

MATERIALS

RESOURCE DESCRIPTION

The Matanuska River and its tributaries contain an abundance of construction materials. Recent glacial and fluvial activity also created many upland landforms composed primarily of construction materials. The materials deposited by water are generally well-sorted beds with particle size ranging from sands and gravels to rocks and cobbles. The glacial deposits are often undifferentiated with particles of all sizes, often including fines (silt and clay particles) found together. Combinations and variations of the above conditions are also common in the geologically active lands of the Moose Range.

Several material deposits are found along all the drainages with large deposits located in the upper drainages of Kings and Chickaloon Rivers and Boulder Creek. Lower Granite Creek also has a large deposit located on private lands. Other private lands along Murphy Road, west of Sutton and near Drill Lake all contain deposits of construction materials. (See Map 11, page 239, for potential construction materials.)

Adjacent to the Moose Range, DOT/PF has several existing material sites located along the Glenn Highway. The Matanuska River floodplain is comprised primarily of construction materials.

RESOURCE EVALUATION

Construction materials are abundant in and adjacent to the Moose Range. A DGGs study indicated 8% or 11,000 acres of the Moose Range as having high potential for materials. An additional 25,000 acres (20%) are rated as having good potential. Further studies conducted by DLWM eliminated sites on private land and sites located 2 miles or more from present access. (The legislation precludes the state from planning on private lands within the Range.) This left 11 sites on state or borough land ranging in size from 20 to 640 acres totaling less than 2% of the Moose Range (see Map 2, page 13). These locations are adequate for planning purposes but field investigation prior to leasing (or permitting) is required to pinpoint the location of the material as well as verify the quantity and quality of the material. Field investigation may also reveal undetected limitations (e.g. springs or bedrock).

Anticipated material demands will be for road maintenance and local use only. DOF may require moderate amounts of materials for development of forest harvest access roads. Presently no large construction projects are planned for the near future in the Moose Range.

Realignment of the Glenn Highway may occur within 20 years. If so, this project may demand large quantities of materials from the Moose Range. Other potential uses of large quantities of materials may be a coal-fired power plant, mineral exploration or development or a hydro-electric project.

The following list of "most suitable" sites begins in the west, where the greatest demand is anticipated, and continues to the east and lesser demand expectations.

Site #1. 80 acres located within the NE1/4, Sec. 4, T18N, R2E, S.M.

This site may be readily accessed off Buffalo Mine Road or from the Soapstone subdivision. The area contains ice contact deposits which have been worked by water thereby reducing the silt content. The hilly terrain means most materials would be above the water table. Mining would be relatively easy and there is good visual screening potential.

Site #2. 80 acres located in the N1/2SE1/4, Sec. 20, T19N, R2E, S.M.

This site is accessed off Murphy Road. The landform is an alluvial fan that slopes to the south. This slope and location (elevation 1100'-1200') may make visual screening of the site from the Glenn Highway difficult. This area may provide access for timber harvest/habitat enhancement projects below Arkose Ridge. Local demand may also be supplied from this site.

Site #3. 20 acres located in N1/2S1/2, Sec. 27, T19N, R2E, S.M.

This site is accessed from Premier Mine Road or from Elks Lake. The landform is an esker which indicates the source may be limited in extent. Despite this, the site may prove useful for timber harvest/habitat enhancement or mineral exploration and development roads in the area. Materials for the potential power plant may have to come from other sources. Shallow depth to the water table and difficulty in screening are not expected at this site.

Site #4. 320 acres located in S1/2, Sec. 21, T19N, R3E, S.M.

This is Borough land that is accessed from an unnamed road that leaves the Glenn Highway at Mile 59.9. Water worked ice contact deposits may provide a large quantity of material. Visual screening and mining should be easy in this hilly terrain. With Borough cooperation, this site may supply materials for both local and large project needs.

Site #5. 160 acres, SE1/4, Sec. 8, T19N, R3E, S.M.

Although only 1.5 miles from Jonesville Mine Road, this site would be difficult to access because of wetlands. The 160 acres lie in a much larger alluvial fan. The actual material area may be as large as 600 acres. If developed, it is anticipated that: 1) visual screening would be easy; 2) material quality may vary from good to high and; 3) the water table may be relatively close to the surface.

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Site #6. 20 acres located NE1/4, Sec. 9, T19N, R4E, S.M.

This site is located near the Young Creek Trail and would most likely be developed only if this trail were to be upgraded. Visual screening and a shallow depth to the water table are not expected to be problems.

Site #7. 160 acres located in N1/2S1/2 and E1/2NE1/4, Sec. 16, T19N, R4E, S.M.

This area is accessed from Mile 66.7 of the Glenn Highway. The site is within the floodplain of the lower Kings River. A large quantity of material is available here. Although visual screening should be easy, the water table may be shallow. Other factors to consider at this site include the nearby Chickaloon-Knik-Nelchina Trail with a 200' buffer and a possible state campground. This site also has potential for enhancing fish spawning beds in the river. This easily accessed site is anticipated to have high quality material in abundance.

Site #8. 640 acres located in NW1/4, Sec. 11, SE1/4, Sec. 2, W1/2, Sec. 1, T19N, R4E, S.M.

This area is accessed the same as Site #7, but is located about 1.5 miles further upriver. The floodplain site should provide enough materials for almost any project; however, it is expected its primary use would be for timber harvest/habitat enhancement projects or mineral exploration and development projects. Potential restrictions may include the Chickaloon-Knik-Nelchina Trail and groundwater near the surface. The site's low slope and remoteness would make visual screening easy.

Site #9. 40 acres located in the SE1/4NW1/2 and NE1/4SW1/4, Sec. 8, T20N, R5E, S.M.

This area is accessed from the Permanente Road. This site is an old alluvial fan. It is anticipated that the primary use of this site would be for the Permanente Road and any other roads developed off it. No estimates are made on material quantity or quality; however, limitations such as shallow depth to groundwater and visual screening are expected to be minimal.

Site #10. 40 acres NW1/4SE1/4, Sec. 23, T20N R5E, S.M.

This site is accessed off the Castle Mountain Mine Road. The area actually has low potential but scattered pockets may provide enough materials for road maintenance and local needs. Another higher value site (in Sec. 14, T20N, R5E, S.M.) can be found one mile north of this area, but access may prove difficult.

Site #11. 160 acres located in E1/2, Sec. 19, T20N, R6E, S.M.

This site is located in the floodplain of the Chickaloon River. Its primary use would be for trail maintenance on the Chickaloon River Trail or the Chickaloon-Knik-Nelchina Trail. This site may also be advantageous for fishery enhancement. Difficulty in access, visual screening, and shallow depth to the water table reduces this site's visual value.

At present, there is little demand for the material deposits found in the upper drainages of Kings and Chickaloon Rivers and Boulder Creek. Until construction occurs within these drainages, or nearby sources are depleted, this large resource will most likely remain untapped.

The private lands with construction materials generally lie near improved access. Sources of construction materials located on private land cannot be used without compensation to the private landowner. Privately owned material resources should be used whenever possible before using state-owned deposits within the Moose Range.

South of the Glenn Highway lies the Matanuska River floodplain which covers an estimated 3,000 to 6,000 acres. These sites to some extent would be replenished every spring and are easily accessed in many places. These sources may provide large quantities of high-quality materials and should be considered along with sources within the Moose Range.