

2020 voluntary inshore lateral displacement for tugboat operators

Strait of Juan de Fuca

Working to reduce underwater noise in endangered killer whale feeding areas by moving tugboats further away

Southern resident killer whales (SRKW) are listed as endangered under both the *Species at Risk Act* in Canada and the *Endangered Species Act* in the United States. As of December 31, 2019, the population has declined to 73 individuals. Both countries' governments continue to emphasize the need to develop and implement measures to reduce underwater noise generated by vessels, which research indicates can interfere with whales' ability to hunt, navigate and communicate.

In 2018 and 2019, the Enhancing Cetacean Habitat and Observation (ECHO) Program—supported by Transport Canada, Canadian and U.S. Coast Guards, Fisheries and Oceans Canada, and the Canadian and U.S. marine transportation industry—coordinated the implementation of a voluntary trial to study how moving vessels further away from known whale feeding areas in the Strait of Juan de Fuca would affect the underwater noise levels in those areas.

In both years, tugboats participated strongly in the lateral displacement trial, with 77% of tugboats spending more than half of their transit in the inshore trial zone or the outbound shipping lane in 2019. We thank you for your ongoing participation.

Results indicate that this high level of tug participation resulted in a substantial reduction in underwater noise at a hydrophone located on the northern side of the Strait of Juan de Fuca.

Building on the findings and successes of the previous years, and in an effort to support ongoing recovery measures for SRKW, the ECHO Program is working closely with government and marine transportation industry partners to adapt and refine the approach to support another voluntary inshore lateral displacement for tugboat operators in 2020.

The overall purpose of the voluntary initiative is to reduce underwater noise from tugboats in known feeding areas of the southern resident killer whales.



Photo: Joan Lopez

About the 2020 voluntary inshore lateral displacement for tugboat operators

Between June 1 and October 31, 2020, if it is safe and operationally feasible to do so, all tugboats transiting in the Canadian inshore area of the Strait of Juan de Fuca are requested to move south of the known killer whale feeding area and navigate either through the outbound shipping lane or the inshore lateral displacement zone, while maintaining a buffer distance of 1,000 metres from the traffic separation scheme (TSS).

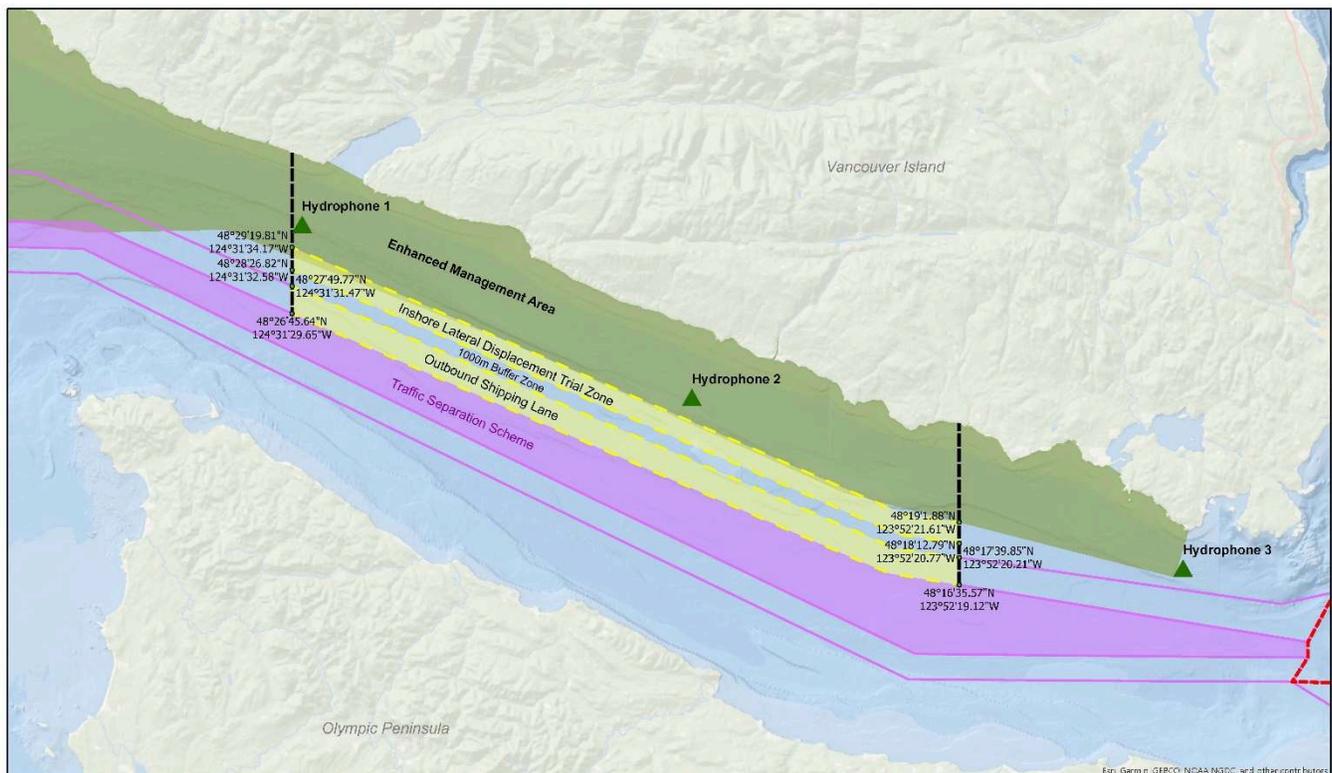
Inshore lateral displacement zones

There are two areas where tugboat operators may participate in the lateral displacement initiative: the inshore lateral displacement zone and the outbound shipping lane.

The inshore lateral displacement zone is 1,500 m wide and occurs in the area between 123° 52.3532' W 48° 18.6222' N and 124° 31.5563' W 48° 28.8886' N, covering a distance of approximately 28 nm.

The inshore displacement zone is positioned 1,000 m north of the TSS in order to provide a safety buffer. An enhanced management area (EMA) has been identified by the Government of Canada along the northern side of the Strait of Juan de Fuca (shown in green in the map below). Tugboats are asked to transit between the EMA and the buffer zone within the designated inshore lateral displacement zone.

Tugboats transiting the outbound shipping lane are also considered to be participating.



To download a full size map of the lateral displacement area, visit www.portvancouver.com/echo/lateraldisplacement.

How to participate

Between June 1 and October 31, 2020:

- Position tug to enter the inshore lateral displacement zone or outbound shipping lane, only when safe to do so
- If transiting in the inshore lateral displacement zone, maintain a 1,000 m buffer from the TSS and avoid entering the EMA.
- Maintain sufficient closest point of approach with any other vessel traffic

Displacement is voluntary and does not relieve operators of their obligations under the collision regulations, or to take precautions given the circumstances of the case. Any directions from Vessel Traffic Service supersede those of the voluntary displacement.

Tugboats are requested to participate whether or not they are currently towing a barge.

Participating in the lateral displacement is not expected to significantly impact a tug's transit time or fuel consumption rates.

Participation goal: Over 80%

In order to reduce underwater noise levels as much as possible in 2020, the ECHO Program is seeking high levels of support with a participation goal of 80%. We recognize that the worldwide economic pressures being faced by the marine industry in 2020 due to COVID-19 may make it challenging to maintain high participation levels at all times. Participation rates by sector will be reported regularly throughout the slowdown period in the ECHO Program newsletter.

Monitoring and reporting

Similar to past years, participation rates will be monitored using Automatic Information System data. Underwater noise will be measured using underwater microphones, known as hydrophones, operated by Fisheries and Oceans Canada in the Strait of Juan de Fuca.

Regular updates about the displacement and participation levels will be provided through the ECHO Program newsletter.

At the end of the displacement period, with support from project partners, the ECHO Program will conduct a full analysis to evaluate its effectiveness.

For more information

For more information on the voluntary inshore lateral displacement, visit www.portvancouver.com/echo/lateraldisplacement.

For questions, please contact us at echo@portvancouver.com or through the Vancouver Fraser Port Authority Operations Centre, which is available 24/7 at 604.665.9086.

For more information on the ECHO Program, please visit www.portvancouver.com/echo.