

Valdez Harbor

Condition of Improvements
31 December 2019
Valdez Harbor, Alaska
 (CWIS No. 010600, 072850, 087770, 096094)

Authorization (1) Rivers and Harbors Act, 20 June 1938 (House Doc. 415, 75th Congress, 1st Session) as adopted, provides for a small boat and seaplane basin of 3 acres dredged to a depth of 12 feet below MLLW and for diversion of small creek from the basin site. (2) Rivers and Harbors Act, 3 September 1954 (House Doc. 182, 83rd Congress, 1st Session) as adopted, provides for a rock and gravel breakwater 475 feet long and for two pile breakwaters 490 feet in length to partially close the west side. (3) Rivers and Harbors Act, 19 August 1964, as adopted, provides for a sheltered small boat harbor of about 10 acres by relocating and expanding the previous project including an entrance channel 12 feet in depth protected by two rock mound breakwaters of 625 and 685 feet in length. (4) Water Resources Development Act of 2007, Section 4012, Public Law 110-114 provides for a new harbor adjacent Hotel Hill and east of the existing harbor. The project includes a 460 feet long stub breakwater, a 1,850 feet long detached breakwater, and 1,000 feet long east breakwater. These three sections of rubble mound breakwaters protect the new 14 acre basin with an entrance channel dredged to -18.5 feet MLLW and a maneuvering channel varying in dredged depth from -18.5 feet to -13.5 feet MLLW.

Table 1

Existing Project	Length ft.	Width ft.	Depth ft.
Basin (Federal)	1200	467	-12
Basin (local)	650	450	-12
Entrance Channel	1724	120	-12
West Breakwater	625		
East Breakwater	685		

Project Usage The Valdez small boat harbor provides protected moorage for local and transient commercial fishing vessels as well as recreational craft with a 510 vessel capacity. Valdez is located at the terminus of the trans-Alaska pipeline and is accessible by sea, air, and the Alaska Highway system.

Progress of Work

1939	The original basin is dredged and the small creek is diverted from the site.
1951	Project depth is restored by maintenance dredging in September.
1957	Design modifications delete one pile breakwater and extend the other pile breakwater to 530 feet in length. Construction of the breakwaters begins in April and is completed in October.
1960	Repairs are accomplished on the southwest pile breakwater.
1962	Maintenance dredging is completed in August with 2 feet of advance maintenance included.
1964	The project is completely destroyed by the March earthquake. Restoration phase of construction begins at relocated site in August. Expansion phase dredging begins in December. Funds are made available by the Office of Emergency Planning (OEP).
1965	The existing Federal project is completed in June.
1985	The small boat basin is expanded by local interests for a total basin area of approximately 20 acres.
1995	Sampling and testing of harbor sediments is completed.
2002	Vertical aerial photography is taken in June.
2003	A hydrographic survey of the project is accomplished in June.
2006	Project condition survey is completed in late May.
2009	Project condition survey is completed in late September.
2011	USACE Comprehensive Evaluation of Project Datums (CEPD) Compliance report completed and recorded in December.
2015	A project condition survey of the existing harbor was completed in July. A contract for the new harbor is awarded and rock production begins.
2016	Section 408 permission is granted to the City of Valdez to deepen the small boat harbor entrance channel and a portion of the federal basin from -12 feet MLLW to -15 feet MLLW. Federal maintenance responsibility remains -12 feet MLLW.
2017	The City of Valdez completes dredging to -15 feet MLLW in November and December.
2018	A project condition survey of the harbor was completed in August.

Table 2 Cost to Date

Project	Description	Cost \$
010600	GI PED Appropriations	654,458
	GI PED Costs	645,494
	GI PED Contributed Appropriations	139,974
	GI PED Contributed Costs	38,795
	CG Appropriation	21,809,000
	CG Costs	571,188
	CG Contributed Appropriation	2,364,196
	CG Contributed Costs	44,603
072850	O&M Appropriations	322,807
	O&M Costs	322,807
087770	CG Appropriation	717,005
	CG Costs	709,005
096094	CG Appropriation	90,515
	CG Costs	90,515

Table 3 Range of Tides in feet

Tide Station	Mean Range	Diurnal Range	Extreme Range
945 4240 Valdez, Prince William Sound AK	9.70	12.15	22.50

NOAA Publication Date: 09/30/2011

Controlling Depth In August 2018 a depth of -12.0 feet MLLW controls the northern bend of the entrance channel and there is shoaling along the southern edge of the project and interior floats with a controlling depth of -2.7 feet MLLW at the southeast corner of the Federal basin.

Maintenance Dredging Supplement

A. General

1. Dredging for the existing Federal project was completed in 1965; no maintenance dredging has been required since that time.
2. Some shoaling has occurred in the entrance channel along the project limits. In the Federal basin some shoaling has occurred along the northern limit and at several spots near the floats.
3. No dredging window has been set for this project.
4. A determination of the dredging method and the location of the disposal site are outcomes pending the decision to dredge.

B. Sampling & Testing

1. Four (4) sites were sampled in the harbor proper, February 1995; (3) were classified as silt (ML) and (1) as silty gravel (GM). The Coast Guard dock sample was classified as silt (ML) and a composite sample from the outer entrance channel was classified as gravelly silt (ML).
2. Chemical analysis was conducted using (8) test methods as outlined with results below.

Table 4 Chemical Testing

Method	Chemical analysis	Results
8080 Series 6000-7000's	Pesticides and PCB's (8) RCRA Metals	ND (none detected) (4) of (8) detected; Mercury 14 - 21 ppm, all others below management thresholds
415.1	Total Organic Carbon	0.48 - 1.09 %
305.2	Ammonia as Nitrogen	2.2 - 19 ppm
9030	Total Sulfides	15 - 2500 ppm
160.1	Percent Solids	46.5 - 65.2 %
8260	Volatile Organic Compounds	ND or below management levels
8270	Semi-volatile Organics	Chrysene ND - 2.63 ppm, Fluoranthene ND - 5.61 ppm, Phenanthrene ND - 2.98 ppm, all others below management levels or ND

C. Disposal

1. Dredge spoils may be conveyed to a contained upland or intertidal site, or material may be transported and discharged in a pre-selected deep water site.
2. Selection of the site will depend on the needs of the community, the availability of alternate sites, the quality of the dredge spoils, possible environmental impacts, and the funds available. A primary and an alternate site are often selected to insure disposal if a prime site becomes unfeasible. Agency participation is a prerequisite.

D. Environmental Permits and Reports

1. The Chemical Data Report prepared by the Corps in May 1995 represents the only environmental assessment on file.
2. Federal dredging has not been performed since harbor restoration in 1965. Agency participation will be required for any future dredging endeavors.
3. Water quality: Seven physical parameters were recorded at six sites within the project, February 1995, measuring temperature, pH, conductivity, oxidation-reduction potential (ORP), turbidity, dissolved oxygen, and salinity. No chemical analysis was conducted.

Valdez Harbor, Valdez, Alaska



Oblique of Valdez Harbor, July 2015



Valdez Harbor, 2009