Skagway River

Condition of Improvements 31 December 2019 **Skagway River, Alaska** (CWIS No. 000013, 016900, 091000)

Authorization Rivers and Harbors Act, 20 June 1938 (House Doc. 547, 75th Congress, 3rd Session) as adopted, provides for a rock, brush, and earth training dike 6,700 feet long on the east bank of the Skagway River, and a rubble-mound breakwater 1,800 feet long across the tide flats as a prolongation of the training dike.

Modification Flood Control Act, 24 July 1946 (House Doc. 695, 79th Congress, 2nd Session) as adopted, provides for (1) restoration of the existing breakwater (1,800 ft) to the original project cross-section, construction of a 300 foot extension thereto, and the addition of two groins on the river side, (2) reconstruction and extension of the existing dike (6,700 ft) adjacent to the city, and (3) reconstruction of the existing dike at the sanatorium.

Table 1Existing ProjectLength ft.Training Dike6700

Project Usage This project provides flood protection for the business and residential areas of Skagway.

Progress of Work

| 1939 | Construction of the dike and breakwater commences in September. |
|------|--|
| 1940 | The original project is completed in June with Government plant and hired labor. |
| 1946 | Emergency repairs are made to the dike under authority of the Flood Control Act of 12 July 1943. |
| 1950 | The Definite Project Report, approved in 1950, deleted the sanatorium dike (due to relocation of sanatorium) and the groins, and provided for an increased cross section of the dike and breakwater. |

Progress of Work

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| 1951 | Extensive emergency repairs are made to the dike, including modification of the channel and raising the elevation of the 23rd Avenue Bridge 4 feet. Work was conducted pursuant to the Flood Control Act approved 30 June 1948 and additional river clearing under Section 3 of the River and Harbor Act, 2 March 1945. | | | | |
| 1966 | A re-study of the project is completed and a negative report submitted. The project is placed on the "deferred" status. | | | | |
| 1968 | The breakwater below station 10+00, including the proposed extension, is incorporated into a fill constructed by the White Pass and Yukon Railroad. | | | | |
| 1986 | The modifications authorized in 1946 are de-authorized (Public Law 99-662, 17 November 1986, Section 1002). Annual inspections indicate, however, that extensive repairs are needed; local interests have been notified. | | | | |
| 1993 | The City of Skagway has corrected the most critical deficiencies in the project. The Alaska District and the State of Alaska are looking at potential upgrades to the project. The Corps continues to perform annual inspections in keeping with the agreement of local cooperation. | | | | |
| 1998 | The project is found to be in satisfactory operational condition. | | | | |
| 1999 | Construction activities at the airport bury some of the physical features of the project. No inspection by Corps personnel is conducted. | | | | |
| 2000 | Inspection finds some displacement of armor stone upstream from the airport. Locals have been notified of the needed repair. | | | | |
| 2005 | The Corps inspector finds the remaining 500 feet of federal dike to be in good condition. The City has constructed and maintains the revetment above and below the federal works. | | | | |
| 2007 | The condition of the project is given a "poor" rating under the National Levee Safety Program and the City is notified. | | | | |
| 2008 | The overall rating for the levee system is Acceptable; however, a few maintenance deficiencies were found during the inspection. | | | | |
| 2009 | Overall inspection rating is acceptable. | | | | |
| 2010 | The Skagway Levee was inspected September 2010. The levee was in good condition along the section parallel to the airport. Vegetation was starting to take over along the North end on both side slopes. | | | | |
| 2011 | An October inspection found the levee in an acceptable condition; vegetation was removed on the levee but additional removal is needed. Encroachments also need to be removed. Areas of minor rip rap launching need to be monitored. | | | | |

Progress of Work

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| 2012 | An October inspection found vegetation needed to be removed and encroachments. Once culver needed to be replaced. |
| 2013 | The levee system received an overall rating of Minimally Acceptable based on unwanted vegetation growth and erosion and the metal culverts have not had a complete visual inspection. |
| 2014 | The Skagway Levee was inspected in October. The levee was in good condition along the section parallel to the airport. Vegetation was starting to take over along the North end on both side slopes. |
| 2015 | The levee system was inspected received an overall rating of Minimally Acceptable. |
| 2016 | The levee system was inspected received an overall rating of Minimally Acceptable. Culvert inspection issues were addressed. The remaining reason for the minimally acceptable rating is evidence of riprap launching along the toe of the riprap revetment. |
| 2017 | The levee system was inspected received an overall rating of Minimally Acceptable. Review of airport revetment construction drawings show that erosion has launched the revetment toe in some locations. |
| 2019 | The Skagway Levee was inspected in October. The levee was in good condition along the section parallel to the airport. Vegetation was starting to take over along the North end on both side slopes. A Section 408 request was approved to construct a levee on the right (west) bank of the Skagway River downstream of the Klondike Highway Bridge. |

Table 2 Cost to Date

| Project | Description | Cost \$ |
|---------|-------------------|---------|
| 091000 | CG Appropriations | 33,885 |
| | CG Costs | 7,500 |

Table 3 Range of Tides in feet

| Tide Station | Mean Range | Diurnal Range | Extreme Range |
|----------------------------------|------------|---------------|---------------|
| 945 2400 Skagway, Taiya Inlet AK | 14.11 | 16.73 | 32.92 |

NOAA Publication Date: 02/16/2018

Skagway River Levee, Skagway, Alaska



Oblique of Skagway, 2009



Downstream view of the Skagway River Levee, April 2019

Skagway River Levee, Skagway, Alaska



Skagway River Levee near Klondike Highway Bridge, April 2019



Upstream view of the Skagway River Levee along the runway, April 2019