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Port may land dredging solution

Think tank zeros in on Warrenton site for disposing dredge spoils

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A good dredging year for the Port of Astoria keeps getting better.

Not only is the Port on track with its dredging schedule this year, but the future is looking brighter now that the Lower Columbia Solutions Group, a regional think tank, has zeroed in on a promising upland disposal site for contaminated sediment in Astoria's mooring basins.

The city of Warrenton's north sewer lagoon, decommissioned after the new sewer treatment plant opened in 2006, has the space, proper zoning and the access to the river that the Port needs for dredge material storage, said Jay Flint, a member of the solutions group representing the Columbia River Estuary Study Taskforce.

And the Warrenton site is big enough to serve the Port of Astoria and other lower river ports such as Washington's Ilwaco and Chinook, should they need it.

Flint has ranked all the possible storage sites in the region and thinks the Warrenton site is the best bet - especially because the city wants to fill the lagoon to create land for the future expansion of its public works facilities.

"The site's already built like a dredge material storage site," said Flint. "It's the only one that looks like it has any real potential. Most of the sites we've looked at are too small to be regional."

Now, Flint and the Lower Columbia Solutions Group will need to test the site's feasibility and find an estimated \$4 million to \$5 million in funding to turn the lagoon into a storage facility.



ALEX PAJUNAS — *The Daily Astorian*
Jay Flint, right, of the Columbia River Estuary Study Task Force, and Bob Maxfield, the Warrenton City Manager, walk past a large lagoon at the Warrenton Waste-water Treatment Plant Friday. The lagoon is being considered as a fill site for dredge spoils.



ALEX PAJUNAS — *The Daily Astorian*
Dredge spoils would have to be pumped through a pipe near Tansy Point to fill the lagoon at the Warrenton Wastewater Treatment Plant.

Tests reveal toxic compounds

The Lower Columbia Solutions Group was formed in 2002 by the governors of Oregon and Washington to manage sediment in the river, including sediment that has been contaminated by pollution. The group includes 30 local, state and federal stakeholders.

The Port of Astoria has been struggling to keep the riverfront deep enough for boats to moor at its docks since 2001, when tests in the East Mooring Basin showed levels of the banned pesticide DDT (Dichloro-Diphenyl-Trichloroethane) were higher than the limit for in-water disposal.

The Port of Ilwaco, Wash., encountered the same problem with DDT in 2001.

In 2004, Astoria's West Mooring Basin tested above the in-water limits for mercury, DDT and the industrial compound PCB, (polychlorinated biphenyl).

The contamination - which came from upriver and was not caused by port activities - triggered a new set of rules for dredging to protect endangered species in the river from exposure to toxics. The levels deemed toxic to fish are much lower than the levels found to be harmful to people.

"All the material that gets flushed down the river kind of lands out here," said Flint. "It's the delta effect where the sand settles out as the water slows. So we're getting all the upriver contamination settling down here."

Tighter regulations for handling contaminated riverbed material have forced the ports of Astoria and Ilwaco to store some of their dredge material on land instead of pumping it all out into the Columbia River shipping channel as they've done in the past.

"Every couple years the regulatory agencies such as (the Oregon Department of Environmental Quality) tighten their standards, and that puts more and more sediment in this category," said Flint.

Dredging problems stack up for Astoria

The problem for the Port of Astoria is it doesn't have a land-based facility for storing about 50,000 cubic yards of contaminated material that needs to come out of the East and West mooring basins.

The Port still uses in-water disposal for dredge material in other areas of the riverfront, including piers 1, 2, and 3.

But without dredging, the West Mooring Basin, in particular, has begun to silt up and some boats are bottoming out at low tide.

The Port has one spot on the end of Pier 3 where it can store 5,000 cubic yards of contaminated material, but that's not nearly enough. Leaders are hoping the Warrenton lagoon - which could store around 220,000 cubic yards - can be adapted to provide the additional storage space long-

term.

"It's a huge deal for us," said Port Executive Director Jack Crider. "We've been looking for a site for quite a few years. Most sites you find don't have this kind of capacity or are up so far that it costs you a lot of money to transport the material there."

In 2005, the contamination problems complicated and prolonged the dredge permitting process and left the Port with little time to complete riverfront deepening work.

In its haste to finish dredging before the in-water work window closed, the Port violated its permit and wound up with steep federal and state fines that cost the agency more than \$800,000 of its savings and still haven't been settled.

Warrenton might have solution

Flint estimates the Warrenton lagoon would provide disposal capacity to Astoria and Ilwaco for eight to 15 years.

And building a dredge storage facility there would actually help the city as well as the ports, he said.

The north lagoon is filled with rainwater that has become a burden on the city because it has to run that water through its treatment facility before it can be released.

After the site is filled, the city would be interested in reclaiming the land as developable space - possibly for an expanded public works department.

"We certainly would be a very willing partner in any project because we want to see the lagoon put to the best use," said Warrenton City Manager Bob Maxfield. "It's not part of the city's development code, though, so after a feasibility study it would have to be approved by the Warrenton planning and city commissions.

"We could potentially put buildings on it in the future. It's a good, win-win situation for the city."

Costs will add up

The north lagoon site is already permitted for wastewater treatment, which will make the permitting for an upland dredge material disposal site a lot easier, Flint said.

But according to DEQ, the facility would need a liner, a leachate system to collect water draining out, and a cap on top to seal in contaminants. Lining and capping the facility is estimated to cost \$250,000 to \$300,000.

"The project would be built like a solid waste landfill facility," said Flint. "We'd drain it, put in a liner, and cap it when we're done."

If the lagoon were to be broken into smaller storage cells to be developed as needed, he said, that would spread out the total cost of developing the whole site at once.

The cost to store the spoils in a four-cell storage site would be around \$15.50 to \$18.50 per cubic yard - not including the cost of dredging and transporting the material. From the Port of Astoria, it's 2.5 miles to the north lagoon.

To pump the dredge material to the storage facility, a pipeline would need to be extended from a barge on the Columbia River near Youngs Bay over a strip of land owned by the Port. The other option is to deliver it by dump truck.

Neither option is cheap. And while the ports of Ilwaco and Chinook currently have their own upland disposal sites for their contaminated dredge material, which is less contaminated than the soil at the Port of Astoria, there is nothing preventing more contamination from making its way to the Washington side of the estuary.

"I'm a firm believer that somebody should be responsible for the increased costs," said Port of Ilwaco Manager Jim Neva. "It's a huge increased cost for the Port of Astoria ... and you just have to expect there's always the possibility of whoever in your area that has the worst sampling history, that could be you tomorrow.

"This isn't something that came from the port or upland near the port in Astoria's or in our case. Why should we have to bear the brunt of someone else's sloppiness?"