

# 2019 Inshore voluntary lateral displacement trial for tug and barge operators

## *Strait of Juan de Fuca*

### **Working to reduce underwater noise in endangered killer whale feeding area by moving tugs further away**

Southern Resident killer whales are listed as endangered under both the *Species at Risk Act* in Canada and the *Endangered Species Act* in the U.S. Since last year, the population has declined to 75 individuals. Over the last year, both countries' governments have continued to highlight the need to develop and implement measures to reduce underwater noise generated by ships, which research indicates can interfere with whales' ability to hunt, navigate and communicate.

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

Last year, 88 per cent of tugs participated in the 2018 lateral displacement trial by spending all or part of their transit in the inshore trial zone. Preliminary results indicate that this high rate of participation resulted in a substantial reduction in underwater noise at a hydrophone located on the northern side of the Strait of Juan de Fuca, in an area identified by Fisheries and Oceans Canada as an important feeding area for the killer whales.

Building on the learnings and success of the 2018 inshore lateral displacement trial, and in an effort to support ongoing whale recovery measures for the Southern Resident killer whales, this year the ECHO Program is again working closely with government and marine transportation industry partners to adapt and refine the approach to support another inshore voluntary lateral displacement trial for tug and barge operators.

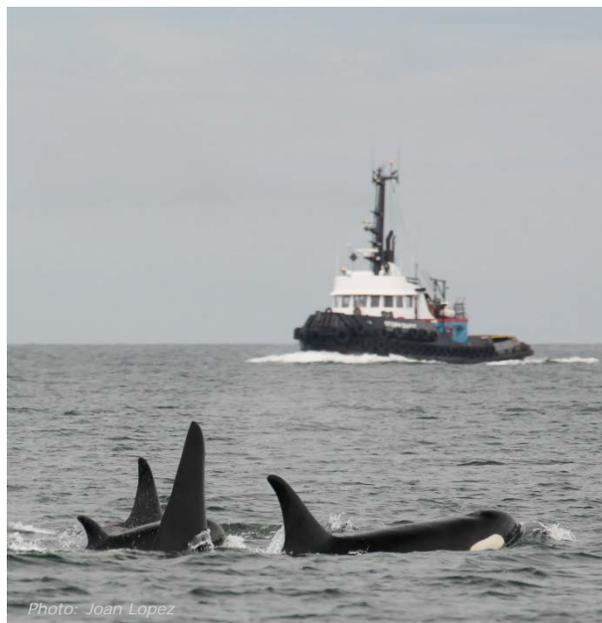


Photo: Joan Lopez

## About the 2019 inshore lateral displacement trial for tug and barge operators

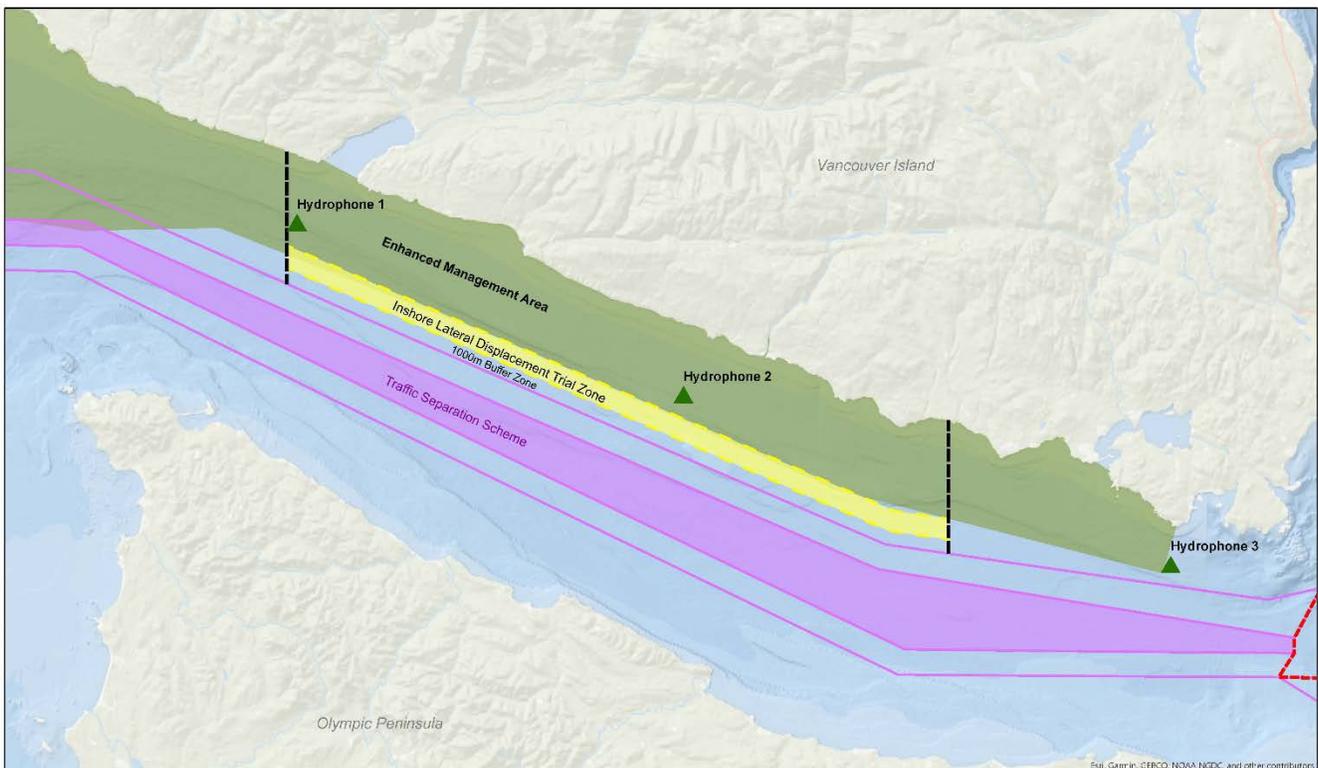
This year, if it is safe and operationally feasible to do so, all tugs transiting in the Canadian inshore area of the Strait of Juan de Fuca are requested to move south of the known killer whale feeding area and navigate through the inshore lateral displacement trial zone while maintaining a buffer distance of 1000m from the traffic separation scheme (TSS).

### Inshore lateral displacement trial zone

The inshore lateral displacement trial zone is 1500 meters 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 trial zone is positioned 1,000 meters 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). During the trial, tugs are requested to transit between the EMA and the buffer zone within the designated inshore lateral displacement zone.

The lateral displacement trial will take place from June 17 to October 31, 2019 and participating in the trial is not expected to impact a tug's transit time or fuel consumption rates.



To download a full sized map of the lateral displacement trial area, visit [www.portvancouver.com/echo/lateraldisplacement](http://www.portvancouver.com/echo/lateraldisplacement).

## How to participate

The following protocols should be taken into consideration when participating in the trial:

- Position tug to enter the inshore lateral displacement trial zone, only when safe to do so.
- Maintain a 1000m buffer from the traffic separation scheme.
- Maintain sufficient closest point of approach with any other vessel traffic.
- The trial is voluntary and does not relieve tug of its obligations under the Collision Regulations, or to take precautions given the circumstances of the case.
- Any directions from Vessel Traffic Service supersedes those of the voluntary trial.

## Monitoring and reporting

Similar to 2018, it is anticipated that participation rates will be monitored using AIS data and underwater noise will be measured before, during and after the trial using three underwater microphones, known as hydrophones, operated by Fisheries and Oceans Canada in the Strait of Juan de Fuca.

Regular updates about the trial and participation levels will be provided via the ECHO Program newsletter.

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

## For more information

For more information on the inshore voluntary lateral displacement trial for tug and barge operators in the Strait of Juan de Fuca, or to sign up for the ECHO Program newsletter by clicking [here](#). For questions, please contact us at [echo@portvancouver.com](mailto:echo@portvancouver.com) or visit the ECHO Program webpage at [www.portvancouver.com/echo/lateraldisplacement](http://www.portvancouver.com/echo/lateraldisplacement).

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