Figure 1 – SGang Gwaay is a Haida Heritage Site, UNESCO World Heritage Site, and National Historic Site. Photo: Parks Canada, M. Stronge.

Why develop a Safe Distance Offshore for Haida Gwaii?

In October 2014, the Russian cargo vessel Simushir en route to Russia lost power and came dangerously close to grounding on the west coast of Haida Gwaii. For the Haida Nation, this and other maritime occurrences have highlighted the need to minimize risk from shipping to the environment, cultural values and communities. Establishing a safe distance offshore would improve the likelihood of effective response to prevent potential vessel drift and grounding incidents in the future. This initiative is co-led by the Council of the Haida Nation (CHN) and Transport Canada (TC), in collaboration with shipping industry representatives (See Table 1).

The Importance of Haida Gwaii

Xaayda Gwaay *Haida Gwaii*, an archipelago situated off the north Pacific coast, has been home to the Haida for thousands of years. Life in the sea around Haida Gwaii is the essence and well-being of the Haida Nation, and our communities and culture. **'Laa guu ga kanhllns** *Responsibility* means we accept the responsibility passed on by our ancestors to manage and care for the sea and land. We will ensure that our heritage is passed onto future generations.

Haida Gwaii is at the edge of the continental shelf where upwellings of cold, nutrient rich water produce highly diverse habitats like deep-water corals, globally significant seabird colonies, and a path for salmon migrating from river systems on the mainland. Several whale species rely on these abundant waters. The west coast and K'iis Gwaay *Langara Island* are home to many ancient village sites, protected cultural forests, and important Haida fishing areas. Gwaii Haanas is a 5,000 km^2 protected area known for its diverse ecosystems, distinct flora and fauna, and living Haida culture. The ancient village of SGang Gwaay on the southwestern edge of Gwaii Haanas is designated as a Haida Heritage Site, National Historic Site of Canada, and a UNESCO World Heritage Site (Figure 1). The village site is illustrative of the long and enduring relationship between Haida and the land and sea through monumental poles, architecture and current use of the area. The west coast of Haida Gwaii is difficult to access due to its rocky and exposed shoreline, and distance from any large or small community.

Marine Protections

We see a future for Haida Gwaii that has healthy, intact ecosystems that continue to sustain Haida culture, all communities, and an abundant diversity of life, for generations to come. We will respect the sea around us and restore a balance between marine resource use and the well-being of life of the ocean.

- Haida Gwaii Marine Vision (2015)

The Haida Nation and Canada have made progress on cooperative governance for over 40 years. Today, over 52% of the land area and 87% of the shoreline is protected and managed by the Haida Nation, in collaboration with Canada, and/or British Columbia through a variety of cooperative marine plans and processes (Figure 2), including:

- Haida Gwaii Marine Plan (2015)
- Pacific North Coast Integrated Management Area (PNCIMA) Plan (2017)
- Gwaii Haanas Gina 'Waadluxan KilGuhlGa Land-Sea-People Management Plan (2018)
- SGaan Kinghlas – Bowie Seamount Marine Protected Area Management Plan (2019)
- Marine Protected Area Network Planning (ongoing)

A Collaboration with the Haida Nation, Canada, and Industry

The Safe Distance Offshore (SDO) for Haida Gwaii initiative is co-led by the Council of the Haida Nation (CHN) and Transport Canada (TC), operating under the collaborative governance structure established in the Reconciliation Framework Agreement for Bioregional Oceans Management and Protection (RFA). It is one of three pilot projects in the Northern Shelf Bioregion (NSB) and part of the Proactive Vessel Management (PVM) initiative of Canada's Oceans Protection Plan (OPP).

PVM seeks to strengthen collaboration between the Government of Canada, Indigenous Nations, the marine industry and other stakeholders to enhance marine safety and environmental protection through the development of voluntary measures. A project committee has been convened with industry for this general purpose. It is co-chaired by CHN and TC and comprises the following members: Chamber of Shipping, Shipping Federation of Canada, Cruise Lines International Association (NW & Canada), Council of Marine Carriers, International Ship-Owners Alliance of Canada, Pacific Merchant Shipping Association, Puget Sound Harbour Safety Committee and BC Coast Pilots.

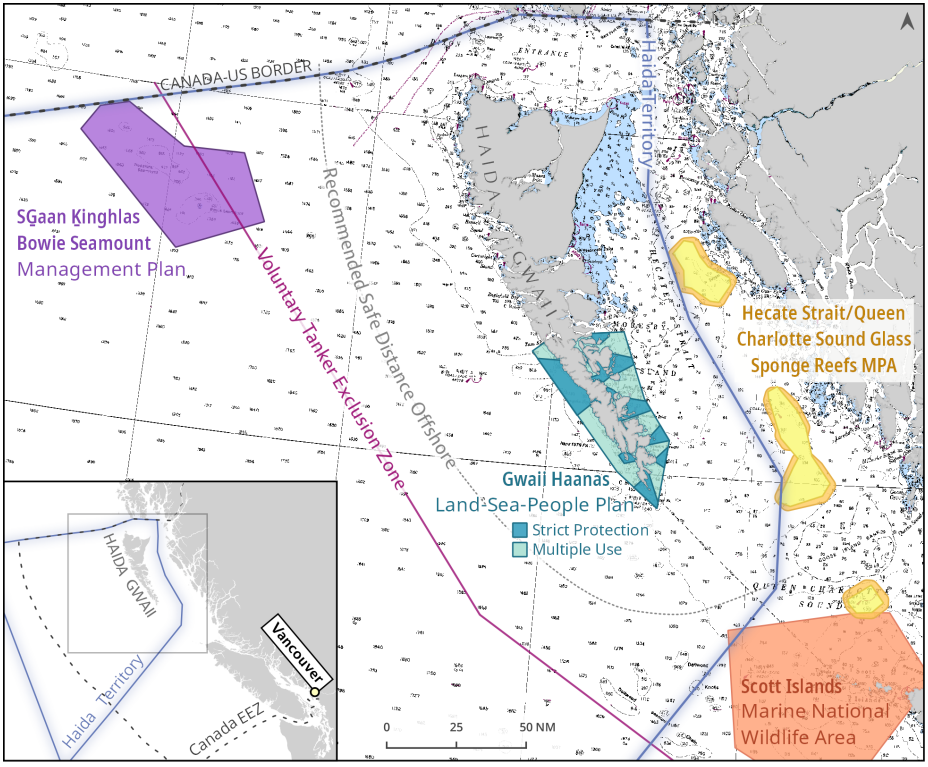

Figure 2 – Existing marine protections around Haida Gwaii[i]

Project Goals

1. Determine the Safe Distance Offshore to ensure a high likelihood of effective response to prevent vessel drift and grounding accidents along the coastlines around Haida Gwaii.
2. Assess the feasibility and effectiveness of implementing protective measures against this possibility and develop an associated implementation plan.

Research Methodology

Nuka Research and Planning Group, LLC completed three phases of traffic analyses, including an examination of trade routes, consideration of emergency towing, and a review of protective measures. Project committee members helped to identify research questions, guided the approach for Nuka's analysis and reviewed final products.

Summary of Findings – Vessel Traffic Analysis

In general vessels travelling between Alaska and southern ports (US and Canada) accounted for 92% of transits within 50nm (Table 1).

Emergency towing is considered a key preventative action to reduce the risk of vessel drift and grounding. Thus, the SDO is directly affected by Canada's continued use of dedicated emergency tow vessels (ETVs). The lease period for the ETVs in the Pacific region, the Atlantic Raven and Atlantic Eagle, ends in November 2021. Canada is only now beginning the process of developing a long-term emergency towing strategy.

CHN Recommendations Based on the Analysis

Based on the analysis and findings presented, the CHN recommends ships[i] transiting along the west coast of Haida Gwaii observe a minimum safe distance of 50nm from shore. This distance represents at least a 99% likelihood that a towing vessel would respond in the event of loss of control and prolonged vessel drift to prevent grounding[ii]. This likelihood is based on Canada's continued use of two dedicated emergency tow vessels patrolling the north and south coasts. The SDO does not take precedence when the safety of navigation, of the vessel, or of the crew is at stake.

Proposed Implementation

While the analysis provides a picture of traffic patterns on the west coast of Haida Gwaii (Table 1), the Project Committee recognizes that route planning is complex and there is a need to improve understanding of operator decision-making. In light of this, the proposed approach for implementing the SDO is intended on a trial basis beginning in early 2020. Vessel traffic monitoring will be implemented in the SDO to evaluate effectiveness and unforeseen consequences with the goal to inform the longer-term approach.

Table 1 - Number of cargo and cruise vessels and transits off west coast of Haida Gwaii in 2016[iii]

TRADE TYPE	# of Individual Vessels	Number of Individual Transits				Total Transits by Trade Type
		2-12 NM OFFSHORE	12-25 NM OFFSHORE	25-50 NM OFFSHORE	50-75 NM OFFSHORE	
CARGO						
Alaska	9	0	119	201	22	342
Northern BC	8	0	1	5	2	8
Great Circle Route from Strait of Juan de Fuca[iv]	74	2	14	28	32	76
CRUISE SHIPS						
Alaska	15	39	147	7	1	194
TOTAL	106	41	281	241	57	620

Relevant Maritime Occurences in the Pacific Region

December 7, 2004: M/V *Selendang Ayu*, a Malaysian bulk carrier lost power 100 NM NW of Dutch Harbor and 46 miles from the closest land. It grounded after 52 hours adrift and multiple efforts to establish a tow. The grounding resulted in a spill of 336,000 gallons of bunker fuel and six fatalities during an attempted evacuation of the crew. A delay in communications ashore was a factor in the loss of the vessel and corresponding spill. The incident led to the establishment of several IMO-designated Areas To Be Avoided extending 50 NM around the Aleutian Islands.
October 16, 2014: M/V *Simushir*, a Russian general cargo/container ship, lost power ~20.5 NM off the west coast of Haida Gwaii and drifted to within 5.6 nautical miles of shore during a major storm. CCG's Gordon Reid established a tow on the third attempt and held the vessel until the Barbara Foss took the vessel under tow to Prince Rupert on October 18.
November 24, 2015: M/V *North Star*, an American roll-on/roll-off ship lost power for several hours approximately 50 NM west of Haida Gwaii, while transiting from Anchorage to Washington. The *CCGS Gordon Reid* was deployed as a precaution and the ship regained propulsion and made port without assistance.
October 13, 2016: Nathan E. Stewart, US-owned tug and articulated barge, ran aground near Bella Bella en route from Alaska, spilling 110,000 litres of diesel and more than 2,200 litres of engine lubricants. The tug *Haisea Guardian* took the barge in tow when it separated from Nathan E. Stewart.
January 31, 2018: Singapore-registered container ship, *MOL Prestige*, suffered an engine fire en route from Vancouver to Tokyo and was adrift approximately 207 NM southwest of Haida Gwaii. The ship owner contracted the tug *Denise Foss*, which successfully towed the ship to Seattle. A CCG Emergency Towing Vessel was dispatched as a precaution until the vessel was safely under tow.
January 24, 2019: Panama-registered bulk carrier, *Alam Sayang*, lost power ~190 NM off the west coast of Haida Gwaii. CCG's *Atlantic Raven* was tasked to stand by. *Denise Foss* took the ship in tow.

The Ancient Murrelet - **'Laa guu ga kanhllns** *Responsibility* means we accept the responsibility passed on by our ancestors to manage and care for our sea and land.

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[i] 500 tons gross tonnage or more, or engaged in towing or pushing a vessel, where the combined tonnage of the ship and the vessel being towed or pushed is 500 tons gross tonnage or more.

[ii] Based on scenarios 5 and 6 zone of no save model developed by Clear Seas Centre for Responsible Shipping (2018) Vessel Drift and Emergency Response Study.

[iii] Based on 2016 AIS data provided by exactEarth in partnership with Clear Seas Centre for Responsible Shipping.

[iv] Includes vessels on this route whether departing/arriving at US or Canadian ports.

HAIDA NATION