

# **Sitka Western Channel**



Condition of Improvements  
31 December 2022  
**Sitka Western Channel,  
Sitka, Alaska**  
(CWIS Nos. 010322 & 055030)

**Authorization** (1) Rivers and Harbors Act, 30 August 1935 (Rivers and Harbors Committee Doc. 59, 74th Congress, 1st Session) as adopted, provides a channel on the easterly side of Harbor Rock, 150 feet wide and 22 feet below MLLW, and for the removal of Indian Rock.

**Table 1**

Existing Project	Length (ft.)	Width (ft.)	Depth (ft.)
Channel	1300	150	-22

**Project Usage** The channel on the easterly side of Harbor Rock in the Western Channel provides suitable access for ocean-going vessels.

**Progress of Work**

1937	Indian Rock and an isolated boulder are removed; the channel on the easterly side of Harbor Rock in the Western Channel is completed.
1990	A condition survey of the project in Western Channel is completed in February.
2001	Crescent Bay Harbor, Western Channel, the Forest Service Basin, and the Channel Rock Breakwaters are surveyed under contract.
2003	Vertical and oblique aerial photography is taken in May.
2005	A condition survey of all three federal projects including the Forest Service Basin are conducted in May.
2010	A project condition survey was completed in August of Crescent Harbor and Western Channel.
2012	USACE Comprehensive Evaluation of Project Datums (CEPD) Compliance report completed and recorded in September.
2016	A project condition survey was completed in March of Western Channel.
2021	A project condition survey was completed in May.

**Table 2 Cost to Date**

Project	Description	Cost \$
010322	GI PED Appropriations	445,109
	GI PED Costs	445,109
	CG Appropriations	19,467,054
	CG Costs	18,900,628
	CG ARRA Appropriations	45,930
	CG ARRA Costs	45,930
	CG Contributed Appropriations	1,238,620
	CG Contributed Cost	1,238,620
055030	O&M Appropriations	129,329
	O&M Costs	129,329

*Note: Costs for all Channel Rock, Crescent Harbor, and Western Channel combined.*

**Table 3 Range of Tides in feet**

Tide Station	Mean Range	Diurnal Range	Extreme Range
945 1600 Sitka AK	7.7	9.94	18.98

*NOAA Publication Date: 05/17/2017*

**Controlling Depth** Project depth is effectively available throughout the Western Channel project, May 2021. the controlling depth is -21.3 feet located near corner 3 of the channel limits.

## Maintenance Dredging Supplement

### A. General

1. The Federal project at Crescent Bay Basin has not required dredging since original construction in 1965, and likewise Western Channel has required no maintenance dredging. Federal responsibility for Thomsen Harbor includes only breakwater repair, if necessary, and will not require Federal maintenance dredging.
2. Some shoaling has occurred around the entire limit of Crescent Bay Basin with heavier shoaling along the northern limit.

3. A dredging window from 1 June to 14 March was approved for the Thomsen expansion project; further agency review should be conducted prior to the dredging of Crescent Bay Basin.
4. The method of dredging depends in part on the selection of the disposal site which is yet to be determined.

## B. Sampling & Testing

1. Nine sites were sampled in May of 1997, seven in Crescent Bay Basin and two in Western Channel. The basin samples were classified by ASTM D 2487 as follows

**Table 4A Soil Sampling**

Sample No.	Classification	Results
1, 2	SM	Silty SAND with gravel
3	ML	Sandy SILT
6, 8	SM	Silty SAND
7	GM	Silty GRAVEL with sand
9	SP-SM	Poorly graded SAND with silt

*Note: The two samples from Western Channel were classified as GP-GM, Poorly graded GRAVEL with silt and sand. Classification*

2. Chemical analysis was conducted using (7) test methods as outlined with results below

**Table 4B Chemical Testing**

Method	Chemical analysis	Results
9060	Total Organic Carbon	9,500 - 67,200 ppm
8260A	Volatile Organic Compounds	All below management levels
8270B	Semi-volatile Organic Compounds	(3) sites total (7) SVOCs over management levels
Series 6000-7000	(8) RCRA Metals + Copper	All below management levels
8081	PCBs & Pesticides	All below management levels or thresholds not established
9200	Nitrate + Nitrogen	ND (none detect)
9035	Sulfate	560 - 5,200 ppm

### **C. Disposal**

1. Designated upland sites, including intertidal if greater than +4 feet MLLW, has met previous agency approval. Environmental impacts are lessened and dredged material is put to good use when upland sites are utilized, but the costs of such activity can be prohibitive.
2. Deep water sites in the vicinity will have to be investigated and are subject to agency approval, if onshore options are exhausted.

# Western Channel, Sitka, Alaska



Sitka Harbors, March 2016



Oblique of Sitka Western Channel, March 2016



## Western Channel, Sitka, Alaska



Sitka Western Channel, March 2016



Sitka Western Channel, May 2021