Traffic Separation Scheme Feasibility Study

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Environmental Policy
Transport Canada
Drivers and Past Efforts

• Both a Canadian Science Advisory Secretariat (CSAS) report and a science-based whale review identified re-routing of vessel traffic or “moving” shipping lanes as options that should be explored to help protect and recover the species.

• JASCO Applied Sciences report ‘Assessment of Vessel Noise within Southern Resident Killer Whale Critical Habitat’ (2018) investigated specific sub-regions and identified potentially effective areas for more research.

• ‘Ship Noise Mitigation Risk Assessment’ report by Greenwood Maritime (2018) identified changes to the TSS as a potential option needing further study.

• A preliminary workshop held in 2018 (Marysville, Wa) focused on identifying key factors of importance for inclusion in further study on potential TSS amendments
Marysville Workshop

- A preliminary workshop held in 2018 focused on identifying key factors of importance for inclusion in further study on potential TSS amendments
- Included many participants from Indigenous Groups, Canada and the United States.
- Discussion of lessons learned from previous amendments made to the TSS.
- Workshop outcomes lead to the development of the TSS feasibility study currently underway.
Traffic Separation Scheme (TSS) Feasibility Study

Objective:

- To assess whether potential amendments to the TSS are technically feasible, and if so, to recommend options to amend the TSS that balance the protection of the SRKW populations with other factors of importance, including marine safety and use, environmental, socio-economic, and cultural.
Project Team Structure

- Transport Canada has retained Dillon Consulting Limited, along with JASCO Applied Sciences, Maritime Research Institute of the Netherlands (MARIN) and Tetra Tech, to conduct a feasibility study on potential changes to the TSS.
Project Study Area

Areas under review for the TSS Feasibility Study within the critical habitat of the Southern Resident Killer Whale include:

- Strait of Juan de Fuca
- Swiftsure Bank
- Haro Strait and Boundary Pass
- The Salish Sea near the mouth of the Fraser River
TSS Feasibility Study

• 6 phases of work:
  1. Data gathering and gaps
  2. Engagement and factors
  3. Development of tools and screening
  4. Technical Analysis
  5. Delivery of tools and reports
  6. Communication of results and next steps
Project Process & Engagement

Technical Timeline

Data Input & Gap Analysis
Develop Inventory of Factors
Development of Decision Support Tool
Prioritize Areas for TSS Amendments
Preliminary Channel Designs
Vessel Traffic Safety Modelling
Underwater Noise Modelling
Risk Assessment at each TSS Area
Alternative Assessment Cumulative risks of options at all TSS Areas
Delivery of Tool and Reports
Communication of Results

Vessel Traffic Safety Modelling
Underwater Noise Modelling
Risk Assessment at each TSS Area

Engagement Timeline

Summer 2020
Round 1 of Engagement
Round 2 of Engagement
Round 3 of Engagement
Round 4 of Engagement
Round 5 of Engagement

Winter 2022
Factors of Importance

- Nation to Nation
- Legal and Regulatory
- Safety
- Environmental
- Socio-economic
- Cultural
- Methodological
What We Learned…

• Engagement and input at each phase of the study were crucial to taking a novel approach to developing amendment options.

• TC will be able to continue to evaluate options as new information becomes available because the tools developed (TOPSIS decision support tools) form part of the final deliverables.

• An increased understanding of the existing TSS and the safety/benefits it provides.

• An increased understanding of feasible options, and the impacts on multiple factors that are important.

• Options that can improve safety, efficiency and other factors in addition to reducing impacts on SRKW (win-win scenarios).
Conclusion and Next Steps

• In conclusion, Jasco found several options that would result in changes in noise levels, although minimal in some cases, that are favorable to SRKW.

• Some options would also result in improved navigation safety and could have mixed impacts on all other factors of importance.

Next Steps:

• TC will fully review the report recommendations and the decision support analysis to identify and prioritize next steps.

• TC will take steps to share publicly the summary report and findings.
Thank You

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