

Ocean Disposal - Environment Canada
Disposal at Sea Program
Mr. Barry Jeffrey
Manager of Environmental Assessment Marine Programs
201 - 401 Burrard Street
Vancouver, British Columbia V6C 3S5

October 1, 2009

**Objection to proposal to sink ex-navy warship HMCS Annapolis
in Halkett Bay Marine Park, Gambier Island**

Dear Mr. Jeffrey:

Georgia Strait Alliance would like to register our opposition to the proposed dumping of the HMCS Annapolis in Halkett Bay Marine Park, Gambier Island by the Artificial Reef Society of BC (ARSBC).

This project's proponents present the dumping of a former destroyer escort ship as an environmental enhancement designed to create species habitat. However, they ignore the larger environmental consequences or potential loss of habitat that will occur due to the dumping of this ship. While reef diving is a valid sport in and of itself, creating an artificial reef can be harmful to the local environment, despite the fact that species will inhabit the structure once it's in place. The concerns we have with the current proposed project include:

1. Marine Park Location: Halkett Bay is a BC Class A marine-protected provincial park specifically designated to preserve species in their natural surroundings, thus it cannot be altered unless the provincial Minister of the Environment deems it necessary in order to either preserve or improve the marine park. Sinking a derelict ship will not preserve or improve the marine environment of this park and the proposed action is a poor choice over the benefits of preserving the natural species and beauty that is already present.
2. Size of the Bay: Halkett Bay is relatively small (approximately 400 metres wide) and we are concerned about the size of the Annapolis relative to its size. We are also apprehensive that the ship will be above or be very close to the water line at low tide making navigation hazardous for local boaters.
3. Impact of actual sinking: Sinking a ship the size of the 371 foot ex-destroyer Annapolis, which is larger than a football field, will greatly impact the area by displacing sediment and crushing the life below. The means by which the ship will be sunk will further this negative impact. The ship's sinking, either by removing the ball cocks (which makes it difficult to control where and in what position the ship will land on the bottom) or by detonating explosive charges to blast holes in it's hull will further this harmful impact. Previously, the Artificial Reef Society of BC has sunk vessels with

explosives which, according to a research paper by B.D. Smiley (Marine Environment and Habitat Science Division, Institute of Ocean Sciences, 2002) cause a rapid change in pressure and can cause the lungs of marine mammals to hemorrhage resulting in injury or death. This research also states that a charge of five kilograms is all that is needed to kill or harm all seals within 400 metres, and fish within 200 metres of the blast. Since Halkett Bay is 400 metres wide, blasts from detonations used to sink the Annapolis would have a significant impact on marine mammals and fish in the Bay and would constitute harmful alteration of fish habitat not permitted under the Fisheries Act.

4. Questionable benefits of artificial reefs: There is no scientific agreement that artificial reef construction is beneficial to the marine environment. In fact, scientific opinion is that it can be harmful – particularly when reefs are made from “materials of convenience” (eg. ex-navy ships) rather than being designed for the specific location and for enhancement of specific species. Such tailored reefs consider factors including: the number of chambers, chamber size, optimum reef size, design, substrate, depth versus distance offshore, spatial arrangement or configuration and materials. Artificial reefs from old ships are unnecessary and are likely to harm the environment by replacing existing natural habitats with less effective, simulated ones.
5. User Groups: Also, artificial reefs will primarily attract one user group, divers, to the Bay in a park that is meant for the enjoyment of all. Park usage may greatly decline as its potential loss of habitat and navigational hazards make it less appealing to non-divers.
6. Known PCB contamination and other toxins: The ARSBC has previously dumped 7 vessels into the waters of Georgia Strait without conducting research proving these structures are free of toxins. Assessments have not been completed to show that known bio-accumulators, such as PCBs, have been adequately removed and are not affecting the long-term health of marine life. Georgia Strait Alliance has knowledge that Environment Canada has performed tests on the ships previously sunk by the ARSBC in the Georgia Strait and that alarmingly high levels of PCBs on these vessels were found. Despite the removal of the ship’s wiring, solid PCBs remain. It is possible for many other substances such as oils, solvents, asbestos, toxic paints and fuel to remain on decommissioned ships despite cleaning. As all these substances are deleterious to fish habitat, it constitutes another violation of the Fisheries Act. Furthermore, GSA is aware from personal communication with DFO scientists that, despite requesting it, this research has not been passed on to them.
7. Results of other ex-naval ship sinkings: The former US aircraft carrier Oriskany, sunk in the Gulf of Mexico off the coast of Florida in 2006, has been found to be the source of high PCB levels in the marine environment which are now making its way into the human food chain. Despite the US Navy spending 23.6 million dollars to clean the Oriskany, 700 lbs of pure PCBs were left on board the ship as were toxic, heavy metal based paints. The Rand Corporation and the US Navy consulted the Artificial Reef Society of BC on the sinking of the Oriskany and they were present at its sinking. In addition, the Canadian ships sunk by the Artificial Reef Society of BC were used as

justification to bypass EPA regulations by the Bush administration. Deliberately dumping organohalogen compounds such as PCBs is illegal under both Canadian law and the London Convention of 1972, of which Canada is a party. This Convention prohibits organohalogen compounds from being deliberately disposed in the sea. Thus, such disposal is illegal unless all PCBs are removed.

8. Loss of a valuable resource. An ocean disposal permit must be obtained prior to the sinking of this ship. The treatment of our seas as trash dumps is contrary to Environment Canada's focus for the past 20 years as a conserver society using the principle of the 3 R's: reduce, reuse, and recycle. The disposal of these materials, which are primarily metallic, is an incredible waste of scrap metal and aluminum. Old vessels need to be dismantled and all the toxins appropriately and safely disposed of before the recycling of the resulting materials can occur. Using a domestic recycling model will ensure that the toxic materials are properly recycled and will defray the costs by recovering valuable scrap metal. The overall carbon footprint and environmental impact will be significantly lower since recycling is far less energy intensive and damaging to the environment than primary metals production. While initial costs might be greater, it ensures that we are not acting in an unsustainable manner by contributing to a contaminated food chain and increased carbon emissions for new metal production. According to Self, Basel Action Network's Green Ship Recycling Coordinator, "Once the toxic waste is carefully removed and treated, these old naval vessels are a treasure trove of recyclable metals. Dumping these old warships in the sea and damaging the marine environment, while squandering green recycling jobs and precious resources would be the most dishonorable discharge imaginable."
9. The precautionary principle: Dumping a decommissioned ship at sea contradicts the precautionary principle: where harmful effects are likely, the proposed action should not be allowed, even if there is inadequate or inconclusive scientific evidence to prove a conclusive link between it and the effects.
10. Safety concerns and liability: The combination of the steel hull and aluminum superstructure of these ships results in electrolysis – a battery effect created in salt water which causes them to corrode quickly, producing a potential hazard. A diver who explored the HMCS Chaudiere 16 months after its sinking confirmed that pieces of the ship broke away in his hands and jagged edges were exposed that could easily catch on divers' air hoses or other equipment. A young woman died while diving on one of the ARSBC's ships in 1995 and another diver was injured while diving on the Columbia in 1996. Who is prepared to accept liability for divers injured or killed on these ships once they are sunk?
11. Species at Risk: The Stellar Sea Lion, a designated species at risk under the Species at Risk Act, is known to live in Howe Sound where Halkett Bay is located. A marine park is meant to be a refuge or sanctuary for these species already under great stress. It is reckless to dump a ship without direct evidence that this, or any other threatened species would not be harmed.

12. Marine Protected Areas Network: Under the Oceans Act, the Department of Fisheries and Oceans has the laudable goal of increasing the marine protected areas network in Canada by 2012. These areas are meant to protect and conserve natural marine habitat and a network of protected areas will further enhance their capacity of accomplishing this. As a marine park, Halkett Bay should be contributing to this network of protected areas and the intent of that protection. It is interesting to note that Sechelt Inlets Marine Park, where the HMCS Chaudiere was scuttled in 1992, is actually named Sechelt Inlet Marine Recreation Area on the BC Parks website.
13. Lack of due public process: Unbiased public consultations on this sinking have not been held. On April 6th, an information meeting was held in Vancouver where the Artificial Reef Society of BC presented the project to the public. Later, on April 22nd a public information meeting was also held in Vancouver; with its minimal advance advertising and late timeslot, Sunshine Coast residents were unable to attend without staying overnight. Questions or arguments posed at these events by concerned citizens were simply argued down by the divers and proponents in attendance. The Artificial Reef Society claims they are simply awaiting final approval from Environment Canada and the sinking has been chosen as an official Canadian Naval Centennial event. All this has been decided without a transparent and meaningful consultation process under CEAA or any other agency of record.

It is clear that the risks of harm to the marine environment of Halkett Bay and the surrounding Georgia Strait far outweigh any short term recreational benefits. Therefore, we ask that you listen to the citizens of Halkett Bay and do not allow this project to proceed.

Georgia Strait Alliance is the only citizens' group focused on protecting the marine environment in and around the whole Strait of Georgia – Canada's most at-risk natural environment, and the place where 70% of British Columbians live, work and play. We are committed to a future for our region that includes clean water and air, healthy wild salmon runs, rich marine life and natural areas, and sustainable communities.

Sincerely,

Christianne Wilhelmson

Managing Director

CC:

Honourable Gail Shea, Minister of Fisheries and Oceans

Honourable Barry Penner, BC Minister of Environment

Sheila Malcolmson, Chair Islands Trust Council

[Friends of Halkett Bay](#)

[Artificial Reef Society of BC](#)

More information on [artificial reefs](#).

[CBC News story: Ships used as reefs contain PCB's](#)

[PCB Monitoring on the Oriskany Reef - Part 1](#)

[PCB Monitoring on the Oriskany Reef - Part II](#)