

Materials¹⁷

A. Minimize impacts to other uses and resources

DNR will ensure that material sale contracts minimize significant adverse impacts to other important resources and uses. These resources and uses include existing water rights, water resource quantity and quality, navigation, fish and wildlife habitat and harvest, commercial forest resources, recreation resources and uses, heritage resources, adjacent land uses, scenic resources, and access to public or private lands. DNR will minimize significant adverse impacts to other uses as follows:

1. **Materials site plan and field marking.** DNR will require a materials site plan, which must include a sketch showing pit access, boundaries and depth, overburden stripping and disposal location, surface water quality and erosion and sediment control, and reclamation measures. Material site boundaries should be staked and flagged for reference on the ground.
2. **Interagency consultation.** Before materials are extracted, DNR will follow state, federal, and local requirements in consulting appropriate agencies regarding protection of other resources. These agencies include: Department of Fish and Game, Division of Parks and Outdoor Recreation, Division of Water, Division of Forestry, Department of Environmental Conservation, U.S. Army Corps of Engineers, and the City and Borough of Yakutat (when activities occur within its boundary).

B. Material extraction from sensitive areas¹⁸

Under two conditions, DNR may authorize dredging and filling in wetlands, including gravel extraction and construction of roads and pads: if the proposed activity will not cause significant adverse impacts to important fish and wildlife habitat or important ecological processes; or if no feasible and prudent alternative exists and the extraction is in the public interest. DNR will require mitigation if a materials extraction cannot avoid significant adverse impacts to important habitat and ecological processes.

If the only feasible and prudent source of gravel is an active¹⁹ or inactive²⁰ floodplain of a stream or river, the following guidelines will be used, in addition to the design consultation required in guideline A, to minimize negative impacts of material extraction on other resources and uses.

1. **Stream type preference.** Stream types should be selected for material extraction based on the following order of preference (most to least preferable): braided, split, meandering, sinuous, and straight. This order of preference reflects the volume of gravel available from exposed bars and the floodplain width. Wider floodplains allow extraction farther from the river channel which reduces the environmental impacts.
2. **Stream size preference.** Generally, the largest river in a given area should be selected for a gravel operation. Larger rivers have higher volumes of gravel and a wider floodplain. The proportionally smaller disturbance in large river systems will reduce the overall effect of gravel removal.

17 Materials include, but are not limited to, common varieties of sand, gravel, rock, peat, pumice, pumicite, cinders or clay.

18 These guidelines are adopted from: *Gravel Removal Studies in Arctic and Subarctic Floodplains in Alaska*, USFWS, Biological Services Program, June 1980.

19 Active floodplain - that portion of the floodplain that is flooded frequently; it contains flowing channels, high-water channels, and adjacent bars and usually contains little or no vegetation.

20 Inactive floodplain - that portion of the floodplain that is flooded infrequently, it may contain high-water and abandoned channels and is usually lightly to heavily vegetated.

3. **Avoid active channels.** Gravel should not be mined from active channels, in order 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 effects on the terrestrial biota and scenic quality of the floodplain will be avoided or greatly minimized.
4. **Avoid vegetated habitats.** Whenever possible, material extraction should avoid vegetated habitats.

Sites for extracting less than 50,000 cubic yards should be located to avoid vegetated gravel deposits and minimize removal of important browse species.

Sites for extracting over 50,000 cubic yards should be located along large rivers that contain sufficient gravel in non-vegetated areas or terrace locations on the inactive side of the floodplain.

5. **Maintain channel stability.** In active or inactive floodplains, operators should maintain buffers with the intent to constrain active channels to their original locations and configurations.
6. **Site design and rehabilitation.** DNR will require site rehabilitation consistent with 11 AAC 97, the Mining Reclamation regulations. If mitigation of pit sites is required, DNR should consider habitat enhancement features such as shoreline and water depth diversity, islands, and, if desirable, an outlet stream to provide fish habitat. DNR will consult DFG and USFWS to determine appropriate habitat features.

C. Retain materials site in land disposal areas

If a designated settlement area contains high value materials resources, DNR will generally identify a materials extraction site and retain it in public ownership for future use before offering lands for conveyance.

D. Screening materials site

Material sites will, where feasible and prudent, be screened from roads, residential areas, recreational areas, and other areas of significant human use. Sufficient land will, where feasible and prudent, be allocated to the materials site to allow for such screening.