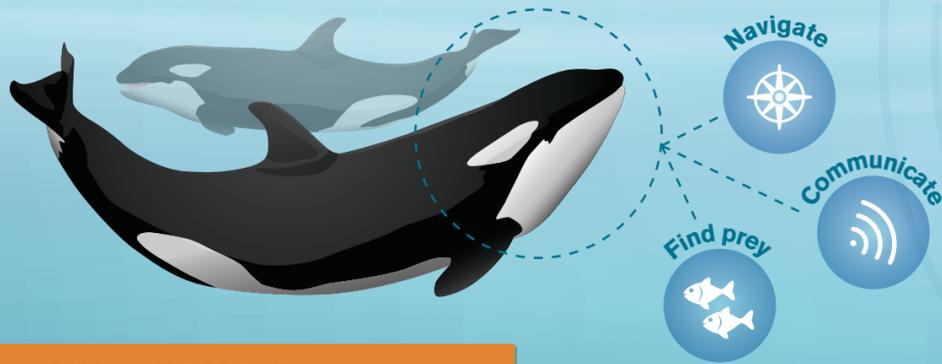


A collaborative approach to protect at-risk whales in the Salish Sea

The Enhancing Cetacean Habitat and Observation (ECHO) Program

While there are plenty of naturally occurring sounds in the ocean, research shows commercial ship traffic is a key contributor to underwater noise.

Underwater noise from ships can interfere with the ability of marine animals to:



About the ECHO Program

The Vancouver Fraser Port Authority is the federal agency responsible for the stewardship of the Port of Vancouver on the west coast of Canada. Recognizing that commercial ship traffic in the region is growing and that ship traffic calling at the Port of Vancouver moves through southern resident

killer whale critical habitat, the port authority developed the ECHO Program in 2014 with a goal to meaningfully reduce the impacts of marine shipping on at-risk whales.

The port authority-led ECHO Program aims to engage and involve key regional interested

parties to maximize the program's success and help ensure that mitigation and management measures are informed by cultural, economic and environmental sustainability interests. The port authority works with government, the marine transportation industry, Indigenous individuals,

conservation and environmental groups, and scientists in both Canada and the United States to advance ECHO Program projects around the Port of Vancouver, in the Salish Sea and in the waters off the west coast of Vancouver Island.

What makes ships quieter?

The International Maritime Organization recognizes that underwater noise associated with shipping can be mitigated.

Options to reduce underwater noise from ships include:

Slowing down: Underwater noise can decrease when ships slow down.

Rerouting: Ship routes can be modified to avoid known whale feeding areas.

Ship design: Quieter propeller or engine design and technologies can be incorporated into ship upgrades or new ship builds.



ECHO Program underwater noise reduction initiatives

Mariners play an important role in helping to protect at-risk whales in shared waters

Commercial ships move through the Salish Sea, where southern resident killer whales return to feed between May and October each year. During this period, the ECHO Program coordinates industry-led voluntary research initiatives to better understand and reduce underwater noise from ships in key killer whale feeding areas. Ship operators and marine pilots volunteer to slow their ships when navigating through these areas or alter their routes, while underwater noise levels are monitored using an underwater microphone called a hydrophone. Results have demonstrated that slowing ship speed or moving ships further away can be effective ways of reducing underwater noise in key feeding areas which could make it easier for the killer whales to locate their prey.



The high participation rates and leadership demonstrated by the marine transportation industry in these initiatives illustrates how much can be achieved through well-designed, collaborative voluntary measures.

Did you know?

Many of the ships calling at the Port of Vancouver transit through the Salish Sea, where international shipping lanes overlap critical habitat for endangered southern resident killer whales in both Canadian and United States waters.

The ECHO Program provides resources such as guides, infographics and a tutorial that helps mariners to build awareness of local whale species and the effects ships may have on them, as well as best practices for navigating in their presence. These are available online at www.portvancouver.com/echo/resources



Learn more at www.portvancouver.com/echo