The third type of lakes, that display no inlet or outlet, are present but uncommon.

Marine Hydrology. Southwest Alaska is bordered by the Bering Sea, the North Pacific Ocean, and the Gulf of Alaska. Ocean basin topography, current, the extent of sea ice, water temperature and other factors greatly influence the marine ecosystem. Currents in the Gulf of

Alaska are driven by the counterclockwise flow of the Alaska Current. Currents from the North Pacific move through passes in the Aleutian Chain into the Bering Sea creating a complex but generally counterclockwise pattern.

Ocean basin topography consists of three principal features: 1) a shallow expanse of the continental shelf (<5,000 feet deep) extending from east of Kodiak, across Bristol Bay and including the Bering Sea and down the Aleutian Chain; 2) south of the Aleutians the topography deepens until dropping into the Aleutian Trench which has depths greater than 13,000 feet; and 3) north of the Aleutians the Bering Sea drops into the enormous Aleutian Basin with depths ranging between 5,000 and 13,000 feet.

Sea ice in the Bering Sea advances into Bristol Bay, arcing from Goodnews Bay to just south of Egegik. The maximum winter advance of sea ice historically extended as far south as Unimak Island. Recent fluctuations in the advance of sea ice have been difficult to predict.

Tidal action and variation is not as great in Southwest Alaska as it is in other regions of Alaska. The highest mean tidal variations occur in the Naknek River area (18.5 feet); Port Moller has a mean of 7.6 feet whereas the mean tidal variation is only 3.2 feet at Izembek Lagoon. Tidal variations tend to be greatest at river outlets and at a minimum on the Aleutian Islands.

Resources and Uses: Uplands

Forestry. There are no commercial forests in the planning area. The forests are largely a mix of spruce, birch, and aspen that occur along the major drainages north of the Naknek River. Uses are restricted largely to heating fuel although some trees are large enough for house logs.

Cultural and Historic. The Native people of Alaska have occupied coastal and river areas for millennia. The area has a complex and poorly understood history and over time cultures intermixed and expanded and contracted. The area contains Eskimoan, Athabascan, and Aleut influences. European contact came in the mid to late 1700's and the area still shows the cultural influences of its early Russian occupation. The planning area contains approximately 1,207 cataloged archeological and historic sites, a number that continues to grow as new sites are discovered and reported. The majority of the sites are in coastal areas and along the major rivers.

Economic. Economic resources are several, including: commercial fishing, tourism and recreation, government, subsistence, and transportation. Historically, use of fish and wildlife resources has been the economic mainstay of the area through commercial fishing, trapping, and subsistence. In recent times the commercial fishing industry has suffered from unpredictable returns and declining fish prices. Public recreation and tourism is a growing sector of the economy and has assumed a greater relative importance in local economies.

Recreation, Tourism, and Scenic. Use of these resources is primarily related to outdoor activities. Fishing and hunting are perhaps the most significant but others such as river rafting, flight-seeing, and wildlife viewing are growing in importance. Most of the recreation and tourism activities occur in the north central and central part of the area and are related to Wood-

Tikchik State Park, Katmai National Park and Preserve, and Lake Clark National Park and Preserve. Commercial sport fishing is especially concentrated in the Dillingham, King Salmon, and Iliamna regions. Recreational river use is most prevalent in the major drainages to Kuskokwim Bay, the Wood River drainage, and the Nushagak-Mulchatna drainage basin.

Minerals. Historically, significant mineral production has come from gold placers in the Nyac district and platinum-gold placers in the Goodnews Bay district. However, the area has experienced exploration success at a number of sites. Important deposits include the Pebble Copper copper-gold-molybdenum deposit, the Shotgun gold deposit, and the Kamishak prospect. Others include the Kemuk iron-titanium deposit, which may have significant platinum potential and the Sleitat tin-tungsten deposit. The Pebble Copper deposit is presently undergoing advanced exploration and studies are underway to ascertain the economic viability of developing the resource, which is estimated to contain one of the world's largest low-grade copper-gold concentrations. Mineral sands occur on beaches along the northwest side of the Alaska Peninsula at a number of locations. Important occurrences, prospects, and deposits occur elsewhere on private lands including the Fog Lake gold prospect. Interest in developing mineral resources in the planning area has increased in recent years, especially on the large areas of state-owned lands in the northwest portion of the area.

Coal. Coal bearing stratigraphy is present beneath large areas on the northwest side of the Alaska Peninsula and in the lower Nushagak area. Two coal basins with estimated reserves and modest historical production occur in the central portion of the Alaska Peninsula – the Herendeen Bay and Chignik coal basins.

Oil and Gas. The lower Nushagak and western Alaska Peninsula have significant hydrocarbon potential related to the north Aleutian-Bristol Bay-Nushagak Basins. A thick sequence of Tertiary and Mesozoic sedimentary rocks occurs in the subsurface and scattered drilling on the Peninsula indicates showings of gas and oil. DNR is currently initiating a program of oil and gas licensing and leasing for on-shore lands with oil and gas potential.

Fish and Wildlife. The area is richly endowed with fish and wildlife resources. These resources are well protected in a series of state and federal conservation units that total approximately 20 million acres. All anadromous fish species found in the state are present here. The Bristol Bay region supports one of the largest sockeye salmon runs in the world. Salmon support subsistence, commercial, and sports fisheries. Caribou occur throughout most of the planning area and five herds are recognized; the Mulchatna/Kilbuck Herd is largest and was estimated at 150,200 animals in 2000. Moose have been expanding their range in the area for decades both southward and westward. Brown bear are numerous especially so in the eastern and northeastern portion of the Alaska Peninsula. The Bristol Bay Lowlands and northwest side of the Alaska Peninsula have extensive areas replete with lakes, ponds, and marshes, which provide important habitat for a wide variety of waterfowl.

Physical Features: Tidelands

Tidelands in the Bristol Bay planning area are rich in habitat and marine resources making this a desirable area for commercial and subsistence harvest as well as public recreational activities. The tidelands along the entire coastline within the planning area are utilized in some manner for marine harvest. However, commercial harvest occurs more frequently in the vicinity of bays and lagoons that support the densest population of marine life.

Bristol Bay. In the Bristol Bay area commercial harvest consists almost entirely of all varieties of salmon, with some harvest of herring roe, which occurs in and around major bays and estuaries, and to the greatest extent throughout Nushagak and Kvichak Bays. Public and commercial docks, boat harbors, seaplane bases and other tideland facilities in support of the fishing industry are prevalent near the communities where the most extensive commercial harvest occurs. Tideland facilities also provide for shipping and transportation. The communities of Dillingham and King Salmon serve as the transportation and service center for the salmon industry and also serve recreational visitors to the area. Sport fishing occurs frequently around the mouths of the Nushagak and Kvichak Rivers. Subsistence harvest in Bristol Bay occurs most often in the areas around communities and villages. However, residents often migrate long distances to summer fish camps. Salmon is by far the most common subsistence staple, but residents also subsist on other fish such as herring, smelt or cod. In addition, subsistence harvest includes sea mammals (seal, sea lion, walrus, and occasionally whale) and waterfowl or waterfowl eggs. Clams are also harvested in the Egegik Bay area.

Alaska Peninsula and Offshore Islands. The Alaska Peninsula and offshore islands are sparsely populated so commercial harvesting ranges over longer distances than in Bristol Bay. Concentration of resources is also more scattered. Along the northern coast of the Alaska Peninsula, commercial fishing includes salmon, yellowfin sole, cod, herring, and herring roe. Subsistence harvesting concentrates around the few communities on the peninsula and includes salmon and other fish, seals, and waterfowl and eggs. Clams are harvested in the Port Heiden area, King Cove and False Pass.

Along the Pacific coast of the Alaska Peninsula commercial harvest of fish includes salmon, halibut, herring, herring sac roe (food/bait), cod, pollock, and bottomfish. Fishing fleets are extensive and range long distances. Commercial crab harvest takes place all along this coastline as well and includes red king, tanner and dungeness crab. The highest concentrations of crab occur in bays and lagoons. The richest crab harvest of red king crab and dungeness crab occurs around the Krenitzin Island group and the southern shores of Unimak Island. Shrimp is harvested in Chignik Bay and Mitrofania Bay. Fishing Fleets are based in only a few major processing or service centers: Chignik, Sand Point, King Cove, Cold Bay and Akutan. Public and commercial docks, boat harbors, seaplane bases, and other tideland facilities in support of the fishing industry, are prevalent near these communities. Tideland facilities also support shipping and water transportation. These communities serve recreational visitors, in addition to the fishing industry, and serve as ferry stops on the Alaska Marine Highway. Sport fishing occurs in the Pacific Coast tidelands and around the various Pacific islands adjacent to the Alaska Peninsula.

The few communities on the Pacific side of the Alaska Peninsula depend almost exclusively on commercial fishing for their livelihood and only engage in a small amount of subsistence harvest in the off-season. Subsistence harvest where it occurs, consists almost exclusively of salmon, but in some areas includes small amounts of halibut, clams, seal and waterfowl (birds and eggs).

Local and Federal Plans

A variety of state, local, and federal plans exist that affect all or parts of the planning area. The authority of each is specific to the jurisdiction to which it applies, except for the two coastal district plans, which affect private, local, state, and federal actions in those instances when a permit is required for some type of federal action.

Local Comprehensive Plans and District Coastal Zone Management Plans

Local plans consist of the comprehensive plans of a number of communities and those of the boroughs. The following cities have local comprehensive plans, but all are quite old: Sand Point (published 1981), King Cove (1981), Akutan (1982), and Dillingham (1985). The Aleutians East Borough has a comprehensive plan and the Bristol Bay Borough, an economic development plan that also serves as a comprehensive land use plan. Both plans were consulted during plan preparation. These plans, plus recommendations from the municipalities within the planning boundary, were used extensively in the formulation of tideland management and tideland designations for tideland management units in and near these municipalities.

District Coastal Zone Management Plans exist for extensive areas within the planning area, coinciding in area with the jurisdictions having such plans: Aleutians East Borough, Lake and Peninsula Borough, Bristol Bay Borough, and the two CRSAs – Bristol Bay and Cenaliulriit. The Enforceable Policies of these District Plans are extensive and typically include policies pertaining to anadromous streams, marine mammal haulout sites, sea bird colonies, bald eagle nests, oil and gas development, mining and material extraction, settlement, geotechnical hazards, wetlands and water quality, as well as other resource features. The Enforceable Policies of these plans were consulted during the preparation of the Area Plan and formed the basis for certain of the management standards in Chapter 2. Please see the web site www.alaskacoast.state.ak.us/ for more information on Enforceable Policies and for the coastal zone boundaries of the various District Plans.

State Management Plans

There are two primary state management plans that affect resource use and development: the Bristol Bay Area Plan (1984, 2005) and the Nushagak & Mulchatna Rivers Recreation Management Plan (1990, 2005). There are a wide variety of fisheries management plans for the management of the Bristol Bay fisheries, and DNR has also prepared a number of Site Specific Plans that affect small geographic areas. Neither the site specific nor fisheries management plans are relevant to large-scale, diverse resource and land use management.

The Bristol Bay Area Plan affects all state lands in the planning area, which includes uplands, shore lands, tidelands, and submerged lands, and navigable waters (rivers and lakes). This plan is, and has been, the basis for the management of state land since its adoption in 1984. The large planning area is broken up into 22 regions. Land use designations and management standards are identified for each Region; in addition, the plan provides management standards for the variety of resources that the Department administers in this planning area. This plan can be view at www.dnr.state.ak.us/mlw/planning/ . The Nushagak & Mulchatna Rivers Recreation Management Plan guides state land management in the Nushagak and Mulchatna drainages and guides coastal consistency review by serving as an AMSA plan for the Bristol Bay CRSA. As such, it provides management direction for the 25 management units and public use sites in these drainages, and identifies specific management policies for long-term uses (over 14 days). This plan was adopted as an element of the Bristol Bay Area Plan and serves as the management plan for the drainage areas encompassed by the Rivers Recreation Management Plan.

Federal Management Plans: National Wildlife Refuges, Katmai National Park and Preserve, and Aniakchak National Monument and Preserve

The management of National Wildlife Refuges occurs through a Comprehensive Conservation Plan (CCP), which provides broad policy guidance and establishes management direction. Each of the NWRs are to be managed consistent with the purposes of ANILCA, which include, as primary purposes, conservation of fish and wildlife populations and habitats in their natural diversity, provision of the opportunity for continued subsistence of local residents, maintenance of water quality and quantity, and satisfaction of international treaty obligations. All of these plans were reviewed for applicability. The Alaska Peninsula and Becharof National Wildlife Refuge (NWR) Comprehensive Conservation Plan (CCP) applies to lands along the Alaska Peninsula within the Becharof NWR and the Alaska Peninsula NWR. This CCP, which is in the process of revision, recommends 'Wilderness' and 'Minimal Management' as the principal management themes; these emphasize the protection of existing fish and wildlife populations and habitats. The Alaska Maritime NWR is administered under a CCP, which manages the islands and islets of the NWR to protect habitat values and fish and wildlife resources. The Togiak CCP is in the process of being revised; the current management plan recommends a similar type of resource management as used in the other CCPs. The Izembek NWR is administered according to a CCP that emphasizes the maintenance of the Refuge in an undeveloped state. This CCP is to be revised beginning in year 2004. A tidelands management zone, which identifies those uses of state tidelands that are consistent with ANILCA requirements, affects the tidelands adjacent to these national wildlife refuges.

The Katmai National Park Resource Management Plan (1994) and its General Management Plan (1986) are used to provide guidance to federal management of this National Park. Federal policy toward the management of state tidelands and submerged lands is described in the General Management Plan. It states that the National Park Service will work cooperatively with the state to ensure that existing and future activities occurring in the areas adjacent to the park boundary "are compatible with the purposes for which the park was established."

Management Summary

Uplands

Uplands are to be managed according to the specific land use designations and management intent in the Resource Allocation Tables that follow, and according to the Areawide Management Policies in Chapter 2.

Areas with Specific Designations:

General Use (Gu). Most upland management units situated in remote, mountainous terrain or adverse soil conditions (usually associated with wetlands), and generally inaccessible areas are designated General Use (Gu), a multiple use designation. Large portions of almost every Region contain areas of this type designated General Use. Management units for which there was insufficient information, or for which there was no apparent economic use or need, or where a number of uses could satisfactorily exist because of management unit size, were also designated General Use. These areas are to be managed to allow for a variety of uses, consistent with the management intent statement for a specific management unit and with the specific requirements for habitat protection, land disposals, and subdivision development identified in Chapter 2. Areas that are identified as having important wildlife, fisheries, or habitat values in the management intent statement of a management unit description are to be managed to protect and maintain these resources.

Habitat (Ha). These areas are to be managed to protect the fisheries, wildlife, and habitat values that are associated with a particular management unit. Areas designated Habitat occur at Cape Seniavin, an important walrus haulout, and within the Muklung Hills situated in the far southwestern part of Region 6. If known, the resource values are identified for each management unit designated Habitat in the Resource Allocation Tables.

Minerals (Mi). Areas designated Minerals are to be managed to accommodate activities related to mineral exploration, development, and operation. The five areas that are designated Minerals are associated with known subsurface resources. Areas designated Minerals are recognized to include uses and structures associated with mineral development, including settlement directly related to mining operations.

Public Facilities-Retain (Pr). This designation is applied to areas of small size that perform or may perform public functions, including but not limited to airports, airstrips, and community schools. Areas affected by this designation are to be retained in state ownership and managed consistent with the Management Agreement or ILMA that governs their use. Land from this designation may leave state ownership if a reverter clause exists and is exercised.

Public Recreation and Tourism-Dispersed (Rd). Areas designated Public Recreation and Tourism-Dispersed (Rd) are to be managed to provide continued opportunities for dispersed recreation by the public. Other uses may occur in these areas, but only to the extent that they are compatible with the principal use of dispersed recreation. Large portions of state uplands and shoreland are affected by this designation. River systems used by the public for both

personal and commercial use are designated Rd, including the Mulchatna, Nushagak, Alagnak, and Kvichak Rivers. The areas of state land recommended for inclusion in the state park system (Wood-Tikchik State Park), as well as upland areas with extensive dispersed recreation use, particularly that area of intensive sport fishing adjacent to and northwest of Iliamna Lake, are designated Rd. Major lakes within federal conservation units as well as many lakes adjoining state land are also designated Rd, reflecting this use. Although other areas of state land accommodate public recreation, they have other uses and are designated General Use.

Settlement (Se) and Settlement-Commercial (Sc). Areas designated Settlement are appropriate for development or disposal for the purposes of settlement during the planning period. Areas designated Settlement are distributed throughout the planning area with concentrations occurring in the central northern part of this area in Regions 5, 6, and 9. Certain of these management units are affected by municipal entitlement selections of the Lake and Peninsula, Bristol Bay, and Aleutians East Borough. Such areas are considered appropriate for conveyance to a borough, subject to a separate, subsequent DNR Best Interest Finding.

Tidelands

State tidelands and submerged lands will be managed according to the designation and management intent given in the Resource Allocation Table or as part of a specific tidelands and submerged lands resource management zone. These areas are also subject to Alaska coastal management standards and to the state permitting system that is used to apply these standards.

Areas with Specific Plan Designations:

State tidelands are to be managed to: 1) protect sensitive tideland resources; 2) maintain opportunities for commercial, recreational, and subsistence harvest; and 3) ensure the continuation of important recreational activities. They will also be managed to allow for shoreline development in areas adjacent to communities where residential or commercial/industrial uses are considered appropriate by the local unit of government or appropriate land manager, or at specific sites where some form of development occurs or is planned.

Habitat (Ha). State tidelands designated Habitat (Ha) will be managed to protect sensitive habitats and areas important as fish and shellfish habitat, marine mammal concentration sites, wildlife movement corridors, and subsistence areas. Habitat designations are often applied to estuarine areas, the mouths of anadromous streams, special management areas that contain a rich diversity and concentration of fishery and wildlife resources, and to certain rocks and islands used for marine mammal rookeries and haulouts. They are also used as a co-designation with Public Recreation and Tourism-Dispersed in the Tideland Resource Management Zones for tidelands and tide and submerged lands adjacent to federal conservation system units. The Habitat designation is also applied to areas within CHAs. Development authorizations may be granted in areas designated Habitat, but their sensitive fisheries or wildlife resources must be protected. Development authorizations within CHAs must meet the specific standards identified in AS 16.20.530.

Harvest (Hv). State tidelands are also to be managed to ensure the continuation of recreational and commercial harvest and subsistence uses. Many submerged and tideland areas within the Bristol Bay region are important at some time during the year for harvest activities. Individual tideland management units that are designated Habitat (Ha) are also co-designated as Harvest (Hv) if some form of harvest activity takes place. Development authorizations issued on tidelands affected by the Harvest designation must consider impacts to the various forms of harvest and are to mitigate impacts from this activity. This requirement pertains to individual tideland management units designated Harvest, management units co-designated Harvest with another designation, and to areas designated General Use where some form of harvest occurs.

Public Recreation and Tourism-Dispersed (Rd). State tidelands important for some public recreational purposes have been designated Public Recreation and Tourism-Dispersed (Rd). This designation is applied as a co-designation with Habitat in the Tideland Resource Management Zone that adjoins federal conservation units. Development authorization may be granted in areas designated Rd but must ensure that public trust doctrine resources and public recreation values are maintained. Prior to issuing an authorization, DNR should consult with federal agency staff.

Waterfront Development (Wd). State tidelands adjacent to communities will be managed to accommodate that development considered appropriate in local land use plans or zoning maps and are designated Waterfront Development (Wd). The Wd designation is applied in tidelands with intensive commercial or industrial uses, where such uses can be expected, or where tidelands are adjacent to uplands with a residential land use pattern, or where such uses can be anticipated.

General Use (Gu). Tidelands and submerged lands not included within a tideland management unit or a Tideland Resource Management Zone are designated General Use (Gu). Large areas of state tidelands and submerged lands are affected by this designation, since all areas that are not identified as important for specific habitat, harvest, or recreation protection, included in tideland resource management zones, or intended for development, are affected by the Gu designation. The state coastal zone permitting system is used to determine which uses are appropriate within these areas and is to establish any particular site or operational requirements.

Areas Affected by Tideland Resource Management Zone:
A Tideland Resource Management Zone (TRMZ) applies to tideland and submerged lands adjacent to federal uplands under some form of protected status. The TRMZ consists of the tide and submerged lands adjacent to five National Wildlife Refuges (Togiak, Izembek, Becharof, Alaska Peninsula, and Alaska Maritime), and the Aniakchak National Monument and Preserve. The TRMZ extends one half-mile from mean high water from the coast and is co-designated Public Recreation and Tourism-Dispersed and Habitat. These designations convert, respectively, to the classifications of Public Recreation Land and Wildlife Habitat Land. Plan maps for the regions fronting Bristol Bay or the Pacific Ocean depict the TRMZ.

A Tideland Resource Management Zone is used if there is a concentration of significant marine resources or public uses within a specific area, or if individual tideland management units cannot capture the diversity and intensity of these resources within a contiguous area. It is also used when there is common upland property ownership, usually of a large area that is under a protected status, such as a state or national wildlife refuge, national park, or state park. The TRMZs of the Bristol Bay Area Plan are all of the latter type. The management objectives of this zone are to protect the habitats and wildlife that characterize this area and allow certain consumptive uses, which would include foraging, and the taking of fish and wildlife for personal, recreational, commercial, and subsistence purposes. The management intent is twofold: 1) to protect sensitive fisheries habitat, marine mammal concentration areas, shorebird and waterfowl concentration areas, anadromous streams and areas of estuarine wetlands, kelp or eel grass areas, as well as intertidal areas important for brown bears; and 2) to limit those uses and structures on tide and submerged lands to those that would generally be consistent with upland uses. Management plans exist for nearly all the upland areas and should be consulted to determine management standards. For more information on special management areas, refer to item 'D'; ‘Management Guidelines: Special Management Areas – Tidelands & Submerged Lands; Other’ in the Fish and Wildlife Habitat and Harvest Areas section of Chapter 2.

National Wildlife Refuges and National Monuments. The areas of state tide and submerged lands adjacent to the National Wildlife Refuges and the National Monument affected by the TRMZ will be managed for uses and structures that support subsistence, personal, recreational, and commercial activities that are consistent with these management objectives or that are authorized under ANILCA. ANILCA provides for temporary structures and facilities directly and necessarily related to the taking of fish and wildlife and for the construction of new permanent cabins and maintenance or replacement of existing cabins. Temporary structures and facilities include temporary subsistence, commercial and personal campsites, tent platforms, shelters and other temporary facilities. Permanent structures include public use cabins, commercial set net cabins, subsistence cabins, and other commercial cabins. ANILCA also allows for the construction of new cabins that are necessary for the protection of public health and safety. DNR may also authorize, with appropriate siting and design, docks in support of commercial, recreation and subsistence activities, floatplane bases, onshore support facilities for offshore oil and gas development, and other structures and facilities consistent with the basic management objective of a TRMZ.

Uses that DNR should not authorize include residential float homes, float lodges, or floating camps, or other types of residential, commercial or industrial uses of the tidelands inconsistent with the types of uses allowed under the ANILCA subsistence provisions. Certain types of mariculture facilities may be authorized if consistent with the management objectives of this zone and the management guidelines for these facilities in Chapter 2; see *Management Guideline B under ‘Aquatic Farming’*. In addition, certain types of governmental, commercial, or research floating facilities may be authorized if consistent with these objectives and the management guideline for these facilities in Chapter 2; *see Management Guideline F under ‘Floating Facilities’*. In general however, the intent is to minimize the number of

authorizations, limit any authorizations to those that are allowed under the Management Guidelines noted above, and avoid the siting of all other structures on state tide and submerged lands if they are visually intrusive or are inconsistent with the management objectives of the TRMZ. DNR shall consult with federal agency staff before authorizing uses on state tidelands and submerged lands.