

Elfin Cove

Condition of Improvements

31 December 2019

Elfin Cove, Alaska

(CWIS No. 072793)

Authorization Rivers and Harbors Act, 2 March 1945 (House Doc. 579, 76th Congress, 3rd Session) as adopted, provides for an outer entrance channel 60 feet wide and 10 feet deep MLLW, and an inner entrance channel 40 feet wide and 8 feet deep MLLW. The authorizing documents also state that “Maintenance will not be required.” Under Section 1109 of the WIIN Act (Public Law 114-322), maintenance to restore the dimensions for federal harbors of refuge was authorized.

Table 1

Existing Project	Length ft.	Width ft.	Depth ft.
Outer Channel	300	60	-10
Inner Channel	574	40	-8

Project Usage Elfin Cove is mainly a harbor of refuge that also supports a small local fleet of commercial and recreational fishing vessels. It is one of two protected harbors in the vicinity of the busy fishing grounds of Cross Sound. The channels provide all tide access to a natural landlocked anchorage basin of approximately 50 acres that is almost totally shielded from the wind. Small boats operating in the vicinity seek shelter from storms and obtain supplies at Elfin Cove.

Progress of Work

1957	Dredging of the inner channel begins in November.
1958	New work continues with dredging of the outer channel beginning in April. The project is successfully completed in May. Removal of 2,730 cubic yards of rock and 2,146 cubic yards of common material is reported.
1969	A condition survey is performed in December.
1985	A condition survey is performed in March.
1992	A condition survey is performed in July.
1999	A condition survey is performed in May.
2003	A condition survey is conducted in May. Vertical and oblique aerial photography is also taken in May.

Progress of Work

2007	A condition survey is conducted in May.
2011	A condition survey is conducted in July.
2012	“Comprehensive Evaluation of Project Datums” Compliance report completed and recorded in September.
2018	A geophysical survey was conducted in late October to identify the character and extent of materials in the Federal navigation channels to support the planning efforts for a future dredging contract.
2019	A public meeting was hosted in the community in May to discuss the planning efforts for a future dredging contract. Samples from the Federal navigation channels were taken for chemical analysis in May. The Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) conducted a coastal mapping survey of the project area in July. An intertidal dredged material placement area within Elfin Cove is evaluated for benthic and cultural resources in August. An underwater camera is used to collect video of the bottom conditions in the channels during the site visit in August. A contract for boat support is awarded in support of biological surveys to also evaluate in-water dredged material placement alternatives. A combination of shrimp pots, crab pots, barrel sampler, and an underwater video camera were used to conduct the first survey in the Port Althorp area in October.

Table 2 Cost to Date

Project	Description	Cost \$
072793	CG Costs	161,869
	O&M Appropriation	550,000
	O&M Costs	257,990

Table 3 Range of Tides in feet

Tide Station	Mean Range	Diurnal Range	Extreme Range
945 2634 Elfin Cove, Port Althorp, AK	8.67	11.02	19.64

NOAA Publication Date: 12/20/2012

Controlling Depth For the Outer Channel a depth of -4.6 feet MLLW controls and for the Inner Channel a depth of -4.2 feet MLLW controls, July 2011.

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Southeast oblique of Elfin Cove, July 2011



Elfin Cove, July 2011