Tesoro Clean Products Upgrade
ENVIRONMENTAL IMPACT STATEMENT

MARINE TRANSPORTATION FACT SHEET

Introduction

In the context of the EIS, marine transportation includes waterway use by marine vessels, navigational safety, and marine vessel services and infrastructure. The EIS studied whether or not the project marine vessel traffic could impact these elements of marine transportation, and if so, how. It also looked at the ways that humans and the environment could be impacted if xylenes or reformate are spilled into the marine environment. The EIS studied how significant potential changes could be.

What was studied?

The EIS considered potential risks of marine accidents or casualties, impacts to other waterway users, the environment and humans in the event of a xylenes or reformate spill into the marine environment. The area studied includes the vessel transportation route and adjacent waters, stretching from the Tesoro Anacortes Refinery to the edge of US territorial waters in the Pacific Ocean.

Project activities, combined with other reasonably foreseeable future actions and past actions, can compound to create cumulative impacts to air quality and climate change

Spills of xylenes or reformate in the marine environment can harm public health; marine ecology, including fish, shellfish, birds, marine mammals and other organisms; visual resources; tourism and recreation; and marine based livelihoods

Waterway users
Casualty or accident risks
Environment
Humans

Delays or decreased access to waterways, maritime infrastructure or services could result when new vessels use these waterways, services and infrastructure

Increased marine vessel traffic can result in decreased vessel safety from an increase in accidents

How were impacts analyzed?

The EIS describes current conditions of marine transportation using data from Washington Department of Ecology, US Coast Guard, Puget Sound Harbor Safety Committee, Marine Exchange of Puget Sound, Puget Sound Pilots Association and others. The EIS considers the way that project marine vessel operations could impact current conditions of marine transportation, and how humans and the environment could be impacted in the event of a spill.

Impacts of a spill ranged from ***less than significant*** to ***potentially significant***, based on the volume of the spill. Impacts of three spill volume scenarios, based on US Coast Guard regulation volumes for spill response planning purposes, were assessed:

- An "average most probable discharge" of 50 barrels spilled in any location
- A "maximum most probable discharge" of 1,200 barrels spilled at the refinery wharf, or 2,500 barrels spilled along the marine vessel transportation route
- A "worst-case scenario discharge" of 5,045 barrels, spilled at the refinery wharf or the entire contents of a tank ship (330,000 barrels) along the marine vessel transportation route

This Fact Sheet does not represent the full scope of assessment included in the EIS. For more information, see Chapter 13, Marine Transportation.

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What are the potential impacts?

Chapter 13, Marine Transportation, defines what a less than significant and potentially significant rating means for marine traffic, marine services and marine vessel traffic safety. Under State regulations, a "significant" impact is defined as something that has "a reasonable likelihood of a more than moderate impact on environmental quality."
In the event of a large volume spill, the following could be impacted:

- Air quality (see Air Quality and Climate Change Fact Sheet)
- Marine birds, invertebrates, vegetation, fish, mammals and turtles (See Marine and Nearshore Resources Fact Sheet)
- Human health (See Environmental Health Fact Sheet)
- Land and shoreline use, including recreation and visual resources (See Land Use and Shoreline Use Fact Sheet)
- Commercial or tribal fishing and aquaculture (See Social and Economic Environment Fact Sheet)

The likelihood of a spill occurring was assessed using historical spill records and Washington Department of Ecology's Vessel Traffic Risk Analysis (VTRA). The EIS found that the risk of a spill decreases with size (larger spills are less likely to occur). Based on the historical spill records, the VTRA, and project controls, the EIS found that the project does not significantly increase the risk of a spill occurring in the marine vessel transport route.

Potentially significant spill impacts would last for a short period of time (up to 3 days) and affect a limited area until the chemicals evaporate and break down into harmless components (carbon dioxide and water). Until they evaporate, there is a risk of fire and toxicity to marine life due to the concentration of spilled product in the water. Mixed xylenes and reformate do not pose a risk of contaminating shorelines the way that persistent, heavier oils do. Due to flammability, spill response for xylenes and reformate would not use controlled burning or booms for containment, except where required to protect sensitive marine life or shoreline area. Chemical dispersants would not be used during spill response as the materials evaporate quickly.

Project marine vessels would represent a small portion of total projected marine vessel traffic within the Salish Sea. The proposed project's vessel traffic, when considered with past, present and reasonably foreseeable future actions, would contribute to cumulative impacts to vessel traffic, vessel safety and spill risk.

Description of Potential Impact	*Impact Level:* Less than Significant	Potentially Significant
Construction and Operations		
Changes to travel patterns or schedules, or strains on marine services	●	
Risk of marine casualty or accident	●	
Unplanned Events		
Changes to travel patterns or schedules, or strains on marine services due to increased project-related vessel traffic	● (maximum most probable spill)	● (worst-case scenario spill)
Impacts of spills on marine vessel traffic safety	●	
Impacts to humans and the environment from marine spills	See fact sheets listed above	

What is being proposed to minimize the impacts?

The proposed project includes the following best management practices for minimizing impacts. Some of the measures listed in the EIS include:

- Continue to implement spill prevention, mitigation and response plans, including regular inspection of spill containment infrastructure and equipment and installation of detection and containment features to control potential spills at the dock facility
- Implement specific procedures for safe handling, transport, and storage of mixed xylenes following federal and state regulations
- Use the existing dock system and established shipping lanes to minimize impacts to marine traffic

Some of the safety measures in place to prevent a spill and minimize impacts if one should occur include:

- Continue to implement current safety measures to prevent vessel collisions and spills at the refinery dock
- Regularly update Tesoro's Oil Spill Contingency Plan and Spill Prevention, Control, and Countermeasures Plan, as required by federal and state regulations to help prevent a spill from occurring and to respond quickly and effectively in the event a spill does occur
- Rely on the US Coast Guard and other regulatory bodies to ensure safe vessel piloting, proper storage hold construction, and on-board spill prevention measures in transporting xylenes and reformate