

Focus on Scientific Process

Environmental Assessment Program

September 2015

Peer and stakeholder review process

As the state agency accountable for protecting the health of Washington's waters, we have an obligation to ensure credible scientific studies are the basis for cleanup plans and actions. While creating the Deschutes River and Budd Inlet watershed cleanup plan, state-of-the-art computer models were developed to analyze the dynamic and complex processes in the inlet, lake, and river. The models also helped quantify how effective various actions could be in reducing pollutants and improving water health.

External stakeholder review of the technical studies is an important part of a formal peer review process. Stakeholder review included local, state, federal, and tribal agencies as well as local community organizations.

Additional paid, independent peer review

Two additional [expert peer reviews](#) of the computer models were completed before we published the 2012 technical report. To ensure the work was of the highest caliber and unbiased, we sought assistance from EPA to carry out independent reviews. EPA hired national experts with unique experience in water quality modeling to review the computer models used for analyzing Budd Inlet, Capitol Lake, and the Deschutes River.

The initial review identified ways to improve the tools and the documentation. After we incorporated the review results, the independent reviewers determined that the models appropriately characterized the current conditions in the inlet, lake, and the river, based on high-quality data sets.

After the first independent peer review, a subsequent improvement was made to the computer model. Since it had not been previously reviewed, we requested that EPA manage a second, paid, independent peer review of that component. Again, the reviewers found the model appropriately characterized important processes.

What is the status of the two-part water cleanup plan?

This fall, after several years of work with the advisory group, we will submit the first phase of the cleanup plan to EPA. This phase addresses the area from the Deschutes River headwaters to Tumwater Falls. The plan's 45-day expanded public comment period ended in May 2015. Comments are being considered as we are preparing the final plan to submit to EPA in fall 2015 for approval. This is the first of the two parts of the overall water cleanup plan.

The advisory group also identified and reviewed results for management scenarios involving the lake and inlet following completions of the 2012 technical report. The results previously discussed with the advisory group in 2012, 2013, and 2014 were published as a supplemental science report for Budd Inlet and Capitol Lake.

We will begin developing a cleanup plan for Budd Inlet and Capitol Lake this fall. Both the 2012 technical report (<https://fortress.wa.gov/ecy/publications/SummaryPages/1203008.html>) and the 2015 supplemental science report (<https://fortress.wa.gov/ecy/publications/SummaryPages/1503026.html>) will serve as primary sources for the advisory group, process, and draft plan. The second phase of the two-part cleanup plan will be released for public review before we submit it to EPA for approval.

Understanding the scientific process used for the Budd Inlet, Capitol Lake, and Deschutes River water cleanup plan

The Deschutes River and Budd Inlet watershed has been impacted by water quality problems for years. At the Department of Ecology, we collaborated with partner organizations to develop a two-part water cleanup plan. The plan is based on a sound scientific process to address water quality issues from the headwaters of the Deschutes River through the marine waters of Budd Inlet.

We have a legal obligation to manage Washington's waters based on sound science. This includes extensive field investigations to collect water and sediment data, computer models to identify potential solutions, and extensive peer review to provide a strong framework for the two-part plan.

Communities, local businesses, and residents of the Deschutes River and Budd Inlet watershed value clean, healthy water as a foundation for their quality of life and thriving local economy. We have been working with an advisory group composed of representatives from these groups as their input is important to us.

Why is the project needed?

Water and sediment sampling conducted by several organizations indicated that five factors are negatively impacting waters in the inlet, lake, river, and streams.

Monitoring data indicate that the waters experience:

- too much fecal coliform bacteria
- pH that is too variable
- not enough dissolved oxygen
- too much fine sediment
- temperatures that are too high

These harmful water quality levels triggered state and local action under the federal Clean Water Act. We have been working together with water-shed partners to understand effective and reasonable actions that will reduce pollution problems. Ultimately, the two-part cleanup plan must be approved by the U.S. Environmental Protection Agency (EPA) for compliance with federal requirements and state water quality standards. Once the plan is approved, we must report and show progress to EPA.

WHY IT MATTERS?

Credible science helps identify the best steps to clean up polluted waters. Washington State law requires use of credible information to protect and to clean up Washington waters.

For this project, credible information means sampling and analyzing information according to accepted standard methods and scientific procedures. Ecology is committed to these standards and has rigorously followed accepted scientific processes.

For more information

Visit the water quality improvement project online: <http://www.ecy.wa.gov/programs/wq/tmdl/deschutes/index.html>

View Washington State water quality data law: <http://apps.leg.wa.gov/rcw/default.aspx?cite=90.48.580>

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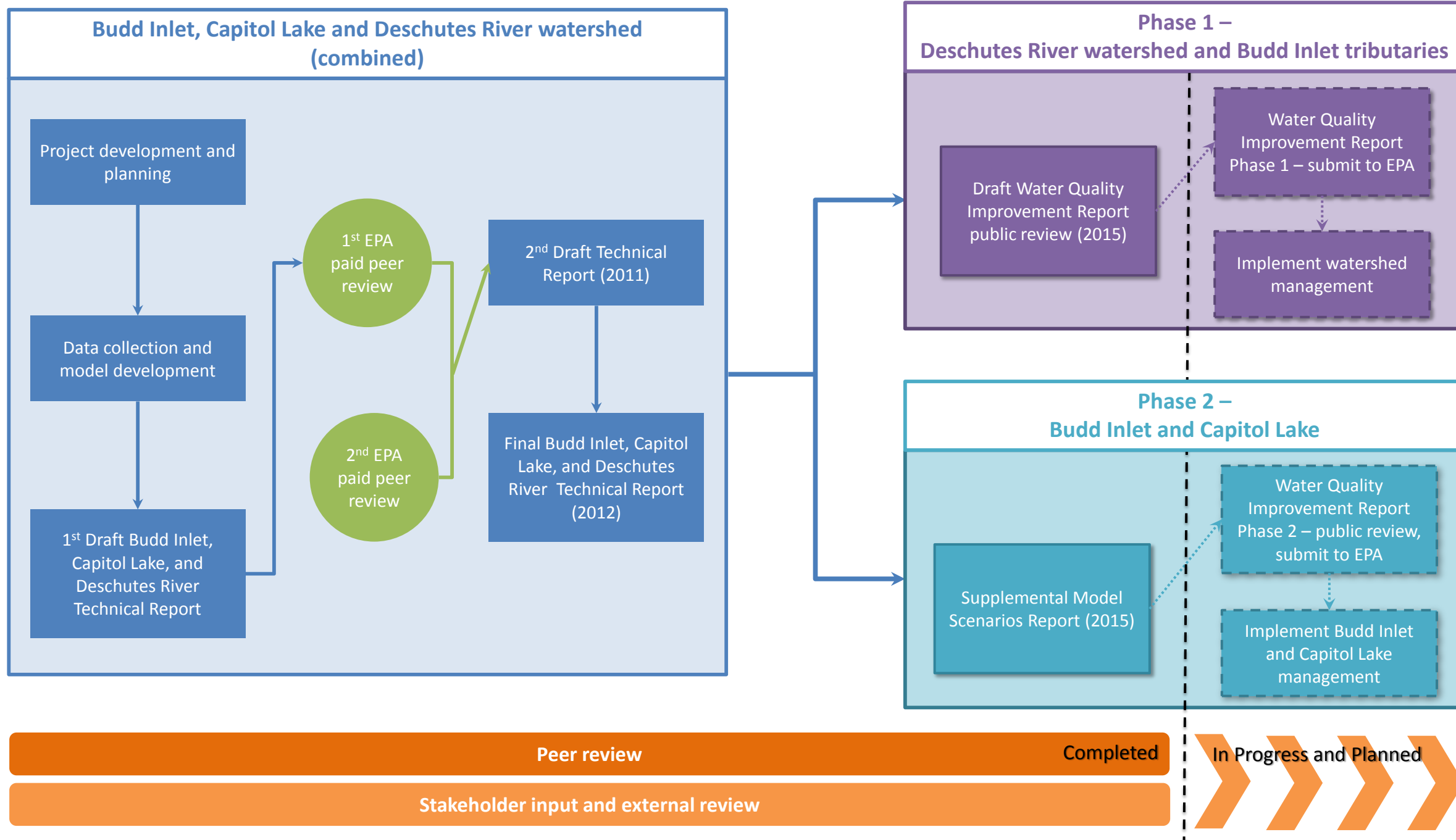
Publication Online

This focus sheet is available on the Dept. of Ecology website at: <https://fortress.wa.gov/ecy/publications/SummaryPages/1503026.html>

Special accommodations

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Major scientific steps and review for the Budd Inlet, Capitol Lake, and Deschutes River water cleanup plan



Collect data and analyze patterns

To determine how to protect and improve water quality, we launched a process of monitoring and analysis using credible science.

That process included the following steps:

- Identifying existing studies and data by partner organizations.
- Collaborating with several partners to collect water and sediment samples from 2003 to 2005 to determine water-body pollution levels.
- Developing computer models to serve as a virtual laboratory for testing what actions would be effective at reducing pollution levels.
- Convening an advisory group to identify and review specific actions for the water cleanup plan.

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