Summary

Introduction and Background

In 2019, the Washington State Legislature passed ESHB 1578 to improve oil transportation safety and protect Southern Resident Killer Whales (SRKW) (ESHB 1578, 66th Leg., 2019). The bill directs the Board of Pilotage Commissioners (BPC), in consultation with the Department of Ecology (Ecology), to develop tug escort rules for certain vessels that transport oil in Puget Sound by conducting a rulemaking to amend Chapter 363-116 of the Washington Administrative Code (WAC), Pilotage Rules.

This rulemaking addresses tug escort requirements for three types of vessels while they are transporting oil: oil tankers of between 5,000 and 40,000 deadweight tons (DWT), and articulated tug barges (ATBs) and towed waterborne vessels or barges greater than 5,000 DWT that are designed to transport oil in bulk internal to the hull. We call these vessels the "target vessels" for the rulemaking. Target vessels engaged in bunkering are excluded from tug escort requirements. The rules will be designed to achieve best achievable protection, as defined in RCW 88.46.010, and will be informed by other considerations in ESHB 1578. Throughout the Environmental Impact Statement (EIS), this will generally be referred to as the "proposed rulemaking."

The proposed rulemaking could potentially change tug escort activity and the risk of oil spills in Puget Sound. As co-lead agencies, BPC and

The Proposed Rulemaking

- Scope: Consider and develop tug escort rules for target vessels in Puget Sound.
- Target Vessels Include: Oil tankers between 5,000 and 40,000 DWT, ATBs and barges greater than 5,000 DWT.
- Applies: While vessels are laden.
- **Does Not Apply:** While vessels are engaged in bunkering.
- Rulemaking Should: Reduce the likelihood of a catastrophic oil spill, achieve best achievable protection, minimize impacts to Tribal treaty fishing, minimize underwater noise, focus vessel traffic in shipping lanes.

Ecology determined the rulemaking may have a significant adverse impact on the environment and requires an EIS. This is a non-project EIS: It assesses potential rulemaking alternatives.

The rulemaking will also specify operational and functionality requirements for tug escorts where they are required and make clarifying changes or corrections. It will also consider the existing tug escort requirements in Rosario Strait and connected waterways east established in RCW 88.16.190(2)(a)(ii), including adjusting or suspending those requirements, as needed; and consider and describe any exemptions to the tug escort requirements for target vessels.

Location of Proposed Rulemaking

The RCW 88.16.260 defined the geographic scope of the rulemaking as waters east of the line extending from Discovery Island light south to New Dungeness light and all points in the Puget Sound area, including the San Juan Islands, connected waterways, and waters south of

Admiralty Inlet within Washington's territorial boundaries. While the scope of potential rulemaking alternatives is limited to the geographic scope described in the RCW, the EIS Study Area is larger to more fully capture potential impacts (see Figure 1).

The ESHB 1587 established tug escort requirements for target vessels in Rosario Strait and connected waters east, which were implemented in September 2020 (RCW 88.16.190(2)(a)(ii)). This is reflected in the EIS as the Alternative A boundary (See Alternative A boundary in Figure 1). The BPC and Ecology considered expanding tug escort requirements for target vessels to the full extent of the rulemaking geographic scope. However, ultimately our largest expansion alternative (Alternative C) extended the current tug escort requirements approximately seven miles northwest towards Patos Island (See Alternative C boundary in Figure 1).

Roles and Responsibilities

The BPC and Ecology are co-lead agencies under SEPA and share lead agency responsibility. Ecology is the technical lead on the EIS and the BPC is the final decision-maker on the rulemaking. The BPC also appointed the Oil Transportation Safety Committee (OTSC) as an advisory committee of subject matter experts to develop recommendations for the BPC related to the rulemaking and the EIS.

Site Background and Project History

The proposed rulemaking to amend Chapter 363-116 WAC is part of a package of efforts passed by the Legislature in 2019 to reduce the risk of oil spills and protect Southern Resident Killer Whales (SRKW). Included in that package is legislative direction to conduct a rulemaking that considers changing tug escort requirements for target vessels throughout Puget Sound.

Tug escort requirements have been part of the marine safety system in Washington state since 1975 and are intended to help prevent catastrophic accidents and large oil spills from tank vessels. Escort tugs reduce oil spill risk by reducing the chance that the sudden disabling of an underway vessel will result in a grounding.



Figure 1. This map shows the EIS Study Area as well as the boundaries of Alternatives A (No Action) and Alternative C (Expansion). Alternative A represents the tug escort requirements for target vessels implemented in September 2020 by the passage of ESHB 1578.

Purpose and Need

The ESHB 1578 provided clear direction to the agencies regarding the rulemaking objectives, which we summarize here and use in the EIS. These objectives include:

- **Reduce Oil Spill Risk:** The purpose of this rulemaking is to reduce the risk of a catastrophic² oil spill from vessels carrying oil in Puget Sound, by considering tug escort requirements for the target vessels.
- **Minimize Underwater Noise:** The rule should have the goal of avoiding or minimizing additional underwater noise from vessels.
- **Minimize Impacts to Treaty Fishing:** The rule should have the goal of protecting and minimizing vessel traffic impacts to Tribal treaty fishing areas and respecting treaty-protected interests and fishing rights.
- Focus Vessel Traffic: The rule should have the goal of focusing vessel traffic in the existing shipping lanes.
- **Best Achievable Protection:** The rule should be designed to achieve best achievable protection (BAP), as defined in RCW 88.46.010.

Environmental Review Process

Ecology prepared this Draft EIS to meet the requirements of the Washington State Environmental Policy Act (SEPA) (Chapter 43.21C of the Revised Code of Washington) and the SEPA Rules (Chapter 197.11 of the Washington Administrative Code (WAC)). The proposed rulemaking triggers SEPA review because the BPC and Ecology determined that changing tug escort requirements is likely to have a significant adverse impact to the environment. The BPC will use the Final EIS, along with other information, to inform decision-making on final rule language.

This EIS provides a comprehensive and objective evaluation of probable significant adverse

The SEPA EIS

Under SEPA, an EIS is necessary if a proposed action is likely to result in significant adverse environmental impacts.

The purpose of an EIS is to provide the public and agencies with information about the effects of a proposed action and inform decisionmaking.

environmental impacts, reasonable alternatives, and mitigation measures that would avoid or minimize impacts. Figure 2 shows the SEPA EIS process.

² ESHB 1578 uses the term "catastrophic" oil spill. For this analysis, we focus on the potentially significant spills that could result from a target vessel drift grounding. We also completed trajectory modeling for worst case discharge spill scenarios, which have a specific definition under WAC 173-182-030. See the Environmental Health: Releases Discipline Report (Appendix C) for additional information.



Figure 2. The SEPA EIS process. We are in the Draft EIS phase.

SEPA Environmental Impact Statement Scoping Process

Ecology and the BPC issued a Determination of Significance and conducted an EIS scoping period from February 22, 2023, to April 8, 2023. During the scoping period, Ecology held one virtual scoping meeting on March 21, 2023, and scoping materials were available on the Ecology rulemaking website. This website was developed to provide information throughout the duration of the rulemaking process, including the SEPA environmental review and EIS development (https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Spills-Prevention-Preparedness-Response/Legislative-work/BPC-tug-escort-rulemaking). Ecology accepted comments by mail, via online form, and verbally during the meetings. We also held an additional workshop on scoping on March 5, 2024, to solicit feedback from Tribes and stakeholders.

Tribes, agencies, members of the public, and stakeholders were invited to participate in the scoping process and provide comments. Additional details on the scoping process and the comments received are in the Scoping Summary Report in Appendix A of the EIS.

Summary of Feedback Received During Scoping

Comments and feedback from the scoping period were about the SEPA process, rulemaking alternatives, the scope of analysis, modeling and data, mitigation, cumulative impacts, and many elements of the environment. The list below briefly summarizes some of the key issues

and resources identified. A detailed summary of the scoping process and comments received is in the Scoping Summary Report (Appendix A). Key themes in scoping comments included:

- Prioritization of impacts to SRKWs from a variety of threats including underwater noise, physical disturbance, and oil spill risk.
- Need for a careful assessment of underwater noise impacts, including spatial and temporal impacts. Comments also included a discussion of potential mitigation measures and their efficacy and feasibility.
- Impacts of increasing vessel traffic, including the need to study the location of increased vessel traffic and implications for increases in vessel casualties, interactions with Tribal fishing, and congestion.
- Concerns about changes in oil spill risk and a need to understand potential for decreases (target vessels) as well as increases (more escort tug underway time) from tug escort requirements.
- Differing opinions about the scale of potential air quality impacts, and comments specifically about public health, environmental justice, and state and industry emission reductions goals.
- Prioritization of potential impacts to Tribal treaty fishing and vessel interaction with Tribal fishers. Comments also emphasized the importance of consulting with Tribes and the need to provide spatial and temporal information on vessel traffic increases to support Tribes in decision-making.
- Some comments were about water quality, energy and natural resources, visual resources, and recreation, but these topics were not a focus of scoping comments.
- Emphasis on mitigation feasibility, using existing voluntary forums such as the Puget Sound Harbor Safety Committee (PSHSC), Quiet Sound, and the ECHO Program, and considering opportunities for tug design and electrification. Mitigation comments also emphasized reducing conflict with Tribal treaty fishing.
- Consideration of the challenges of modeling, need for nuance in describing the differences in environmental impacts from tugs transiting alone vs. escorting, and preferences for use of data and previously created reports.
- Some comments requested economic or cost-benefit analysis, which are not included in the EIS, but are included as part of the Preliminary Regulatory Assessment.

Alternatives Considered

To develop rulemaking alternatives, Ecology and the BPC reviewed the results from the Ecology risk model, vessel traffic trend data, previous vessel traffic risk assessments in the Salish Sea, tug escort requirements from other jurisdictions, the BPC Zone descriptions, and other data and studies on oil pollution and vessel traffic safety in the region. Ecology and the BPC also considered input from Tribes and stakeholders and comments received in the scoping phase. The maritime experts on the OTSC made formal recommendations to the BPC on the final set of alternatives to be considered for the rulemaking and evaluated in this EIS. Alternatives that did not meet the WAC 197-11-786 definition of a reasonable alternative were eliminated from further consideration (see Section 2.9 of the EIS).

The BPC identified four alternatives which Ecology evaluated in this EIS: Figure 3 below compares the four alternatives based on geography and functional and operational requirements (FORs):

- A. Alternative A (No Action)
- B. Alternative B (Addition of FORs)
- C. Alternative C (Expansion of Tug Escort Requirements)
- D. Alternative D (Removal of Tug Escort Requirements).



Figure 3. Comparison between the four alternatives evaluated in the EIS showing geography (top row) and the inclusion or not of functional and operational requirements (FORs, bottom row)

Alternative A (No Action)

Alternative A is the "No Action Alternative." It represents the most likely future conditions if the proposed rule amendments are not adopted. Tug escort requirements for target vessels apply in Rosario Strait and waters east (see Figures 1 and 3). Alternative A makes no changes to the functional and operational requirements listed in RCW 88.16.190, which requires tugs to have a minimum of 2,000 horsepower (hp).

Alternative B (Addition of Functional and Operational Requirements)

Alternative B adds functional and operational requirements (FORs) intended to increase safety and formalize existing best practices. It makes no change to the geographic boundaries described in Alternative A. The FORs added under Alternative B are:

• **Minimum horsepower (hp):** Escort tugs must meet minimum horsepower requirements based on the DWT of the escorted vessel:

- Escort tugs must have 2,000 hp for vessels greater than 5,000 and less than 18,000 DWT
- Escort tugs must have 3,000 hp for vessels equal to or greater than 18,000 DWT.
- **Propulsion specifications:** To ensure sufficient propulsion, escort tugs must have a minimum of twin-screw propulsion.
- **Pre-escort conference:** Prior to beginning the escort, the escort tug and the target vessel (and pilot if present) need to coordinate and discuss safety measures and other standard requirements.

Alternative C (Expansion of Tug Escort Requirements)

Alternative C maintains the tug escort requirements outlined in Alternative A and expands them northwest towards Patos Island. The expansion area covers approximately 28.9 square miles and is approximately seven miles long end-to-end following the vessel traffic lane (see Figure 3 above or Figure 7 in the EIS). Alternative C includes the FORs outlined in Alternative B.

Alternative D (Removal of Tug Escort Requirements)

Alternative D removes the existing tug escort requirements for target vessels as described in Alternative A. However, Alternative D does not affect the pre-existing requirements for tank vessels over 40,000 DWT to be escorted east of the line extending between Discovery Island light south to New Dungeness light. Alternative D also does not affect the need for assist services for larger vessels as they come into port. We can reasonably assume that most or all of the 18 identified escort tugs would remain within the EIS Study Area but shift to other assisting and/or escort work for larger vessels.

Major Conclusions

Our analysis identified significant and unavoidable adverse impacts to several elements of the environment, all of which are related to the following impacts:

- Increase in oil spill risk under Alternative D
- Harmful levels of underwater noise under Alternatives A, B, and C
- Impacts of current levels of vessel traffic on Tribal Resources under Alternatives A, B, and C.

The significant and unavoidable increase in oil spill risk under Alternative D led to a significance finding for Alternative D for Environmental Health: Releases, Water Quality, Plants and Animals, Recreation, Tribal Resources, and Environmental Justice.

Significant increases in harmful levels of underwater noise led to significance findings for Alternatives A, B, and C for Environmental Health: Noise, Plants and Animals, Tribal Resources, and Environmental Justice.

Some Tribes have stated that levels of vessel traffic prior to the implementation of tug escort requirements for target vessels in 2020 already affected Tribal treaty fishing. Escort tug requirements would increase vessel traffic and exacerbate this existing issue. This led to a significance finding for Alternatives A, B, and C for Tribal Resources and Environmental Justice.

We did not identify any significant and unavoidable adverse impacts for Transportation: Vessel Traffic, Energy and Natural Resources, Air Quality and Greenhouse Gases, or Visual Resources. Table 1 summarizes significance findings by alternative.

| Alternative | Elements of the Environment with Significant Unavoidable | | | | |
|---|--|--|--|--|--|
| | and Adverse Impacts | | | | |
| Alternative A (No Action) | Tribal Resources | | | | |
| | Plants and Animals | | | | |
| | Environmental Justice | | | | |
| | Environmental Health: Noise | | | | |
| Alternative B (Addition of | Tribal Resources | | | | |
| FORs) | Plants and Animals | | | | |
| | Environmental Justice | | | | |
| | Environmental Health: Noise | | | | |
| Alternative C (Expansion of tug • Tribal Resources | | | | | |
| escort requirements for target | Plants and Animals | | | | |
| vessels) | Environmental Justice | | | | |
| | Environmental Health: Noise | | | | |
| Alternative D (Removal of tug | Removal of tug • Tribal Resources | | | | |
| escort requirements for target | Plants and Animals | | | | |
| vessels) | Environmental Justice | | | | |
| | Environmental Health: Releases (Oil Pollution) | | | | |
| | Water Quality | | | | |
| | Recreation | | | | |

Table 1. Elements of the environment with significant adverse impacts organized by alternative.

Proposed mitigation measures considered in the EIS include required mitigation, such as proposed rule language, compliance with existing vessel traffic safety regulations, SRKW protections, and oil pollution prevention regulations. Because the scope of the rulemaking is narrow and most of the authorities to regulate vessel traffic and vessel design exist at the federal level, we have also included a number of recommended but voluntary mitigation measures. These include continued participation in the voluntary PSHSC Standards of Care (SOCs), participation in voluntary slowdown measures to reduce underwater noise, and adoption of quieter and more fuel-efficient propulsion systems. However, because these are voluntary, we can't assume that they would fully mitigate any of the significant adverse impacts identified in the EIS. Table 2 summarizes the probable significant adverse impacts and mitigation measures for each element of the environment we analyzed.

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|---|--|---|--|
| Transportation: Vessel Traffic (see Section 4.1) | No significant adverse impact | 1,537 escort jobs/year (4-5 escort jobs/day) for Alternatives A, B and C. Escort tug underway time from this proposed rule is approximately 0.96% (Alternatives A and B) to 0.99% (Alternative C) of all AIS vessel traffic underway time. Escort tug underway time increases 2.41% from Alternative A to Alternative C, with moderate increases in underway time in the expansion area. Under Alternative D, there are zero escort jobs and no escort tug underway time associated with the rule. No significant navigational safety or congestion concerns were identified for any alternative. | Compliance with FORs as required in the rule. Continued adherence to existing federal and state vessel traffic safety regulations. Encourage continued participation in voluntary PSHSC SOCs and other industry best practices. Recommendation to the PSHSC to extend applicable SOCs to the escort of target vessels. Encourage tugs to reduce waiting times at rendezvous locations where safe and feasible. |
| Environmental Health: Releases (see Section 4.2) | Significant and unavoidable adverse impacts for Alternative D (Removal) | A target vessel drift grounding is a serious marine event. A drift grounding could result in a spill which would have major environmental consequences. Any major oil spill in this area would have broad consequences for the region, affecting sensitive ecological resources and habitats, water quality, recreation, and Tribal resources, including archaeological sites. Under Alternative D, the probability of a target vessel drift grounding increases by 11.84% over Alternative A across the entirety of the EIS Study Area. In the rulemaking area in particular, Alternative D would result in a 90.5% increase in drift grounding probability. | Compliance with FORs as required in the rule. Continued adherence to existing federal and state vessel traffic safety and oil pollution regulations. Encourage continued participation in voluntary PSHSC SOCs and other industry best practices. Recommendation to the PSHSC to extend applicable SOCs to the escort of target vessels. |

Table 2. Summary of impacts and proposed mitigation by element of the environment.

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|--|---|---|---|
| Water Quality (see Section 4.3) | Significant and unavoidable adverse impacts for Alternative D (Removal) | Alternatives A and B: Escort tug activity may continue to result in minor and localized impacts to water quality, but are not likely to cause chronic or recurring water quality criteria exceedances, or harmful algal blooms (HABs), or disrupt water quality-dependent habitats and activities in the EIS Study Area. Alternative C: Distribution of these minor impacts would shift into the expansion area. Alternative D: The increase in target vessel oil spill risk could result in acute exceedances of water quality criteria, resulting in a significant impact to the environment. | Continued compliance with the No Discharge Zone, vessel discharge requirements such as those under the Vessel General Permit, and with all federal and state vessel traffic and oil pollution regulations. Encourage continued participation in voluntary PSHSC SOCs and other industry best practices. Encourage continued compliance with marina and port- specific water quality and discharge rules. |
| Environmental Health: Noise (see Section 4.4) | Significant and unavoidable adverse impacts for Alternatives A (No Action), B (Addition of FORs), and C (Expansion) | Underwater noise over 120 dB can result in behavioral disturbances in marine mammals. Noise that exceeds this threshold is considered potentially harmful. All seven biologically sensitive modeled locations in the EIS Study Area periodically exceed the 120 dB threshold. The presence of escort tug requirements elevates average noise levels at most modeled locations, including up to 2.8 dB at the noisiest location (Rosario) compared to Alternative D (the pre-ESHB 1578 statutory standards). Alternatives A and B: Tug escort requirements contribute significantly to exceedances of the underwater noise threshold where harm to marine mammals may occur (over 120 dB). At the Rosario, Anacortes, and Lummi locations, these modeled exceedances occur over 10% more | Continued adherence to existing federal vessel traffic safety and marine mammal protection regulations, and to state regulations regarding noise. Encourage escort tugs to maintain a safe distance from killer whales consistent with state and federal requirements (despite exemption for tugs operating under the VTS). Recommend that the PSHSC develop an SOC for escort tugs to maintain 1,000-yard distance from killer whales. Encourage continued participation in voluntary vessel slow downs which have been |

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|--|--|---|---|
| | | frequently than they would with no tug escort requirements for target vessels. Alternative C: Largely the same as Alternative A. Slight increases in noise at the Boundary Pass and Lummi locations in winter and slight decreases in noise at the Lummi and Anacortes locations in summer. No change to the exceedances of the 120 dB threshold. Alternative D: Removing tug escort requirements reduces the occurrence and duration of harmful levels of underwater noise (over 120 dB) at three locations in winter and four in summer compared to Alternative A (current tug escort requirements). Average noise levels were reduced at all locations during at least one season. | shown to reduce underwater noise. Encourage continued participation in voluntary PSHSC SOCs and other industry best practices, in particular reduced speeds while escorting and best practices for limiting unnecessary and nighttime vessel noise. Recommendation to the PSHSC to extend applicable SOCs to the escort of target vessels. Encourage transition to hybrid electric and fully electric propulsion as technological readiness and cost make them feasible. |
| Plants and Animals (see Section 4.5) | Significant and unavoidable adverse impacts for All Alternatives | Alternatives A, B, and C: Current levels of escort tug activity contribute to harmful levels of underwater noise in biologically important areas. Alternative C has similar levels of noise to Alternatives A and B. Alternative D: Although there is a reduction in underwater noise in this alternative, the risk of a drift grounding increases by 11.84%, and the potential consequences for plant and animal resources from a major spill would be significant. | Continued adherence to existing federal vessel traffic safety and marine mammal protection regulations, and to state regulations regarding noise. Encourage escort tugs to maintain a safe distance from killer whales consistent with state and federal requirements (despite exemption for tugs operating under the VTS). Recommend that the PSHSC develop an SOC for escort tugs to maintain 1,000-yard distance from killer whales. |

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|---|-------------------------------------|---|--|
| | | | Encourage continued participation in voluntary vessel slow downs which have been shown to reduce underwater noise. Encourage compliance with the Be Whale Wise guidelines where safe and feasible to do so. Consider options for tugs to safely adopt the Whale Report Alert System. Encourage continued participation in in voluntary PSHSC SOCs that reduce the risk of oil spills. Encourage transition to hybrid electric and fully electric propulsion as technological readiness and cost make them feasible |
| Energy and Natural Resources (see Section 4.6) | No significant adverse impact | Alternatives A, B, and C: Calculated escort tug fuel use ranges from 0.32% to 0.33% of annual average fuel transferred over water in Washington State. This is unlikely to affect maritime fuel availability. Alternative D: Minor reduction in maritime fuel use. | Continued compliance with existing clean fuels and vessel traffic safety and speed regulations. Encourage participation in voluntary slowdowns, which reduce fuel use. Encourage transition to more efficient and zero-emission propulsion as technological readiness and cost make this feasible. |

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|---|--|---|---|
| Air Quality and Greenhouse Gases (see Section 4.7) | No significant adverse impact | For all alternatives, tug escort emissions of criteria pollutants do not cause or contribute to National Ambient Air Quality Standards (NAAQS). Emissions of air toxics do not pose an unacceptable risk to human health. There would be minor localized air quality impacts where the emissions occur and minor contributions to GHG emissions. Total emissions range from 12,000 (Alternative A) to 12,400 (Alternative C) tons per year of carbon dioxide equivalent (around 0.01% of total Washington state emissions). | Continued compliance with existing low sulfur fuel requirements and existing federal and state vessel traffic safety regulations. Encourage participation in voluntary slowdowns, which have demonstrated emission reductions. Encourage transition to more efficient and zero-emission propulsion as technological readiness and cost make this feasible. Encourage continued participation in voluntary PSHSC SOCs and other industry best practices |
| Recreation (see Section 4.8) | Significant and unavoidable adverse impacts for Alternative D (Removal) | We assessed a variety of water-based recreational activities including fishing, shellfishing, boating, whale watching, SCUBA diving, and visitation to parks with shoreline access. Alternatives A, B, and C: Potential impacts are likely transitory in nature and would not result in a long-term or permanent reduction in recreational opportunity or quality. In Alternative C, tugs waiting for target vessels may be more dispersed. The expansion area includes an area with more frequent whale watching activity. Alternative D: A major oil spill could result in long-term closures of recreational opportunities. Oil spill risk increases significantly under this Alternative. | Continued adherence to existing federal and state vessel traffic safety and oil pollution regulations. Continued adherence to existing federal and state regulations protecting SRKW and other marine mammals (speed reductions, maintaining distance, etc.). Encourage adoption of voluntary measures designed to protect SRKW outlined in Section 4.5 (Plants and Animals). Encourage continued participation in voluntary PSHSC |

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|---|--|---|--|
| | | | SOCs and other industry best practices. |
| Visual Resources (see Section 4.9) | No significant adverse impact | Alternatives A, B, and C: Escort tug activities may result in minor and transitory visual impacts. In Alternative C, escort tugs would be visible more frequently in the existing shipping lanes and while waiting for target vessels in and near the expansion area. Alternative D: Minor reduction in visual impact of tugs across the EIS Study Area and concentrated in the current rulemaking area. | Continued compliance with all U.S. Coast Guard vessel traffic safety measures in particular the requirements for lighting. Encourage continued participation in the PSHSC SOCs, specifically Anchorage SOC which addresses the use of lights at anchor. |
| Tribal Resources (see Section 4.10) | Significant and unavoidable adverse impacts for All Alternatives | The entire EIS Study Area is the usual and accustomed fishing area of one or more Tribes. Tribal treaty fisheries occur year-round and include a large variety of target species. Some Tribes have stated that current levels of vessel traffic negatively impact treaty fishing. Coastal archaeological resources exist throughout the EIS Study Area. All modeled spill trajectories intersect with many known archaeological sites. Most marine resources have cultural significance for Tribes and may have economic and subsistence value also. Alternatives A, B, and C: Escort tugs are part of overall vessel traffic impacts to Tribal treaty fishing (gear loss, access, interference with fishing, safety issues, etc.). Marine mammals are culturally significant to many Tribes. Under Alternatives A, B, and C, significant levels of underwater noise, vessel interaction, and potential strike risk pose threats to marine mammals. | Proposed pre-escort conference checklist includes checking for active Tribal and non-Tribal fisheries. Continued adherence to existing federal and state vessel traffic safety and oil pollution regulations. Continued compliance with the Northwest Area Contingency Plan, which includes policies for oil spills and cultural resources, including inadvertent discovery. Encourage development of agreements with interested Tribes to reduce impacts to Tribal treaty fishing through notification and coordination. Encourage just-in-time shipping and limiting waiting time at rendezvous locations particularly during active Tribal fishing. |

| Resource | Impact Finding | Summary Description | Summary of Proposed Mitigation |
|--|--|--|---|
| | | Alternative D: Target vessel drift grounding risk increases significantly, which would put Tribal resources at greater risk of an oil spill. | Encourage participation in the PSHSC Tribal Fisheries Lost Gear Subcommittee. |
| Environmental Justice (see Section 4.11) | Significant and unavoidable adverse impacts for All Alternatives | This analysis included impacts to populations of color, low-income populations, and Tribal communities. The only impacts we identified were disproportionate impacts to Tribal communities from those impacts described in Section 4.10 (Tribal Resources). | See mitigation measures for Section 4.10. |

Areas of Controversy and Uncertainty

Oil Spill Risk Reduction vs. Increased Escort Tug Underway Time: The trade-offs between oil spill risk reduction and additional escort tug underway time are an area of controversy in this process and an overarching theme of public input. Expanding tug escort requirements reduces the risk of oil spills from target vessels and the risk of potentially catastrophic environmental consequences that would affect ecological and cultural resources and Tribal treaty fishing wherever a spill occurred. Expanding tug escort requirements increases escort tug underway time. Increased tug escort underway time increases underwater noise (impacts to SRKW) and vessel traffic interactions with Tribal treaty fishing and marine mammals on a daily basis. More escort tug underway time also increases risk of escort tug incidents.

Modeling Vessel Traffic and Oil Spill Risk: Most of the analyses in this EIS rely on the modeling of vessel traffic and oil spill risk described in Sections 4.1 and 4.2, in combination with historical AIS data from 2023. For the simulated dataset analysis, we selected the model run with the highest amounts of escort tug underway time. We made this choice to ensure that the EIS did not under-count potential impacts and to account for potential near-term increases in vessel traffic and inter-annual variation. However, it is possible that some impacts are over-counted in this analysis.

A model is always a simplification of a complex real-world system. How the escort tug and target vessel industries respond to changes in tug escort requirements may differ from the conditions predicted in our modeling. Vessel traffic also changes on an inter-annual basis based on global policy, trade, and market conditions, which are challenging to predict. There is also some uncertainty around the permitting and approvals of various proposed maritime infrastructure projects described in Section 5.0 Cumulative Impacts in the EIS.

Environmental Impacts from Oil Spills: Oil spills are low-probability but high-consequence events. While they occur infrequently, a major oil spill could have catastrophic impacts to the environment. Those specific impacts would vary based on the ocean, weather, and wind conditions, the time of year, the type of oil spilled, and the specific location of a spill. This variability makes the exact impacts of an oil spill challenging to predict and describe. To address this, we used trajectory models for worst case discharges at eight spill locations in the EIS Study Area and selected times of year when sensitive species (e.g. SRKW, salmon) would be present and described those impacts, and included general descriptions of oil spill impacts on individual elements of the environment.

Underwater Noise: The underwater noise assessment has been an area of public interest and controversy throughout the EIS development. We held an additional public meeting with JASCO Applied Sciences, our subcontractor for underwater noise, to address these concerns and provide additional information about underwater noise dynamics and modeling. Some stakeholders suggested that the analysis should use a different marine mammal noise threshold than the one that the National Marine Fisheries Service recommends. We tested this alternative threshold and found that for our analysis, the NMFS threshold of 120 dB was more ecologically conservative and continued to rely on it for the analysis.

Vessel Traffic Impacts to Tribal Resources: Current levels of vessel traffic already impact Tribal treaty fishing and Tribal resources. The passage of ESHB 1578 added additional vessel traffic to the Puget Sound. Three of the alternatives assessed in this EIS contemplate maintaining or increasing vessel traffic. While the addition of this traffic provides an oil spill risk reduction, it does exacerbate existing impacts to Tribal treaty fishing and Tribal resources. The recommended voluntary mitigation measures and inclusion of checking on active fisheries in the required pre-escort conference attempt to avoid and reduce conflicts with Tribal treaty fishing. However, the mechanism of this rulemaking, tug escort requirements, unavoidably increases vessel traffic.

Climate Change: Another area of uncertainty is the magnitude of the future effects of climate change and how the changing climate will affect water quality, air quality, and plants and animals including sensitive habitats. We included climate change information where available and we do not anticipate that these impacts would substantially alter the impact determinations in the Draft EIS.

Next Steps

The BPC and Ecology will compile and review comments received on the Draft EIS during the comment period. Comments will be considered by the BPC and Ecology in the preparation of a Final EIS. The Final EIS and the final rule are estimated to be published by December 2025 and will be released to the public. The Final EIS will provide information to support decision-making on final rule language.