The Division of Governmental Coordination (DGC) has completed coordinating the State's review of the above Flood Control Project in the Skagway River. DGC has developed this proposed consistency determination based on reviewers' comments.

Scope of Project

The City of Skagway occupies the Skagway River delta at tidewater. Upstream, the river flows in a narrow valley that broadens at the townsite and empties into Taiya Inlet. Beginning in the 1940s, flood control dikes have been built on both sides of the river, through the Skagway townsite and up to a mile upstream, by the U.S. Army, private landowners, the Corps of Engineers, and the Alaska Dept. of Transportation & Public Facilities. Additionally, the City has attempted to improve flood plain management through land use regulations, participation in the National Flood Insurance Program, and special studies.

In 2000-2001, an airport expansion project improved flood control along the river adjacent to the townsite by excavating material from the riverbed beginning 1,400 feet downstream of the Klondike Highway bridge and continuing downstream approximately 7,000 feet to the intertidal zone, and by constructing runway and apron improvements in such a way as to enhance flood control. (ACMP review #AK 9806-04J). However, the community still faces a threat of inundation by catastrophic flooding as shown by hydraulic modeling and patterns of river channel migration over four decades, and flood control measures upstream of the Klondike Highway bridge are required.

The proposed project will construct a flood control dike and revetment system within the Skagway River to protect the City of Skagway in the event of a 100-year flood.

As a secondary goal to flood control, the applicant had proposed to fill and reclaim nearly 3.7 acres of floodplain to use as commercial/industrial land at a future date. Since this consistency finding requires that portion of dike to be moved out of the active river, this secondary goal is no longer included as part of the project.

The location is in the Skagway River; Section 1 of Township 28 South, Range 59 East and Section 36 of Township 27 South, Range 59 East of the Copper River Meridian, near Skagway, Alaska.

Specifically, the work will include:

Dikes

The project will place dike and revetment structures along both sides of the river, from just upstream of the Klondike Highway Bridge to approximately 5,300 feet upstream, northeast of the Skagway city center. The proposed project will impact approximately 20 acres of the Skagway River below the OHWM.

The dikes will be 8' to 12' high and 30' to 40' wide at the base. The dike design is based on a scour depth of five feet below the thalweg depth. Since the existing grade in some areas will not allow excavation to that depth, Class III riprap will be placed at an elevation above total scour depth in those areas. Construction of the dikes and revetments will take place through low flow periods. Dikes on both sides of the river will be constructed as one project; the work will not be phased. The dikes will have a 14-foot wide maintenance access road at the top.

Excavation

The project will import 33,000 cubic yards of riprap from a private source for the dike and revetment construction. The riprap will be used to anchor the toes of the dikes and revetments, including launch aprons, into the riverbed and to armor them from the river flow.

The project will excavate 17,700 cubic yards of in-place riverbed material for the dike and revetment construction, including dike core and riprap bedding. All this material will come from the footprint excavations of the dike and revetments. This includes the amount of riverbed material needed for dike core and riprap bedding.

A total of 50,700 cubic yards of material will be used in the dike and revetment structures for flood control.

The applicant had proposed to excavate an additional 17,900 cubic yards of material from an unspecified location within the riverbed to fill behind a section of dike to be placed in the active floodplain. As stated above the creation of commercial industrial lands in not part of this consistency finding.

Right of Way

The project utilizes or crosses parcels of land that may require rights of way, including USS 176 (Russell Metals), USS 1805 (riverbed lands where ownership is in dispute between David and Pamela Hunz and the State of Alaska), and portions of USS 5110 (claimed by the State of Alaska as riverbed of a navigable river).

The City of Skagway has contacted all parties to arrange for the necessary rights of way for the project. This includes a December, 2001, agreement between the City of Skagway, David and Pamela Hunz, and the State of Alaska to move forward with the project applications for permissions, authorizations and materials sales or leases without prejudice to any of the parties' assertions of title to the land at issue.

Dairy Creek Fish Passage

To provide access into the flood plain for gravel mining and channel maintenance, vehicular crossing of Dairy Creek is required. The project proposes to construct a bridge composed of a railroad flatbed car over Dairy Creek channel. The approximately 15' wide by 30' long span will be connected to the top of the dike at each end with concrete abutments.

Monitoring

Water levels and flow will be monitored at the Klondike Highway Bridge, with intent to determine when a flow of 4,000 cfs has been exceeded. Channel changes will be documented at permanent cross-section locations to establish channel maintenance requirements. After dike construction, monitoring will be conducted every two years or after a flood event of 4,000cfs or greater. Monitoring will consist of surveying elevations and distances across three cross-sections, from dike to dike. Based on comparisons of current and historic cross-section elevations, estimates of current channel flow capacity at two water surface elevations will be determined: 1/bankfull and 2/design 100-year flood stage (38,000cfs). Survey data will be used to estimate volume of channel aggradation and /or degradation.

Channel Maintenance

The project application states that "Continued gravel mining from the channel is anticipated, to remove deposited material, maintain a flow channel, and assure the integrity of the dike structures." The related Army Corps application does not include future maintenance dredging of the river. If, based on the monitoring of the water flow and channel changes, mining is recommended for channel maintenance, the State of Alaska will review any proposed mining activities for permit authorizations and consistency with the ACMP at that time.

Proposed Mitigation Measures

Minimization/mitigation efforts proposed to reduce impacts to the aquatic environment include coordinating the realignment of Dairy Creek and bridging its confluence with the Skagway River to promote fish passage. The east side of the project has been designed to allow a break in the dike to allow some meandering of the river. The west dike just above the Klondike Highway Bridge will follow the existing shoreline, instead of a straight dike through this area. The widening is expected to provide a slow flow area for fish to congregate prior to continuing upstream.

Additional Information

Dry portions of the river bottom will be utilized for staging areas. Staging areas will be used for storage of riprap, geotextile and other imported dike fill. Material storage will be restricted to short durations. Riprap materials will be obtained from local quarries within the Skagway area. The City of Skagway will establish work plans and methods of operation to minimize impacts to fisheries when dike construction and the flowing river are at the same location