

**Justification and Problem Statements Supporting the Need to Implement the Southern Resident Killer Whale Task Force Recommendation 27** – Prepared by Lovel Pratt (Friends of the San Juans) and Cyrilla Cook (DNR), and edited by Todd Hass (as Chair, PSP) for the Vessels Working Group

The Southern Resident Killer Whale Task Force’s Vessels Working Group was asked by the Governor’s Office for Regulatory Innovation and Assistance (ORIA) to provide one or more clear problem statements to help the State identify potential opportunities to advance Southern Resident Killer Whale Task Force Recommendation 27: Determine how permit applications in Washington State that could increase traffic and vessel impacts could be required to explicitly address potential impacts to orcas.<sup>i</sup>

Marine terminal projects that increase vessel traffic in the Salish Sea negatively impact natural resources.<sup>ii</sup> Southern Resident Killer Whales are listed as Endangered under the Federal Endangered Species Act, citing three primary risk factors: lack of the whales’ preferred prey, Chinook salmon; chronic and acute underwater noise and physical disturbance from vessel traffic which reduces foraging efficiency; and bioaccumulation of contaminants.<sup>iii</sup> Large commercial ships impact the Southern Residents’ ability to communicate and successfully hunt (using echolocation) for scarce prey.<sup>iv</sup> Other vessel traffic impacts include direct vessel strikes,<sup>v</sup> hearing loss, behavioral changes,<sup>vi</sup> and oil spill impacts. A recent population viability analysis states, “The population is fragile, with no growth projected under current conditions, and decline expected if new or increased threats are imposed.” While limited prey availability is the most important factor affecting Southern Residents, reducing vessel impacts has a significant role in population recovery. The population viability analysis further states, “Reducing acoustic disturbance by 50% combined with increasing Chinook by 15% would allow the population to reach 2.3% growth.”<sup>vii</sup>

Southern Resident Killer Whales were listed as Endangered under the Endangered Species Act, in part, because of concerns about potential oil spill impacts.<sup>viii</sup> A report from the National Marine Fisheries Service states, “Their small population size and social structure also puts them at risk for a catastrophic event, such as an oil spill, that could impact the entire population.”<sup>ix</sup>

The following recent examples illustrate the need for improved regulatory oversight and permitting processes in WA State that require applicants for new or expanding projects as well as any changes to existing operations to clearly identify and address any increases in vessel traffic and associated increased impacts to Southern Resident Killer Whales (SRKW).

**1) Permit issued by Skagit County for the Tesoro (now Marathon) Refinery to manufacture and export xylene**

On June 22, 2015 the Tesoro Anacortes Refining and Marketing Company LLC (Tesoro (which changed its name to Andeavor in August 2017 and was then purchased by Marathon Petroleum in October 2018)) submitted an application for the “Tesoro Clean Products Upgrade Project.”<sup>x</sup> The project application included supplying cleaner local transportation fuels and manufacturing 15,000 barrels per day of a new product, xylene, for export to Asian markets. The manufacture

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and export of xylenes were projected to increase vessel traffic at the Tesoro wharf by up to five vessels per month (60 vessels or 120 transits per year). Skagit County issued a Determination of Significance under State Environmental Policy Act, which required the preparation of an Environmental Impact Statement.<sup>xi</sup>

To manufacture the high purity mixed xylenes, Tesoro would need to receive reformat (approximately 6,716,000 barrels per year) from other West Coast refineries via an additional 40 articulated tug and barges per year<sup>xii</sup> as well as potentially 12 additional barges (one barge per month) delivering reformat from other WA State refineries. The xylene, manufactured from reformat and other ingredients that would be trucked to the refinery, would then be exported to Asia via 20 tankers per year. The project's vessel traffic route includes the Designated Critical Habitat for Southern Resident Killer Whales.<sup>xiii</sup>

The Final EIS includes no mitigation measures that specifically address project impacts to SRKW. The Final EIS concludes:

The primary concern for cumulative impacts to the Southern Resident killer whale, based on available information, is the sound from small, fast-moving vessels moving in close proximity to the whales and targeting the whales (NMFS 2010). While small, fast-moving vessels are not part of the proposed project, due to the status of the Southern Resident killer whale as a federally endangered species, and one of eight Spotlight species, there is a potential for cumulative impacts due to the proposed project. This additional analysis confirms the conclusions of the Draft EIS—increases in vessel traffic could contribute to cumulative impacts.<sup>xiv</sup>

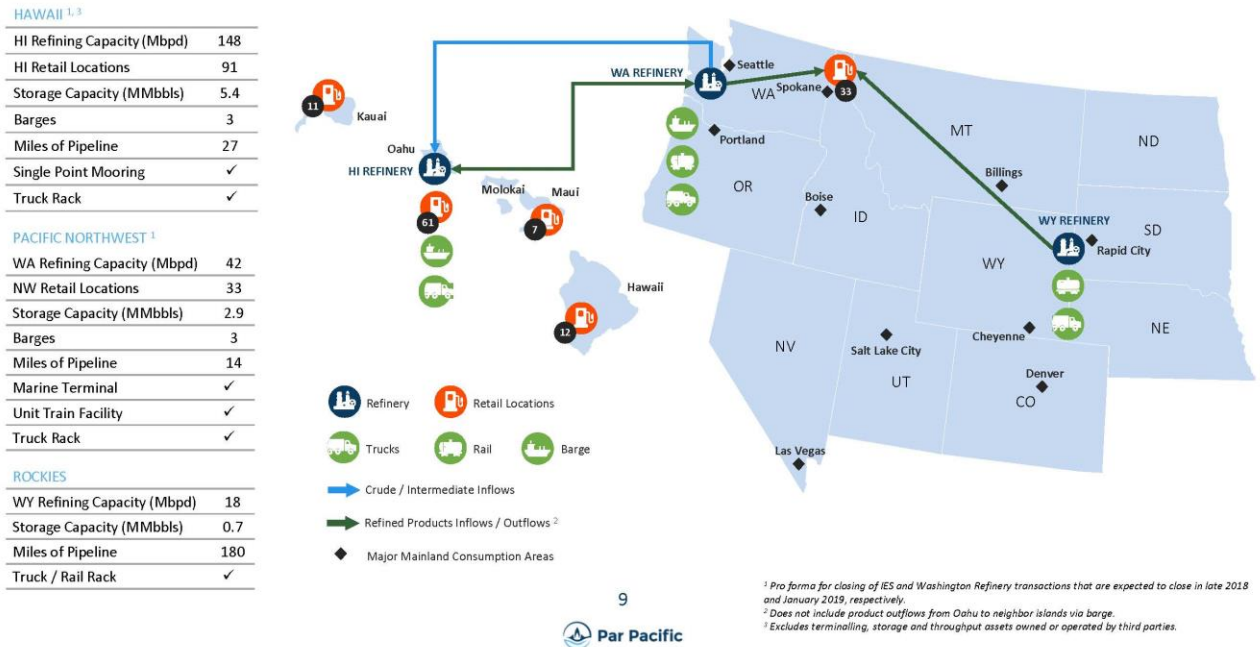
On December 7, 2017 the Skagit County Hearing Examiner issued a decision approving the Shoreline Substantial Development Permit and concluded that a Shoreline Conditional Use Permit was not required. Six environmental non-profit organizations (Friends of the San Juans, Evergreen Islands, Stand.earth, RE Sources for Sustainable Communities, Friends of the Earth, and Puget Soundkeeper Alliance) are appealing this decision in regard to Skagit County's lack of compliance with the Shoreline Management Act and the State Environmental Policy Act. An appeal hearing is scheduled in Thurston County Superior Court on Friday, October 11, 2019 at 1:30pm.

## 2) Par Pacific's Purchase of the US Oil & Refining Co. with the stated intent to increase vessel traffic

Par Pacific recently purchased the US Oil and Refining Co. in Tacoma WA. Par Pacific made a presentation on November 27, 2018 (titled U.S. Oil Acquisition Presentation) which clearly states Par Pacific's intent to change operations and increase vessel traffic to and from this Washington State refinery.<sup>xv</sup> Par Pacific's intent to increase vessel traffic includes the transport of North American crude oil and intermediate products from Tacoma, WA to the Par Pacific refineries in Hawaii and the transport of refined products between WA State and Hawaii.<sup>xvi</sup>

An estimate of additional vessel traffic based on crude oil transport only: Aframax transport of 50% of the Hawaii refineries' capacity (74,000 barrels per day) would total 72 new tanker transits per year.

## Creating an Integrated Downstream Network



### WASHINGTON REFINERY ACQUISITION, NOVEMBER 2018 (page 9)

Emails sent to the Department of Ecology resulted in this response from Sally Toteff, Regional Director for Ecology's Southwest and Olympic Peninsula Region:

The company at present has not submitted or indicated changes to their facility to us. That could happen in the future and if so, we will review the information and determine what it means in terms of regulatory steps. It is likely the City of Tacoma would be the SEPA lead agency.<sup>xvii</sup>

And from James DeMay, Ecology's Industrial Section Manager:

You had a question about whether or not a permit would be required for any possible changes to US Oil's Operations. Well it's not a simple yes or no. Changes to US Oil's operations that would change or alter wastewater characteristics would likely require an NPDES permit modification. Also new operations not currently permitted could also trigger additional permits. Through the permitting process, SEPA review would occur. The City of Tacoma is usually the SEPA lead for actions in the Port of Tacoma. Ecology also has the opportunity to review projects where the City of Tacoma is SEPA lead.<sup>xviii</sup>

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Comments from environmental non-profit organizations that addressed Par Pacific's intent to increase vessel traffic were submitted to the U.S. Army Corps of Engineers regarding the Tacoma Harbor, WA Navigation Improvement Project; and to the Department of Ecology regarding the U.S. Oil Refining Co National Pollutant Discharge Elimination System Permit.

### 3) Mitigated Determination of Non-Significance Issued by Whatcom County to Phillips 66 Ferndale Refinery

On July 19, 2019 Whatcom County issued a Mitigated Determination of Non-Significance (MDNS)<sup>xix</sup> for the construction of new storage tanks needed to manufacture a new product, low sulfur marine fuels. Phillips 66 Ferndale Refinery did not quantify the additional vessel traffic associated with this project, despite Whatcom County's repeated requests for this information. As a result, Whatcom County's MDNS did not address the potential adverse impacts to Southern Resident Killer Whales from the proposed project's additional marine vessel traffic.

The SEPA checklist did include detailed information regarding the increased truck traffic associated with the construction of the new storage tanks. The mitigating conditions addressed the additional truck traffic, requiring a truck traffic control plan and also the requirement for a variance if noise levels exceed thresholds in state law or if construction takes place outside normal construction hours. There were no mitigating conditions that addressed the potential adverse impacts from the marine vessel traffic associated with this project or the vessel traffic's specific impacts to Southern Resident Killer Whales.

On August 6, 2019 Whatcom County communicated the following with the 28 commenters:

Thank you for your timely comments on SEPA 2019-00033 (Phillips 66 MDNS). We have reviewed your comments and provided them to the applicant as well. We have requested that the applicant provide additional information in the form of a revised environmental checklist to address some of the issues raised. Based on our review of the comments and per WAC 197-11-340(2)(f), the SEPA Responsible Official anticipates issuing a modified or revised MDNS with a revised checklist and, if necessary, identification of potential additional mitigation measures to address any likely significant adverse environmental impacts.<sup>xx</sup>

Hopefully, Whatcom County's modified or revised MDNS will include additional mitigation measures that address the impacts to SRKW from the proposed project's additional vessel traffic.

## **SUMMARY AND PROBLEM STATEMENTS**

Currently, the SEPA checklist solicits a much greater level of detail for project-related *land*-based traffic and associated impacts (soliciting quantitative information) than marine-based traffic (soliciting "general" information) and there is no standardized method for local or state agencies conducting review of development proposals to obtain quantitative information on

potential increases or changes in vessel traffic that the project may generate. Furthermore, even if/when reviewers have access to such information, they are not generally aware of the most applicable or beneficial measures to suggest as mitigation options. The main problems can be characterized as follows:

**(A): Coastal planners and environmental permit review staff need additional training, tools, and resources to assess and suggest mitigation options or alternatives for the potential impacts of increased vessel traffic on SRKWs and their habitat.**

**(B): Although “water” (-based) traffic is a required “element of the environment” requiring assessment during SEPA review, many lead agencies (counties, cities, ports, Ecology) do not appear to solicit descriptions of mitigation measures or alternatives for the potential, adverse impacts of increasing waterborne traffic on SRKWs and other marine species or habitats.**

And Par Pacific exemplifies problem **(C): that certain changes in operations, ownership or other activities might greatly increase vessel traffic from a facility, but not be subject to formal permit review or governmental approval.** Is there an existing regulatory tool that could be applied to trigger review of such significant potential changes more consistently?

## **CONCLUSIONS AND RECOMMENDATIONS**

Increases or changes in vessel traffic pose increased risks to southern resident killer whales (SRKW) and other marine species. Existing state regulations for critical areas require that SRKW habitat be protected as fish and wildlife habitat conservation areas, yet many state and local agencies may not be aware of or understand the link between increasing vessel traffic and potential SRKW impacts.

The State should coordinate vessel traffic issues with local governments and tribes and increase transboundary coordination with Canada. State agencies should identify the most efficient and consistent method for state and local agencies to obtain vessel traffic information from project proponents during SEPA review and/or the application process.

### **Potential Implementation Details:**

The Governor should direct Ecology and request DNR and WDFW, in consultation with ORIA, to identify the best method to obtain vessel traffic information (number, type, frequency, and routes) from project proponents during SEPA environmental review and/or application process to ensure consideration of the potential impacts to SRKW.

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This information should also be used to coordinate with local governments, tribes and others to identify potential mitigation measures related to such projects, and increase transboundary coordination to address impacts from projects initiating in Canada (such as Roberts Bank Terminal 2). The agencies should report to the task force by October 7, 2019.

Potential avenues for adding requirements to provide vessel traffic information to application or environmental review processes include:

- Updating the State Environmental Protection Act checklist to include a vessel traffic question and specifically require that potential impacts to SRKW be addressed.
- Updating the Joint Aquatic Resources Permit Application form to provide information on vessel traffic and specifically require that potential impacts to SRKW be addressed.
- Updating air quality permit applications to include potential vessel traffic impacts to Southern Resident orcas.
- Making additional technical resources available to coastal planners and environmental staff to identify and mitigate potential impacts of increased vessel traffic and associated with facilities on SRKW.
- Exploring options for identifying, assessing, and mitigating cumulative vessel impacts in cases where vessel traffic changes are exempt from permit or governmental approvals.

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<sup>i</sup> Southern Resident Orca Task Force Report and Recommendations. November 16, 2018.

[https://www.governor.wa.gov/sites/default/files/OrcaTaskForce\\_reportandrecommendations\\_11.16.18.pdf](https://www.governor.wa.gov/sites/default/files/OrcaTaskForce_reportandrecommendations_11.16.18.pdf) (accessed August 12, 2019).

<sup>ii</sup> Gaydos JK, Thixton S, Donatuto J (2015) Evaluating Threats in Multinational Marine Ecosystems: A Coast Salish First Nations and Tribal Perspective. PLoS ONE 10(12): e0144861. doi:10.1371/journal.pone.0144861

<sup>iii</sup> National Marine Fisheries Service. Recovery Plan for Southern Resident Killer Whales (*Orcinus orca*) (National Marine Fisheries Service Northwest Region, Seattle, 2008).

<sup>iv</sup> Veirs S, Veirs V, Wood JD. 2016. Ship noise extends to frequencies used for echolocation by endangered killer whales. *PeerJ* 4:e1657 <https://doi.org/10.7717/peerj.1657>

<sup>v</sup> Ferrara, G.A., T.M. Mongillo, L.M. Barre. 2017. Reducing disturbance from vessels to Southern Resident killer whales: Assessing the effectiveness of the 2011 federal regulations in advancing recovery goals. NOAA Tech. Memo. NMFS-OPR-58, 76 p.

Fisheries and Oceans Canada. July 22, 2019. Necropsy results: Southern Resident Killer Whale J34.

<https://www.pac.dfo-mpo.gc.ca/fm-gp/species-especes/mammals-mammiferes/j34-eng.html> Accessed July 25, 2019.

<sup>vi</sup> Holt, M.M. 2008. Sound exposure and Southern Resident killer whales (*Orcinus orca*): A review of current knowledge and data gaps. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-89, 59 p.

<sup>vii</sup> R. C. Lacy, R. Williams, E. Ashe, K. C. Balcomb III, L. J. Brent, C. W. Clark, D. P. Croft, D. Giles, M. MacDuffee and P. C. Pacquet, "Evaluating anthropogenic threats to endangered killer whales to inform effective recovery plans," Sci Rep., 2017. Page 1.

<sup>viii</sup> Endangered and Threatened Wildlife and Plants: Endangered Status for Southern Resident Killer Whales, Federal Register Vol. 70, No. 222 (November 18, 2005) 69903 – 69912

<sup>ix</sup> National Marine Fisheries Service. *Southern Resident Killer Whales (Orcinus orca) 5-Year Review: Summary and Evaluation*. (National Marine Fisheries Service West Coast Region, Seattle,

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2016) [http://www.westcoast.fisheries.noaa.gov/publications/status\\_reviews/marine\\_mammals/kw-review-2016.pdf](http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/marine_mammals/kw-review-2016.pdf).

<sup>x</sup> Tesoro Refining & Marketing Company LLC application for a Shoreline Substantial Development Permit. June 22, 2015. [https://www.skagitcounty.net/PlanningAndPermit/Documents/Tesoro/CPUP%20SSDP%20App%20\(Jun-2015\).pdf](https://www.skagitcounty.net/PlanningAndPermit/Documents/Tesoro/CPUP%20SSDP%20App%20(Jun-2015).pdf) (accessed August 12, 2019).

Tesoro Refining & Marketing Company LLC. Tesoro Clean Products Upgrade Project SEPA Checklist. June 2015. [https://www.skagitcounty.net/PlanningAndPermit/Documents/Tesoro/CPUP\\_SEPA\\_Jun\\_2015.pdf](https://www.skagitcounty.net/PlanningAndPermit/Documents/Tesoro/CPUP_SEPA_Jun_2015.pdf) (accessed August 12, 2019).

<sup>xi</sup> DETERMINATION OF SIGNIFICANCE AND REQUEST FOR COMMENTS ON SCOPE OF ENVIRONMENTAL IMPACT STATEMENT FOR TESORO CLEAN PRODUCTS UPGRADE PROJECT. <https://www.skagitcounty.net/PlanningAndPermit/Documents/Tesoro/Tesoro%20CPU%20DS%20and%20Request%20for%20Scoping%20Comments.pdf> (accessed August 12, 2019).

Tesoro Anacortes Clean Products Upgrade Project ENVIRONMENTAL IMPACT STATEMENT. Final July 2017. [https://tesoroanacorteseis.blob.core.windows.net/media/Default/Library/2017\\_07\\_10\\_Tesoro\\_Anacortes\\_CPUP\\_Final\\_EIS.pdf](https://tesoroanacorteseis.blob.core.windows.net/media/Default/Library/2017_07_10_Tesoro_Anacortes_CPUP_Final_EIS.pdf) (accessed August 12, 2019).

<sup>xii</sup> Tesoro Anacortes Clean Products Upgrade Project ENVIRONMENTAL IMPACT STATEMENT. Final July 2017. [https://tesoroanacorteseis.blob.core.windows.net/media/Default/Library/2017\\_07\\_10\\_Tesoro\\_Anacortes\\_CPUP\\_Final\\_EIS.pdf](https://tesoroanacorteseis.blob.core.windows.net/media/Default/Library/2017_07_10_Tesoro_Anacortes_CPUP_Final_EIS.pdf) (accessed August 12, 2019). Page 1-5 and Appendix A 2-50

<sup>xiii</sup> NOAA Fisheries, Northwest Region. November, 2006. Designated Critical Habitat for Southern Resident Killer Whales. [https://www.westcoast.fisheries.noaa.gov/publications/protected\\_species/marine\\_mammals/killer\\_whales/SRKW-CH-Map.jpg](https://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/killer_whales/SRKW-CH-Map.jpg) (accessed August 12, 2019).

<sup>xiv</sup> Tesoro Anacortes Clean Products Upgrade Project ENVIRONMENTAL IMPACT STATEMENT. Final July 2017. [https://tesoroanacorteseis.blob.core.windows.net/media/Default/Library/2017\\_07\\_10\\_Tesoro\\_Anacortes\\_CPUP\\_Final\\_EIS.pdf](https://tesoroanacorteseis.blob.core.windows.net/media/Default/Library/2017_07_10_Tesoro_Anacortes_CPUP_Final_EIS.pdf) (accessed August 12, 2019). Page 3-22.

<sup>xv</sup> Par Pacific U.S. Oil Acquisition Presentation. Nov 27, 2018. [https://www.parpacific.com/Investor\\_Presentation](https://www.parpacific.com/Investor_Presentation) (Direct link <https://b2icontent.irpass.com/2193/175703.pdf>) (accessed August 12, 2019).

<sup>xvi</sup> Ibid. Page 9.

<sup>xvii</sup> Email from Sally Toteff, Regional Director, Southwest and Olympic Peninsula Region, WA State Department of Ecology to Lovel Pratt, Marine Protection Program Director, Friends of the San Juans (March 7, 2019, 11:07 AM PDT) (on file with Lovel Pratt).

<sup>xviii</sup> Email from James DeMay, Industrial Section Manager, WA State Department of Ecology to Lovel Pratt, Marine Protection Program Director, Friends of the San Juans (March 12, 2019, 8:20 AM PDT) (on file with Lovel Pratt).

<sup>xix</sup> State Environmental Policy Act Mitigated Determination of Nonsignificance. Whatcom County, SEP2019-00033. Date of Issuance: July 19, 2019. <https://www.whatcomcounty.us/DocumentCenter/View/42356/SEP2019-00033-MDNS-Distribution-07192019> (accessed August 12, 2019).

<sup>xx</sup> Email from Thomas Brissenden, Natural Resources, Whatcom County Planning and Development Services to Lovel Pratt, Marine Protection Program Director, Friends of the San Juans (August 6, 2019, 11:28 AM PDT) (on file with Lovel Pratt).