

Lower Snake River Dams Transportation Study

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Background

The Snake River from Clarkston to Pasco contains four dams (Ice Harbor, Lower Monumental, Little Goose and Lower Granite). The 2025-27 Transportation Budget (ESSB 5161, Section 217 (5)) directed the Washington State Department of Transportation to study highway, local road and freight rail transportation needs if the dams were removed. The study is evaluating scenarios for changes in infrastructure and operations that will be necessary to address the redistribution of shipments currently moved on barges to alternate modes such as road and rail. This work includes a mathematical and statistical analysis based on available data in terms of both financial and carbon emission costs. The analysis also includes a robust, inclusive public engagement process to solicit feedback from interested community members.

This report is a quarterly report on the progress made to date.

Overall progress

During the fourth quarter of 2025, the study team conducted activities in the following areas:

- Total logistics cost model calibration
- Geologic impacts
- Utility impacts
- Rail impacts
- Engagement activities

The sections below describe the work done in these areas.

Total Logistics Cost model calibration

The Total Logistics Cost model is being used to understand how wheat, fertilizer, and wood products that are currently moved via river can be transitioned to road or rail if the dams were removed. Each scenario is put into the model and the results help us understand how these scenarios perform. Working closely with the Legislature's Joint Transportation Committee, the team has worked hard in the last quarter to make technical changes to the model to improve its performance. These technical improvements include:

- Breaking the original wheat data into smaller sections in order to get better county road model performance.
- Corrected road networks using updated road network speeds and adjusted unpaved road speeds.
- Fixed rail network track issues to ensure correct connectivity.
- Updated facility capacities for barge terminals and rail shuttle terminals for each scenario.
- Updated throughput capacities for barge terminals and rail shuttle train terminals.
- Revised barge, rail and truck rates based on stakeholder feedback and freight data sources.

Throughout the course of the study, over 100 model runs have been conducted as part of the model calibration and validation process.

Following the completion of the current iteration of the model, the study team ran seven scenarios through the model. For each of the seven scenarios, the study team calculated several key metrics, including truck ton miles, rail ton miles, barge ton miles, total ton miles, total shipper costs and truck vehicle miles traveled. Note that greenhouse gas emissions will be calculated from these numbers when the models are finalized.

Geological impacts analysis

The study team conducted a site tour of the Lower Snake River in June 2025. Combining the site tour information with information from prior studies, the team determined the risk for erosion or settlement damage to the road and rail infrastructure along the Snake River. This work culminated in a draft report that has completed review. The study team is now addressing these comments to produce the final geologic report. The final report will have quantities of fill needed to stabilize embankments for rail, road and utility infrastructure. These quantities will be turned into cost estimates.

Utility impacts analysis

During the last quarter, the study team developed cost estimates for improvements needed to stabilize and replace utilities under river drawdown conditions. This was the last analysis that needed to be completed prior to combining all the work conducted in this task into a draft utility report. This draft report was reviewed, and the consultant team is finalizing this report based on feedback.

Rail impacts analysis

The study team began creating scoping-level cost estimates of the rail improvements shown in Scenarios 5 through 7. All engineering was based upon aerial imagery without any field inspection or geotechnical work. The rail engineering conducted during this period included:

- Development of design and cost estimates for preserving rail track for the current WATCO and UP lines along the Snake River that will be impacted by a river drawdown.
- Development of design and cost estimates for converting the Columbia Plateau Trail back to rail services.
- Development of potential designs for rail terminals at Lewiston, Wilma, Central Ferry, Dayton and Kahlotus.
- Development of cost estimates for potential designs for Lewiston, Wilma and Central Ferry terminals.

Engagement activities

There have been several engagement outreach activities that have occurred over the last three months. This includes Technical Advisory Committee and Community Advisory Committee meetings in December. These meetings have primarily focused on preliminary model results.

Additionally, WSDOT staff regularly provide updates to many parties interested in the study. In the last quarter, these included:

- Ports
- Shortline railroads operators
- Grain cooperatives
- Tribes
- Federal Highway Administration

The study team has also been focused on generating the layout, content and other preparations for an online open house which will run from Jan. 26 – Feb. 6. The content of the online open house will include much of the same content included in the December Technical Advisory Committee and Community Advisory Committee meetings.

Next steps

During the next quarter, the study team will focus on the following major activities:

- Finalizing the model and running final outputs for Scenarios 1-7.
- Developing Scenario 8.
- Finalizing the preliminary design of new train terminals in the scenarios.
- Generating cost estimates of new and rehabilitated rail in Scenarios 5-7.
- Developing the final reports for the geology and utility tasks (Tasks 7 and 9).
- Developing the final report for the Scenarios 1-4 model runs (Task 3).
- Continuing outreach planning through an online open house, a Technical Advisory Committee Meeting and a Community Advisory Committee meeting in the January and March/April timeframes.
- Beginning work on Phase Three of the study focused on regulatory and competitive impacts.

Below is a high-level timeline for the study. The dates shown are the start dates for each of the phases. Note that due to the extra time it has taken to complete the Total Logistics Cost base model, the start of Phase Three is delayed until Winter 2026. This is not expected to cause a delay in the completion of the project.

TIMELINE

