PACIFIC NORTHWEST WATERWAYS ASSOCIATION

Columbia River stern buoy project

Stern buoys will provide for a safe and efficient Columbia River

Jobs and trade on the Columbia River

Maritime trade has long defined our region's identity, culture and economy. International trade in the Pacific Northwest depends on direct access to world markets. The Columbia River deep-draft shipping channel plays a major role in ensuring this access. It is the largest wheat and barley export gateway in the nation, and the third largest grain export gateway in the world. The channel supports over 42 million tons of cargo each year; valued at $20 billion. Over 40,000 local jobs are dependent on this trade.

Stern buoys needed at Columbia River anchorages

Anchorages are USCG-recognized locations in the river where ships may drop their anchors, release chains, and come to rest facing upriver. Stern buoys (see picture at left) hold the rear of the ship in place, while the ship's anchor holds the bow.

The current anchorage system was designed decades ago, when most vessels were ~400 feet long, with drafts of -25 to -30 feet. These vessels could anchor close to shore because they were shallower, and would not swing into the federal channel, because they were shorter.

Ships now are routinely over 750 feet in length and draft at least -40 feet. Longer, deeper-drafting ships cannot anchor in shallow water, and could swing into the channel and block or strike other vessels.

The USCG has recently created new anchorages and expanded existing anchorages. Additionally, four new anchorages are being proposed for naturally deep areas in the river. To make best use of this anchorage system, stern buoys are needed at some of these locations to help hold ships safely in place.

Closures at the Columbia River Bar and increases in vessel calls on the Columbia River have exacerbated the need to find safe places to park ships. If stern buoys are not added to some of the anchorage locations, several problems will arise. Ships at anchor may need tug assists to keep from swinging into the channel, costing hundreds of dollars per hour and increasing emissions in the river system. If safe anchorage locations with buoys are not available, vessels will need to remain at berth, making it impossible to load other waiting vessels. Terminals will become full, bringing the movement of commodities to a halt, including the unloading of barges and rail cars. For example, each Panamax grain ship that cannot load eventually idles 5-8 freight trains. A prolonged Columbia River Bar closure can idle dozens of trains all the way to the Rocky Mountains.

Corps of Engineers and Ports pursue CAP project to place buoys

The U.S. Army Corps of Engineers Portland District has completed a Continuing Authorities Program (CAP) Section 107 feasibility study to examine the placement of stern buoys at Columbia River anchorages. Two have been in use for the last twenty years near Portland and Vancouver. The Corps' study recommends that three additional stern buoys be placed at anchorages on the Lower Columbia. Dredging will not be required for this project. The Ports of Portland, Vancouver, Kalama and Longview will provide the local sponsor funding.

The feasibility study and project partnership agreement (PPA) were approved by Corps HQ and the Assistant Secretary of the Army for Civil Works in August 2011. The project has now moved into its construction phase, which includes fabrication and placement of the buoys by the U.S. Navy. This phase will be cost-shared 75% Corps and 25% sponsor ports.

The Portland District expects placement of the stern buoys to be completed by summer 2012.

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