

A photograph of a red and white boat on a rocky shore. The boat is in the foreground, partially on land. In the background, there is a body of water and a mountain range under a bright sky. The text "Proactive Vessel Management" is overlaid in large white letters.

# Proactive Vessel Management

IN THE INUVIALUIT SETTLEMENT REGION

## Proactive Vessel Management in the Inuvialuit Settlement Region

Inuvialuit Regional Corporation, 2020

This document was developed with the generous support of Transport Canada, the Coast Guard, the Inuvialuit Game Council, and the ISR Proactive Vessel Management Working Group.



# Table of Contents

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## Introduction

<b>Proactive Vessel Management and the Beaufort Sea</b>	<b>2</b>
---------------------------------------------------------	----------

## Priorities for PVM Approach

<b>Small and Recreational Vessels</b>	<b>4</b>
<b>Cruise Ships</b>	<b>5</b>
<b>Ship Speed and Marine Mammals</b>	<b>6</b>

## Priorities for Regulatory Attention

<b>Seismic Testing</b>	<b>8</b>
<b>Fuel Spills</b>	<b>9</b>
<b>Ballast Water</b>	<b>10</b>
<b>Grey Water</b>	<b>11</b>
<b>Safety and Search and Rescue</b>	<b>12</b>

## Additional Information

<b>Low Impact Shipping Corridors</b>	<b>14</b>
<b>Acknowledgements</b>	<b>16</b>
<b>Contact Information</b>	<b>17</b>



# Proactive Vessel Management and the Beaufort Sea

Since time immemorial, the Beaufort Sea has played a vital role in Inuvialuit culture, identity, and livelihood. Today, Inuvialuit share the Beaufort Sea with visitors, researchers, cargo ships, search and rescue teams, and many others. In order to protect and preserve the Beaufort Sea for generations to come, it is important to make sure everyone knows how to use the waterway in ways that are safe for humans and the environment.

Under the Oceans Protection Plan, Transport Canada has created a forum for community members, government, and other organizations to work together to promote maritime safety

and protect the marine environment of the Beaufort Sea. The forum, called Proactive Vessel Management (PVM), creates guidelines that mariners can voluntarily follow to solve common problems in waterways. PVM is an alternative to changing laws and regulations, which is a challenging and time-consuming process.

In 2019, Inuvialuit came together and identified numerous priorities related to increased vessel traffic in the Beaufort Sea. PVM guidelines were created for some of the concerns, but others can only be solved with regulations. This booklet will tell you about some Inuvialuit concerns and what PVM or regulatory measures could be used to solve them.

## How can Proactive Vessel Management help?

The PVM approach can help:

- solve marine safety issues in local and regional waterways;
- solve commercial shipping conflicts; and
- protect the marine environment by creating guidelines for mariners to voluntarily use.

## What is happening with vessels in the Beaufort Sea?

Because of the ISR's convenient location at the western end of the Northwest Passage, less summer sea ice, and better vessel technology, the region is easier to access than ever. So, more boats of all kinds are traveling in the Beaufort Sea. More boat traffic creates new opportunities for businesses and individuals in the ISR. But



Map of the Inuvialuit Settlement Region.  
(Map courtesy of the Inuvialuit Regional Corporation)





*A recreational vessel on the Beaufort Sea's shore in Ulukhaktok, NT.  
(Photo courtesy of the Inuvialuit Regional Corporation)*

it also increases the potential for conflicts with harvesters, impacts on environment, wildlife, and communities, and the likelihood of maritime emergencies.

### **How is vessel traffic managed now?**

Rules and regulations about using Arctic waters, keeping waterways safe, and preventing fuel spills are outlined in the following Acts:

- The Canada Shipping Act, 2001
- The Oceans Act
- The Arctic Waters Pollution Prevention Act
- The Marine Transportation Security Act

Transport Canada and the Coast Guard make sure mariners follow the rules in these Acts.

In addition, the Inuvialuit Final Agreement of 1984 gives authority to the Inuvialuit Regional Corporation and six co-management bodies to manage activities on lands and waters in the

ISR. For example, the Environmental Impact Screening Committee (one of the six co-management bodies) reviews vessel applications wishing to travel in ISR waterways and provides recommendations on how best to reduce their impact on the environment.

### **What needs to be done?**

Inuvialuit culture, identity, and food security are intimately connected to having access to a healthy environment. Existing marine management measures may not be enough to protect the communities and environment of the ISR.

The Beaufort Sea does not have the right vessel traffic infrastructure to support the increase in mariner traffic. In some cases, local concerns can be dealt with through the right regulatory agency. In other cases, voluntary measures (PVM) can solve issues more quickly.

## PRIORITIES FOR PVM APPROACH

# Small & Recreational Vessels

### Why is this a priority?

More small and recreational vessels are traveling in the Beaufort Sea. This can mean more disturbance to marine animals, local harvesters, and travellers. There are also concerns that boats are visiting cultural sites and camps without permission or disturbing wildlife.

Unlike large vessels, most small boats are not required to carry Automatic Identification System (AIS) devices, which broadcast a vessel's location, name, and other information. When a vessel does not have an AIS device on board, nearby community members may have little or no warning of their arrival, and no way to identify or track the boats.



*Recreational vessels on the Ulukhaktok shore.  
(Photo courtesy of Bogdan Stanciu)*

### How is the ISR affected?

Many operators of small boats may be unaware of local expectations, for example how and when to approach private lands and camps, sensitive waters, or cultural sites. This can cause trampling of vegetation, threats to food security, and possible damage to cultural and archeological sites. The lack of AIS devices on small boats means that monitoring what is happening can be difficult. While small boats do not carry as much fuel as large ships, they may still have fuel spills. Mariners unfamiliar with the Beaufort Sea may also get into trouble and need rescue or other assistance.

### What are the rules now?

Transport Canada requires small boats to follow rules about pollution, safety devices, and environmental measures. But enforcing these rules on many small vessels in the wide region is difficult. There are no rules about recreational vessels landing at community camps and cultural sites. Visitors intending on camping on Inuvialuit Private Lands are expected to contact the Inuvialuit Land Administration.

### How can the Proactive Vessel Management Approach help?

The PVM approach can be used to create a checklist of “dos and don’ts” based on local needs and the abilities of small vessel operators. Potential guidelines include using AIS devices, making rescues safer for local SAR teams, and easier to estimate the number of boats in the region.

## PRIORITIES FOR PVM APPROACH

# Cruise Ships

### Why is this a priority?

Cruise ship traffic in the Beaufort Sea is increasing. Cruise ship traffic can disturb animals and harvesting. Large numbers of tourists coming ashore can also overwhelm a small community or damage sensitive sites.

### How is the ISR affected?

Cruise ship traffic is affecting all six ISR communities. When communities have time to plan for a cruise ship's arrival, the effects can be positive. Cruise ships can provide economic opportunities for Inuvialuit on board and at on shore local businesses.

When cruise ships make unscheduled stops or arrive during a harvesting period it can cause problems for both tourists and communities. There may not be enough bathroom facilities onshore, insufficient supplies in local stores to cater to the needs of the tourists, or enough resources to respond to emergencies.

Visitors may also be unaware of local customs regarding privacy, such as when it is okay to take photos.

### What are the rules now?

Under the IFA, cruise ship companies need to consult with the IRC to ensure all potential procurement opportunities are considered. This is both an obligation of the IRC and the Government of Canada under its Treaty with the Inuvialuit. Transport Canada is responsible

for enforcing rules about cruise ships, providing Arctic guidelines for tour operators, and providing coordination support.

The Environmental Impact Screening Committee, established under the IFA, reviews all cruise ship plans to decide if more environmental review is needed. In addition, the Inuvialuit Community Economic Development Organization (ICEDO) has developed a Cruise and Yacht Management Strategy, based on community consultation.

### How can Proactive Vessel Management help?

The PVM approach can be used to create guidelines for cruise ship operators. For example, it could suggest that communities use the Enhanced Marine Situational Awareness System (EMSA), to track cruise ship progress using the AIS on board. This would help communities prepare.

The guidelines could also suggest regular meetings between cruise ship operators and community and regional representatives to talk about how ships and passengers can follow local rules, expectations, and government laws.

The results could be added to the existing Guidelines for the Operation of Passenger Vessels in Canadian Arctic Waters. Education materials can also be made to address concerns about cruise ships, like the Western Arctic Mariner's Guide.



## PRIORITIES FOR PVM APPROACH

# Ship Speed and Marine Mammals

### Why is this a priority?

Ships and other vessels move quickly and make a lot of noise. The noise from ships can disturb marine mammals over long distances, potentially affecting their ability to communicate.

Marine mammals can also be harmed or killed if hit by a vessel.

### How is the ISR affected?

Marine mammals are a key source of food, materials, and cultural well-being for Inuvialuit communities.

Disturbances such as ships that affect the health of marine mammals and the ability of harvesters to harvest animals can affect food security in the communities. Noise may alter marine mammals' migration routes away from communities or their food sources, or cause permanent damage to their hearing.

In extreme cases, whales may even beach themselves to get away from the noise or because their ability to navigate has been harmed.

### What are the rules now?

Current shipping regulations about speed aim to improve safety for passengers.

Ships that travel too fast can be a hazard to themselves and others. Ships that travel too

slowly can lose the ability to steer. However, a "safe speed" for maritime safety may not always be a safe speed for marine mammals.

Fisheries and Oceans Canada sets minimum distances for approaching some marine mammals to help reduce disturbance. These regulations do not set speed limits for vessels.

The Coast Guard also issues notices to mariners in and around the marine protected areas in the ISR to encourage mariners to avoid or slow down around bowhead and beluga whales.

### How can Proactive Vessel Management help?

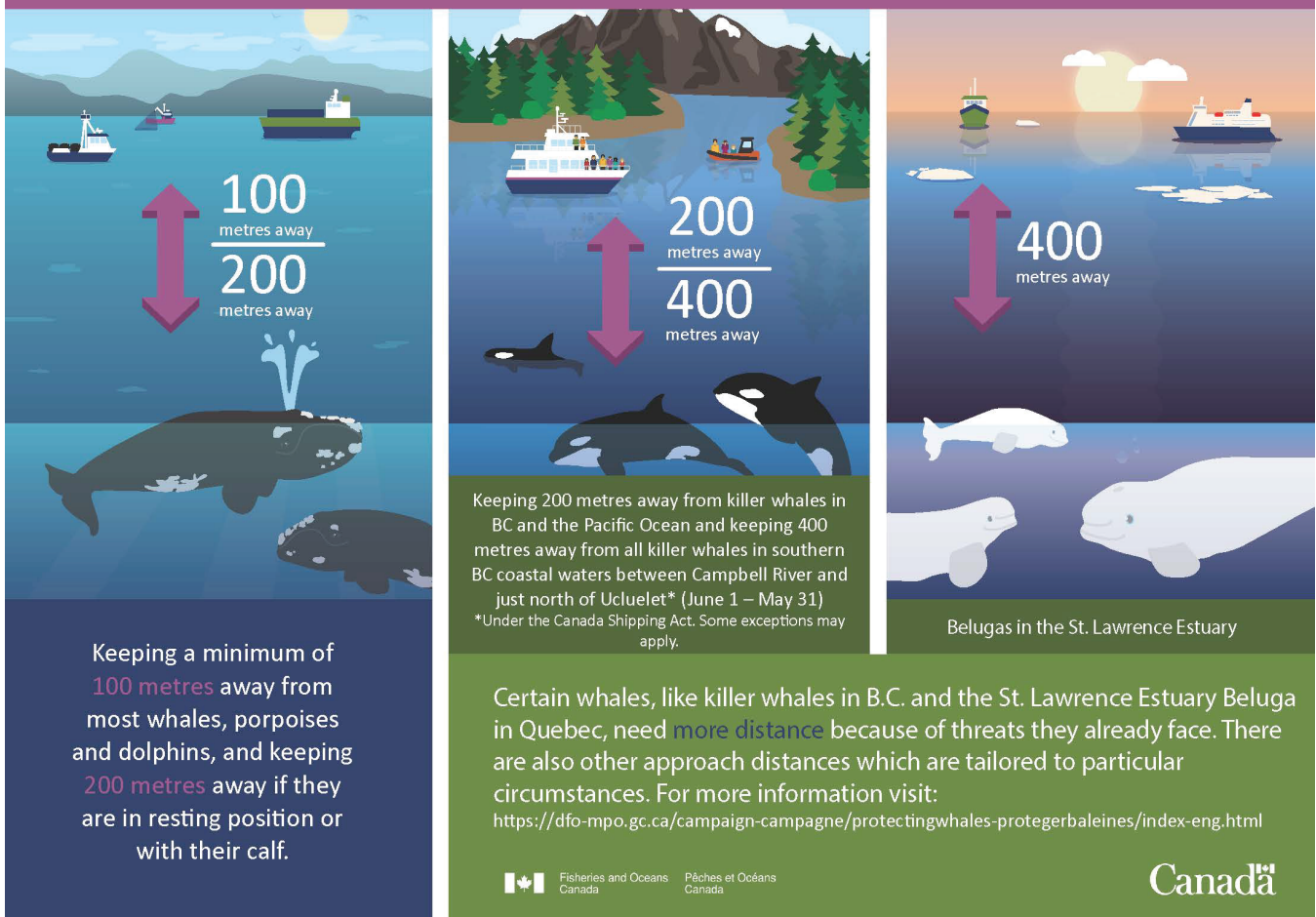
The PVM approach can be used to create speed guidelines for mariners.

For example, ISR residents can help identify migration periods, locations, times and general areas where hunting takes place so that mariners know what areas to avoid and when.

Speed guidelines could also help mariners reduce the amount of noise they make and avoid hitting marine mammals. This information should change over time to match changes in the waterways.

One potential outcome of the PVM approach would be a new Notice to Mariners (NOTMAR) for the ISR that reflects local concerns and conditions.

## If you see tail, fin or spray – Stay far enough away



**100 metres away**  
**200 metres away**

Keeping a minimum of **100 metres** away from most whales, porpoises and dolphins, and keeping **200 metres** away if they are in resting position or with their calf.


**200 metres away**  
**400 metres away**


Keeping 200 metres away from killer whales in BC and the Pacific Ocean and keeping 400 metres away from all killer whales in southern BC coastal waters between Campbell River and just north of Ucluelet\* (June 1 – May 31)  
\*Under the Canada Shipping Act. Some exceptions may apply.

**400 metres away**

Belugas in the St. Lawrence Estuary

Certain whales, like killer whales in B.C. and the St. Lawrence Estuary Beluga in Quebec, need **more distance** because of threats they already face. There are also other approach distances which are tailored to particular circumstances. For more information visit:  
<https://dfo-mpo.gc.ca/campaign-campagne/protectingwhales-protegerbaleines/index-eng.html>

 Fisheries and Oceans Canada    Pêches et Océans Canada



*Marine mammals are a key resource for Inuvialuit communities. It is important for vessels to respect their space.  
(Graphic courtesy of the Department of Fisheries and Oceans Canada)*

## PRIORITIES FOR REGULATORY MANAGEMENT

# Seismic Testing

### Why is this a priority?

Seismic testing involves making loud noises underwater and recording the echoes that come from geological layers beneath the sea floor. Seismic testing is used to find promising locations for oil and gas drilling. The noises are extremely loud and can disturb wildlife, potentially causing permanent damage and death if the animals are too close to the source of the noise.

### How is the ISR affected?

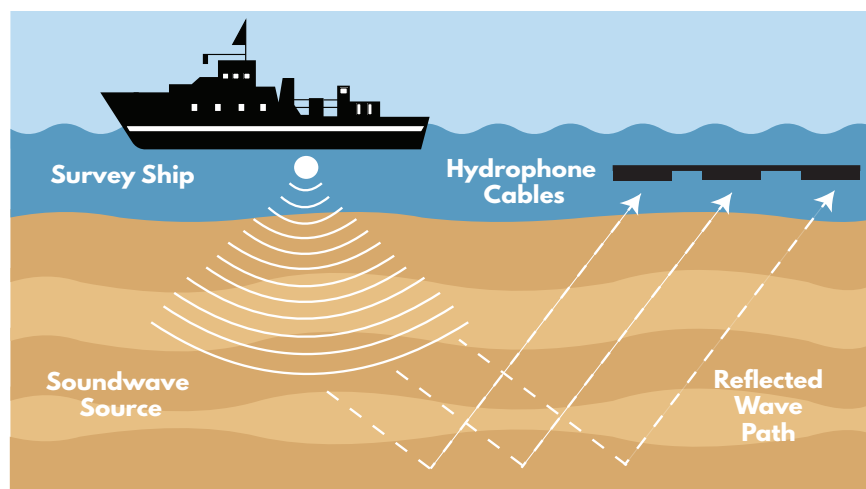
Extensive research has shown that seismic activity in the Beaufort Sea can harm marine mammals and other wildlife. It can also cause them to move to other areas or change their behaviour, which can make them harder to harvest. Seismic testing can also affect fish, invertebrates, coastlines, and the sea floor.

### What are the rules now?

Vessels that do seismic testing must follow all rules around pollution and safety in marine operations. In addition, the Canadian Energy Regulator provides permits for seismic testing, which don't allow seismic testing to happen around marine mammals. Seismic operators have to report their activities and locations.

### Creating awareness and raising local concerns

Indigenous knowledge has been used to help reduce the impact of seismic testing operations. Good communication can inform ISR residents when and where seismic testing is occurring in their area. ISR residents can provide up-to-date information to operators about environmental conditions, including sightings of marine mammals and other wildlife. ISR residents can contact the Canadian Energy Regulator with concerns about seismic testing.



*Seismic Testing is used to find promising locations for oil and gas drilling.  
(Graphic courtesy of the Inuvialuit Regional Corporation)*



## PRIORITIES FOR REGULATORY MANAGEMENT

# Fuel Spills

### Why is this a priority?

All motorized vessels require fuel. Leaks and spills can occur, especially during refueling or fuel transfer, which can harm shorelines, fish, birds, and marine mammals. Fuel storage facilities on shore can also be a risk if they are not properly protected from floods, storm surges, ice overrides, and other hazards.

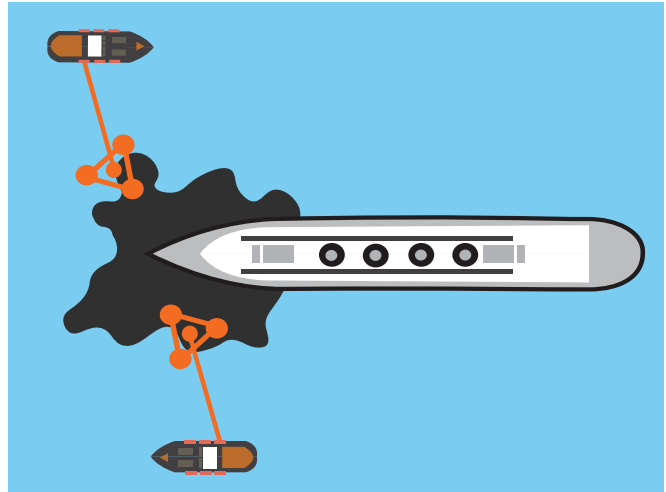
### How is the ISR affected?

The ISR does not have the right infrastructure for refueling vessels. This increases the chance of fuel spills in rivers and in the Beaufort Sea. Once fuel is spilled, it is very difficult to remove it from the water. In addition, oil products break down slowly in cold waters. Spilled fuel can pollute the waters, affecting food security and community well-being. Some fuel depots on land in the ISR are not protected properly, making fuel spills more likely.

### What are the rules now?

Government laws require vessels to be very careful when refueling. The Arctic Waters Pollution and Prevention Act aims to prevent pollution in Arctic waters. All spills must be reported, and clean-up efforts are required. The Marine Liability Act ensures vessel operators and ship owners are held responsible for their spills.

The Impact Assessment Agency of Canada and the Canadian Energy Regulator are responsible for rules governing offshore oil and gas operations. The Government of the Northwest Territories is responsible for making sure that companies operating in the Beaufort Sea can clean up fuel spills if they happen. Transport



*Spilled fuel can pollute the waters, affecting food security.  
(Graphic courtesy of the Inuvialuit Regional Corporation)*

Canada's National Aerial Surveillance Program conducts regular flights searching for evidence of spills and vessels that are not following the rules. Their efforts have significantly reduced fuel spills across Canada. Coast Guard is the lead federal agency for fuel spill clean-up.

### Creating awareness and raising local concerns

Sharing information about the risks of fuel spills can help mariners and others understand the need for care during refueling. Indigenous knowledge about hazardous conditions such as currents, wave patterns, and weather can provide mariners with additional information to help avoid unnecessary risk during refueling.

By monitoring if vessels are following the rules, ongoing problems with both federal regulations and local expectations can be identified.

ISR residents can bring their concerns to the Coast Guard.

## PRIORITIES FOR REGULATORY MANAGEMENT

# Ballast Water

### Why is this a priority?

Ballast water is water that ships bring on board to help with stability and steering in rough waters or when they are carrying uneven cargo loads. Large vessels need ballast water to operate safely.

When a ship loads or unloads cargo, or when conditions change, ballast water may be added or released.

Ballast water may carry invasive species, parasites, bacteria, or viruses. When released, these organisms may harm the environment, human health, and food security.

### How is the ISR affected?

The Beaufort Sea is not usually exposed to organisms from far away. Species from lower latitudes would have to travel around Alaska, through the Northwest Passage, or directly across the Arctic Ocean.

These are big natural barriers. But ships releasing ballast water could put harmful organisms into the Beaufort Sea. If the wildlife or waters of the Beaufort Sea and the ISR are affected, human health and food security could suffer, too.

### What are the rules now?

Transport Canada's Ballast Water Control and Management Regulations require that ballast water be managed by exchanging it with safer deep sea water before entering Canadian waters, cleaning before release, or by keeping the ballast water on board to safely release it at a water treatment facility.

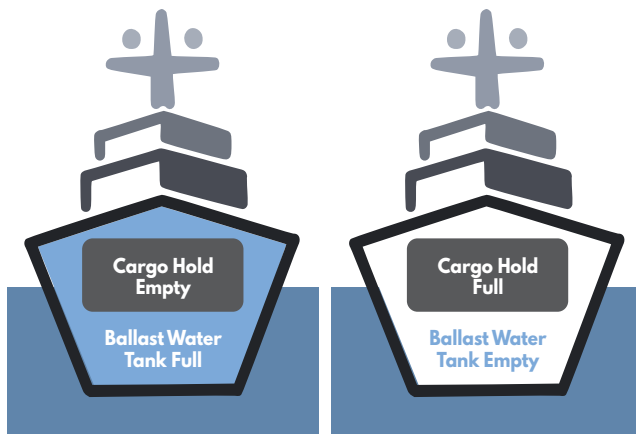
Ballast water that is collected outside of Canadian waters must not be released in Canadian waters unless an exchange is made before the vessel enters these waters, in an area at least 200 nautical miles from shore where the water depth is at least 2000m.

Vessels can use treatment systems if the vessel carries all the proper documentation for the treatment system.

Canadian regulations require that ships send ballast water reports 96 hours before arriving in Canadian waters. Vessels traveling only within Canada do not have to follow these rules.

### Creating awareness and raising local concerns

Information about the hazards of released ballast water can be shared with mariners. Information about where ships discharge their ballast water could be better communicated to ISR residents. ISR residents can address their concerns and ideas to Transport Canada.



*Ships need ballast water to help with stability.  
(Graphic courtesy of the Inuvialuit Regional Corporation)*

## PRIORITIES FOR REGULATORY MANAGEMENT

# Grey Water

### Why is this a priority?

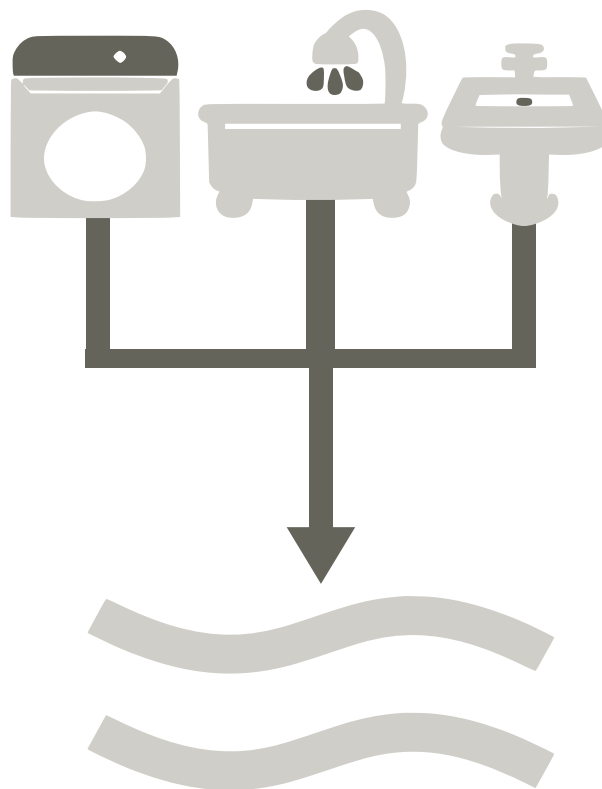
Grey water is drainage from sinks, laundry machines, bathtubs, showers, and dishwashers. Grey water does not include sewage, drainage from machinery, or workshop areas. Grey water can carry a wide variety of harmful chemicals from soaps and detergents that can pollute waters. This poses a threat to marine animals and potentially to human health and food security.

### How is the ISR affected?

Grey water released into the Inuvialuit Settlement Region's (ISR) waterways can contaminate local waters and affect fish and wildlife. Some pollutants can affect human health, either directly from the water or through fish and animals that we eat. Grey water that is released close to communities or near large populations of fish, birds, or mammals poses the highest risks. The long-term impacts of grey water in the ISR are still unknown.

### What are the rules now?

Canada's pollution prevention plan in the Arctic says no waste may be deposited into the water. So, any grey water deposits that fit the Arctic Waters Pollution Prevention Act definition of waste are not allowed. Transport Canada and the National Research Council are researching the possibility of treating grey water in the Arctic so that it would be safe to release into waterways. The results of the research could help reduce the problems caused by grey water released into Arctic waterways because right now, Vessel Pollution and Dangerous Chemicals regulations only cover waterways in Southern Canada.



*Grey water is drainage from bathtubs, sinks, and washing machines.  
(Graphic courtesy of the Inuvialuit Regional Corporation)*

### Creating awareness and raising local concerns

Information about the hazards of released grey water can be shared with mariners and communities to help increase awareness about how releasing grey water into waterways can cause problems. To improve local awareness of how vessels deal with grey water releases, ships could be asked to report on their grey water releases. They could also be asked to limit the locations where they release grey water. ISR residents can bring their questions, concerns, and comments about grey water to Transport Canada.



## PRIORITIES FOR REGULATORY MANAGEMENT

# Safety and Search and Rescue

### Why is this a priority?

If mariners get into trouble while on the water, they will require help from others. Depending on the type of problem, emergency response in the ISR is handled by a variety of groups, including the Coast Guard, Canadian Armed Forces, and the Northwest Territories Emergency Management Organization. Vessels equipped with Automatic Identification System (AIS) devices or that have filed travel plans before leaving are easier to find, which may shorten the “search” phase. Boats without AIS devices or a travel plan may need extensive search time.

### How is the ISR affected?

The ISR is a large region with a small population and limited resources to respond to emergencies. When trouble occurs, it can take a long time for help to arrive, especially in hazardous conditions. A number of factors, including latitude, use of emergency signalling equipment, AIS, and more may affect search times. The increased number of vessels coming to the Beaufort Sea includes small boats and others whose operators have limited experience in the region. The potential risks are increasing, but the region’s ability to respond to emergencies is still limited.

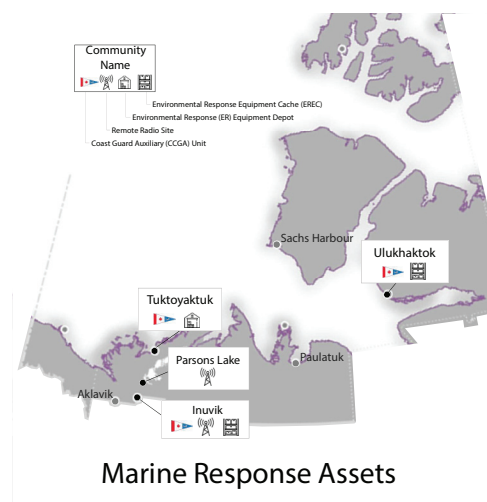
### What are the rules now?

The Coast Guard is responsible for maritime search and rescue services in the ISR. Small boat operators are encouraged to leave travel

plans with family or friends before leaving. The Coast Guard’s Marine Communications and Traffic Services Centre broadcasts information and monitors vessel traffic, including distress calls. Other voluntary measures, such as making sure small vessels have AIS or other safety devices, may help reduce the “search” phase of search and rescue.

### Creating awareness and raising local concerns

Mariners and residents need to know about the region’s limited ability to respond to emergency situations before they set out on a voyage. ISR residents can address their concerns and risks to the Coast Guard. Community and regional representatives and emergency response groups can meet to discuss gaps and concerns.



*The Coast Guard has various response units throughout the ISR.  
(Map courtesy of the Coast Guard)*



*Uluksaktok harbour in the summertime.  
(Photo courtesy of the Inuvialuit Regional Corporation)*

## ADDITIONAL INFORMATION

# Low Impact Shipping Corridors (LISC)

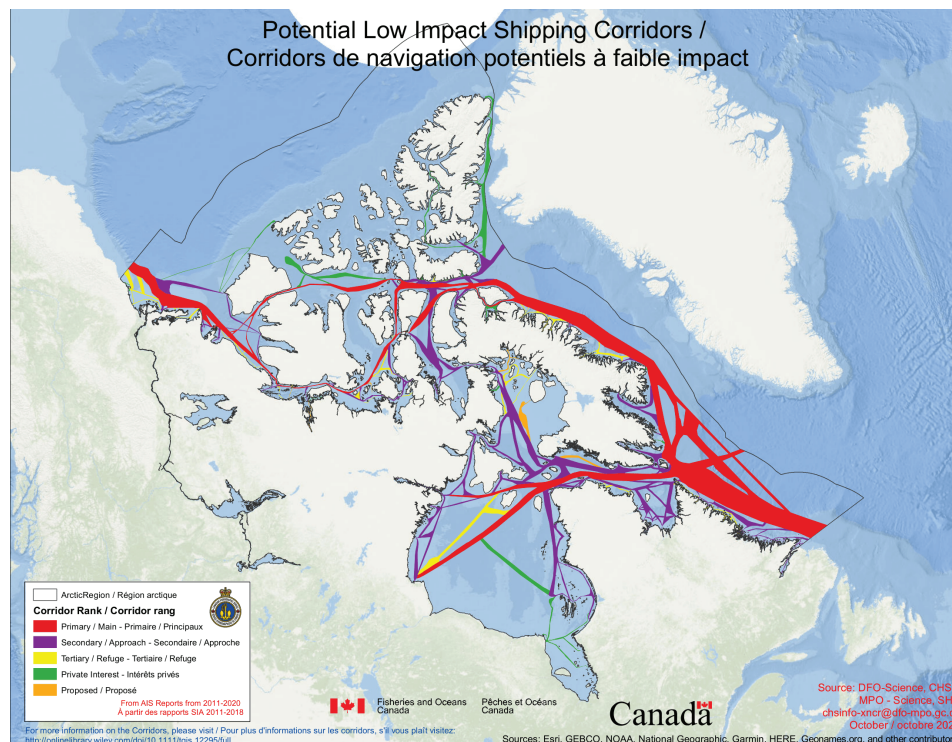
### Why is this a priority?

Under Canada's Ocean Protection Plan, the Northern Low Impact Shipping Corridors (LISC) initiative is aiming to minimize potential effects from marine traffic to wildlife, respect culturally and ecologically sensitive areas, enhance marine navigation safety, and provide a framework for investments in the North.

The initiative is being co-led by Transport Canada, Coast Guard, and the Canadian Hydrographic Service.

Based on historical tracks of AIS-capable vessels, the proposed corridors provide a starting point to discuss what the low-impact corridors can look like in the future.

The use of the LISC will be voluntary, but through investments in marine infrastructure their use will be incentivized. Infrastructure improvements could be made in areas like charting, search and rescue, environmental response capability, aids to navigation, and marine communications, to name a few. The LISC routes are not finalized, so Inuvialuit



*Inuvialuit can influence the location of LISCs based on anticipated Inuvialuit impacts.  
(Graphic courtesy of the Canadian Hydrographic Service)*





*LISCs could help reduce the environmental, ecological, and cultural impacts of increased Arctic vessel traffic.  
(Photo courtesy of the Inuvialuit Regional Corporation)*

can still participate in the discussions around their locations based on anticipated Inuvialuit impacts.

The LISC aims to mitigate potential impacts such as interference with harvesting, disposal of greywater, and increased ice breaking operations. The governance model for the implementation and operation of LISC has yet to be established. The federal government co-leads will be reaching out to communities to discuss potential governance models.

### **How is the ISR affected?**

The low-impact corridors could receive higher priority for charting, and for a framework for infrastructure improvements, thereby further incentivizing their use. Improving charting can increase vessel safety as the likelihood of running aground is decreased.

It will also help to keep vessels in areas which can reduce their environmental footprint and impact on communities. This is especially important if the number of vessels operating in the Arctic increases. All vessels transiting the Northwest Passage must pass through ISR-waters.

### **What are the rules now?**

There are few rules about where vessels can or cannot go, or where they can or cannot stop. For large vessels, the top priority is safety, which may occasionally take them out of their normal routes to avoid weather or ice.

### **Creating awareness and raising local concerns**

The LISC project is being led by Coast Guard, Transport Canada, and the Canadian Hydrographic Service. The Inuvialuit Regional Corporation has also been engaged in this project with Coast Guard and Transport Canada.

The proposed LISC are intended to be dynamic and any feedback that Inuvialuit have can be brought to the attention of either Coast Guard or Transport Canada. In addition, the team will be reaching out to Northern communities to seek feedback on potential governance models and sensitive areas to consider.

Inuvialuit can also email any comments directly to [DFO.CCGCorridors-CorridorsdelaGCC.MPO@dfo-mpo.gc.ca](mailto:DFO.CCGCorridors-CorridorsdelaGCC.MPO@dfo-mpo.gc.ca).

# Acknowledgements



The Inuvialuit Settlement Region Proactive Vessel Management Working Group would like to acknowledge the generous support of Transport Canada, the Coast Guard, and the Inuvialuit Game Council in the creation of this informational booklet.

We would also like to thank Inuvialuit for providing their invaluable knowledge, feedback, and concerns regarding protecting the Beaufort Sea.

Quyanainni | Quyanaq | Quana | Thank you

QUESTIONS, CONCERNS, OR COMMENTS?

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