PORT ORFORD

Local Sponsor: Port of Port Orford

Project Description

The authorized project includes a breakwater 550 feet long and dredging of a turning basin 16 feet deep, 100 feet wide, and 340 feet long. The breakwater was completed in 1968, with the turning basin added in 1971.

Maintenance

Shoaling occurs annually in the turning basin and along the end and face of the Port Orford dock due to a northerly littoral drift.

During the winter, a pipeline dredge or submersible pump is used to clear the boat hoist area and sediments have been deposited on the beach. -During the summer, the channel flusher SANDWICK maintains the project. From 1986 to 1989, the SANDWICK averaged 41.6 work days each year at Port Orford. The SANDWICK is only used on an outgoing tide, so that suspended sediments are swept downstream into the ocean.

A clamshell and barge have performed supplemental dredging in the past but are not generally used due to hazardous sea conditions.

Sediment

Sediment at Port Orford is coarse-grained sand, with an average density of 2,000 grams/liter; it is suitable for unconfined in-water disposal.

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Sediment Evaluation

1993 June, Three sediment samples were collected and subjected to physical and chemical analyses. The samples were found to be clean, fine to medium sands low in organic content. Metals, pesticides, PCBs, PAHs, and phenols were below established concern levels. Project sediment were found to be acceptable for unconfined in-water or upland disposal. No unacceptable adverse environmental .impacts, due to sediment quality, are expected from dredged material disposal.

2002 August, Three (3) surface grab sediment samples were collected and submitted for physical analyses including total volatile solids. The samples were found to have a mean grain size of 5.43mm, with 46.89% gravel, 51.18% sand and 1.19% fines, with 1.29% volatile solids.

Metals, total organic carbon, pesticides and polychlorinated biphenyls, phenols, phthalates, miscellaneous extractables, and polynuclear aromatic hydrocarbons were found to be at or below their screening level (SL). All sediment was determined to be suitable for unconfined, in-water placement without further characterization.

August 2007, Three (3) surface-grab sediment samples were collected along the length of the Port Orford Turning Basin. All samples were submitted for physical analyses (including total volatile solids), metals (10 inorganic), total organic carbon, pesticides, polychlorinated biphenyls, phenols, phthalates, miscellaneous extractables, and polynuclear aromatic hydrocarbon.

Physical analyses for material within the Turning Basin contained a mean grain-size of 95.9% sand or greater; 5.1% fine-grained material, with a volatile solids content ranging from 1.89% to 3.2%. The TOC analyses ranged from 0.23% to 0.72%.

The chemical analyses indicated only very low levels of contamination in any of the samples. Laboratory detection levels were sufficiently low enough to evaluate material proposed for dredging.

Sediment represented by samples collected during this sampling event meet the guidelines established in the SEF for unconfined in-water placement without further characterization.