### MANAGEMENT UNIT 18: BIRCH TREE CROSSING

#### Background

Location and Land Ownership. The Birch Tree management unit consists of the beds of the navigable portions of the Kuskokwim River between the Kuskokwim Area Plan boundary near Aniak and the Cenaliulriit Coastal District boundary just downstream from Lower Kalskag. Approximately 47 river miles are included in this unit (not including sloughs and river braids). The uplands adjacent to the riverbed in this unit are Native owned. A number of Native allotments are located along the river.

Resources. Materials found on river bars consist of washed, moderate-to-well sorted, rounded-to-subangular gravels. Bar accretion deposits which are unvegetated are found throughout this unit. Photo interpretive maps indicate that there are approximately 130 discrete materials sites in the riverbed within this unit. They are best exposed along the margins and the upstream end of channel bars, along channel margins, and most notably along the point bars. The deposits have little to no overburden or vegetation due to periodic flooding. Extractable materials are limited to a depth of several feet because of the water table. High water levels restrict periods when the material can be removed. These materials are desirable for fill and concrete. Materials from this area have been used for transportation, flood control, and building projects in Upper and Lower Kalskag, Bethel and other communities on the delta. Gravel from this unit is in demand because materials are in short supply on the lower Kuskokwim River and on the Yukon-Kuskokwim delta.

Resource Use. This section of the river has many uses. The Kuskokwim River is used year round for transportation. In summer fuel, supplies, and materials are transported along the river by barge and small power boats. Residents use the river as the principle access route in the region and for hunting, fishing, trapping, berry picking, wood cutting, etc. During the fall, large numbers of small

boats travel up the river to the tributaries within the planning area for moose hunting. During the winter an ice road connects Kalskag with Aniak and is used by automobiles, ATVs, snowmachines, and dog teams. There are also two state -owned, -operated, and -maintained airports adjacent to this unit in Kalskag and Aniak.

There are a number of materials sites that have been used in the past. Birch Tree Crossing is the largest and is located 12 river miles downriver Aniak. Between 1978 and 1986 the U.S. Army Corps of Engineers issued permits for over 750,000 cubic yards of materials for this site. The actual volume extracted is unknown, but is thought to be considerably less than the permitted amount.

A variety of fish species use this stretch of the river including rainbow trout, humpback and broad whitefish, sheefish, least cisco, northern pike, and five species of salmon. Rainbow trout, humpback and broad whitefish, and least cisco are known to spawn in the Kuskokwim and some species of salmon are suspected to spawn in the river as well. The fish in this unit, particularly salmon, are heavily utilized for commercial, subsistence, and sport fishing both in the Kuskokwim drainages and along the coast. The Birch Tree Crossing unit is in Commercial Fisheries District 2. Residents subsistence fishing use set nets, drift nets, and fish wheels. River bars are typically used for fish camps and net-drying sites.

#### Management Intent

The navigable riverbeds in this unit will be retained in public ownership and remain open for mineral entry and materials extraction consistent with Chapter 2 guidelines. This unit will be managed for materials, transportation, water resources, and wildlife habitat. When responding to a request for a material sale or identifying a source for materials on public lands, preference shall be given to

using upland material sources regardless of ownership to the extent feasible and prudent. Mining gravel from active channels should be avoided to reduce detrimental effects on water quality, aquatic habitat, and biota. However, if hydraulic changes can be minimized, in-channel sites will replenish more rapidly than other areas, and the effects on the terrestrial biota of the floodplain will be avoided or greatly minimized.

DNR will try to avoid permitting gravel extraction at sites that are in direct conflict with traditional activities such as fish camps, fish wheels, net drying sites, and set-net locations. The department will direct applicants to use alternate sites or stipulate that extraction occur at times that will not overlap with the conflicting use whenever feasible and prudent.

#### **Management Guidelines**

The complete set of management guidelines is presented in Chapter 2. Any of the guidelines could apply to uses within this management unit. Those most likely to apply are listed below:

Fish and wildlife habitat
Materials
ublic and commercial recreation resources
Subsurface resources
Trail management
Wetlands management

The following guidelines are specific to this unit:

Birch Tree Crossing Cooperative Study. The river bar at Birch Tree Crossing has been heavily used for material extraction for over 30 years. Concerns have been raised that the rate of gravel extraction may exceed the rate of deposition causing erosion of upland properties, degrading fish and wildlife habitat, and deteriorating water quality. To provide agencies and landowners with needed information to address these concerns, a cooperative study of the Birch Tree Crossing site is recommended. In order to minimize conflicts between materials extraction and other surface activities and land uses, the formation of a study group to look at feasible and prudent sites for materials extraction in and along the Kuskokwim River also is recommended. See Chapter 4 for a complete description of these recommendations.

## RESOURCE INFORMATION SUMMARY Management Unit 18 - Birch Tree Crossing

| Resource                  | Subunit<br>18a  |
|---------------------------|---|
| Agriculture               | N/A   |
| Energy                    | N/A   |
| Fish                      | Kuskokwim R.: salmon, whitefish, sheefish, least cisco, pike, and resident fish |
| Forestry                  | N/A   |
| Grazing                   | N/A   |
| Historic/<br>cultural     | N/A   |
| Materials                 | High value  |
| Minerals                  | N/A   |
| Oil & gas                 | Unknown   |
| Public access             | Boat along Kuskokwim R.;<br>winter trail on river                               |
| Recreation                | Moderate use and potential along Kuskokwim River                                |
| Settlement<br>suitability | N/A   |
| Wildlife                  | N/A   |
| Important trails          | Winter trail along Kuskokwim<br>River   |

See glossary for definition of ratings.

# LAND-USE DESIGNATION SUMMARY MANAGEMENT UNIT 18 - BIRCH TREE CROSSING

| SUBUNIT                       | LAND<br>OWNERSHIP | LAND USE DESIGNATIONS  |                           |   |                         | COMMENTS                        |
|-------------------------------|-------------------|--|---------------------------|---|-------------------------|---------------------------------|
| a                             |                   | Primary<br>Surface Uses  | Secondary<br>Surface Uses | Prohibited<br>Surface Uses <sup>a</sup> | Subsurface <sup>b</sup> |                                 |
| 18a<br>Birch Tree<br>Crossing | State             | Materials<br>Transportation<br>Water resources<br>Wildlife habitat |                           |   | Open                    | Subunit contains river bed only |

<sup>&</sup>lt;sup>a</sup>Other uses such as material sales, land leases, or permits that are not specifically prohibited may be allowed. Such uses will be allowed if consistent with the management-intent statement, the management guidelines of this unit, and the relevant management guidelines listed in Chapter 2.

<sup>&</sup>lt;sup>b</sup>All areas are available for leasing for leasable minerals. Statements of whether or not the unit is open to mineral entry refer only to locatable minerals.

