Attachment 5.1.2.4
In 2014, the International Maritime Organization (IMO) recognized that underwater noise associated with shipping is something that can be mitigated. Options to reduce ship noise underwater already exist!

- Insulate ship engine and use resilient mountings for onboard machinery.
- Modify propeller to minimize cavitation.
- Operate below cavitation inception speed and avoid rapid acceleration.
- Clean hull and maintain propeller.
- Insulate ship engine and use resilient mountings for onboard machinery. Modify propeller to minimize cavitation.
- Modify route to avoid whales in immediate vicinity and known sensitive marine areas.

Vessel noise interferes with the ability of marine animals to transmit and receive acoustic information. In some areas, vessel noise has reduced the area some whales can communicate by 90%. Sound travels 4.5 TIMES FASTER in water than in air.

The Effects of Vessel Underwater Noise on Whales and What Mariners Can Do About It

Sources of Noise

In the North Pacific Ocean, underwater noise has been DOUBLING in intensity EVERY DECADE for the past 60 YEARS.

Impacts

Underwater noise interferes with the ability of marine animals to transmit and receive acoustic information.

What You Can Do

In 2014, the International Maritime Organization (IMO) recognized that underwater noise associated with shipping is something that can be mitigated.

Options to reduce ship noise underwater already exist!

- SLOW DOWN: Operate below cavitation inception speed and avoid rapid acceleration.
- MAINTAIN: Clean hull and maintain propeller.
- OPTIMIZE: Insulate ship engine and use resilient mountings for onboard machinery. Modify propeller to minimize cavitation.
- DESIGN: Incorporate vessel quieting considerations during re-fits and new vessel construction.
- REROUTE: Modify route to avoid whales in immediate vicinity and known sensitive marine areas.

The Enhancing Cetacean Habitat and Observation (ECHO) Program is a Vancouver Fraser Port Authority-led initiative aimed at understanding and managing the impact of shipping activities on at-risk whales throughout the southern coast of British Columbia, Canada. For more information and footnote references, please go to portvancouver.com/echo

The Port of Vancouver

Read the Guidelines
WWW.IMO.ORG