

Gold Creek

Condition of Improvements
31 December 2019
Gold Creek, Alaska
(CWIS No. 006630, 150225)

Authorization Flood Control Act, 3 September 1954 (House Doc. 54, 82nd Congress, 1st Session) as adopted, provides for a reinforced concrete channel lining 1,717 feet in length for that portion of Gold Creek passing through the city of Juneau; includes the necessary intake and downstream energy dissipating structures.

Table 1

Existing Project	Length ft.
Lined channel	1,717
Intake Structure (lined)	113
Outlet Structure (lined)	250

Project Usage Improvement of the channel through the city of Juneau eliminates the serious flood threat to Alaska's capital city.

Work Prior to Existing Project

1934	The WPA begins construction of an emergency project resulting in the establishment of a definite channel in 1935 at a cost of \$84,000.
1947	Damaged revetment is repaired along the stream bank.
1949	Existing revetment 417 feet in length is protected and damaged foundation repaired adjacent to the Indian hospital.
1950	Lining the bottom and left bank of the stream with pre-cast reinforced slabs for 316 feet from 60 feet below "A" street to 70 feet below "B" street.
1953	Construction of approximately 620 feet of channel bottom and 550 feet of canal wall with the required excavation, back fill, and other necessary work to become part of the proposed project. Total emergency work to date amounts to \$263,252.43.

Progress of Work

1957	Channel lining work on the existing project begins in April; the project is completed in March 1958.
1960	Staff gauges are set in the structure for engineering research purposes.
1962	Rehabilitation of the channel lining and construction of a stilling basin are accomplished from March through June; work performed includes the construction of a concrete check dam and the placement of 290 cubic yards of derrick stone at the head of the channel.
1968	Repair of the existing channel, improvement of the head-works, and elimination of a debris source commenced October 1967 and is completed in June. Annual inspection of the project determines compliance with requirements of local cooperation.
1975	The remaining 600 feet of channel lining are repaired.
1979	An inspection indicates that minor repair work is necessary; local interests are notified and the work is reportedly complete in 1984.
1995	The most recent inspection indicates that the project is in good operational condition.
1996	An estimated 100 year stream flow event on 25 September carries large trees and boulders through the project. Some riprap bank protection was reportedly undercut, but preliminary reports indicate no serious damage to the channel lining.
2000	Inspection by Corps' personnel finds the project to be in satisfactory condition. Locals were notified of the required minor repairs.
2001	The upstream catch basin is dredged by local interests. Overall the channel is in good condition. Minor repair work has been recommended.
2002	The channel is found in good condition. Minor repair work and removal of debris from the catch basin is recommended, September 2002.
2003	Inspection by the Corps finds the project in good condition. Some minor concrete repair and dredging of sediment from the debris basin is recommended, June 2003.
2004	The project is found in good condition. Removal of sediment from the debris basin at the up-stream end of the project is recommended.
2005	The 2005 inspection finds that approximately 80 feet of concrete channel wall south of the federal building needs patching. Debris from the debris basin also needs to be removed and monitored to keep material out of the channel.
2006	Damage to the channel lining requires repair at several locations. A major flood was prevented by the project, but repairs must be made to the concrete channel and the catch basin must be emptied of material to ensure that the project continues to function effectively. Local interests have been notified.
2007	The project was inspected in September by Corps personnel and deficiencies noted. The City has been notified by letter of the needed repairs.
2009	There is moderate erosion throughout the channel. The concrete is eroding between the rails, just below the debris basin. There are small areas of erosion along the joints between the channel floor and walls, throughout the channel.
2010	The inspection found the channel in satisfactory condition with a few items noted for repair.

Progress of Work

2012	The inspection found the channel in satisfactory condition with a few items noted for repair.
2013	The inspection found the channel in satisfactory condition with a few items noted for repair and monitoring.
2014	The inspection found the channel in satisfactory condition with a few items noted for repair and monitoring.
2015	The inspection found the channel in satisfactory condition, however a progression of concrete erosion was noted. The debris basin at the upstream end of the project was found to be full of rocks and gravel.
2016	The inspection found the channel in satisfactory condition, however a progression of concrete erosion was noted. The debris basin at the upstream end of the project was found to be full of rocks and gravel.
2017	The channel was inspected by walking the invert in April. Numerous damaged concrete areas not seen from the top of the channel were identified, notably under the Willoughby Street Bridge.
2018	The inspection found the channel to be in marginal condition with several items noted for maintenance, repair, and monitoring. Repairs are planned for this year. Damage at the 9th Street Bridge and Willoughby Street Bridge are known to be significant maintenance issues and should be repaired to prevent erosion of foundation soils at the bridge abutments.
2019	The inspection found the channel to be in marginal condition with several items noted for maintenance, repair, and monitoring. Damage at the 9th Street Bridge and Willoughby Ave Bridge are known to be significant maintenance issues and should be repaired to prevent erosion of foundation soils at the bridge abutments.

Table 2 Cost to Date

Project	Description	Cost \$
006630	CG Appropriation	876,006
	CG Costs	876,006
	CG Contributed Appropriation	4,301
	CG Contributed Costs	4,301
150225	CG Appropriation	266,036
	CG Costs	266,036
	CG Contributed Appropriation	64,979
	CG Contributed Costs	22,118

Gold Creek, Juneau, Alaska



Aerial of Gold Creek and Juneau, 2014



Concrete channel downstream from 9th Street, April 2019

Gold Creek, Juneau, Alaska



Weir and debris basin at upstream end of channel, September 2015



Concrete channel from Irwin Street, April 2019