

Wrangell Narrows

Condition of Improvements
31 December 2019
Wrangell Narrows, Alaska
(CWIS NOS. 072852, 087687 & 065015)

Authorization (1) Rivers and Harbors Act, 3 March 1925 (House Doc. 179, 67th Congress, 2nd Session) as adopted, provides for a channel 200 feet wide at 21 feet below MLLW with increased depth in rock at shoal 1 (in the vicinity of Mile 0.0) and 27 feet below MLLW at shoal 2 (in the vicinity of Mile 2.5, Turn Point). (2) Rivers and Harbors Act, 30 August 1935 (House Doc. 647, 71st Congress, 3rd Session) as adopted, provides for enlargement of the channel at shoal 1 to 300 feet wide by 24 feet deep, for the easing of alignment curves, and for the removal of rock pinnacles. (3) Rivers and Harbors Act, 2 March 1945 (House Doc. 260, 76th Congress, 1st Session) as adopted, provides for a channel 300 feet wide at 24 feet below MLLW, with improvement of the existing alignment, and an anchorage basin 200 yards wide by 500 yards long at a depth of 26 feet below MLLW in the vicinity of mile 14.

Table 1

Existing Project	Length (max)	Width (max)	Depth ft.
Channel (total section)	24 miles	300 ft.	-24
Turn Point (channel section)	4850 ft.	Varies	-27
Anchorage Basin	3020 ft.	600 ft.	-26

Project Usage The major portion of all commerce through Southeast Alaska passes through this channel which provides a safe alternative to 90 miles of hazardous seas. The anchorage basin in the vicinity of Anchor Point (Mile 14) is used as a holding area when waiting for fog to clear.

Progress of Work

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- 1934 The original project is completed to the dimensions specified.
 - 1951 Work to increase the channel to 300 feet wide by 24 feet deep with improved alignment is completed in June.
 - 1963 Construction begins on the anchorage basin in the vicinity of mile 14 in April and is completed in May.
 - 1971 Maintenance dredging is conducted throughout the channel in September and October with 56,890 cubic yards removed by contract.

Progress of Work

- 1979 The Turn Point vicinity near Petersburg is dredged in May and June with 36,900 cubic yards reportedly removed. A hydro-survey of the entire channel in July indicates that project depth is available throughout.
- 1988 Two large boulders are removed from the channel in the vicinity of Green Rock (mile 12.5 - 13).
- 1989 The Corps' owned dredge YAQUINA conducts dredging operations throughout the narrows' shoals.
- 1990 A condition survey is conducted near Burnt Island (mile 17) after a tanker ran aground; project depth is available within the Federal limits.
- 1991 The most recent survey of the channel from miles 9 to 11 (Green Pt. to Finger Pt.) is performed in August.
- 1992 The channel is surveyed in the vicinity of the Battery Islets (mile 20) in February.

- 1993 A survey of the channel from Frederick Sound through Turn Point (mile 0.0-4.7) is conducted in May.
- 1994 A condition survey is conducted from mile 12.2 to 18.4 in April. Sampling and testing is completed for the entire project.
- 1995 Dredging is conducted under contract for two areas from Frederick Sound through Turn Point with a payable quantity of 41,000 cubic yards removed from the project.
- 1997 Three stretches of the narrows are surveyed with multi-beam equipment in the vicinity of miles 13, 15, and 20.
- 1998 A multi-beam survey is conducted in the vicinity of mile 9.5 and from mile 12.2 to 18.4 (buoy 42 to buoy 8) to provide full swath coverage of the bottom.
- 1999 A single beam survey is performed from mile 0.0 at Frederick Sound through Turn Point to mile 3.0.
- 2000 Maintenance dredging begins at selected locations from Mile 12.2 to 18.4 and at the Battery Islets near Mile 20.
- 2001 Maintenance dredging is completed in March. The total payable quantity removed is 33,939 cubic yards.
- 2003 Mile 0.0 at Frederick Sound through Mile 3.0 at Turn Point, and Mile 20 are surveyed in March. Thirty day tide stations are set up near Miles 12, 15, 18, and 20 to establish new tidal bench marks for this portion of the narrows.
- 2008 A project condition survey was conducted in April-May.
- 2011 A project condition survey was conducted in August and September of the 24 mile length.
- 2014 A project condition survey was conducted in May This project condition survey covered 4 sections of the Channel; Turn Point, Papke's Landing, Beechers Pass and Point Lockwood.

Progress of Work

2018 A project condition survey was conducted in May This project condition survey covered 4 sections of the Channel; Turn Point, Papke's Landing, Beechers Pass and Point Lockwood.

Table 2 Cost to Date

Project	Description	Cost \$
087687	CG Appropriation	3,570,343
	CG Costs	3,570,343
072852	O&M Appropriation	6,815,579
	O&M Costs	6,815,579
065015	O&M Appropriation	2,522,928
	O&M Costs	2,522,928

Table 3 Range of Tides in feet

Tide Station	Mean Range	Diurnal Range	Extreme Range
945 1434 Turn Point AK	13.68	16.07	23.80
945 1346 Papkes Landing AK	13.92	16.39	
945 1317 Anchor Point AK	13.55	15.99	
945 1287 Beecher Pass AK	13.05	15.47	
945 1263 Point Lockwood AK	12.67	15.09	

NOAA Publication Date: 9451434 - 06/08/2009; 9451346, 9451317, 9451287, 9451263 - 11/13/2003

Controlling Depth Project depths are effectively available throughout the project, May 2018. In the Turn point channel section between corner 505 and 514 (within Area 1 in the survey), the controlling depth is -4.7 feet located along the outside of the corner formed by the West boundary Due south of Channel Light 23140. In the remaining area of the Turn Point channel, controlling depth is -17.9 feet southwesterly along boundary from Channel Light 23185. In the Papke's Landing channel section (Area 2), controlling depth is -22.0 feet located just south of Channel Light 23110 along the Eastern boundary. In the Beecher Pass channel section (Area 3), controlling depth is -16.5 feet located just southeast of Channel Light 23055 along the Western boundary. In the Beecher Pass anchorage, controlling depth is -24.4 feet near the NE corner of the area where its North border meets the channel section. In the Point Lockwood

channel section (Area 4), controlling depth is -20.7 located along the East boundary near the middle southwest of Channel Light 22850.

Wrangell Narrows, Alaska



North oblique of the southern extent of the Wrangell Narrows, 2005.



Wrangell Narrows, 2005.

Wrangell Narrows, Alaska



Wrangell Narrows in the vicinity of Petersburg, 2009.



North turn of the Wrangell Narrows, 2005.