

Port aux Basques navigation improvement project

Summary of environmental assessment registration document

Introduction

Marine Atlantic is proposing the navigation improvement project in Port aux Basques Harbour, Newfoundland and Labrador, to improve conditions for ferries operating between Port aux Basques and North Sydney, Nova Scotia. This year-round ferry service is an essential link to mainland Canada, carrying passengers and commercial traffic that transports vital goods to and from Newfoundland and Labrador, supporting residents, businesses, the tourism industry, and provincial supply chains.

Port aux Basques Harbour has been improved over time through dredging, infrastructure upgrades, modifications to Vardy's Rock, construction of the Pikes Island Breakwater, and terminal upgrades. Despite these investments, natural harbour features continue to make manoeuvring challenging, particularly during strong winds and rough seas. Vardy's Rock remains a key constraint because it limits the space available for ferries approaching and departing the docking facilities. Removing it would provide more room to manoeuvre and improve navigation conditions in the harbour.

Marine Atlantic first explored harbour improvements in 2018 and 2019, followed by consultation with local fishers and stakeholders in 2020 and 2021 before the project was placed on hold. In 2026, the project resumed, with environmental studies and approvals being updated and a new engagement program launched.

The project is currently in the environmental review phase, with consultation continuing with government agencies, Indigenous groups, fish harvesters, ferry captains, local organizations, and the Town of Channel-Port aux Basques. Completed studies provide a better understanding of harbour

conditions, identify potential effects, and support mitigation planning.

This overview summarizes the project, completed environmental studies, potential temporary effects, and measures to protect people and the environment during construction.

Project purpose

The project will improve ferry navigation in Port aux Basques Harbour and support long-term service reliability between Newfoundland and Labrador and mainland Canada. Operations are safe today, but limited manoeuvring space and weather, waves, currents, and wind can make approaches, docking, and departures more difficult.

The main component is removing Vardy's Rock to give ferries more room to manoeuvre near the terminal. Potential future improvements to the navigation channel and turning basin may be considered separately if needed, based on navigation standards and input from ferry captains and harbour users.

Project benefits

Improved ferry operations: Removing Vardy's Rock is expected to improve navigation conditions by giving ferries more room to approach, depart, and operate near the terminal.

Fish habitat enhancement: Some rock will be used to create fish habitat. Carefully placed structures can provide shelter, hiding areas, and feeding opportunities for fish and other marine species, helping offset habitat affected by construction.

Reuse of rock material: Most rock removed from Vardy's Rock is expected to be reused in the harbour to create new land adjacent to Pikes Island.

This landform is intended to reduce wave agitation, support future harbour infrastructure, and reduce waste.

Construction employment: The project is expected to create construction jobs. Depending on contractor needs, up to 200 people may be employed, with local and provincial hiring used where possible.

Together, these benefits are expected to improve navigation safety, support construction employment, strengthen harbour infrastructure, and contribute to fish habitat improvements.

Project components

Vardy's Rock removal: The main project component is the removal of Vardy's Rock through drilling, blasting, and dredging. Removed rock will be placed west of Pikes Island to create a new landform intended to reduce wave agitation.

Potential future improvements: Future phases may include widening and deepening parts of the navigation channel and creating a larger ferry turning basin.

Material removal and reuse: Up to approximately 418,000 cubic metres of rock and other material may be removed. Most is expected to be reused within the project area, including for land creation at Pikes Island and potential fish habitat enhancement.

Temporary construction facilities: Temporary facilities may include equipment and material storage areas, navigation markers, work areas, and access routes. These features will be removed after construction, and affected areas will be restored where practical.

Timeline

Regulatory review: The project is under provincial and federal regulatory review. Construction will not begin until the environmental review is complete and all required permits and approvals are in place.

Construction schedule: If approved, construction is expected to begin in early 2027 and take approximately one year. Timing may change based on weather, harbour operations, regulatory requirements, and construction planning.

Construction activities: Work will begin with site preparation, including temporary work areas, access routes, and navigation markers. Most construction will focus on removing Vardy's Rock. Once work is complete, temporary facilities will be removed and disturbed areas will be restored where practical.

Consultation & engagement

Purpose of consultation: Input from residents, harbour users, Indigenous groups, government agencies, and other stakeholders is an important part of the environmental assessment. Consultation helps Marine Atlantic understand concerns, gather local knowledge, and strengthen project planning and environmental protection.

Early engagement: During early planning, Marine Atlantic met with ferry captains, fish harvesters, business owners, government representatives, and the Town of Channel-Port aux Basques.

Topics raised: Consultation identified several topics for consideration, including harbour use, fisheries, environmental protection, construction activity, and community interests.

- Potential effects of drilling, blasting, and dredging on fish and fisheries
- How long construction-related effects could last
- Whether removing Vardy's Rock could change wave conditions within the harbour and affect floating docks and other infrastructure
- Whether construction activities could increase sediment in the water and affect water quality, including water used by local lobster holding facilities
- The importance of maintaining safety for all harbour users during construction

How feedback is being used: Consultation feedback has informed project design, environmental studies, and the assessment. Studies examined potential effects on fish and fish habitat, water quality, wave conditions, harbour operations, and community interests, and helped identify mitigation measures.

Ongoing engagement: Additional engagement is planned now that the project has resumed. Community members, Indigenous groups, harbour users, and other stakeholders will be able to learn about the project, ask questions, share local knowledge, and provide feedback throughout the review process.

Existing environment

Port aux Basques Harbour is a working harbour that supports ferry operations, fishing, boating, and community use. The project area includes marine and coastal environments influenced by natural conditions and long-term harbour activity.

Environmental studies examined water quality, seafloor conditions, fish and fish habitat, marine and terrestrial wildlife, vegetation, archaeology, ground conditions, waves, and currents to document existing conditions and identify potential effects.

Water quality and seafloor conditions: The outer harbour is influenced by clean ocean water from the Cabot Strait. The sheltered inner harbour can be affected by land-based and harbour activities, including drainage and wastewater outfalls. The harbour bottom is mainly bedrock, boulders, cobbles, gravel, and some sand.

Fish and fish habitat: The harbour supports fish, shellfish, and other marine species, with rocky shoreline and seabed habitats. Atlantic Whitefish was the only aquatic species at risk observed during field studies, although other species at risk have been recorded in the region.

Marine mammals and sea turtles: Marine mammals and sea turtles may occur along Newfoundland and

Labrador's south coast and occasionally use waters near the project area. Their potential presence was considered in assessment and mitigation planning.

Birds, wildlife, and vegetation: Studies on Pikes Island and Vardy's Rock identified typical coastal vegetation, including grasses, shrubs, and rocky shoreline habitat. No plant or wildlife species at risk were found. Breeding gulls were observed on Vardy's Rock, and breeding land birds may be present on Pikes Island.

Archaeological and cultural resources: Archaeological studies identified historical or cultural resources that could be affected by the project and supported protection planning for construction.

Geotechnical studies: Geotechnical studies assessed bedrock, sediments, and ground conditions to support engineering and construction planning.

Waves and currents: Studies and modelling examined harbour waves and currents to help predict how removing Vardy's Rock and creating new land near Pikes Island could affect harbour conditions.

Community and harbour use: Studies also considered harbour use and the local economy. Marine Atlantic has been part of the community for more than 120 years and remains a major regional economic contributor. The harbour also supports commercial and recreational fishing, including lobster fishing and mussel harvesting.

Potential environmental effects

As with any marine construction project, the project may affect the surrounding environment during construction. Most effects are expected to be temporary and related to drilling, blasting, dredging, transporting rock, and placing material in the harbour.

Water quality: Construction may temporarily increase sediment in the water during blasting, dredging, and material handling. This can reduce water clarity, but mitigation measures will be used to manage and minimize effects.

Fish and fish habitat: Some fish habitat will be permanently altered where dredging and infilling occur. Fish and marine species may also temporarily avoid active work areas because of underwater noise and activity. New fish habitat will be created to help offset affected habitat.

Marine mammals and sea turtles: Marine mammals and sea turtles may be temporarily disturbed by underwater noise and construction activity. Animals are expected to move away from active work areas.

Harbour users and fisheries: Construction may temporarily affect harbour use. Some areas may be restricted during blasting, dredging, or other work, which could disrupt fishing activity and vessel movements.

Noise, vibration, and air quality: Drilling, blasting, equipment use, and material transport will generate temporary noise, vibration, dust, and vehicle emissions during construction.

Birds, wildlife, and vegetation: Construction and increased human activity may temporarily disturb birds and wildlife. Vegetation on Vardy's Rock and nearby project areas may also be affected, generally limited to active work areas.

Accidents and malfunctions: The assessment considered unlikely events such as fuel spills, equipment failures, and vessel collisions. Prevention and response measures will be in place to reduce risk and respond quickly if needed.

Overall assessment: The assessment found that potential effects can be reduced and managed through careful planning, environmental protection measures, and construction monitoring. Significant adverse environmental effects are not expected.

Environmental mitigation measures

Marine Atlantic will require contractors working on its behalf to follow environmental protection measures that prevent, reduce, or manage potential effects during construction.

Key measures include:

- **Water quality and sediment control:** Use erosion and sediment controls to reduce suspended material entering the water.
- **Dust, noise, and air emissions:** Apply water to control dust when needed, maintain equipment, and limit unnecessary idling of vehicles and machinery.
- **Blasting controls:** Schedule blasting at appropriate times and follow procedures designed to protect fish, marine mammals, birds, and people.
- **Wildlife monitoring and protection:** Monitor for marine mammals and other wildlife before and during certain activities, stop work when required, and use deterrents before blasting where appropriate.
- **Sensitive timing windows:** Schedule activities to avoid sensitive periods for fish, marine mammals, and wildlife where possible.
- **Fish habitat offsetting:** Create new fish habitat to help replace habitat affected by the project.
- **Spill prevention and waste management:** Follow procedures to prevent spills, leaks, and other releases, and properly manage construction waste.
- **Regulatory coordination:** Use visual and acoustic monitoring, or other accepted methods, and establish shut-down zones in consultation with regulatory authorities.

Together, these measures and construction monitoring are intended to protect water quality, fish and fish habitat, marine mammals, birds, wildlife, and other environmental features in and around Port aux Basques Harbour.

Monitoring and follow-up

Environmental monitoring will take place during construction and, where required, after construction. Monitoring will confirm that protection measures are effective, regulatory requirements are being met, and any unexpected issues are addressed promptly.

Monitoring activities will include:

- **Water quality and sediment:** Monitor water quality and sediment levels during construction to confirm activities are not causing unacceptable effects.
- **Noise and vibration:** Monitor noise and vibration generated by construction activities.
- **Fish and fish habitat:** Confirm that measures to protect fish and fish habitat are working as intended.
- **Habitat enhancement:** Monitor the performance of fish habitat enhancement measures implemented as part of the project.
- **Environmental protection measures:** Conduct regular inspections to verify that required protection measures are properly implemented.

Monitoring results will be reviewed throughout construction and used to identify and address issues as they arise.

Conclusion

Project purpose: The Port aux Basques navigation improvement project is intended to improve ferry navigation in Port aux Basques Harbour. The first phase focuses on removing Vardy's Rock to give ferries more room to manoeuvre when approaching and departing the terminal.

Environmental assessment: Completed studies examined existing harbour conditions and potential effects to support project planning, assessment, and mitigation measures.

The studies considered water quality, seafloor conditions, fish and fish habitat, wildlife, vegetation, harbour use, waves and currents, and other environmental and community factors.

Consultation has also taken place with Indigenous groups, government agencies, other stakeholders, and the public.

Expected benefits: The project is expected to support construction employment, improve navigation safety and reliability, reuse removed rock to create land near Pikes Island, and potentially enhance fish habitat.

Environmental protection: Construction activities will result in temporary environmental effects. Protection measures and monitoring programs will be implemented to reduce and manage those effects. Based on the assessment, significant adverse environmental effects are not expected when protection measures are implemented.

Ongoing engagement: Consultation with Indigenous groups, regulators, other stakeholders, harbour users, and the public will continue through the environmental review process. Feedback will continue to inform project planning and environmental protection measures.

Overall, the project is expected to improve ferry operations, support reliable transportation, protect the environment through planning and monitoring, and provide long-term benefits for the community,



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