

Final marine & rail oil transportation study

Given the rapid and significant changes in how crude oil moves through Washington (particularly since crude by rail entered the picture three years ago), it is important to look at the impacts this evolving practice has on public health and safety, and the environment.

In April 2014, the Washington State Legislature authorized the Washington Department of Ecology to [study potential risks posed from oil transported by rail and vessel](#), as well as identify ways to mitigate the risks.

Two months later, in an effort take as many actions as possible, Governor Jay Inslee requested [preliminary findings and recommendations](#) by October 1, 2014. The preliminary report was delivered on time and a [draft](#) of the full study was provided to the Governor and Legislature on December 1, 2014.

The final version of the study was delivered March 2, 2015.

Study confirms risks

Key findings show that in 2013 an estimated 11.8 billion to 12.7 billion gallons of oil shipped by railroad through the U.S. That equates to a 42-fold increase in oil transported by rail nationally since 2008.

Washington State increased from zero shipments of oil in 2011 to 0.7 billion gallons in 2013. Today the state receives approximately 19 unit trains a week, each carrying as much as 3 million gallons of Bakken crude, mostly destined to refineries in Washington and California.

If the proposed facilities and refinery expansions to accommodate rail imports are permitted and fully built over the next few years, the weekly unit train number could jump to 137 or more.

It is more important than ever for the state to have adequate resources to continue to address impacts to public health and safety, and environmental protection resulting from the changing energy picture.

Organizational Members and Contributors

Washington Department of Ecology

Washington Military Department, Emergency Management Division

Washington State Utilities and Transportation Commission

Washington State Department of Transportation

Tribal governments and commissions

Other federal and state agencies

Other public and private organizations

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Differences between the draft & final studies

Three changes of note resulted from the December 1, 2014 draft study to the March 1, 2015 final report.

Stabilization

The study team added findings on the Bakken crude conditioning/stabilization steps that North Dakota took to reduce the volatility of crude oil before shipping it by rail. This topic is raised often, including at legislative hearings.

A recommendation was changed from the draft study to call on the Northwest Area Committee to sample the oil and characterize the hazards presented to first responders. The committee is asked to communicate the results and potential health/environmental threat(s) to Washington response organizations.

Draft Washington Pilotage Commission recommendation moved to executive summary

At the request of the Office of Financial Management, an existing draft recommendation for the Washington Pilotage Commission and rulemaking was moved into the executive summary because the action is contained in proposed legislation.

Salish Sea Workshop

An appendix was added to capture results from the January 7-8, 2015 Salish Sea Workshop in Bellingham. The workshop reviewed 10 years of waterway studies and connected their assumptions, findings, and recommendations to identify steps to reduce risk within the current energy and transportation environment.

Final study content

The final study includes a list of 43 findings and recommendations. The recommendations are a mix of risk mitigation steps at the federal and state levels addressing rail, marine, facility, emergency and spill response.

The recommendations include direction on improving infrastructure, facility design, industry operational processes and practices, expanding sensitive area protections, emergency and spill response equipment caching, personnel training, and planning improvements.

The study serves as a base document to address risk and the changing transportation energy picture for years to come.

Public Comments

The team gathered comments from the public and other interested parties throughout the study process.

More than 1,000 comments helped shape and inform the report. Comments collected through December 1, 2014, were compiled into a Frequently Heard Comments document that was submitted to the Legislature with the final study and is available [online](#).