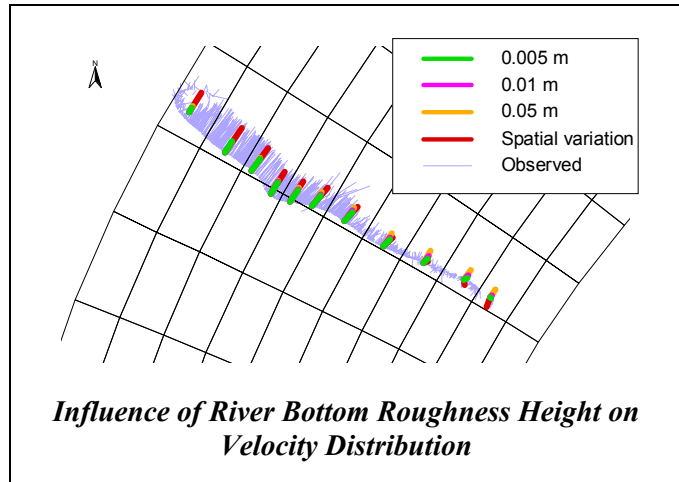


Lower Willamette River Sediment Transport Modeling

In 1997, the Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ) found that sediments in the Lower Willamette River contained a number of contaminants. In December 2000, the part of the Lower Willamette River, called “Portland Harbor”, was officially placed on the Federal National Priorities (“Superfund”) List.

The Lower Willamette Group (LWG) is looking to develop a comprehensive hydrodynamic and sediment transport model to support the RI/FS activities in the Lower Willamette River. The EFDC model was selected because of its ability to simulate hydrodynamics, sediment transport, and contaminant transport and fate in two- or three-



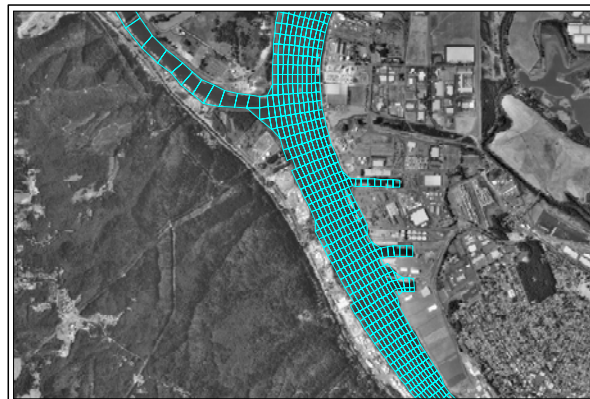
The overall goal of the hydrodynamic and sediment transport modeling of the Lower Willamette River is to provide information on where sediments in the study area are stable and unstable over time and a full range of potential hydrologic conditions. If this effort is successful, this understanding of system dynamics will support site nature and extent characterization, the ecological and human health risk assessments, and most importantly, the development of remedial alternatives for the Portland Harbor RI/FS.

The modeling effort consists of a two-tiered or phased approach. The primary objective of the Phase 1 modeling is to run a two-dimensional (2-D) model to assess if the 2-D model is adequate for the site. If the 2-D approach proves adequate, Phase 2 of the modeling effort will include further model calibration with additional site-specific data and the 2-D model will be used to support the Portland Harbor RI/FS. If the 2-D approach is not adequate, then Phase 2 will first include incorporation of the third (vertical) dimension into the model, followed by recalibration of the model. Site-specific data would then be incorporated into the 3-D model and it would be used to support the Portland Harbor RI/FS.

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Completion Date: on going



EFDC Model Grid