SECOND DRAFT

PRPA LAND USE PLAN

April 2020

PRINCE RUPERT Port Authority

CANADA'S LEADING EDGE

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1 Introduction

The Prince Rupert Port Authority (PRPA) updated Land Use Plan (the Plan) provides a vision for the Port of Prince Rupert's development from now through 2040.

PRPA is committed to building a better Canada by growing trade. Through the Canada Marine Act, the Government of Canada has provided PRPA with a mandate to implement policies that provide Canada with the required infrastructure that effective support for the achievement of national, regional and local social and economic objectives and will promote and safeguard Canada's competitiveness and trade objectives.

The Land Use Plan is a strategic document that will help guide PRPA's vision to continue to drive relentless innovation and catalyze growth in Canada's trade with the world through the next 20 years. The Plan is built to reflect PRPA's commitment to innovation, growth and diversification, as well as its commitment to sustainable environmental stewardship, operational safety and healthy local communities.

The next 20 years will bring exciting opportunities and challenges to PRPA and the Port of Prince Rupert. Mutually beneficial partnerships with local First Nations, municipalities and the communities they represent, will ensure we continue to grow the port as a primary employer and economic driver, while we continue to reflect environmental and social values through safe, sustainable, responsible land development.

2 Purpose of the Land Use Plan

2.1 Plan Overview

The objective of the update to the Land Use Plan is to create a plan that meets PRPA's regulatory requirements under the *Canadian Marine Act* (CMA), while also guiding the growth of the port to continue to align with PRPA's vision for the future and mandate to support Canadian trade. PRPA has grown significantly since the 2020 Land Use Management Plan and today the outlook for continued future growth looks more positive, yet different from the current Land Use Plan.

The 2020 Land Use Management Plan was implemented in 2011 and set out a vision for approximately 10 years. Many aspects of this plan are still relevant today, but there have been important changes to the operating context, strategic direction and land portfolio of PRPA. Given these important changes, PRPA has decided to prepare an updated land use plan to set the vision for the for the next 20 years (Road Map 2020-2040).

It is important to note that the Land Use Plan does not replace the need to conduct project level reviews, environmental assessments and authorizations. Environmental assessments on federal lands are required for projects that are anticipated to generate adverse environmental affects according to relevant federal environmental legislation. The scope of project level environmental assessments is determined on a case by case basis according to this legislation and its associated regulatory framework. Similarly, regulatory permits and authorizations for projects are

subject to several legislative and regulatory frameworks and are delivered by the defined agencies, depending on the details and scale of the project.

PRPA is responsible for preparing a detailed land use plan that contains objectives and policies for the physical development of the real property that it manages, holds, or occupies and that it takes into account relevant social, economic and environmental matters. Consultation and engagement with local communities formed a component of this plan. The feedback and insight that PRPA has received from partner First Nations, its tenants, port stakeholders and larger community have been extremely valuable in shaping the vision for the updated Plan.

2.2 Plan Vision and Goals for the Future

The Plan Vision was developed to define the purpose and use of the plan, as well how it will inform future development. The vision sets ambitious targets and recognizes the port's importance in connecting Canada to global markets.

The PRPA Land Use Plan is a 20-year plan for the management of lands under PRPA's jurisdiction. The Plan will guide the responsible management of land to develop the Port of Prince Rupert to catalyze the competitiveness, growth and prosperity of Canadian trade, the continued growth and diversification and more than double its cargo volumes by 2040. The Plan provides a framework for land management that honours PRPA's strategic goals and encourages thoughtful development that limits environmental impact, is integrated into the surrounding community and is a gateway that provides an economic benefit to all Canadians.

The plan is also organized around four strategic goals that will help PRPA achieve the vision outlined above. These strategic goals are specific to how land use used in PRPA jurisdiction. Each goal is supported by Land Use Objectives and Policy Directions that are presented in Section 8. The Plan goals are listed below.

- **Goal 1** - PRPA will continue to enable Canadian trade growth and gateway competitiveness by facilitating new port capacities, capabilities and efficiencies.
- **Goal 2** - PRPA will make efficient use of land by maximizing land use value, intensity and density through careful and progressive planning and land allocation.
- **Goal 3** - PRPA will protect the gateway environment by developing responsibly and sustainably and minimizing environmental impacts of operations.
- **Goal 4** - PRPA is a collaborative partner with local First Nations and its surrounding communities and is committed to entrenching First Nations economic participation in an expanding gateway, sharing economic prosperity and enhancing community vitality.

2.3 History of the Port

Long before the founding of present-day Prince Rupert, the area was inhabited by the Ts'msyen peoples who had long established winter villages spread throughout Prince Rupert Harbour. The harbour was well protected and central to the region. Present day Prince Rupert was founded after the site was chosen as the western terminus for the Grand Trunk Pacific Railway. Prince Rupert was founded in 1910 and its location and function as a seaport have long been part of its modern identity. The port in Prince Rupert maintained its strategic value through much of its modern history. In World War II the City was a major centre for American and Canadian troops in the pacific theatre. However, for most of its history, Prince Rupert has been an important port for exporting bulk commodities on the west coast.

The Port of Prince Rupert became a federal port in 1972 due to its strategic location in trade and the significant role it could play in getting goods to market from all parts of Canada. The next

milestone was in 1984 when the port became a crown corporation, Ridley Terminals Inc. began coal export operations and Prince Rupert Grain opened a year later. The CMA established federal port authorities and PRPA was established by the issuance of letters patent by the Minister of Transport in 1999. PRPA's first land use plan was in 2000, coinciding with a new era for the Port of Prince Rupert and laying the foundation for the last decade of growth and diversification.

The Northland Cruise Terminal opened in 2002 which attracted cruise ships on their way to Alaska from Seattle. In 2007 the Fairview Container Terminal was opened, introducing intermodal trade and seeing an acceleration of containerized imports and exports moving through the Port of Prince Rupert. The volume of bulk exports moving accelerated again with the opening of Westview Wood Pellet terminal in 2013 and expansion of Ridley Terminals Inc. in 2015. Fairview Terminal's expansion in 2017 and associated growth in local logistics activities on Ridley Island marked the continued success of continued container shipping success over the last decade.

The development of the Port of Prince Rupert since 2005 was the primary factor in stabilizing and reinvigorating the economy, employment base and municipal taxation base of Prince Rupert and northwest BC. Today, growth in the Port of Prince Rupert continues as shippers are drawn to its competitive attributes and advantages; shorter sailing times between Asia and North America; short, safe and deep marine approaches and harbour, the connection and capacity of CN's rail network to North America and ability to expand and develop new infrastructure, terminals and services.

Figure 1 Shipyard in Prince Rupert – early 1900s

2.4 National and International Context

The Port of Prince Rupert is the third largest port in Canada and is recognized as a critical gateway for Canada's Asia Pacific and international trade strategy and import-export portfolio. As a diversified trade gateway, the port is recognized in the North American context as a competitive and complementary alternative to other west coast gateways such as Vancouver, Seattle-Tacoma, Oakland, Portland and L.A.-Long Beach.

The port's unique natural attributes and competitive service offerings culminate in value propositions that focus on speed, reliability, reach and ultimately cost competitiveness for its shippers. Gateway exports are moved in bulk, breakbulk and containerized modes, comprised largely of resource and manufactured goods from Western Canada, bound for diverse international markets, but in particular Asia. Gateway imports are primarily containerized consumer goods and manufacturing inputs from Asian manufacturing centres and are destined largely for the large population regions of Canada and the USA.

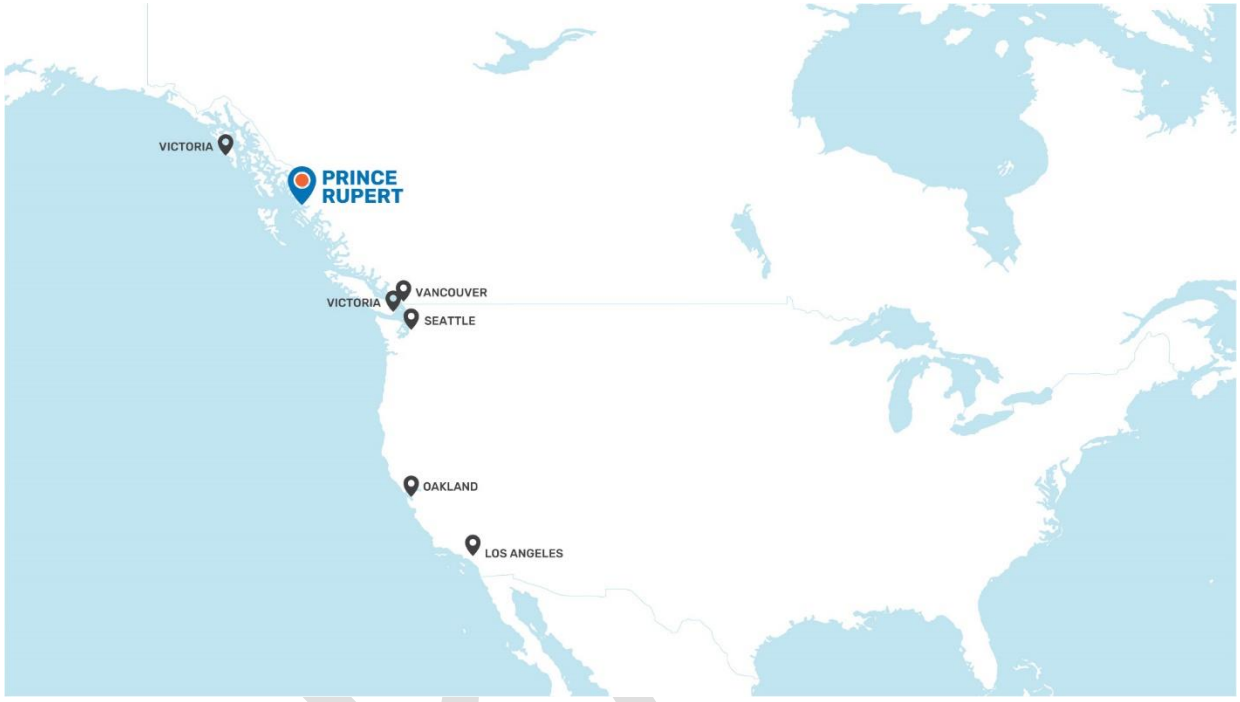


Figure 2 Prince Rupert relative to other west coast ports.

2.5 2020 Context

The Port of Prince Rupert continues to be one of the fastest growing ports in North America and PRPA is ready to take advantage of new opportunities as they arise. PRPA has undertaken a significant amount of work by adding critical road and rail service to lands under its jurisdiction and partners such as CN Rail have invested in upgrading its mainline into the port for over a decade. Following the adoption of the 2011 Land Use Plan, there was a flurry of activity in the Liquified Natural Gas (LNG) sector which saw several new export facilities proposed for the Prince Rupert area. The scale of these proposals was both unprecedented and unanticipated. Although no LNG projects have emerged in Prince Rupert as of today, the lesson learned was markets can change and new ones can arise quickly. Clearly, it is important to be ready to take advantage when opportunities arise.

This Plan is intended to be flexible to allow PRPA to take advantage of unanticipated opportunities as they come up in the future, while being proactive. That means having lands and transportation infrastructure ready for potential proponents and supporting ancillary services like import and export logistics. The plan also emphasizes the importance of working with local First Nations, municipal neighbours and communities to support their port related projects. Land in the Prince

Rupert area is in short supply and expensive to develop, so by partnering with its neighbours, PRPA can take a more holistic approach to port development.

This Plan is forward looking and provides a road map for development over the next 20 years to 2040.

2.6 Port Mandate

PRPA was established by the Government of Canada in 1999 pursuant to the Canada Marine Act and is accountable to the Canadian Minister of Transport. The Canadian Port Authority system is intended to make the system of Canadian ports competitive, efficient and commercially oriented.

Prince Rupert is one of 17 ports deemed essential to Canada's trading economy and designated as a Canada Port Authority (CPA) under the Canada Marine Act (CMA). CPA's operate at arm's length from the federal government and are governed by a board of directors chosen by the federal, provincial and municipal governments.

Under the CMA, PRPA possesses the power to engage in activities related to shipping, navigation and transportation of goods and passengers. PRPA sets the business direction for the port, undertakes development planning and infrastructure development and ensures the coordination required to ensure safe and efficient goods movement through port lands and waters.

PRPA also has the authority to manage and operate Crown land on behalf of the federal government in support of its mandate, can acquire and own land in its name and can act as landlords, leasing port operations to private operators. Under this authority, PRPA is responsible for land use planning and ensuring compliance with federal environmental legislation and regulations.

PRPA is required to be financially self-sufficient and fund operations through revenues generated from its own fees, lease agreements and other commercial sources. PRPA is not eligible for regular federal funding to meet operating costs or deficits. PRPA finances its own capital projects using its own revenues and equity (although it can partner with the private sector, borrow from commercial lenders and apply for federal infrastructure grants). PRPA pays an annual stipend to the federal government for the use of the federal crown lands.

PURPOSE

Build a better Canada through growing trade

MISSION

Develop and manage a gateway for trade, providing value and advantage to our customers while creating economic benefit to our community, region and the whole of Canada in a competitive, safe and sustainable way.

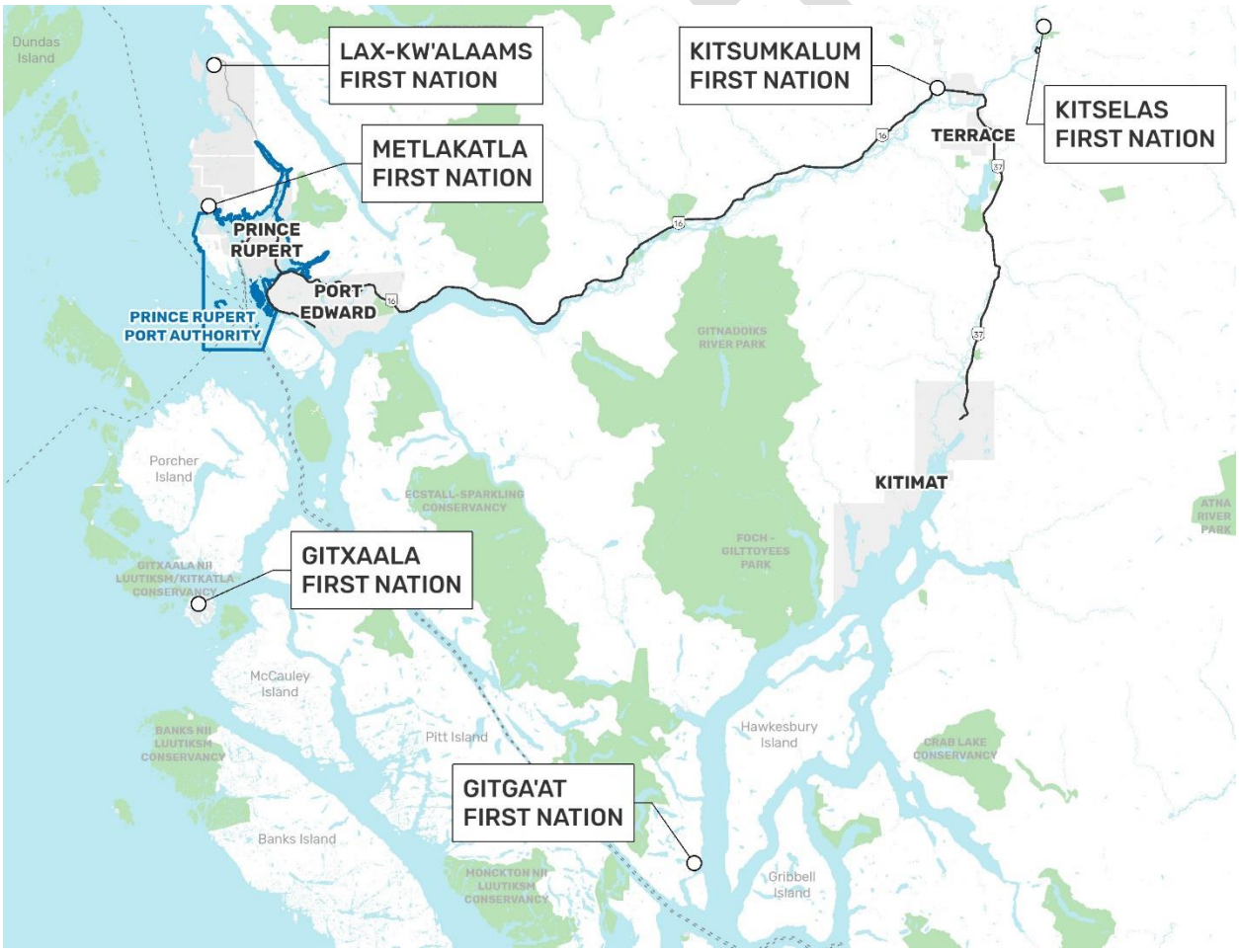
VISION

Become Canada's most efficient and innovative port through the development and stewardship of an integrated, diversified port complex that will handle 100 million tonnes of cargo and 6 million TEUs of containers, bringing the economic vitality of trade to the communities we serve.

3 Community Engagement

This Plan incorporates input provided by a variety of sources including partner First Nations, local municipalities, community members, port operators and other stakeholders. The planning process presented the opportunity to engage and share information about the port's function, activities and vision for the future.

Community engagement was a critical component of this project from its inception. The engagement process was tied to key project milestones and occurred in two main phases. The first phase focused on informing community members, project partners and stakeholders of the purpose of the land use plan and provided opportunities to share input. This first phase invited critical feedback on the existing 2011 plan so that lessons learned could be better understood and reflected in the recommendations for the updated land use plan.



3.1 First Nations

Indigenous peoples have been inhabitants of the Pacific northwest coast since time immemorial with distinct societies, resources, communities and governances structures. PRPA is located with the traditional territory of the Ts'msyen people. Within the City of Prince Rupert, 38% of its population identifies as indigenous. Coastal communities on the north coast are predominantly indigenous as well.

PRPA's land use plan does not impact the duty to consult with relevant First Nations on projects or decisions in PRPA's jurisdiction. PRPA is subject to a duty to consult and where appropriate, accommodate Indigenous peoples when a Crown action or decision has the potential to adversely affect existing or asserted Aboriginal and treaty rights. Six Ts'msyen First Nations have asserted rights and title within PRPA's jurisdiction-- Metlakatla First Nation, Lax Kw'alaams First Nation, Gitxaala First Nation, Gitga'at First Nation, Kitselas First Nation and Kitsumkalum First Nation. In cases where a third party proponent is leading a project, PRPA may delegate certain aspects of consultation to that proponent, but the requirement to uphold the duty continues to rest with the Crown and the determination of the adequacy of consultation is the responsibility of PRPA.

PRPA views local First Nations communities as key partners in the success of the port. As such, the engagement and dialogue between PRPA and local First Nations are critical to the land use planning process. Many First Nations community members work in port related industries and local First Nation councils have expressed interest in engaging with PRPA on future economic, environmental and social projects. PRPA reached out to all six local First Nation communities and held meetings to discuss methods of engagement; priorities and concerns with port development; and policy they would like included in the land use plan.

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3.2 Municipal Governments

Municipal governments are another important partner in the future development of the port. Approximately 50% of employees in port related industries live within Prince Rupert or Port Edward. As the port grows and diversifies, municipal governments will play a critical role in ensuring their communities are attractive for new workers. PRPA is conscious of ongoing processes in Prince Rupert, Port Edward and the North Coast Regional Districts to update or adopt their own Official Community Plans. PRPA recognizes the importance of these processes and will work closely with municipalities to ensure that land use designations in municipal plans align with port operations to ensure minimum conflict and their interests are considered and reflected in port land use planning.

3.3 Other Stakeholders

In addition to First Nations and local governments, input from other stakeholders is vital in the development of the update to the Land Use Plan. Several groups including provincial and federal government agencies, environmental organizations, Non-Governmental Organizations (NGOs), terminal operators, community organizations and project proponents have been engaged throughout the planning process. A full listing of all stakeholders and engagement level with them is available in the Engagement Summary attached in **Appendix A**.

3.4 Community Engagement (Phase 1)

The first phase of engagement took place between October and December 2019 and included a series of meetings with partner First Nations, municipalities and the public to identify key themes and principles for consideration in the Land Use Plan update.

Phase 1 activities included the following:

- Public Open House in Prince Rupert on November 19, 2019

- Public Open House in Port Edward on November 20, 2019
- Public Survey (PRPA Offices/Open Houses/Project Website) from November 4 to December 15, 2019.
- Meetings with partner First Nations (Metlakatla, Lax Kw'alaams, Kitsumkalum and Kitselas), Meetings with local municipalities (Prince Rupert and Port Edward)
- Project Notification and Invitations for Input from Project Stakeholders: Invitations to comment to the broader stakeholder list that included:
    - PRPA tenants
    - Environmental groups
    - Local advocacy groups
    - Provincial and Federal Government agencies
    - First Nation communities
    - Municipal communities in the Skeena Watershed.

Advertising of the public open houses was distributed through the Northern View, PRPA website and social media channels (Twitter, LinkedIn and Facebook).

The open house events in Prince Rupert and Port Edward were attended by members of the public, local officials and community advocates. Feedback from attendees was encouraged and community surveys were provided to capture input.

Another key component of Phase 1 was the preparation and distribution of a community survey designed to capture public feedback and input. Physical copies of the survey were made available at public open house events and at PRPA's office in Atlin Terminal. The majority of survey respondents were done online using the project website. A total of 321 survey responses were received during survey time period.

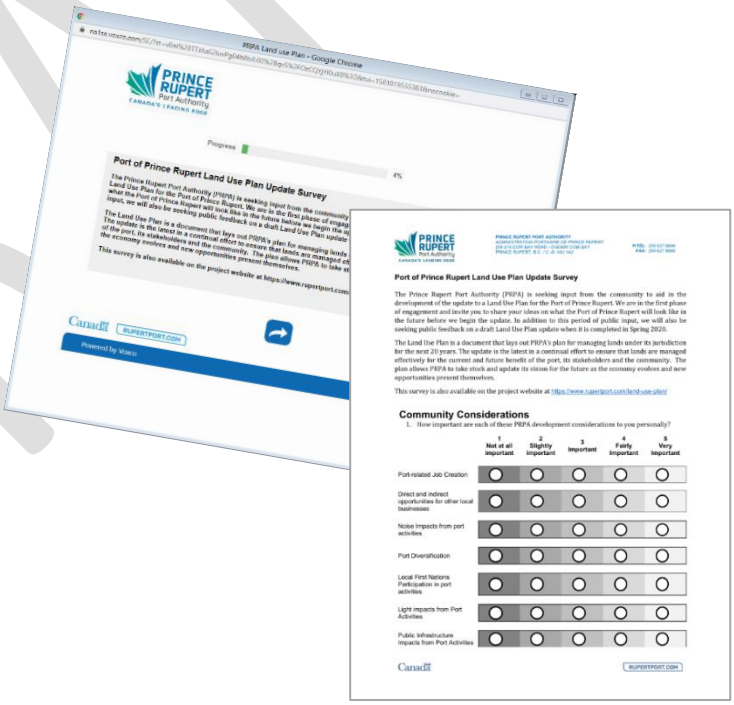


Figure 3 Public Survey (Community Engagement Phase 1)

The survey asked respondents their perspectives on port development in terms of its current impacts on the community (positive and negative), as well as things they would like to see in the future. Below are some of the key takeaways from the survey results. The full results can be found in **Appendix A.**

The infographic on the following page summarizes the major findings of the public survey that was made available in Phase 1 of the community engagement process. The top of the figure lists the top priorities and key issues that were listed by respondents. The middle section of the figure illustrates aspects of the port that respondents liked or did not like as well as their favourite PRPA contributions. The bottom of the figure lists respondents' top concerns and interests. Top concerns regarding port development are related to the environmental and social well being of the community and local First Nations. These are echoed in the Top Future Projects, which are initiatives that respondents would like to PRPA play a larger role in in the future. Survey respondents provided valuable insights, ideas, issues and concerns related to port development however, some of the priorities highlighted in the survey results fall outside of the scope of the Land Use Plan. Topics and issues that fall outside of the scope land use plan process are still valuable and PRPA will continue to work with communities to address these issues through other avenues.

Figure 4 Public Survey (Community Engagement Phase 1) Results Summary

3.5 Community Engagement (Phase 2)

To be completed…

Phase 2 engagement is focused on gathering feedback on the Draft Land Use Plan The First Draft of the new Land Use Plan was completed in April 2020 and was distributed to project stakeholders for feedback. Key activities that will mark Phase 2 engagement including:

- *Virtual Open Houses (May)*
- *Referral to Partner Agencies and Governments*
- *Draft Review and Feedback Forums*

4 Environmental Context

The Port of Prince Rupert is located within the Great Bear Rainforest, a sensitive and unique biosphere that extends over 6.4 million square kilometres of British Columbia's west coast. PRPA strives to be an industry leader in environmental stewardship and has an extensive program of sustainability programs, environmental monitoring stations and participates in several research initiatives.

This section provides an overview of PRPA environmental initiatives and programs.

4.1 2020 Environmental Sustainability Plan

The 2020 Environmental Sustainability Plan was created to help enact some of the recommendations from the 2011 Land Use Management Plan. Environmental sustainability is a key objective of PRPA and guides future development plans and PRPA's response to public concern. The 2020 Environmental Sustainability Plan details the port's programs and procedures to monitor, mitigate and respond to issues that arise in both human and natural environments. Social sustainability is a priority for PRPA and the plan demonstrates how it responds to impacts from industrial activity on neighbouring communities.

The Plan has four guiding principles:

1. To prevent pollution
2. To preserve environmental integrity
3. To use resources efficiently
4. To maintain an environment of continuous improvement

The plan also provides details on the wide array of baseline monitoring stations and programs overseen by PRPA; key strategies for effective communication and community engagement; and mechanisms for reviewing and updating the environmental sustainability goals.

4.2 Environmental and Social Sustainability

PRPA is committed to environmental and social sustainability. PRPA is proud to be a leader in environmental performance which includes environmental protection in all of its projects. This section highlights some of PRPA's ongoing initiatives, programs and projects that demonstrate its commitment to the environment and the communities in which it operates.

4.2.1 Environmental Sustainability Projects

Green Marine

Green Marine is a voluntary environmental certification program for marine based industries in North America which includes terminal operators, shipyards and port authorities. Members report their environmental performance on an annual basis and are regularly subjected to external audits of their environmental management and monitoring systems, data and procedures. PRPA was the first west coast port authority to join the Green Marine Program in 2010 and has been a member along with several of its tenants for years.

Habitat Compensation

PRPA takes environmental management seriously and is a leader in promoting environmental sustainability and reducing its footprint and impacts. When developing new projects, the approach is to avoid and mitigate potential impacts on the environment. However, in some cases, such as new terminal development, habitat loss is unavoidable. When impacts cannot be avoided or mitigated, lost habitat is compensated by the creation of new high-quality habitat elsewhere. PRPA is proud of its environmental compensation efforts and have had success in its habitat compensation efforts in the marine environment through the creation of new artificial reefs described below:

Artificial Reefs

Since 2013, PRPA and CN Rail have created artificial reefs in both Porpoise Harbour and Prince Rupert Harbour. These reefs were developed to offset the impact of infrastructure projects on PRPA lands, resulting in the construction of new, highly productive fish habitat in the local marine environment. Marine habitat compensation projects can be especially challenging, yet these reef structures have proven to be very successful. Through monitoring, all new reef structures have proven to be a highly successful in enhancing marine diversity and species richness.

Table 1 Artificial Reef Details

Proponent	Number of Reefs	Monitoring Program
PRPA	40 intertidal	Five-year monitoring program completed in 2019
PRPA	7 subtidal	Monitoring until 2025 (years 1-5, 7 and 10)
CN	13 subtidal	Currently monitored. Ten-year monitoring program (1-5, 7 and 10)
CN	20 subtidal	Currently monitored annually until 2021

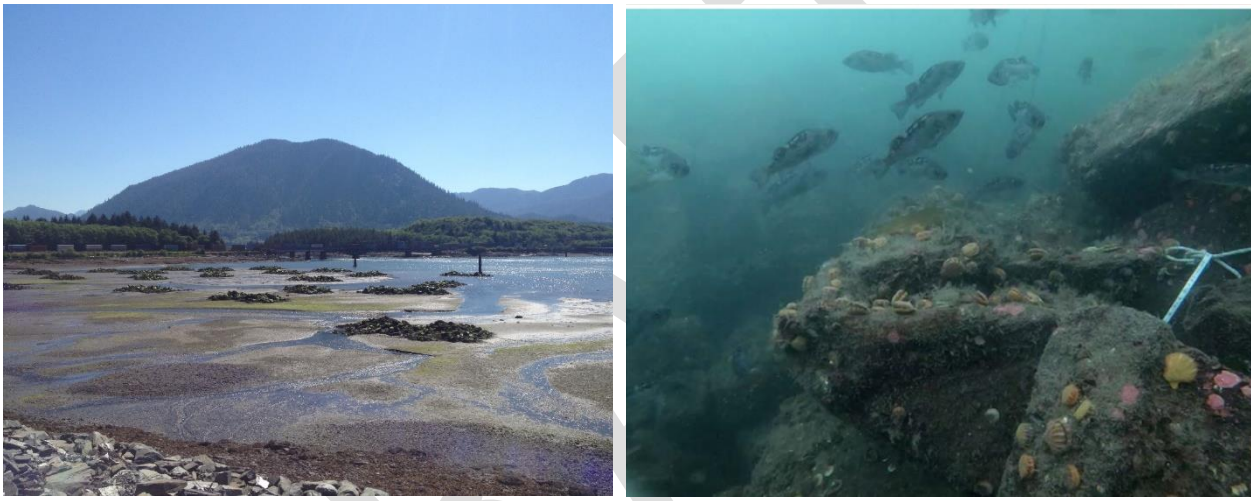


Figure 5 Intertidal and subtidal artificial reef projects.

Flora Agnew and Horsey Banks Development Moratorium

In January 2019, PRPA announced a Development Moratorium on the Flora, Agnew and Horsey Banks, located in the marine environment directly west of Lelu Island. PRPA recognizes that development with required mitigation in this marine area is challenging, and acknowledges there are lingering concerns and uncertainty from local First Nations, environmental organizations and the community related to how a development in this area may pose risk to the health and ecology of the Skeena River estuary and its role in supporting healthy salmon populations in the system. PRPA's decision to enact the Development Moratorium to protect the sensitive habitat for juvenile Skeena salmon and other marine life within Flora, Agnew and Horsey Banks was done in response to feedback from local First Nations, environmental organizations and the community. While previous project investigations have indicated that environmental impacts in this area can be mitigated, the economic cost and the community's concerns justify a development moratorium at this time. The Land Use Plan update defines and formalizes the Flora, Agnew and Horsey Banks Development Moratorium.

Intention

The Development Moratorium prohibits industrial development on Flora, Agnew and Horsey Banks. It does not prohibit industrial development on Lelu Island.

However, the Development Moratorium may allow access for the addition of utilities and equipment such as pipelines, undersea cables, weather monitoring, scientific equipment, or navigational aids on the outer edge of Horsey and Agnew banks where eelgrass habitat is less evident. Eelgrass meadows are sensitive and ecologically productive habitats, and function as important feeding grounds, nurseries and refuges for numerous aquatic and terrestrial species, including juvenile salmon. If utilities and/or equipment are proposed for Agnew or Horsey Banks, the project will be carefully reviewed and would be required to meet strict development criteria and environmental performance measures, and would be located in an area that best avoids significant impact to eelgrass habitat.

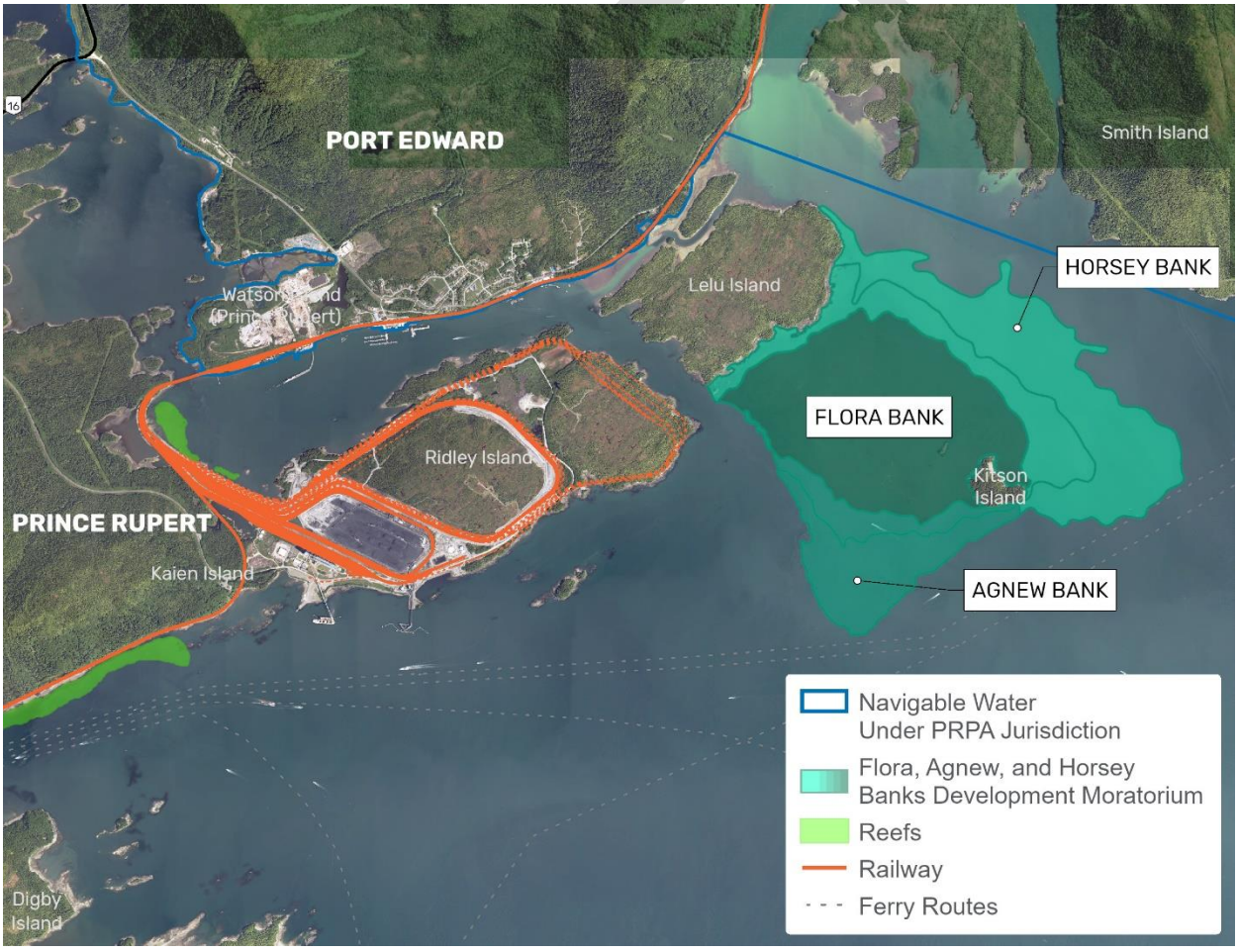


Figure 6 Flora, Agnew and Horsey Bank Development Moratorium

Defining the Moratorium

The Development Moratorium of the Flora, Agnew and Horsey Banks is a voluntary designation that the Prince Rupert Port Authority has established to prevent industrial development on these

banks, including Kitson Island. The Development Moratorium will be in place for a minimum of 20 years and will be reviewed and a decision made whether to renew another 20 year minimum every five years by PRPA in conjunction with its Land Use Plan update.

Figure 7 Bathymetry of Flora, Agnew and Horsey Banks

4.2.2 Social Sustainability Projects

Community Investment Fund

The Community Investment Fund is part of PRPA's commitment to supporting the local community and is used to enable legacy capital projects that contribute to improving the quality of life for residents in Prince Rupert and the surrounding region. The program has funded a wide range of local projects related to recreation, culture, health, education the environment and other values..

PRPA's contribution to this Fund is determined by the assignation of a portion of its annual net income on a yearly basis, ensuring that the community has a direct benefit tied to the port's growth and success. Since its inception in 2010, contributions have averaged 5% of its net income, totalling in excess of $10 million as of 2019.

Enhancing Waterfront Access

PRPA's approach to land use has primarily designated most of its land jurisdiction to marine and industrial development, reflecting its mandate to use the lands to support Canadian trade. In particular, the land from CN's rail yard and west is viewed as a land base dedicated to industrial economic and employment generation.

PRPA recognizes that continued development of these areas and needing to ensure safety and security by minimizing public access, has impacted public access to waterfront lands in the area. However, PRPA has and will continue, to find alternative means to enhance residential and visitor access to the Prince Rupert waterfront, in particular areas outside of lands designated for marine and industrial development.

Since 1999, PRPA has invested nearly $18 million in projects that improve and enhance waterfront access in Cow Bay and the inner harbour. These projects are a combination of both ensuring PRPA infrastructure investments include community interest when possible, as well as contributing to local efforts that meet the same objective. The resulting efforts have had a clear benefit to local businesses, community members and the regional tourism industry. PRPA recognizes its role in providing waterfront accessibility and is working with community partners to explore additional opportunities to increase waterfront access to residents.

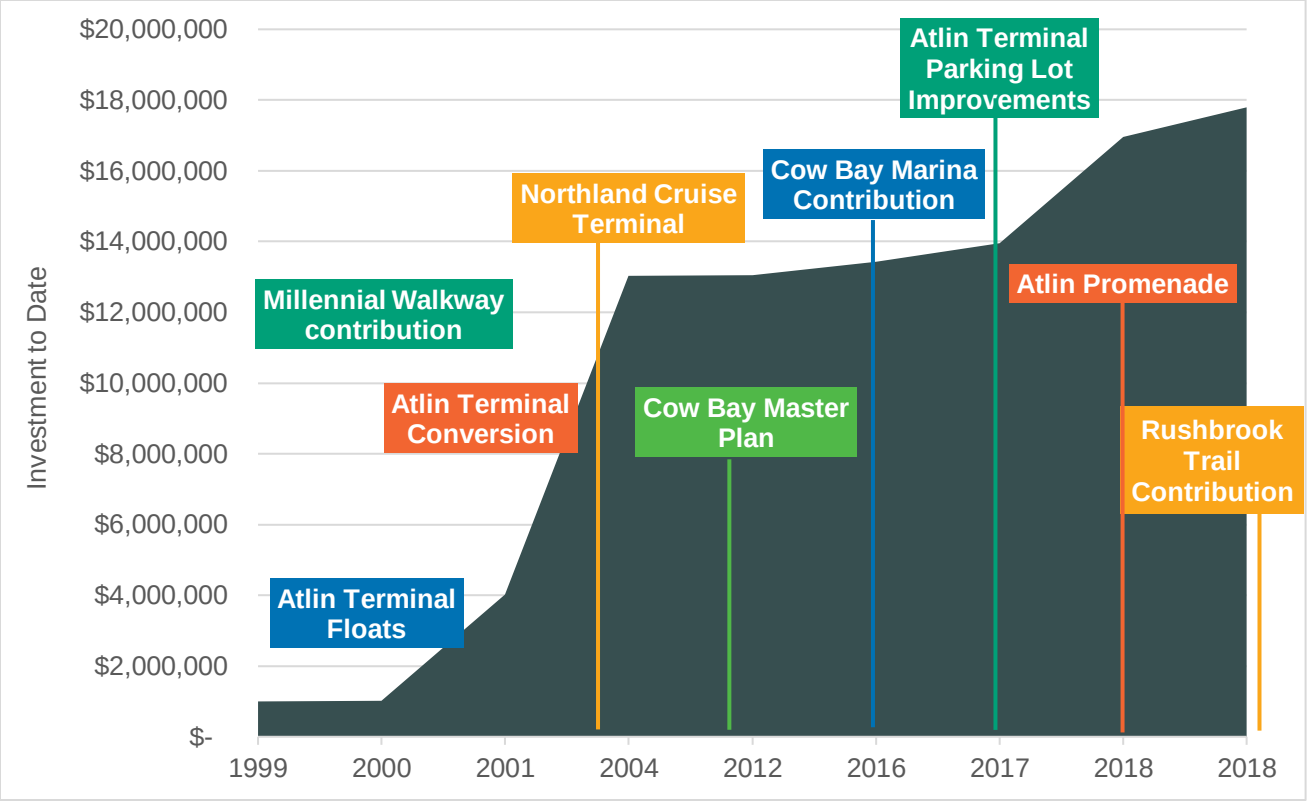


Figure 8 PRPA Investment in Waterfront Access 1999 – 2018

Rushbrook Trail

One of the most highly used projects that has been funded by the Community Investment Fund and contributes to waterfront access is the rehabilitation of the Rushbrook Trail. The Rushbrook Trail is a much-loved community trail that connects the Rushbrook Marina to Seal Cove via an old railway corridor. Rushbrook Trail has existed for years but after a rockslide closed the trail to the public in early 2000, much of the infrastructure fallen into disrepair. The trail was reopened in July 2018 after extensive work to manage geotechnical hazards, trail resurfacing and the installation of three new bridges. PRPA recognizes the importance of the Rushbrook Trail to the community and contributed $850,000 to its rehabilitation. The project was completed in partnership with PRPA, the Prince Rupert Rotary Club, the Kaien Island Trail

Figure 9 Rushbrook Trailhead Sign

Enhancement and Recreation Society (KITEARS), Pinnacle Renewable Energy, CN Rail and the City of Prince Rupert,

Skeena River Salmon Enhancement Program

This program was established by PRPA in 2019 as a $1 million fund dedicated to partner with local organizations by providing financial support for projects that help protect and enhance salmon habitat and stock productivity. The program recognizes the importance of Skeena River salmon to the region, its culture, its economy, the local environment and the residents of the Northwest.

4.3 Environmental Programs

PRPA conducts and participates in several environmental programs, many in conjunction with other organizations such as terminal tenants and supply chain partners, regional First Nations, non-governmental organizations, international initiatives and all levels of government. These programs have been instrumental in furthering the understanding of our local environment, establishing strategic environmental priorities and subsequent program development, ensuring compliance with environmental regulations, measuring the effectiveness of initiatives, responding to local environmental incidents and establishing an early warning system for environmental threats.

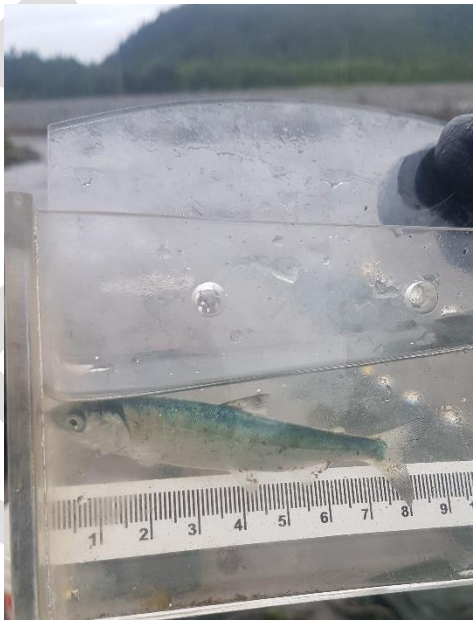


Figure 10 Fish health monitoring

These programs include:

- monitoring programs that have established benchmarks and provide ongoing monitoring and measures for noise, water quality, air emissions, weather and climate data, biodiversity indicators and other datasets
- impact reduction programs that target key priorities such as greenhouse gas and other air emissions, underwater noise, water runoff, shoreline pollution and waste management
- research programs that seek to better understand priorities such as marine mammals, shoreline habitat and biodiversity issues

A summary of notable port environmental programs is provided below:

Table 2 Summary of PRPA Environmental Programs

Air Pollution and Emissions	• Green Wave Program, Partnership with Ship Owners, 2013 • Wet Deposition Program, National Atmospheric Deposition Program (NADP), 2014 • Energy and Emission Inventory, Partnership with all port tenants and users, 2010 • Electrification Roadmap, BC Hydro, port tenants and users, 2019 • Air Quality and Meteorological Data, Ministry of Environment, 2013 • Dust fall Sampling, 2014
Ecosystem Pollutants	• Pollution Tracker Program, Ocean Wise, Department of Fisheries and Oceans Canada, Metlakatla First Nation, Lax Kw'alaams First Nation, 2016
Marine Mammals	• Marine Mammal Program, Ocean Wise, Department of Fisheries and Oceans Canada, DP World, Prince Rupert LNG, other members of marine mammal program working group, 2014 • Green Wave Program, Partnership with Ship Owners, 2013
Habitat and Aquatic Invasive Species	• Shoreline Mapping (ShoreZone), Department of Fisheries and Oceans Canada, Metlakatla FN, Gitxaala FN, Nisga'a FN, BC Ministry of Environment, Aurora LNG, Pacific Northwest LNG, Coastal and Ocean Resources, 2014 • Marine Environmental Water Quality Program, Department of Fisheries and Oceans Canada, Metlakatla FN, Lax Kw'alaams FN, Kitsumkalum FN, Skeena Fisheries Commission, DP World, RTI, AltaGas, Pembina, Vopak, City of Prince Rupert, Pacific Northwest LNG, Prince Rupert LNG, Aurora LNG, WCC LNG, 2013 • Biodiversity and Shoreline Surveys, Department of Fisheries and Oceans Canada, 2015 • Aquatic Invasive Species Program, Coast Mountain College, Smithsonian Platewatch Program, Department of Fisheries and Oceans Canada, Metlakatla FN, Lax Kw'alaams FN, 2012
Energy	• Energy and Emission Inventory, Partnership with all port tenants and users, 2010 • Electrification Roadmap, BC Hydro, port tenants and users, 2019
Noise	• Noise Monitoring Network, BC Ferries, City of Prince Rupert, District of Port Edward, 2014
Shoreline Integrity	• Shoreline Mapping (ShoreZone), Department of Fisheries and Oceans Canada, Metlakatla FN, Gitxaala FN, Nisga'a FN, BC Ministry of Environment, Aurora LNG, Pacific Northwest LNG, Coastal and Ocean Resources, 2014 • Biodiversity and Shoreline Surveys, Department of Fisheries and Oceans Canada, 2015
Waste	• Waste Management Program, 2015

Water Quality	• Oceanographic Data, Ocean Networks Canada, 2016 • Marine Environmental Water Quality Program, Department of Fisheries and Oceans Canada, Metlakatla FN, Lax Kw'alaams FN, Kitsumkalum FN, Skeena Fisheries Commission, DP World, RTI, AltaGas, Pembina, Vopak, City of Prince Rupert, Pacific Northwest LNG, Prince Rupert LNG, Aurora LNG, WCC LNG, 2013 • Wet Deposition Program, National Atmospheric Deposition Program (NADP), 2014 • Stormwater Sampling, 2016
Weather and Climate Monitoring	• Oceanographic Data, Ocean Networks Canada, 2016 • Air Quality and Meteorological Data, Environment Canada, BC Ministry of Environment 2013
Underwater Noise	• Oceanographic Data, Ocean Networks Canada, 2016 • Green Wave Program, Partnership with Ship Owners, 2013 • Marine Mammal Program, Ocean Wise, Department of Fisheries and Oceans Canada, DP World, Prince Rupert LNG, other members of marine mammal program working group, 2014

Greenhouse Gas Monitoring

PRPA is a leader in monitoring of greenhouse gas (GHG) emissions and works with port terminals and partners to collect information and develop an annual inventory of GHG and other air emissions from marine, rail, road, terminal and equipment sources within the gateway. In 2019, the port's carbon intensity (i.e. GHG emissions per tonne of cargo through the port) measured 3.5 kg GHG/cargo tonne, one of the lowest amounts of any port in North America. PRPA's emissions tracking program has been in place since 2010 and the program has enacted several different initiatives to help reduce the amount of GHGs at the port through initiatives such as the Fairview-Ridley Connector Corridor, Fairview Terminal shore power and equipment electrification. In addition, PRPA has committed to creating a Carbon Strategy to further reduce emissions. The Strategy will help PRPA achieve their goal of reducing the intensity CO_2 emitted per tonne of cargo moved through the port by 30% by 2030.

As an organization, PRPA has maintained carbon neutral status since 2015 through the purchasing of carbon offsets through Offsetters (www.offsetters.ca) and Nature Bank (www.naturebank.com), which allows PRPA to offset the impact of its activities through carbon sequestration credits.

4.4 Shoreline Mapping of Environmentally Sensitive Habitats

PRPA participates in the ShoreZone habitat mapping initiative. ShoreZone is a nearshore habitat classification system developed in the 1980s and 1990s. Nearshore habitats include shallow subtidal, intertidal shoreline and supratidal fringe areas. The purpose is to generate a georeferenced and searchable database of the shoreline so it can be used for analysis and

planning purposes. ShoreZone data is collected at regular intervals which provides a baseline that can be compared through time. The most recent ShoreZone inventory for the Prince Rupert Harbour and the surrounding area was completed between 2014 and 2017 and included 1,263 kilometres of mapped shoreline.

ShoreZone data classifies the shoreline by several different metrics.

- Physical Attributes – the type of shoreline (rocky, riparian, different sediment classes)
- NOAA Environmental Sensitivity Index (ESI) (classifies shoreline based on their sensitivity to oil spills)
- Oil Residence Index (classifies shoreline, based on the amount of time an oil spill could be expected to impact a given section of shoreline)
- Coastal Vulnerability Module (CVM) Flooding Sensitivity (classification based on flood susceptibility)
- Shoreline Modifications (anthropogenic alterations of the shoreline)
- Biological Wave Exposure (how exposed the shoreline is to wave action)
- Marine Flora Mapping (the extent of different types of marine flora)

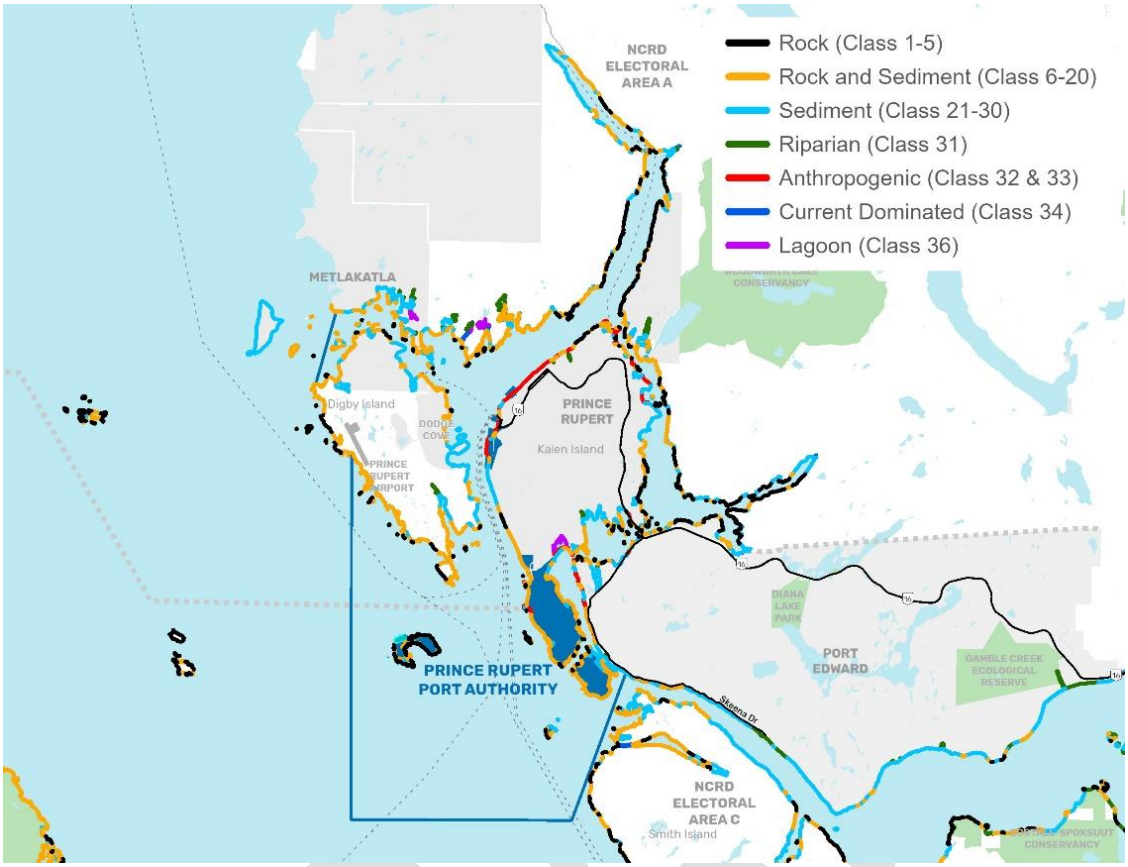


Figure 11 ShoreZone Physical Attribute Summary, Coastal Class [ShoreZone Summary Report, Prince Rupert, March 2019]

All inventories collected and generated through the ShoreZone mapping process are important. Each one creates valuable information that can be applied in different ways. ShoreZone mapping can be used to assist with habitat compensation projects, spill response, new development, ship movements and project level environmental assessments, to name a few. Through this initiative, PRPA tracks the habitat extent for different marine plant species such as kelps, eelgrass, surf grass, rockweed and mussels Using this regularly updated data and ground-truthing by independent third parties such as the World Wildlife Fund, PRPA classifies the shoreline's relative habitat value when planning new developments and infrastructure

For the purposes of the Land Use Plan, the NOAA Environmental Sensitivity index will be used.

The NOAA Environmental Sensitivity Index (ESI) provides a snapshot of the shoreline's vulnerability to spills. This classification incorporates the type of shoreline, flora and fauna present, substrate type, shoreline slope, ease of cleanup and restoration and wave exposure. As a general measure, the ESI will provide a good snapshot of shoreline habitat for planning purposes. The ESI has been aggregated into three classes and is presented on the map below.

Shoreline mapping is one component of the marine ecosystem and does not represent a complete look at how the marine habitat functions. As a tool, the ESI provides a good overview for planning purposes. However, it is not a substitution for project level environmental assessments.

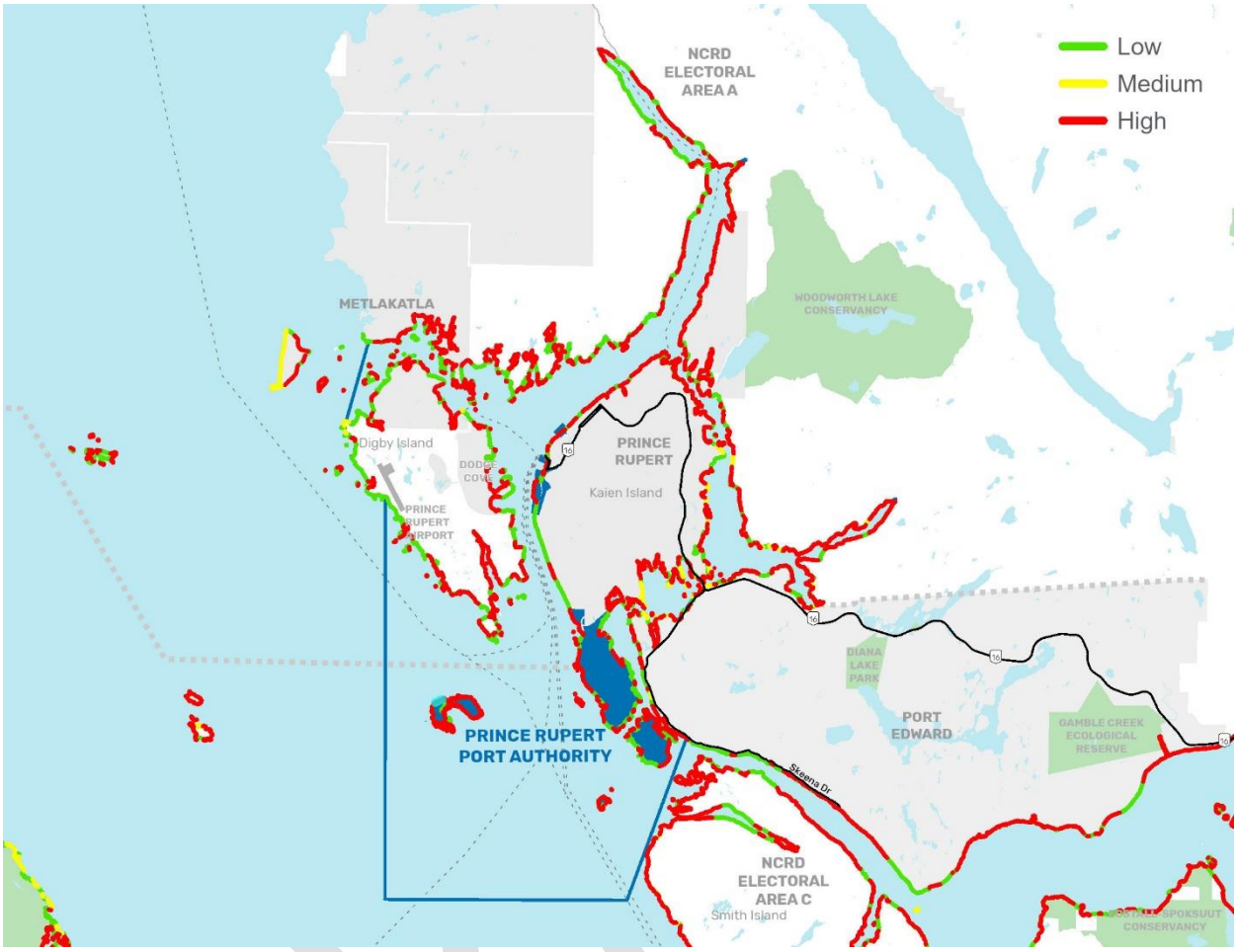


Figure 12 Environmentally Sensitive Shoreline, ShoreZone, Coastal and Ocean Resources.

4.5 Cumulative Effects Monitoring

Cumulative effects monitoring is an important and emerging environmental area that measures impacts on the environment by looking at all sources of influence on one given area. Cumulative effect programs work on a regional scale and are tied to a single environmental variable (i.e. water quality, noise, etc.), meaning that several programs are needed to assess the full scope of impacts. Cumulative effect programs are necessary as industrial operators generally only account for their own emissions and environmental targets. However, where there are multiple operators, the impacts on the environment is greater. Even when future operators meet their individual environmental regulations, the overall impact on the environment should be considered to guide planning and assess the complete impacts on the environment.

As the Port of Prince Rupert continues to grow with expansion of current tenants, new tenants coming online and increase in vessel traffic, there will be a greater impact on the environment. PRPA is committed to leading the way for cumulative effect monitoring as it relates to port activities.

Underwater Noise Monitoring

Underwater noise from vessels and other port activities can travel great distances underwater, which can have adverse impacts on cetaceans and other marine mammals that rely on sonar to navigate and communicate. PRPA is proactive in participating in several programs that monitor underwater noise from programs that track vessel traffic, installation and monitoring of underwater listening devices and reports from ship owners. The information from these programs is used to understand how underwater noise from ship traffic and other port operations affects marine life. Which informs PRPA policy on how it directs and manages port operations to reduce the cumulative impacts on the marine environment. More information on the specific underwater monitoring programs that PRPA participates in are listed in **Section 4.3.**

Future Cumulative Effect Monitoring Action

PRPA recognizes that there are cumulative effects from port activity on marine life, air quality, cultural sites and other environmental factors. PRPA seeks to gain a greater understanding of cumulative effects to build strategies on how to mitigate them. Local First Nations have raised concerns of the cumulative effects associated with various port activities, which PRPA has fully understood and taken to heart. PRPA will work with its First Nation partners and tenants to further develop cumulative effect modelling and monitoring. An outcome of this plan is to begin developing these programs in greater detail with all PRPA partners.

4.6 Project Related Impact Assessments and Environmental Reviews

PRPA can receive several applications for new projects in its jurisdiction every year. The majority of project applications are for small and medium size projects, but can also include an application for a larger, more complex project. New projects undergo a review process that is scaled to the proposed project's activities and potential impacts and can include a detailed multi-level review which broadly includes a technical review of the project's marine and engineering requirements; a qualitative risk assessment (QRA); and an impact assessment which includes the environmental effect analysis and Indigenous and public consultation. All projects built within PRPA's jurisdiction, whether they are led by PRPA or another proponent, must comply with federal impact assessment and environmental protection legislation and regulations.

At all levels of the project level assessment, PRPA staff are engaged with proponents to guide them through the process, make them aware of legislative and regulatory requirements and ensure adequate consultation with Indigenous groups and opportunities for input from the public and impacted parties.

New projects undergo an environmental review to ensure that the specific impacts related to each project can be appropriately assessed, avoided, or mitigated. Other federal agencies such as the Department of Fisheries and Oceans, Transport Canada, Environment Canada, Natural Resource Canada and Health Canada may become involved in these reviews as needed. At a high level, the project review process for new projects under the jurisdiction of PRPA proceeds in four phases, the Preliminary Proposal, Application Preparation, Project Review & Refinement and Project Development.

1. In the **Preliminary Proposal** stage of the process, proponents make initial inquiries to PRPA and present preliminary project concepts and ideas. PRPA will answer questions, provide information about the suitability of the site and determine whether the project should proceed through the remaining steps of the process.
    a. The project's compatibility with PRPA Land Use Plan would occur at this stage.
2. In the **Application Preparation** stage, the proponents conduct early consultation and prepare the application. At this stage, the Feasibility Assessment Agreement (FAA) is completed for larger projects and sites that do not currently have a tenant, enables the proponent to conduct early investigation. PRPA tasks at this stage are to refer the project to relevant federal agencies and identify the scope of engagement and other application requirements.
3. The **Project Review & Refinement stage** is the largest stage where the Impact Assessment is completed. This process includes all the technical, cultural, environmental reviews, indigenous and public consultation and project updates as new information is revealed through the assessment process. Project Development Agreements (PDAs) between PRPA and the proponent are also completed. At the end of this process, a final decision will be made on the viability of the project. If the decision is favourable, the project moves forward to development. Leasing agreements for PRPA lands are drawn up at this time.
    a. Environmental impacts are addressed through PRPA as proponents navigate their requirements under federal environmental assessment legislation at this time. In August 2019, the *Canadian Environmental Assessment Act* (CEAA) was repealed and replaced with the Impact Assessment Act. The Canadian Energy Regulator Act and the Canadian Navigable Waters Act came into force at the same time and may also apply to project level assessments depending on the scope of the project. All projects built within PRPA's jurisdiction, whether they are built by PRPA or another proponent, must comply with this legislation.
    b. Completion of the environmental assessment is not a regulatory approval for the project to proceed. Appropriate permits and authorizations must be completed by the government agencies responsible.
4. The final phase of the project review process is **Project Development,** where the lands are leased, a final investment decision is made by the proponent and the project moves to detailed engineering design and construction phases. At this stage, PRPA's monitors the project for compliance with the conditions of approval and authorizes the operation of the completed project.

5 Land Use Planning Context

5.1 Legislative Authority

The Prince Rupert Port Authority is a federally regulated body that operates in a complex multi-jurisdictional context. This section outlines the context and framework that govern how PRPA operates.

5.1.1 Canada Marine Act

The CMA was created in 1998 to maintain and enhance a network of ports that would ensure that Canada was an attractive, efficient and competitive place to do business.

In the context of Canadian Port Authorities, the purpose of the CMA is to:

(a) implement marine policies that provide Canada with the marine infrastructure that it needs and that offer effective support for the achievement of national, regional and local social and economic objectives and will promote and safeguard Canada's competitiveness and trade objectives.
(a.1) promote the success of ports for the purpose of contributing to the competitiveness, growth and prosperity of the Canadian economy.
(b) base the marine infrastructure and services on international practices and approaches that are consistent with those of Canada's major trading partners in order to foster harmonization of standards among jurisdictions.
(c) ensure that marine transportation services are organized to satisfy the needs of users and are available at a reasonable cost to the users.
(d) provide for a high level of safety and environmental protection.
(e) provide a high degree of autonomy for local or regional management of components of the system of services and facilities and be responsive to local needs and priorities.
(f) manage the marine infrastructure and services in a commercial manner that encourages and takes into account, input from users and the community in which a port or harbour is located.
(g) provide for the disposition, by transfer or otherwise, of certain ports and port facilities; and
(h) promote coordination and integration of marine activities with surface and air transportation systems.

In the land use planning context, the CMA provides specific direction for PRPA to ensure that the land under its jurisdiction is well managed, well serviced and well connected to major transportation systems in order to fulfill its mandate of supporting Canadian trade. The organization and use of land at the Port of Prince Rupert reflects and adheres to the policy directions of the CMA. In addition, the well planned and efficient management of land resources is vital to ensuring the Port of Prince Rupert remains sustainably competitive as a global trade gateway.

5.1.2 Prince Rupert Port Authority Letters Patent

The Prince Rupert Port Authority Letters Patent are a critical document that officially defines PRPA under the CMA, including its boundaries, property, management responsibilities and governance. The letters patent also describe PRPA's role and responsibilities related to leasing, contracting and other administrative obligations.

The Letters Patent are the sole document that describes the legal boundaries of lands and waters that are under PRPA jurisdiction. The purpose of this Plan is to ensure that the use of port lands is strategically planned and designed to ensure the long-term viability and success of the Port of Prince Rupert for the benefit of all Canadians.

PRPA has been granted three categories of jurisdiction over land and water that are legally described as “Schedule A”, “Schedule B” and “Schedule C” lands. These are described in more detail below.

Table 3 Lands Under PRPA Jurisdiction

Lands	PRPA Role	Refers to	What Does this Mean for Proponents?
Schedule A (Navigable Waters under PRPA jurisdiction)	*Regulator and Permitting Authority* This boundary denotes PRPA navigable waters. PRPA acts as a regulator and permitting authority. PRPA offers environmental, safety and spill response.	The waters that define the Prince Rupert Port Authority and includes Prince Rupert Harbour, Wainwright Basin, Morse Basin and waters south of Digby Island and west of Ridley Island.	PRPA is the permitting agency and regulator for ships entering Prince Rupert Harbour. Contact PRPA for harbour pilots, berth access and permits.
Schedule B (Land under PRPA jurisdiction)	*Landlord and Lease Manager* This boundary contains federal lands which are administered by PRPA. PRPA acts as the landlord and leases these lands to proponents. PRPA also coordinates capital projects on these lands that are intended to service the land to make it ready and attractive for new investment and leaseholders.	Federal lands on Ridley Island, Lelu Island, Kitson Island and the Kinahan Islands. Lands under PRPA jurisdiction also include select parcels and water lots on Kaien Island along the Prince Rupert waterfront.	PRPA has the ability to lease Schedule B lands to proponents on behalf of the federal government. PRPA ensures that these lands are serviced to meet the needs of proponents.
Schedule C (Land owned by PRPA)	*Owner in Fee Simple* These lands are held by PRPA as the owner fee simple. These lands fall outside the port boundary but offer a high degree of flexibility. PRPA retains the right to sell/lease or occupy these lands as they wish.	Select parcels owned by PRPA in the City of Prince Rupert that include Atlin Terminal, PRPA offices on Scott Road near Fairview terminal and select other properties.	PRPA owned lands can be leased, sold or rented to interested parties as the opportunity arises. PRPA offices and commercial properties are currently located here.

Given the many roles of PRPA and how those roles change depending on the type of lands and areas as described in the Letters Patent, it is important to distinguish what types of properties this Plan is designed to guide and manage future land use at the Port of Prince Rupert. The Plan provides a vision and direction for managing PRPA land and more specifically, lands under PRPA’s jurisdiction (Schedule A & Schedule B). In addition, this Plan also offers policy direction for the land owned by PRPA (Schedule C) in other jurisdictions.

Figure 13 PRPA Jurisdiction

5.1.3 Strategic Framework

PRPA takes many strategic documents into consideration when approaching new projects. PRPA has been granted its authority by the CMA, which sets the framework for how it conducts business. Below this, PRPA has corporate goals to guide business decisions and identify development opportunities. The Land Use Plan then guides how PRPA can manage land under its jurisdiction to take advantage of those opportunities.

Beyond the Land Use Plan, PRPA has several other strategic documents and plans that provide specific details on how new projects are implemented to maintain its high standards for the environment, the community, safety and the economy.

Individual projects are subject to environmental and project development reviews to ensure that they align with PRPA's strategic framework (see below). After the review process, the project moves to the leasing and commercial approval stage where the final details regarding a proponent's ongoing operating relationship with PRPA are determined. If projects meet all requirements and support the long-term vision of the Port, they are approved for development and become subject to PRPA's ongoing sustainability and safety requirements.

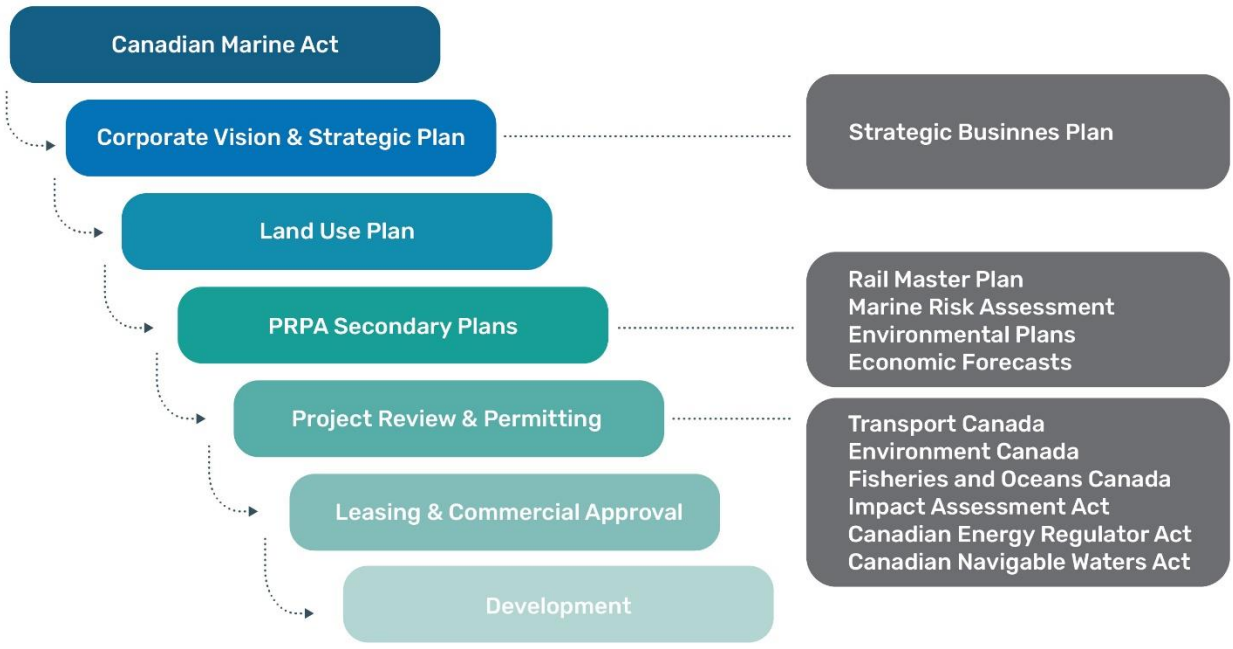


Figure 14 PRPA Strategic Framework

5.2 Inter-Jurisdictional Cooperation

5.2.1 Regional Collaboration

One of the key goals of the update to PRPA's Land Use Plan is enhanced Inter-Jurisdictional Cooperation between PRPA and other levels of government in the Prince Rupert region. PRPA is a federally-mandated organization with broad powers to regulate and govern lands and waterways within its jurisdiction. PRPA also recognizes that the port industry is one of the biggest generators of economic activity in the region and can not operate within a vacuum. The North Coast is a vast and geographically diverse region with several different levels of government. In addition to PRPA, the region is also home to the following first nation and local governments:

Figure 15 Land Use Designations in neighbouring jurisdictions.

- Metlakatla First Nation
- Lax Kw'alaams First Nation
- Gitxaala First Nation
- Gitga'at First Nation
- Kitselas First Nation
- Kitsumkalum First Nation
- City of Prince Rupert
- District of Port Edward
- North Coast Regional District

The Prince Rupert region has a large and complex array of First Nations and local governments. PRPA has shown leadership in multi-lateral engagement in recent years. The Port interacts with each of these governments on a regular basis and presents a framework for enhanced (two-way) Inter-Jurisdictional Cooperation. PRPA believes that First Nations and local government partners value greater cooperation on land use planning in the region and along common boundaries.

5.2.2 Planning Policy Documents

PRPA, First Nations and local governments are all required to have land use planning documents to guide future development within their jurisdiction. The term for port authorities is *Land Use Plan (LUP)* for this policy document, whereas municipalities and regional districts refer to these documents as *Official Community Plans (OCP)* and First Nations government term is *Comprehensive Community Plans (CCP)*. Legislative direction for Long Range Policy Documents stipulates that OCPs and CCPs should establish a 20-Year Vision for development in the community with a suggested update every five years to adjust for unforeseen changes in the local development context. A key component in the preparation of these planning policy documents is the involvement of neighbouring jurisdictions in the review of new or updated OCPs/CCPs. This process usually involves the referral of draft documents to neighbouring jurisdictions for the detailed review and the provision of comments to be considered for inclusion into the final policy document. The established convention for the referral process requires a minimum of three (3) weeks be provided to all neighbouring jurisdictions (and other stakeholders) to complete their review of the draft policy document. *PRPA's update to the Land Use Plan recommends that PRPA, local First Nations and local governments in the Prince Rupert region commit to including each other in the review of new and/or updated land use planning policy documents.*

5.2.3 Development Application Review

Similar to the review of a new or updated land use planning policy documents, the sharing of information regarding development applications along common borders is also essential to enhance Inter-Jurisdictional Cooperation. PRPA has approximately 15 kilometres of shared border with the City of Prince Rupert. In addition, the District of Port Edward is situated just across Porpoise Harbour, within close proximity of the heavy industrial activities on Ridley Island. In both cases, the communication between the different jurisdictions regarding development applications that have the potential to impact land use planning on either side of the shared boundary is of paramount importance. The classic example is when one jurisdiction approves a new development (ex. Residential) that has the potential to conflict with existing land uses on the other side of the boundary (ex. Industrial). To address this issue, municipalities in British Columbia refer development applications to adjoining municipalities for all proposed developments within a given distance of a common boundary (usually 200 metres). To enhance Inter-Jurisdictional Cooperation, the updated *PRPA Land Use Plan recommends that PRPA, the District of Port Edward and the City of Prince Rupert refer to one another on any development applications being considered for approval within 200 metres of a shared border or within 200 metres of the shoreline of Porpoise Harbour.*

5.2.4 Regional Planning Meetings

Another key component of Inter-Jurisdictional Cooperation is the establishment of regular Land Use Planning Meetings between planning officials representing all local jurisdictions (PRPA, First Nations & Local Governments). In most Regional Districts in British Columbia, planning officials from all member municipalities have regularly scheduled coordination and information sharing meetings. These regular meetings (often referred to as RPAC Meetings – Regional Planning Advisory Committee) usually take place twice a year. In larger urban centres, these meetings are held quarterly. The updated *PRPA Land Use Plan recommends the establishment of a biannual Regional Planning Meeting to be attended by planning officials from all 10 jurisdictions*. These

meetings would operate on the principle of a rotating Chair and Location to ensure each jurisdiction has the opportunity to host and chair meetings. *It is further recommended that the Regional Planning Meeting be held in the Spring and Fall of each year* and establish a long-term schedule that rotates hosts and chairs.

6 Port of Prince Rupert Historical and Projected Activity

6.1 Current Port Overview

PRPA has a diverse mix of tenants and activities that currently operate on lands under its jurisdiction. Growth and diversification are key to PRPA's long term strategy in making Prince Rupert a sustainable and economically resilient port, which has manifested itself in a stronger and more stable regional economy. Since 2005, PRPA has focussed on developing a broad array of operational capacities and capabilities in order to support the broadest portfolio of trade cargoes as possible. The introduction of intermodal capabilities through Fairview Container Terminal has been critical to this approach, but also includes the diversification of bulk and breakbulk capabilities.

In 2020, the Port of Prince Rupert has six primary terminals:

Terminal	Trade Cargoes	Annual Capacity	Location
Fairview Container Terminal	Intermodal: Imports (consumer goods, manufacturing inputs, etc.); Exports (agriculture, forestry, mining, manufacturing products, etc.)	1.35 Million TEUs	Inner Harbour
Ridley Terminals Inc.	Dry Bulk: Metallurgical and thermal coal, petroleum coke	12 Million Tonnes	Ridley Island
Prince Rupert Grain	Dry Bulk: Wheat, Canola, Barley and other grain products	7 Million Tonnes	Ridley Island
Ridley Island Propane Export Terminal	Liquid Bulk: Propane	1.2 Million Tonnes	Ridley Island (integrated with RTI marine berth)
Westview Wood Pellet Terminal	Dry Bulk: Biofuel (wood pellets)	1.2 Million Tonnes	Inner Harbour
Northland Cruise Terminal	Cruise Passengers	n/a	Inner Harbour

In order to advance this strategy, PRPA is focussed on:

- building new port capacities and capabilities through the development of new innovative and integrated terminals and operations,
- expanding and diversifying existing terminals and operations,
- planning and building new road, rail and utility infrastructure that supports new and expanding opportunities and
- enabling the development of supporting services and industry clusters within the gateway.

For much of its existence as a national port, the Port of Prince Rupert primarily moved grain, coal and a small number of other resource-based commodities and products. In 2020, the outlook is much more diverse. New infrastructure improvements, such as the Road, Rail Utility Corridor

(RRUC), have enabled more activity and different kinds of activity than were possible before. The future of activity on PRPA lands is more diverse and will include more logistics and container activity as well as liquid bulk storage and export.

In 2020 the most significant activities include:

INTERMODAL TRADE

Containerized Shipping

Container shipments are critical to future growth at the Port of Prince Rupert. Containers are an efficient and standardized method for shipping goods of all types to markets around the world. Container shipping began at Fairview Terminal in 2007 and have consistently grown ever since, spurring a terminal expansion that was completed in 2017, expanding the terminal's annual capacity from 800,000 TEUs to 1.35 Million TEUs. This line of business is primarily driven by trade in supply chains that flow from Asian markets to North American markets, which has been generally strong. The export of containers reflects Canada's trade back to Asian markets, largely in a variety of resource products, but also contains many empty containers because the import trade is much more significant than the export trade to those markets.

The vast majority of container activity in Prince Rupert is rail-focussed, including direct access of unit trains to Fairview Container Terminal, more than any other gateway in North America. As a result, rail capacity and fluidity in the gateway is directly connected to Fairview's competitive performance.

There are plans for further expansion at Fairview to increase the number of containers that can be handled at the port as forecast demand is expected to continue to be strong. Long term expansion plans have identified a site for a new future terminal to be built at the south end of Kaien Island.

Logistics and Transloading

Logistics and transloading facilities are critical services required to complement and support intermodal container flows through the port. These activities are currently supporting export and inspection services within the gateway and allow goods to be efficiently handled with supply chain transits. The growth of logistics and transloading facilities have introduced growing amounts of container truck trips from these operations to and from Fairview Terminal (i.e. "drayage") on Highway 16 through the City of Prince Rupert.

There are plans for further expansion of both import and export-related logistics and transloading facilities in the Port of Prince Rupert. In particular, the expansion of export-related facilities is strategically important to the continued expansion and diversification of containers through the Port by reducing the number of empty 'back-haul' containers. The development of these export-

related facilities is particularly dependent on receiving long unit trains of bulk and breakbulk products and transloading them to containers in the gateway.

The development of logistics and transloading services and their unique needs for supporting rail and road infrastructure have driven the development of the Fairview Ridley Connector Corridor (due to be completed in 2021) and the Ridley Island Logistics Platform (due to be completed in 2023).

DRY BULK TRADE

Prince Rupert is a major exporter of Canadian resources to international markets through dry bulk supply chains. These exports are driven by rail transportation from producers for interim storage at port terminals, the efficient transfer of product to large bulk cargo vessels and the subsequent marine shipment to international market. Facilities like Prince Rupert Grain (agriculture) and Ridley Terminals Inc. (coal, petroleum coke) have been shipping Canadian trade to international markets since their development in the early 1980s. These large industrial terminals are located on Ridley Island and are operations that are very dependent on the fluidity of large unit trains of product to optimize their competitiveness. Each has proprietary rail infrastructure within their properties to handle arriving trains.

The development of Westview Terminal on the inner harbour introduced a small but important capacity for the export of wood pellets to international markets, a biofuel being used to replace thermal coal in energy product in key European and Asian markets. Its relatively small size and niche importance to northern BC's forest industry resulted in its development in 2013 in the inner harbour on a brownfield site previously occupied by a grain terminal.

LIQUID BULK TRADE

Liquid bulk storage and transport is a growing activity at the Port of Prince Rupert. Similar to dry bulk export, these exports are driven by rail transportation from producers for interim storage at port terminals, the efficient transfer of product to large bulk cargo vessels and the subsequent marine shipment to international market. The Ridley Island Propane Export Terminal (RIPET) opened in 2019 on Ridley Island (the facility shares RTI's marine vessel berth) and is the first liquid bulk export terminal to open at the port of Prince Rupert. RIPET has added to the port's already diverse suite of exports.

PASSENGER CRUISE INDUSTRY

The cruise industry in Prince Rupert is based on its role as a port of call within the Alaska-based cruise market, with most cruise ships based out of Seattle, Washington, as a home port. This seasonal industry has been a significant demand driver for local businesses that participate in the tourism industry. The opening of Northland Cruise Terminal in 2005 facilitated the port and community's ability to participate in this market and peaked in passenger volumes in the late 2000's at over 100,000 passengers per season. More recently, volumes have averaged between 20-30,000 passengers per season and PRPA expects that cruise activity will continue to play an important role in the local tourism industry. The future of cruise ships in Prince Rupert may include more diversity in the types of ships arriving at the port and potential growth will depend largely on the community's ability to grow as a tourism destination generally, including the capacity and diversity of visitor-oriented experiences and services.

COMMERCIAL, RETAIL AND OFFICE

PRPA's renovation of the historic Atlin Terminal in 2001, relocation of its main offices into the second floor of the building and leasing of the main floor to consumer-oriented tenants played a key role in the development of the Cow Bay commercial area. PRPA also purchased neighbouring properties from the City of Prince Rupert for the purposes of developing complimentary public and visitor-oriented uses in this area. Future activity in this area has been identified as critical to the Prince Rupert Vision 2030 plan and will be critical to develop in collaboration with City planning processes.

6.2 Future Port Growth & Diversification

The Port of Prince Rupert has become a vital pacific trade gateway connecting North American and Asian markets and an economic engine for Northern BC. The future is bright for the Port of Prince Rupert and the next 20 years should present many exciting opportunities to enter a new phase of growth and diversification. By capitalizing on its strategic attributes, the gateway offers shippers throughout its lines of business a competitive alternative that has created value for their individual businesses. Through proactive and innovative land use and gateway infrastructure planning, PRPA has the ability to facilitate investment in terminal expansion and develop new greenfield terminals to realize those opportunities.

Volumes in the gateway are expected to double by 2030. Intermodal (container) trade will drive much of that growth, complemented by new opportunities in dry bulk, liquid bulk and other products and supply chains. Moreover, it is expected that traditional supply chains will continue to innovate, emphasizing the need for diverse services, capabilities and flexibility that shippers will expect from ports to compete globally. Given the scale and longevity associated with capital

investments in this industry, PRPA's focus on economic, environmental and social sustainability is critical to its competitiveness and long-term success.

The following commentary on forecast growth areas is not meant to be exclusive of new or expanded trade and infrastructure development, but is reflective of PRPA's current view of opportunities that are impacting significant land use planning decisions.

Intermodal Trade Expansion

Future growth in container volumes is facilitated by the expansion of container terminal capacity, associated rail service capacity and complementary logistics services.

Long-term Fairview Container Terminal capacity is estimated at approximately 2.4 million TEUs, with the next phase of expansion expected to be completed by 2022, increasing its annual capacity to 1.8 million TEUs. The Fairview-Ridley Connector Corridor expansion is complementary to this expansion and will facilitate improved access and expanded capacity for road and rail linkages to the terminal.

Future expansion phases to Fairview Terminal beyond the next phase of expansion will be challenged by the ability to maintain full operational capacity during construction. PRPA has completed a container terminal master plan that outlines the potential of future container terminal capacity and sequencing of development at the Port of Prince Rupert. The development of a new second container terminal on South Kaien Island with a potential capacity of 2.5 million TEUs was identified as the next stage in expanding port container terminal capacity, after consideration of potential capital costs, operating efficiencies and mitigation of community impacts (e.g. air quality, noise and lighting). Of note, the development of this project will require significant investigation and an impact assessment before an investment decision could be considered.

Growth in intermodal traffic is fully linked to growth in gateway-based logistics services such as transloading and warehousing. Growth in these activities are considered critical pre-cursors to long term intermodal growth (and container terminal expansion). Local import logistics (i.e. value-added services such as transloading, redistribution, labelling and other activities for inbound containers before being shipped to final North American destinations) and local export logistics (i.e. value-added services, primarily transloading products from rail (and truck) to containers) are needed for the Port of Prince Rupert to grow as a full-service intermodal gateway. Without them, the market is limited for future growth opportunities in intermodal trade.

Future expansion in logistics services requires an innovative gateway solution that builds on Prince Rupert's strategic attributes to be more competitive than competing gateways. The expansion of the Road Rail Utility Corridor to service a designated logistics area on the southern portion of Ridley Island will enable transload operations to efficiently receive long unit trains of export product and move very large volumes of export products from rail cars to empty containers. The Fairview-Ridley Connector Corridor will facilitate truck transportation from Ridley Island direct to Fairview Container Terminal (and future container terminals), with full integration into the terminal's container management systems. The corridor will also facilitate the supply of empty containers from the terminal to Ridley Island, completing a closed loop ecosystem for container management within PRPA jurisdiction, fully separated from public transportation systems. Of note, the development of this project will require significant investigation and an impact assessment before an investment decision could be considered.

The development of import logistics services will likely take place on land outside of PRPA jurisdiction, serviced primarily by truck. Collaborative approaches with development partners will ensure that the volumes from these areas are seamlessly integrated into the Fairview-Ridley Connector Corridor.

Liquid Bulk Trade Expansion

Bulk liquid storage and export is forecast to have significant opportunity for growth and is a key area of new capacity, capability and diversification focus for PRPA. As an example, liquid bulk products can include value-added oil and gas products, petrochemicals and agricultural products. The Ridley Island Propane Export Terminal is the port's only bulk liquid operator, although the Pembina Prince Rupert LPG export terminal is under construction on Watson Island (land not under PRPA jurisdiction, but ship navigation is through PRPA marine jurisdiction). Opportunity in bulk liquids is expected to be associated with rail transportation and products shipped in quantities that are not typically shipped by pipeline.

Future expansion of bulk liquid exporting will require new greenfield terminal and storage facility development on Ridley Island to facilitate an open access operation capable of handling a variety of liquids. The current RRUC is built specifically to integrate with large bulk operations managed by rail and the southern end of the area encompassed by the RRUC is well suited to cluster and separate liquid bulk offloading, storage and vessel loading of product. Of note, the development of this project will require significant investigation and an impact assessment before an investment decision could be considered.

6.3 Recent History of Port Growth

Since becoming a federally regulated port under CMA in 1999, the Port of Prince Rupert has realized the following critical milestones, each of which has had a considerable impact on overall annual PRPA capacity and volumes:

2002 – Northland Cruise Terminal opens

2008 – Fairview Container Terminal opens

2013 – Westview Wood Pellet Terminal opens

2015 – RTI Terminal expansion

2015 – Ridley Island Road Rail Utility Corridor is completed

2016 – Fairview Container Terminal expansion

2019 – Ridley Island Propane Export Terminal opens

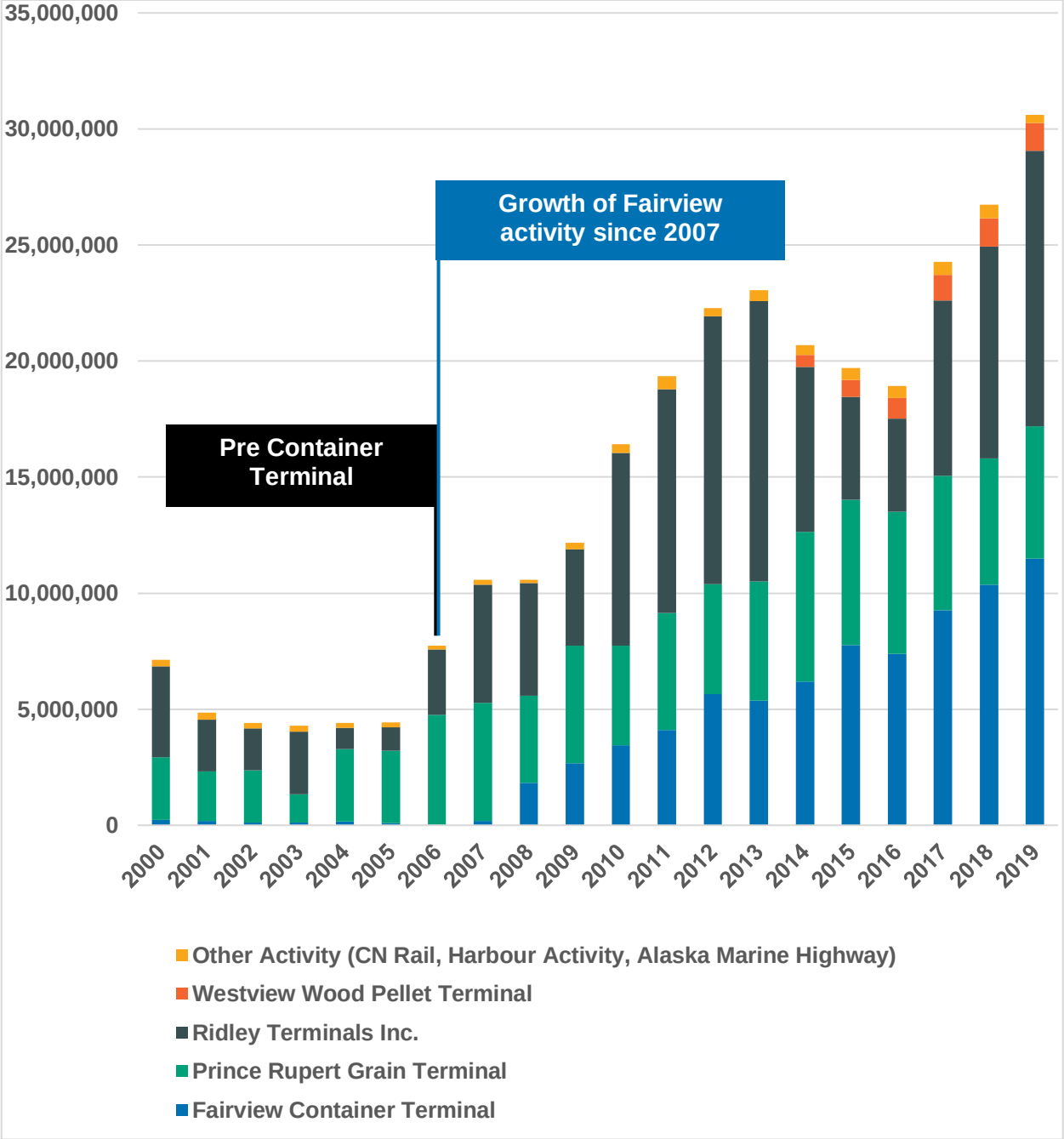


Figure 16 Annual Port Volumes[1] by Terminal (2000 to 2019)

Total PRPA volumes exceeded 10,000,000 tonnes for the first time in 2007, coinciding with the opening of the Fairview Container Terminal. In 2019, the total volume of products handled at the Port reached the 30,000,000-tonne threshold.

[1] Metric tonnes

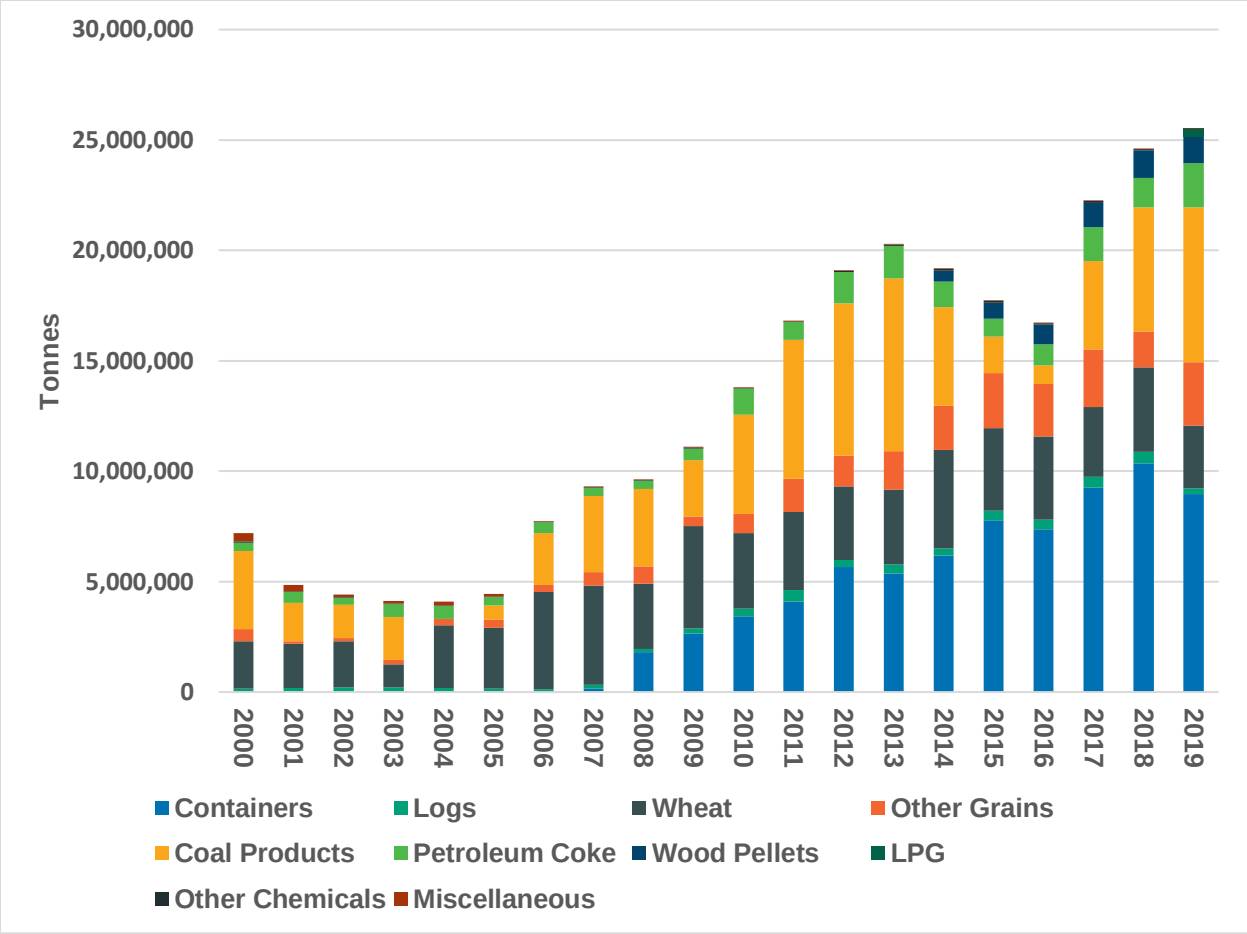


Figure 17 Port Volumes summarized by commodity (2000 to 2019).

Figure 17 provides a breakdown of port traffic by commodity between 2000 and 2019. The graph illustrates how traffic has changed at the port over time. In 2000, Wheat and Coal products made up the majority of traffic. However, in 2019, the traffic has changed substantially and it much more diversified. Wheat and Coal products still make up a significant proportion of the port's overall traffic. However, relatively new commodity traffic like containerize shipping, other grains and wood pellets have risen in importance. In future, PRPA expects this trend of diversification to continue with the growth in export and import logistics operations, bulk liquids and more.

6.4 Forecast for Future Growth

A description of the forecasted annual volumes for different commodity types by node and overall total volume. Commentary on the relative importance of different commodity categories and how the proportions have changed over time. Also include commentary on recent and anticipated growth in train volumes to support logistics activities.

Since the inception of Fairview as a container terminal in 2007, growth in total annual PRPA volume has increased roughly five-fold, from 10,500,000 tonnes to about 30,600,000 tonnes in 2019. Though growth over the 2007 to 2013 period was steady (exceeding 23,000,000 tonnes of total volume for the first time in 2013), it was the subsequent opening of Pinnacle, completion of the Ridley Island RRUC and expansion of the Fairview terminal in 2016 which allowed the Port to reach the 30,000,000 tonne threshold in 2019.

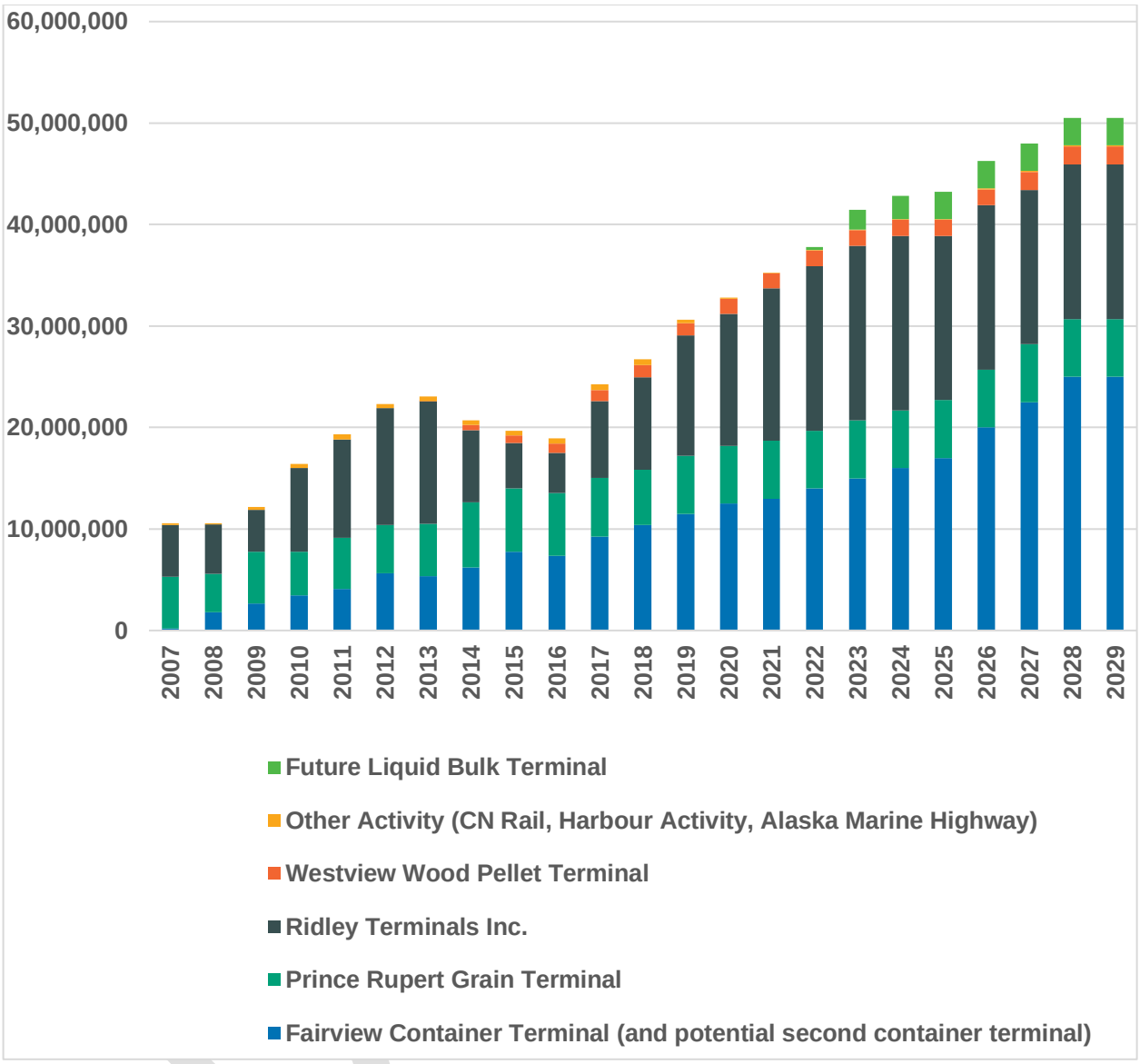


Figure 18 Historical and Projected Port Volumes[2] by Terminal (2007 to 2029)

[2] Metric tonnes

6.5 Implications for Port Growth

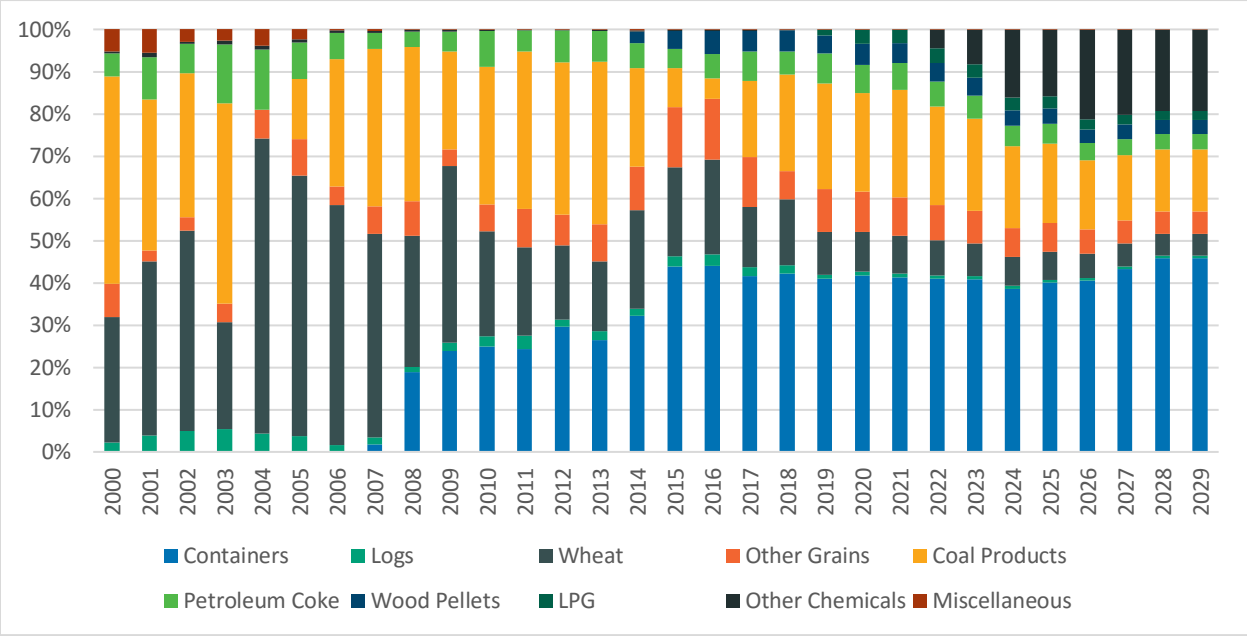


Figure 19 Relative Volume of Exports at the Port of Prince Rupert by Terminal

The forecasts for future Port export volumes suggest significant growth and diversification between 2020 and 2029. This new growth and diversification will drastically change the dominant industries at the Port from grain and coal, to container and logistics facilities. Figure 19 illustrates the relative proportion of each export through time and includes a future look at proportional growth, building on Figure 16 **(Section 6.2)**. Although export volumes of coal and grain are expected to remain relatively consistent, they will make up a smaller proportion of the Port's overall activity over time. As logistics and container activity continues to grow, it will also put additional pressure on PRPA lands as development occurs.

While coal and grain rely almost entirely on rail to move goods through the port, container and logistics facilities use all transport modes to move goods. New logistics activity will create additional demand for new terminal facilities like the South Kaien Island Terminal (SKIT) and put more pressure on the road system, including projects like the Ridley Island Connector Road. In addition, more land will be required for transloading and intermodal yards which require large flat open spaces. Flat areas are relatively scarce on the north coast and future developments will have to balance the cost of creating new lands or clearing and blasting existing industrial areas (which can add high costs to new projects) to complete their projects.

The demand for new logistics space and transportation infrastructure will also drive demand for land in neighbouring jurisdictions. As the Port grows, projects on Port lands and projects in neighbouring jurisdictions will build mutual capacity and diversity into the overall port economy.

7 PRPA's Unique Approach to Land Use and Gateway Transportation Infrastructure

Activities and volumes handled at the port continues to change in response to market pressures. Prince Rupert Port Authority prides itself on being an innovative and competitive leader amongst Canadian and international ports.

PRPA has taken great care in planning and delivery of transportation and infrastructure to lands under its jurisdiction. As part of its mandate to provide Canada with the required infrastructure that promotes and safeguard Canada's competitiveness and trade objectives, PRPA has been proactive in the planning required to ensure that the gateway can maintain capacity, efficiency and fluidity for both current and future activity. By taking a strategic approach that maximizes the development of common user infrastructure, PRPA ensures that it is also minimizing the footprint required for transportation infrastructure and maximizing the amount of land available for terminal-specific development.

> In 2019 Transport Canada announced the National Trade Corridor Fund (NCTF) had approved funding of $153.7 million for infrastructure improvements and projects to support growth at the Port of Prince Rupert. NCTF funding is intended to improve the supply chain of trade and goods in and out of Canada by development of ports and related infrastructure. Investments from NCTF at the port will go towards expansion of the Zanardi Bridge and Rail Causeway, expansion of the Road Rail Utility Corridor to service the proposed Ridley Island Export Logistics Platform. NCTF investment was also announced for the development of Metlakatla Development Corp's (MDC) Import Logistics Park, which is outside PRPA land jurisdiction, but will provide a strategic location for import transload services associated with port container cargo.

This section provides an overview of how internal transportation projects influence land use and how gateway infrastructure projects interface with transportation infrastructure at regional, national and international levels.

7.1 Regional Transportation Connections

Supporting Canadian trade is the primary function of PRPA. Lands under PRPA jurisdiction are used to allow Canadian goods to be exported to international markets and for North American residents and businesses to receive imported goods from other countries. Robust, well-planned integrated transportation infrastructure enables movement of goods from terminals to rail lines and/or national highways and back again.

Key transportation routes leading in and out of Prince Rupert include shipping lanes, CN mainline, Trans Canada Highway 16 and BC Ferries and Alaska Ferries networks. These vital regional, national and international transportation networks speak to the strategic and locational advantages of the port. This section describes the critical infrastructure and planned projects that support the transportation network and continue to allow growth at the Port of Prince Rupert.

7.1.1 International Shipping Lanes

Prince Rupert's strategic location to Asia has always been one of its key advantages. The port boasts the shortest shipping times of any major west coast port and can get goods to their destination one to three days faster than ports in Vancouver, Seattle, or Los Angeles. Another key shipping advantage unique to Prince Rupert is its safe open approach. This means less pilot time which allows ships to get to port faster and begin the loading or offloading process.

Figure 20 Relative Sailing Time to Asia from West Coast Ports

7.1.2 Highway Connections

Trans Canada Highway 16 is the highway into Prince Rupert. Highway 16 extends through all four western provinces and connects Prince Rupert to both the Canadian Highway Network and the American Inter-State Network. Provincially, Highway 16 provides connections to Terrace (145 km), Prince George (720 km) and part of the route to Vancouver as well as all communities in between. Highway 16 is maintained by the BC Ministry of Transportation and Infrastructure.

7.1.3 Rail Connections

Rail connections to Prince Rupert are another key component of the port's transportation network. CN's North American mainline rail network connects Prince Rupert to important destinations across Canada and the Midwest of the United States of America. The northern BC mainline connection to Prince Rupert has received substantial upgrades over the last decade, as CN has added additional double track sections, sidings, positive train controls (PTCs), rail yards and information technology upgrades along the route CN rail upgrades. In the District of Port Edward, current improvements underway include new sidings and improved road-rail crossings will improve the safe and efficient movement of goods.

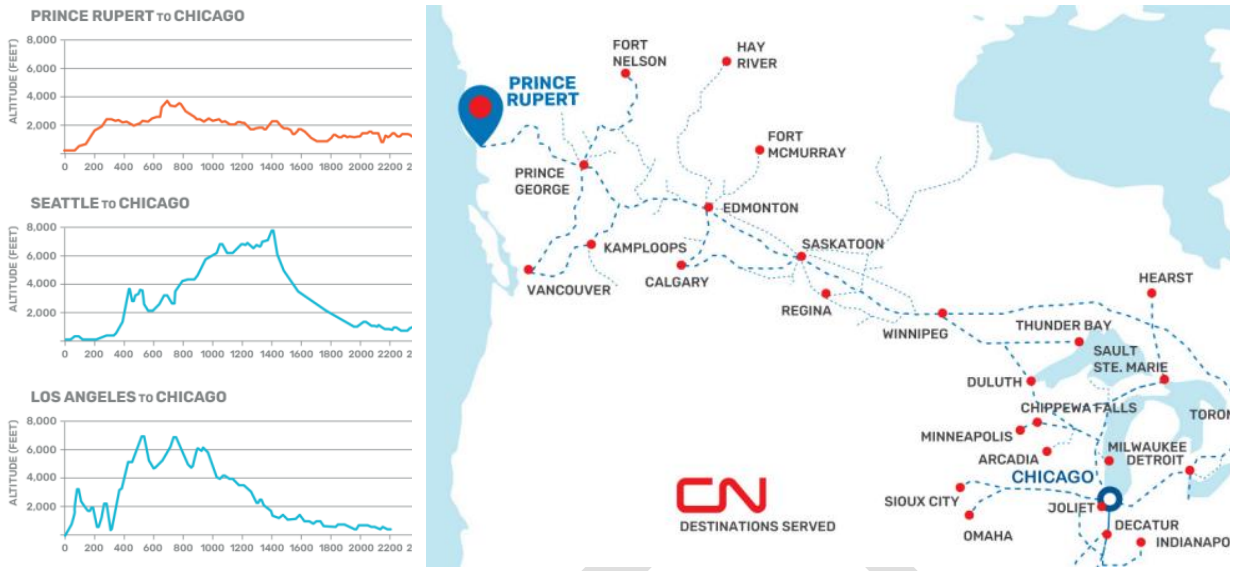


Figure 21 Rail Access from Prince Rupert to the Mid West

7.2 Internal Transportation Network

Development of internal transportation networks on lands under PRPA's jurisdiction is critical to the port's effectiveness and competitiveness amongst other west coast ports. Innovative projects like the RRUC enables a tenant-focused, 'planning in common' infrastructure approach that would be challenging elsewhere. Additionally, PRPA's focus on segregating port activity, including transportation, from public transportation networks and communities will improve the quality of life for surrounding residents and reduce environmental impacts. Key transportation infrastructure projects that PRPA is currently advancing to improve its internal transportation network are displayed in Figure 22.

Additionally, PRPA holds several unique advantages on the marine side of transportation that provide a relatively low marine navigational risk profile, which in combination with leading navigational practices, procedures and technology optimizes safe and efficient vessel access to the harbour and terminals.

This section provides greater detail on the internal transportation network and how it influences PRPA's unique approach for lands under its jurisdiction.

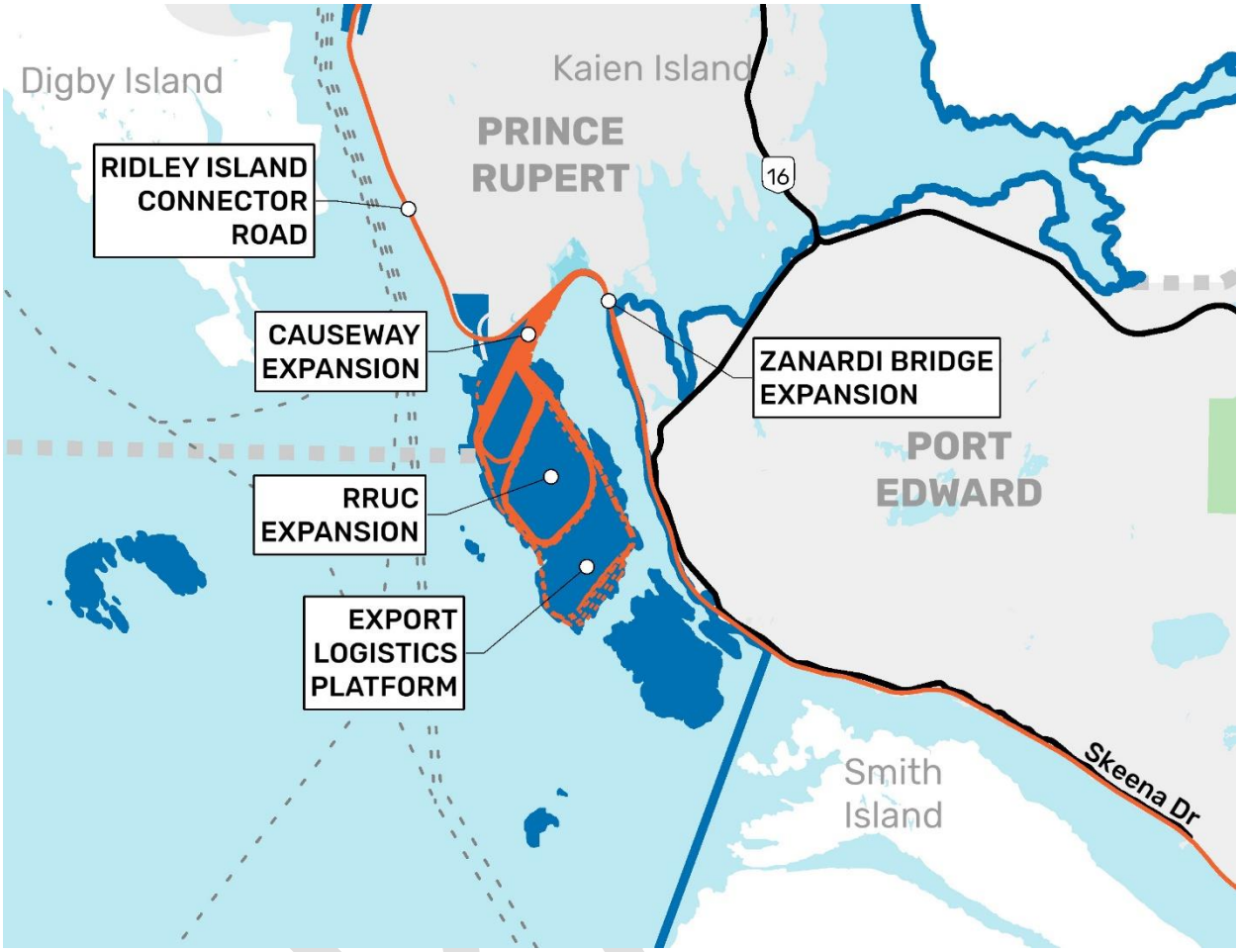


Figure 22 Key planned developments on Ridley Island.

7.2.1 Gateway Rail

The Port of Prince Rupert is completely integrated with and dependent on, CN's North American rail network. Over 95% of cargoes moving through the port enter or exit on a rail car, making rail functionality and connectivity to CN's northern mainline an important part of planning decisions for land under PRPA jurisdiction. PRPA's Rail Master Plan is an essential document that drives much of the port's land use approach and outlines the development of and gateway's rail networks into the future.

CN's mainline enters PRPA jurisdiction at the Zanardi Bridge and continues through to its terminus at CN's railyard on the inner harbour. On the Ridley Island causeway, trains currently switch onto southern leads to access Prince Rupert Grain, Ridley Terminals Inc. and the Ridley Island Road Rail Utility Corridor (RRUC). Fairview Container Terminal currently has a dedicated siding that runs parallel to the mainline as it approaches Fairview at the mouth of the harbour.

The Fairview Connector Corridor will provide for an additional two sidings dedicated to servicing an expanded Fairview Container terminal. Expansion of the bridge, the causeway and modernization of leads into terminals is a key focus of infrastructure development in the next five years to address potential congestion in this area within the next five years as train volumes increase.

Future development on Ridley Island is based on development serviced by the use of the RRUC. The RRUC is a system of rail and road loops with a common access and egress from Ridley Island that enables each tenant to be serviced by dedicated rail tracks without impairing the CN mainline or other tenant operations. The RRUC currently consists of 3 entry tracks and 2 exit tracks, with the ability to scale up to 15 tracks to accommodate future developments. The 8 km length of the rail loop makes it possible for long unit trains (i.e. trains carrying multiple cars of a single commodity) to interface with operations without the need to break them up, significantly improving operational speed, capacity and efficiency. The RRUC's common user designation eliminates the need for new terminals to develop individual rail loop infrastructure within their footprints and allows for optimal usage of the limited land in PRPA's jurisdiction.

Since its completion in 2015, the RRUC has been used to service temporary logistics transload operations, but are key components of proposed liquid bulk and export logistics operations on Ridley Island.

Two major infrastructure projects that PRPA and partners are undertaking to improve its rail network are described below.

Zanardi Bridge and Causeway Expansion

This project will greatly expand the rail capacity to and from all operations within the Port of Prince Rupert.. The current Zanardi Bridge is a single-track bridge which acts as a bottleneck for trains entering and exiting the Port on the CN mainline. The project will add a new double-track bridge which will result in three rail crossings. This project also includes expanded rail infrastructure on the Ridley Island causeway and modernization of rail leads into existing Ridley Island terminals. CN's current construction of the Wilson Siding near Port Edward complements this future expansion.

Ridley Island Export Logistics Platform rail infrastructure

This project will support the expansion of the Road Rail Utility Corridor into the southern portion of Ridley Island to accommodate rail access to a proposed Ridley Island Export Logistics Platform. The ability to develop a logistics platform with unit train access will provide a unique opportunity for new and expanded logistics transload operations to develop on Ridley Island and catalyze Prince Rupert's growing intermodal industry.

7.2.2 Gateway Roads

PRPA's reliance on rail connectivity to North America results in road planning being primarily focussed on container truck drayage (i.e. short haul trips between logistics or inspection facilities) within the gateway, as well as workforce and contractor access to terminals and infrastructure, as opposed to truck cargo from outside of the gateway. PRPA's approach to road planning is similar to that of rail in terms of emphasizing common user access, but also includes a focus on minimizing use of publicly-owned highways and roads for port activities.

Currently, access to Fairview, Westview and Atlin operations are still heavily reliant on the public road system. In particular, container truck access to and from Fairview follows Highway 16 through downtown Prince Rupert. Access to Ridley Island from Highway 16 is from the Ridley Island Causeway road, which is owned and maintained by the BC Government. Road infrastructure on Ridley Island is integrated into the RRUC.

PRPA's current construction of the new Ridley Island Connector Corridor will move container truck-related traffic off of Highway 16 (and downtown Prince Rupert), restricting container access to this 5 km private road access and a new southern truck gate at Fairview Terminal. In addition to reducing truck trip distance between Ridley Island and Fairview Terminal by almost 20 kilometres, associated time, cost and greenhouse gas emissions related to truck transport will be significant. In combination with the proposed development of logistics operations on Ridley Island and South Kaien, intermodal road traffic will exist in a closed loop intermodal ecosystem.

7.2.3 Deep Water Berths

Prince Rupert Harbour is a deep, ice free inlet with easy access and can ben entered at all times and in all seasons. With a shipping channel depth of 35 m, it is one of the deepest natural ports in the world and can accommodate vessels of all sizes at its facilities.

Locations for future terminal operations within PRPA jurisdiction include access to deep water berths as a key consideration. Existing deep water berths[3] on Ridley Island include one berth each for Prince Rupert Grain Terminal and Ridley Terminals Inc. Existing deep water berths in the Inner Harbour include two berths at Fairview Terminal and one each at Westview Terminal and Northland Cruise Terminal.

Future deep-water berths are identified for future terminal locations on lands under PRPA jurisdiction. The primary location for these berths follow the deep water bathymetry on the west side of Ridley Island, but also include potential locations off the southwest of Kaien Island (direct north of Ridley Island) and potential expansion of berths at Fairview. While deep water berths in PRPA jurisdiction are not limited by lack of deep water, the governing factor is suitable upland area for associated terminal development and operational separation between terminals and their berths.

7.2.4 Marine Approaches

The Port of Prince Rupert has one of the safest harbour approaches of any port on North America's west coast. Broad, direct, sheltered approach channels provide unobstructed access to and from Pacific Ocean commercial shipping lanes. The short distance in inland waters (i.e. piloted waters) for large vessels ensures that large vessel approaches largely occur in safer open water. A relatively low traffic volume (including large deep water vessels, commercial fishing vessels, recreational boating and others) has a significant impact on frequency of vessel incidents.

The Prince Rupert Port Authority is committed to going above and beyond its regulatory duties to ensure the safe, secure and environmentally responsible movement of vessels and their cargoes through the Port. Hundreds of commercial vessels call on the Port of Prince Rupert each year and coordinating their safe arrival and departure involves a team of partners working together.

[3] Deep water berths are those that can, at minimum, accommodate Panamax class ships, the largest ship that can fit through the Panama canal.

Local experts and organizations collaborate to apply industry-leading practices in vessel handling and harbour safety. Coordinated effort between the Canadian Coast Guard's Marine Communications and Traffic Services, the Pacific Pilotage Authority, BC Coast Pilots, SMIT Marine, the Western Canada Marine Response Corporation, the Canada Border Services Agency and the Prince Rupert Port Authority ensures collective oversight and safe passage of every vessel, providing round-the-clock safeguards.

By applying international best-in-class procedures at the Port and engaging with PRPA's navigational service partners and local user groups to review its practices and procedures, the safety and efficiency of Port operations meets the highest standards and will only continue to improve.

Significant risk reduction measures currently in place at the Port of Prince Rupert include:

Vessel traffic services, including shore-based radar and automatic identification system technologies

Tug services, including defined procedures for both tethered and escort tugs associated with different vessels, cargoes and conditions

Pilotage, marine specialists who assist incoming and outgoing ships navigate the waters of ports. Pilots in Prince Rupert board or disembark vessels at Triple Island, approximately two hours outside of the harbour.

Figure 23 Pilotage Approach to Prince Rupert Harbour

8 Future Land Use Direction

The Plan is designed to support development and decision making on Port Lands for the next 20 years. To achieve the Plan Vision the Plan is divided into a clear framework of Goals, Objectives and Policy Directions. In this breakdown, “Goals for the Future” support the overall Plan Vision. Objectives and their subsequent Policy Directions lay out the specific actions and activities that PRPA will undertake to achieve its vision for responsible growth and development in the future.

The PRPA Land Use Plan is a 20-year plan for the management of lands under PRPA’s jurisdiction. The Plan will guide the responsible management of land to develop the Port of Prince Rupert to catalyze the competitiveness, growth and prosperity of Canadian trade, the continued growth and diversification and more than double its cargo volumes by 2040. The Plan provides a framework for land management that honours PRPA’s strategic goals and encourages thoughtful development that limits environmental impact, is integrated into the surrounding community and is a gateway that provides an economic benefit to all Canadians.

8.1 Goals for the Future

PRPA sets strategic corporate goals that act as the framework for its operations and decision making, ensuring an integrated approach to driving growth and diversification, ensuring a sustainable port and optimizing organizational effectiveness.

The Plan builds on these strategic goals and sets goals of its own that are specific to how land use used in PRPA jurisdiction. Each goal is supported by Land Use Objectives and Policy Directions and is designed to support one or more of PRPA’s strategic goals. The Plan goals are listed below.

- **Goal 1** - PRPA will continue to enable Canadian trade growth and gateway competitiveness by facilitating new port capacities, capabilities and efficiencies.
- **Goal 2** - PRPA will make efficient use of land by maximizing land use value, intensity and density through careful and progressive planning and land allocation.
- **Goal 3** - PRPA will protect the gateway environment by developing responsibly and sustainably and minimizing environmental impacts of operations.
- **Goal 4** - PRPA is a collaborative partner with local First Nations and its surrounding communities and is committed to entrenching First Nations economic participation in an expanding gateway, sharing economic prosperity and enhancing community vitality.

8.2 Land Use Objectives and Policy Directions

Land Use Objectives and Policy Directions support the Goals for the Future. Policy Directions are specific activities or processes that PRPA can do on a day to day basis to achieve each of its Vision, Goals and Objectives. Each Goal for the Future is complex and high level and can only be achieved through a multi-faceted approach (Land Use Objectives). In turn, each Land Use Objective is supported by multiple Policy Directions.

Goal 1 *- PRPA will continue to enable Canadian trade growth and gateway competitiveness by facilitating new port capacities, capabilities, and efficiencies.*

Objective 1.1. Ensure the Port of Prince Rupert continues to be an economic and employment generator through growth, diversification and innovation.

1.1.1 Optimize efficiency, fluidity and resiliency of port infrastructure through innovative planning, activation and maintenance processes.

1.1.2 Plan, design and invest in rail, road and marine transportation infrastructure that responds to anticipated growth and diversification in port capacity and capabilities.

1.1.3 Attract development and investment from terminal and service partners that grows port capacity and capabilities.

1.1.4 Attract development and investment from terminal and service partners that diversifies port cargoes and services.

Objective 1.2. Enable future Canadian trade market access and competitiveness by remaining open, flexible and agile to new opportunities.

1.2.1 Plan, design and invest in innovative rail, road and marine transportation infrastructure that provides global competitive advantages for port operators, shippers and Canadian trade.

1.2.2 Collaborate with regional partners and agencies to ensure that regional transportation connections (road and rail) are operating efficiently and will have sufficient capacity to accommodate future growth into and through the gateway.

1.2.3 Develop a transparent, defined and expedient development approval process that allows for changes to the existing policy framework so that unforeseen development types can be accounted for.

Goal 2 - *PRPA will make efficient use of land by maximizing land use value, intensity and density through careful and progressive planning and land allocation.*

Objective 2.1. Densify land use, so that the value and volume of cargo on land parcels is optimized and ensure that port infrastructure, terminal and service locations are complementary and support densification as a whole

2.1.1. Develop lands incrementally to maximize the utility of existing transportation infrastructure capacity without causing inefficiencies or loss of fluidity.

2.1.2. New transportation infrastructure will be developed to open new development areas as they are needed and ensure 'common user' infrastructure is prioritized and maximized.

2.1.3. Land leases will be sized to tenant needs to ensure land holdings are developed in a strategic, complementary and efficient nature.

Objective 2.2. Acquire lands where necessary or strategic for future developments.

2.2.1. Purchase properties adjacent to developable PRPA land as opportunities arise.

2.2.2. Focus land purchases on those that have strategic value as development parcels, or transportation infrastructure.

Objective 2.3. Create new parcels to accommodate development to take advantage of existing infrastructure on lands under PRPA jurisdiction as needed.

2.3.1. New land parcels may be constructed to maximize the efficiency of new developments and strategic port infrastructure.

2.3.2. New land parcels will be designed to minimize impacts on the environment, community and neighbouring landowner interests. Where impacts cannot be mitigated and are unavoidable, compensation efforts will be undertaken following regulatory requirements or better.

2.3.3. New land creation projects such as terminal expansion at Fairview, Ridley Island Connector Road, South Kaien Island Terminal and new logistics platforms will be designed to ensure port infrastructure investments are maximized.

Objective 2.4. Coordinate new development activities with adjacent jurisdictions.

2.4.1. Ensure Land Use Plan designations are aligned with existing community Official Community Plans and development plans of adjacent communities.

2.4.2. Ensure new project developments on PRPA lands are introduced to relevant First Nations and local governments for review and feedback, over and above existing consultation and public engagement regulations and guidelines.

2.4.3. Ensure new planning and development processes on lands in adjacent jurisdictions are reviewed by PRPA in order to identify potential conflicts and incorporate into PRPA's future planning.

2.4.4. Coordinate economic development planning with other jurisdiction and/or agencies to identify opportunities for co-location, mutual benefit and efficiency.

Goal 3 – PRPA *will protect the gateway environment by developing responsibly and sustainably and minimizing environmental impacts of operations.*

Objective 3.1. PRPA's approach to environmentally sustainable development will avoid, minimize or mitigate impacts (in that order) to the natural environment.

3.1.1. Ensure all project developments are subject to a transparent review that reflects federal legislation and regulations.

3.1.2. Ensure best practices for reducing environmental impacts from development and operational activities are considered and approached collaboratively with PRPA partners on PRPA land.

Objective 3.2. Decrease intensity of energy and Greenhouse Gas emissions per tonne of trade through the gateway.

3.2.1. Establish a pathway to reduce CO2-equivalent emissions intensity in the gateway by 30% by 2030 from 2018 intensity levels.

3.2.2. Design infrastructure to maximize efficiency and minimize distances and related energy use.

3.2.3. Reduce vulnerability of existing assets to climate-related events that would impact reliability and continuity.

Objective 3.3. Achieve a net positive impact on biodiversity through local leadership in priority areas such as marine conservation and environmental management.

3.3.1. Minimize physical disturbances by improving awareness of marine mammal proximity to port operations and development and implementing impact mitigation programs

3.3.2. Minimize harmful environmental contaminants on marine mammal, fish and wildlife habitat.

3.3.3. Integrate PRPA monitoring activities, environmental data and capacity building into governmental and educational entities.

3.3.4. Enhance and protect habitats and biodiversity through critical monitoring programs and investments.

Objective 3.4. PRPA will continue to monitor and limit pollution from noise, light and airborne emissions.

3.4.1. Continue to monitor emission levels at critical sites to establish baseline data, monitor port-related impacts, ensure compliance with relevant objectives and regulations.

3.4.2. Make monitoring data easily accessible to the general public and promptly respond to public feedback and concerns.

3.4.3. Ensure new monitoring stations are activated as necessary to measure impacts as new tenants and development patterns change.

Objective 3.5. PRPA will enact a development moratorium on a marine area that incorporates Flora, Agnew and Horsey Banks off of Lelu Island.

3.5.1. No industrial development will be permitted to occur on the designated area during the moratorium.

3.5.2. The construction of navigational aids, scientific equipment, pipelines and select undersea utilities will be considered during the moratorium and a corridor will be identified as a preferred area for those developments, subject to strict environmental protection measures.

3.5.3. The minimum term of the moratorium will be 20 years from the adoption of this plan. This term will be revisited every five years to coincide with the review of this plan. During each review, a decision will be made whether to renew another 20 year minimum.

Objective 3.6. PRPA will continue to collaborate on environmental projects.

3.6.1. Share monitoring data with environmental groups and agencies.

3.6.2. Lead the development of port-related cumulative effects modeling and forecasting and support the development of broader regional cumulative effects initiatives.

3.6.3. Support regional environmental remediation, habitat enhancement and protection through direct environmental sustainability programming and community investments.

Objective 3.7. PRPA will establish a reputation as the safest port in North America because of our leadership role in implementing innovative marine navigation practices, procedures and technology.

3.7.1. Establish quantified risk goals for marine navigation within PRPA jurisdiction and develop a plan to meet those goals with our port partners.

3.7.2. Encourage the development and adoption of common operations, environmental and emergency management principles with our port partners.

Goal 4 *- PRPA is a collaborative partner with local First Nations and its surrounding communities and is committed to entrenching First Nations economic participation in an expanding gateway, sharing economic prosperity, and enhancing community vitality.*

Objective 4.1. Design and locate transportation infrastructure to minimize impacts on surrounding communities.

4.1.1 Plan goods movement routes to minimize impacts on residential and downtown commercial areas.

4.1.2 Work with communities to mitigate safety, traffic and other concerns related to rail, truck and marine transportation where possible.

Objective 4.3. Explore opportunities to enhance waterfront access and recreation.

4.3.1 Collaborate with local community partners to investigate the potential for waterfront access projects in the Inner Harbour east of Kwinitsa.

4.3.2 Collaborate with local community partners to investigate the potential for local trail development.

4.3.3 Maintain open lines of communication with the local First Nations, local governments and the community to explore other potential options for waterfront-related community projects, including viewing platforms and interpretive projects.

4.3.4 Explore opportunities for commercial development on PRPA lands in Cow Bay that increase neighbourhood vitality and advance the Prince Rupert 2030 Vision.

Objective 4.4. Proactively communicate with local communities and partners about updates and changes to land use in PRPA jurisdiction.

4.4.1 Provide clear and transparent methods for communication and engagement to proposed changes to PRPA Land Use Plan.

4.4.2 Provide clear and transparent methods for communication and engagement related to projects and development where appropriate.

4.4.3 Develop policies and procedures related to identifying and quantifying impacts of port development on community values, such as heritage and culture, with the objective of avoiding, mitigating, or compensating for negative impacts from port development.

Objective 4.5. Continue to invest in surrounding communities through the Community Investment Fund as a means to share port-related prosperity with local residents.

4.5.1 Identify a range of programs, projects and initiatives that help to make the community a better place to live, work and play.

4.5.2 Align community investments with the priorities and initiatives of local First Nations, Local Governments and community groups.

4.5.3 Ensure social risk and performance are assessed and considered to guide decision making and community investment.

Objective 4.6. Partner with First Nation communities to support indigenous-led economic development opportunities related to the port.

4.6.1 Implement relationship protocols with local First Nations to guide our interactions and facilitate the advancement of shared interests.

4.6.2 Work collaboratively with local First Nation partners to identify lands that could be used to support port-related economic activities.

4.6.3 Work collaboratively with local First Nations partners to facilitate new economic opportunities related to new business opportunities, employment and capacity building.

4.6.4 Work collaboratively with local First Nations in the development of port-related cumulative effects modeling and forecasting specific to First Nations interests such as impacts on traditional uses.

8.3 Land Use Designations

PRPA Land Use Plan has been designed as a flexible and forward-looking plan which aims to provide land uses that support the future development of the Port of Prince Rupert in a manner that is economically, environmentally and socially sustainable. The Plan sets out 11 land use designations which are intended to be mutually supporting, flexible and in full alignment with PRPA's mandate.

Land use designations are intended to guide development by providing policy direction for allowable land uses. In addition to land use designations, several general land use policies are applicable to development at the Port of Prince Rupert (Schedule "A" and "B" lands).

8.3.1 General Land Use Policies

Water Lot Leases

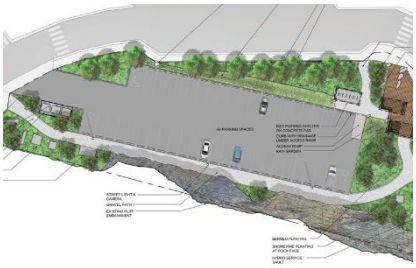
Unless otherwise designated, PRPA owned water lots are administered on an individual basis. PRPA is open to exploring options for consolidating their management on a case by case basis. Holders of water leases should ensure they have the proper insurance to cover any improvements to water lease areas.

Environmentally Sensitive Areas

PRPA is proud of its role as a leader in environmentally sustainable port development and it has a long history of participation in habitat and ecosystem mapping to determine environmentally sensitive areas within its boundaries. These areas are critical marine habitat and hold significant cultural and recreational value and impacts should be avoided. Where impacts are unavoidable, PRPA and its partners will meet or exceed regulatory and policy objectives for habitat compensation and ensure that new replacement habitat is created of equal or better value in proximity to the affected area.

Generally, this land use plan does not attempt to create environmental protection for specific areas, or prescribe project review policies, but rather to identify environmental characteristics that must be considered and addressed within the designated land uses.

Parking



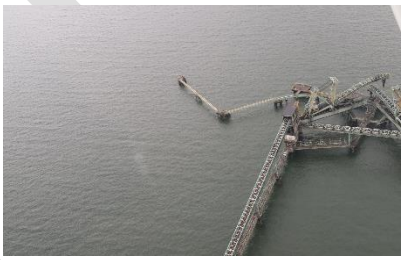
Parking is permitted on all land uses, except in lands designated as Conservation or Viewscape Buffer.

8.3.2 Land Use Designation Descriptions

Industrial

Industrial areas are designated for uses related to the import, export, or manufacture of goods. Industrial uses may include bulk commodity terminals, transload and container services, intermodal yards, marine support and shipbuilding activities. These areas may also be used for the processing or manufacture of certain goods, as long as it relates to the preparation and processing of goods for shipment. Ancillary uses will support the main industrial activity on-site and could include storage, office, parking, or limited commercial use.

Marine Industrial

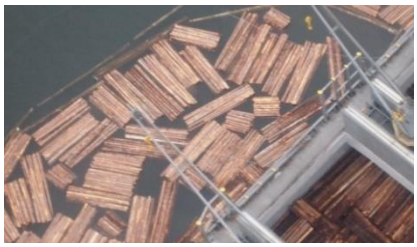


Maine Industrial designated areas are reserved for industrial uses located adjacent or within the water such as terminals, piers, docks and conveyor systems for loading and offloading of ships. Development of marine industrial areas must minimize impacts to the marine environment and should be located in such a way as to minimize impacts on adjacent and nearby conservation areas and sensitive ecosystems.

Logistics

Areas designated for logistics are reserved for the handling of goods at transloading, breakbulk and intermodal yards. Logistics areas are considered lower intensity use than industrial areas. These areas require good access to transportation infrastructures that connect to port terminals and regional transportation networks.

Marine Support



Marine support areas are intended for uses supporting industrial, marine industrial or commercial uses. Marine support uses require proximity to tidewater to function and may also require back uplands (land on shore) for logistical and operations purposes, such as a ferry terminal and its loading ramp. Potential uses in these areas may include moorage or marine located industrial uses including bulk fuel barge moorage, log storage, ferry terminals, shipyards, marinas, or short sea shipping.

Transportation and Utilities

Areas designated for transportation use are reserved for goods, people and equipment movement through and between industrial, logistics and commercial areas, as well as energy, water, sewage, communications and related utilities. These designated areas are intended primarily for road and rail infrastructure and to accommodate both existing and future transportation use and capacity needs.

Commercial

Commercially designated areas are intended as a supportive use in more intensive industrial areas and as a primary use in more urban areas. These lands are intended for a variety of uses that could include food service, office, retail, warehousing, passenger terminals, tour operators, accommodation, attractions, marinas, other businesses that attract, or parking areas.

Habitat Enhancement

Areas designated Habitat Enhancement are designed to protect habitat and sensitive areas. These may be in marine, terrestrial or foreshore environments. Permitted activities in Habitat Enhancement areas are restricted to preservation, enhancement, or restoration of natural areas or the restoration and enhancement of areas impacted by previous development. Industrial development is prohibited in conservation areas. However navigational aids, scientific equipment and certain types of utilities may be permitted on a case by case basis.

Viewscape Buffer

This land use designation is intended to apply to areas between residential and industrial spaces to provide a visual and acoustic buffer between conflicting land uses. Viewscape buffers preserve and enhance the quality of life for adjacent residents, while not impacting the operation of the Port. In addition, the buffer acts as a shoreline buffer of vegetation. Wherever possible, the buffer goal should be 50 metres.

Waterfront Recreation

The Waterfront Recreation designation is intended to reserve small portion of Port lands for recreation and interpretive use. Development in this land use designation may include basic infrastructure that would enhance the visitor experience including picnic tables, remote camping facilities, washrooms, trails, viewing platforms and signage. Recreation oriented commercial development may be allowed on a case by case basis.

Temporary Use

Temporary Use areas are intended as flexible land use areas. Temporary use areas may be used for the storage of organic materials, rocks, sediment and other natural debris that originated from the clearing of land or dredging of marine areas. Other permitted uses may include staging areas, laydown yards, or parking areas. Temporary uses may be used for industrial lands in future and should not be altered or contaminated in a way that prevents future development.

Table 4 Allowable Land Uses by Designation

Primary Use | Secondary Use

Land Use Matrix										
Use	Industrial	Marine Industrial	Logistics	Marine Support	Transportation and Utilities	Commercial	Temporary Use	Habitat Enhancement	Viewscape Buffer	Waterfront Recreation
Export Terminal										
Liquid Bulk										
Material Storage and Sorting										
Deep water berths										
Conveyor Systems										
Intermodal Yards										
Warehousing										
Transload Facilities										
Sorting Areas										
Container Storage										
Breakbulk										
Truck staging area										
Moorage										
Log Booms										
Bulk fuel barge										
Railways, Rail Yards, Sidings										
Roads, Highways and Parking Areas										
Docks and Piers										
Office										
Retail										
Retail Food and Food Service										
Organics Storage										
Scientific Instruments, Navigation Aids and Weather Monitoring										
Habitat Conservation										
Recreation										
Commercial Tourism										
Passenger loading, Cruise and Ferries										
Customs Facilities										
Cultural Tours										
Heritage Conservation, Museum										
Public Art										

8.4 Planning Districts

The Land Use Plan has identified three (3) distinct Planning Districts to reflect the functional difference in the character and operation of each district. Land Use Designations apply in all Planning Districts but may include additional detail to reflect the ongoing character of each District, but they may be tailored within each district with more detail to suit the area's character.

Within these districts the development of Port facilities is governed to some degree by its navigational capacity and the extent of back up lands available for support uses. For example, where draught ranges are more limited, the site may be suitable for a marine service or similar operation but would be inadequate to support deep draught vessels and the attendant industrial uses that such ships support. Ship manoeuvring is another factor. For example, in Porpoise Harbour, ships sizes are restricted due to navigational access concerns.

Certain uses require substantial back up land capacity. Thus available site area, site slope and configuration and the distance of the site to the potential berth face or operating entrance defines its overall usability. In most instances, Port development is sufficiently distant from urban land uses that land use conflicts are minimized. Nevertheless adjacent land use, as well as environmental sensitivity, all play a role in ensuring that overall Port development remains sustainable meeting vessel requirements, operational parameters and compatibility with adjacent uses.

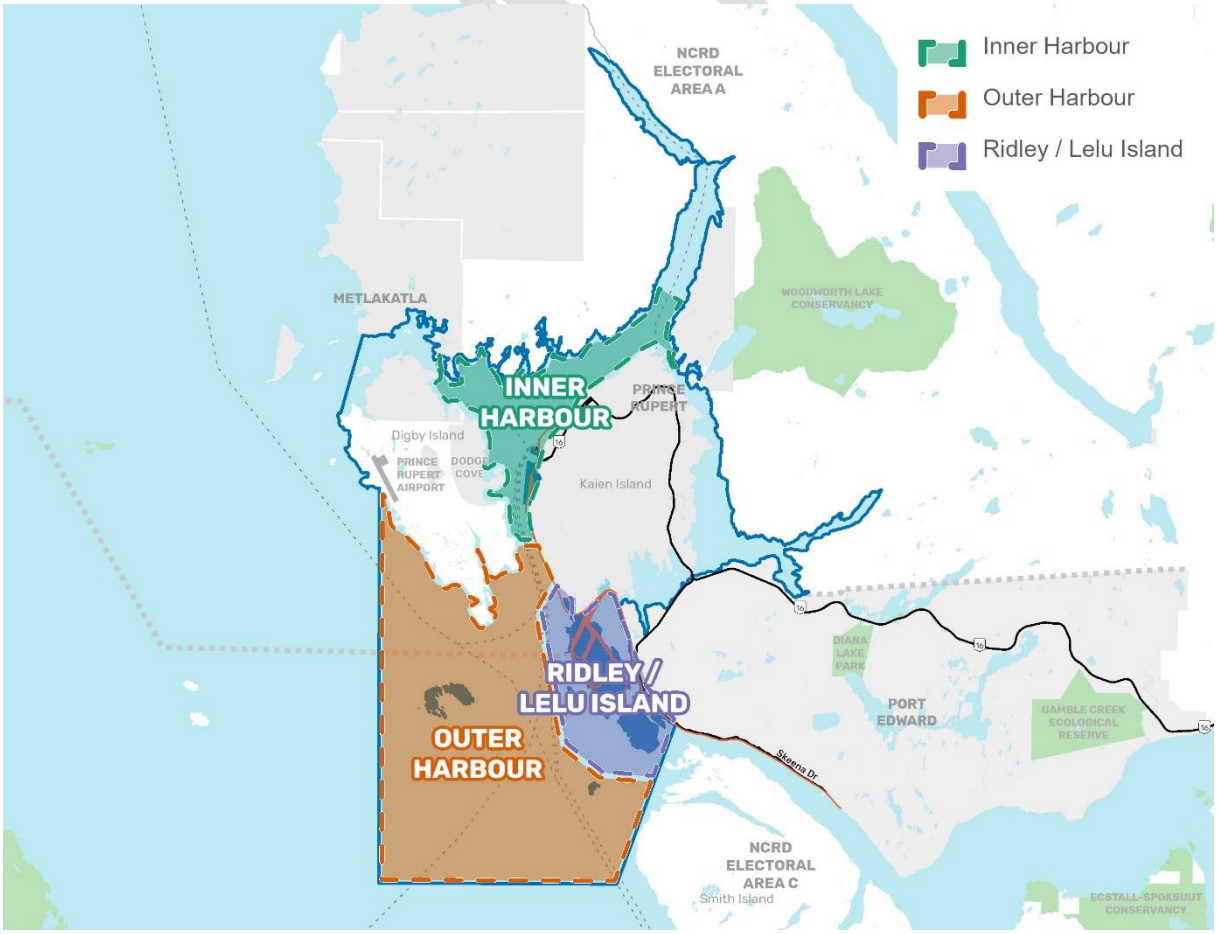


Figure 24 Planning Districts

8.4.1 Inner Harbour Planning District

The Inner Harbour Planning District includes the main body of Prince Rupert Harbour and lands under PRPA jurisdiction north of Frederick Point. This District is adjacent to Prince Rupert's downtown core, primary residential and commercial areas and has the most diversity in port activity. The land located on the southeast side of this district is primarily located within the City of Prince Rupert municipal boundaries.

Port activities in the Inner Harbour Planning District include a mix of industrial, logistics and passenger services as well as several anchorages. Its three principal operating terminals include the Fairview Container Terminal, Westview Container Terminal and the Northland Cruise Terminal. This Planning District is also home to PRPA's main offices at their Atlin Terminal and Scott Road locations. PRPA lands with designated land uses in the Inner Harbour Planning District are wholly contained on the west side of Kaien Island. PRPA does hold additional water lots elsewhere, but these are governed by the General Provisions described at the beginning of Section 8.3. PRPA has relatively limited Schedule B or C lands in the context of the full inner harbour.

The inner harbour port facilities are generally separated from the urban community by a series of CN rail storage tracks in its downtown rail yard at the terminus of its mainline. CN is also the owner of land that is occupied by tracks in the inner harbour and waterlots in its direct proximity.

The inner harbour has the advantage of generally good deep sea access with the capability of accommodating ship draughts in the range of 12 - 15 metres respectively at Westview and Northland terminals and 17 metres at Fairview terminal.

The Fairview container terminal is expected to begin a primarily southern expansion in 2021 and has the ability to expand further in the future from a spatial perspective. Westview Terminal has the ability to add additional storage silos on the southern portion of its site. Other inner harbour locations currently suffer from limited upland properties for support storage and ancillary uses and are thus best suited to marine services, small scale logistics/cargo storage or commercial uses.

Industrial

Land Designated Industrial areas in the Inner Harbour Planning District include Fairview Terminal, Westview Terminal, Lightering Dock and other facilities near the CN rail spur at the base of Water Street.

Marine Industrial

Land Designated Marine Industrial refers to lands including Westview Terminal and lands adjacent to it and the CN marshalling grounds.

Marine Support

Land Designated Marine Support uses in the Inner Harbour Planning District relate to PRPA lands that support industrial uses such as car ferries, storage and moorage of vessels, logs booms or bulk fueling barges. Marine support areas are typically wholly marine-based and have minimal access to the shore.

Commercial

Land Designated Commercial in the Inner Harbour Planning District includes Atlin Terminal, as well as PRPA offices near Fairview Terminal. Commercial activities in the inner harbour may include passenger facilities such as ferries, water taxis, charters and cruise ships, as well as other businesses designed to serve residents and visitors.

Habitat Enhancement

Land Designated Habitat Enhancement areas in the Inner Harbour Planning District include the artificial reefs along the Ridley Island Connector Road and the Viewscape Buffer between Westview Terminal and Graham/Water St.

Waterfront Recreation

The Atlin Promenade that extends from the Northland Cruise Terminal to Atlin Terminal, including the breakwater are designated as Waterfront Recreation.

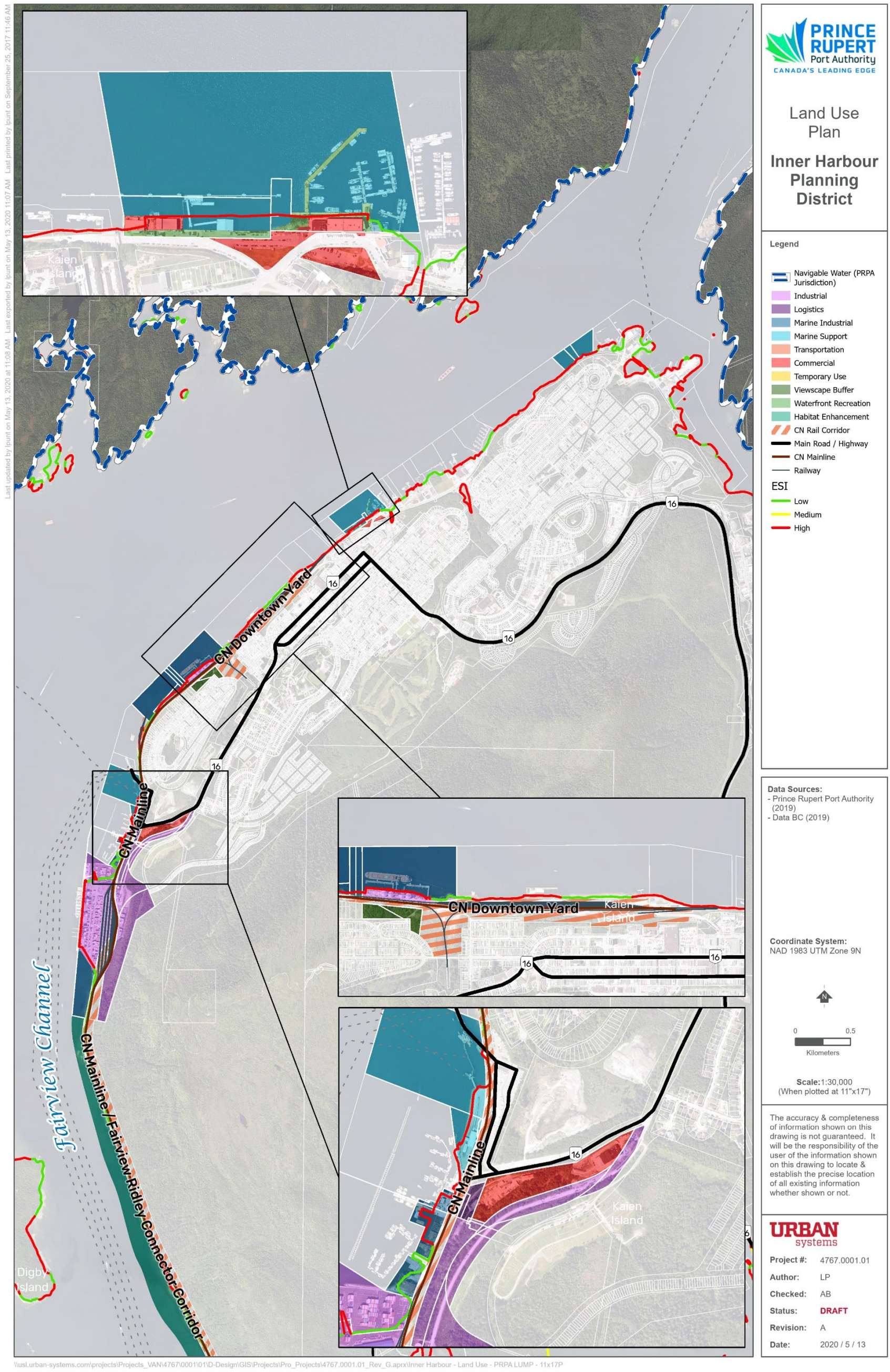


Figure 25 Inner Harbour Map

8.4.2 Ridley & Lelu Island Planning District

Ridley and Lelu Island make up the majority of lands under the jurisdiction of PRPA and are located within the City of Prince Rupert municipal boundaries. These lands contain major industrial tenants and export terminals, marine berths, transportation, organic storage sites, logistics infrastructure and future development areas. Industrial tenants in this Planning District rely on the convenient co-location of deep-water marine berths and upland areas to stage logistics and cargo transfer operations. The Ridley & Lelu Island Planning District is also unique for its separation from primary urban areas, although it does share a closer proximity to the District of Port Edward. Ridley Island is the location for the Road Rail Utility Corridor and supports the most direct connection to provincial highway and the CN mainline. The road entrance to Ridley Island has restricted access in the form of a security gate.

The District's three primary terminals are Prince Rupert Grain, Ridley Terminals Inc. (RTI) and the Ridley Island Propane Export Terminal (which shares a marine berth with RTI). The district also includes a container examination facility, a roll on-roll off project cargo facility, two temporary transload facilities located on the Road Rail Utility Corridor, an organic disposal area and a sediment retention pond.

Ridley Island already has utility service including a water supply system owned by the PRPA. Sanitary sewer is available through a private sewer outfall. Electrical power is generally adequate. The west coast of Ridley Island benefits from deep water access - ideal for major bulk carriers. The east side at Porpoise Harbour features more limited depth and the width of the channel, ship draught, current and turning radius at the end of the channel all impose limitations on navigation. Thus, optimization of land use on Ridley needs to be cognizant of both the island's constraints and opportunities. This suggests restricting large bulk commodity berths to the western side of the island with its proximity to deep water access and maintaining associated upland areas for complementary storage and processing activities.

Future terminal locations will also require careful planning for rail loop, spur and storage lines, as well as road access, to ensure planning flexibility and the limiting of conflict with already established bulk terminals.

Lelu Island is currently undeveloped and is subject to the terms of the development moratorium applied to Flora, Agnew and Horsey Bank on its western bank. It has no direct rail or road access. Given the relatively limited land available for industrial port development, it is important to PRPA's mandate and long term development goals. The longer term possibility of bridging Lelu Island with the mainland (Port Edward) may facilitate access to the island and PRPA owns Stapledon Island which may assist in this long term planning.

Coast Island comprises about 3 hectares (7 acres) and is just west of Ridley Island. It currently is undeveloped and has marine access only. Its primary use is likely to support marine industrial activity as part of a marine berth development.

In addition, PRPA lands also include waterlots on the east side of Porpoise Harbour adjacent to Watson Island and waterlots within the District of Port Edward.

Industrial

Industrial areas in this Planning District are reserved for large scale operators importing or exporting bulk commodities, containers, or other goods. These Industrial areas require access to transportation networks and may also require access to marine industrial facilities. Future industrial areas will be designed to make the best use of existing transportation infrastructure planned transportation upgrades and complementary services. A location for a future container terminal has been identified and designated as industrial land in the area just north of Ridley Island and southwest of Kaien Island.

Lelu Island is “Schedule B” land and is under PRPA’s jurisdiction to manage land use. Development on Lelu Island is seen as a long-term prospect as the associated development costs render most projects economically unfeasible. While Lelu Island is subject to the terms of the Flora, Agnew and Horsey Banks industrial development moratorium, the moratorium definition does allow for the potential of services that would enhance the potential of industrial development on Lelu Island.

Marine Industrial

Maine Industrial areas in this Planning District include existing and future trestles and dock berths used to load and unload goods from ships. The location of future berths that will service new industrial tenants on Ridley Island have been identified on the west coast of Ridley Island in this Planning District.

Logistics

Logistics areas in the Ridley & Lelu Planning District are designed to support the import and export activities of industrial tenants. Logistics activities may include container stuffing and destuffing, intermodal yards, transloading, warehousing, storage, inspection and other related activities. The largest area of Logistics designated lands reflects plans to develop south Ridley Island for export logistics transload operations.

Transportation and Utilities

Transportation and utility infrastructure in this Planning District is critical to the operation of the Port. Gateway infrastructure like the RRUC and Fairview Connector Corridor services multiple industrial operators and gives the Port of Prince Rupert a significant competitive advantage in terms of efficiency. Transportation designated lands allows PRPA to expand and adapt infrastructure as new tenants come online within PRPA jurisdiction. Transportation designated lands include the under construction Fairview Ridley Connector Corridor and expansions to the RRUC planned for the south end of Ridley Island to service future logistics operations.

Commercial

Commercially designated lands are not currently identified on Ridley or Lelu Island but should be considered as a potential future use. Commercial areas in this planning district are intended to service the daytime working population of the area with basic amenities such as a café/restaurant, food truck or store. The addition of commercial space on Ridley Island, where employees can access basic meals may be a welcome addition as the numbers of employees continues to grow.

Temporary Use

Temporary Use areas are reserved for lands in the south eastern quadrant of Ridley Island. This area is currently being used for organics storage and a sediment settling pond. The land is currently unstable and unsuitable for other forms of development. Only natural material gathered from the clearing and grubbing of new development areas should be stored within this area. Contaminated material and other refuse must be disposed of, or remediated, through other processes.

Habitat Enhancement

Habitat Enhancement areas in the Ridley Island & Lelu Planning District include the Flora, Agnew and Horsey banks Development Moratorium Area (west coast of Lelu Island) and the artificial reefs in the northern end of Porpoise Harbour.

Viewscape Buffer

Lands on the east side of Ridley Island and Lelu Island have been designated as a viewscape buffer. This buffer is intended to act as a visual and acoustic separation between the community of Port Edward and industrial tenants on Ridley Island.

Waterfront Recreation

While sites directly inside this district to provide waterfront recreation areas are extremely limited due to safety and security concerns associated with interaction of industrial activity and no sites have been designated as such, there may be an opportunity to create a new recreational/interpretive site in this Planning District (or suitable adjacent lands).

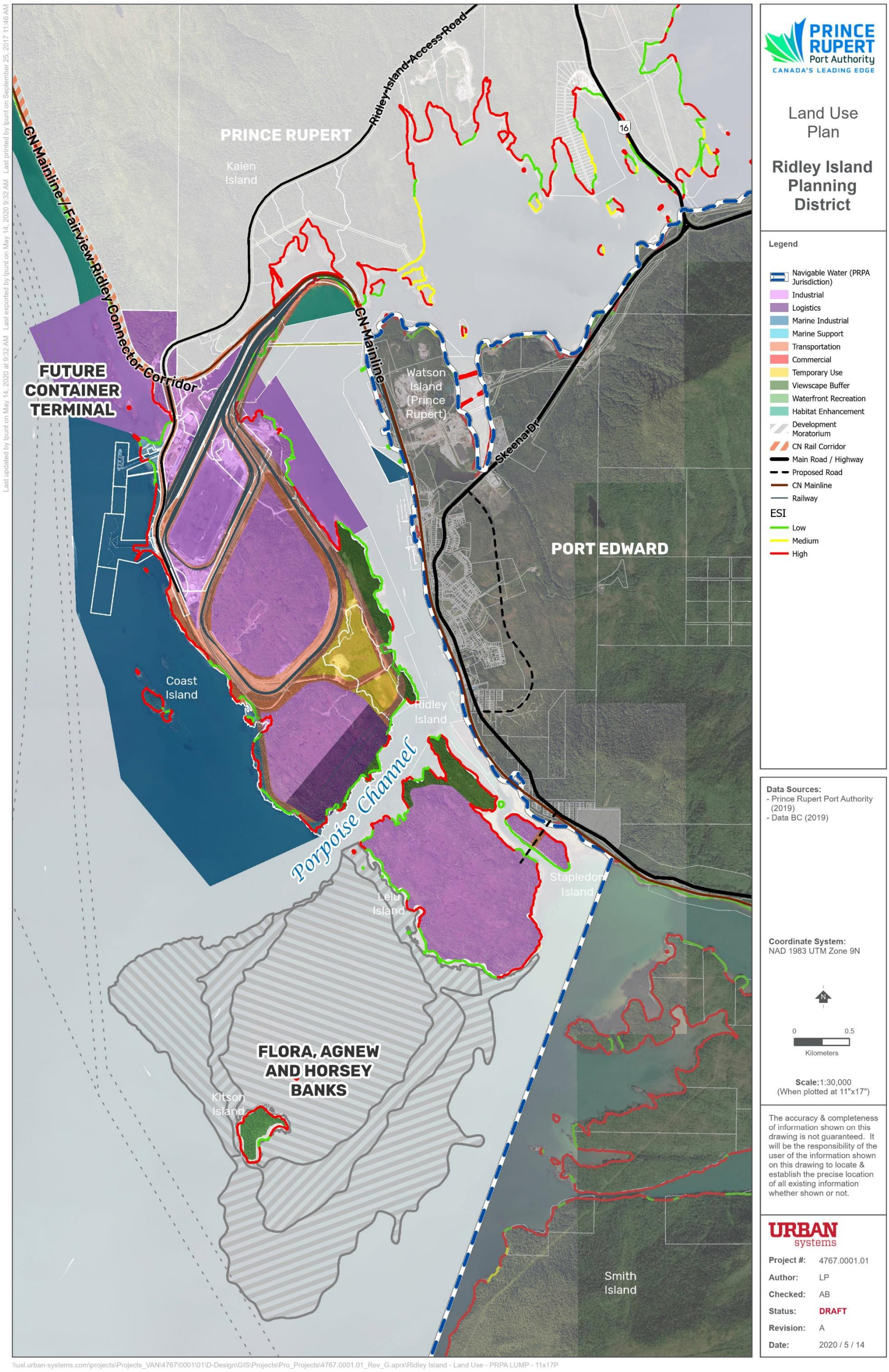


Figure 26 Ridley & Lelu Island Map

8.4.3 Outer Harbour Planning District

The Outer Harbour Planning District refers to all lands under PRPA jurisdiction that fall outside of the Inner Harbour and Ridley & Lelu Islands Planning Districts. These lands are largely undeveloped and include the Kinahan Islands, Kitson Island, Greentop Island and Holland Rock. This Planning District is distinct because it applies to a collection of lands that are disconnected and individually unique. Some islands are too small for development of any kind; others may present opportunities as waterfront recreation while there are also opportunities for certain forms of industrial development.

Industrial

The Kinahan Islands are designated for industrial use in the long term. The islands have many potential industrial uses that could include quarries, marine staging areas for other activities. No development plans are in place for these islands, but they may be eligible should the opportunity arise in future.

Habitat Enhancement

Habitat Enhancement areas in the Outer Harbour Planning District apply to the Flora, Agnew and Horsey Banks Development Moratorium Area off the west coast of Lelu Island as well as Holland Rock and Greentop Island. Holland Rock and Greentop Island have value as locations for scientific instruments, navigation aids and weather monitoring equipment and associated infrastructure, which are allowable uses within the designation.

Waterfront Recreation

Lands designated Waterfront Recreation in the Outer Harbour Planning District encompasses the entirety of Kitson Island. Kitson Island is a small island with several beaches and acknowledged ecological and recreational value. It is situated south west of Lelu Island and falls within the Flora, Agnew and Horsey Bank industrial development moratorium and this land use designation is considered aligned with the intent of the moratorium. Due to its small size and recreational importance it is of limited suitability for development. Under this designation, Kitson Island is intended for low impact public recreational use and camping. Future development may include basic park amenities such as benches, tent pads, picnic tables, trails, signage, pit toilets and viewing platforms. Signage clearly identifying this area as a Park in PRPA and for the enjoyment of all area residents will be prominently displayed.

Kitson Island has been designated provincial park managed under a Collaborative Management Agreement between BC Parks and the Metlakatla and Lax Kw'alaams First Nations. PRPA was not a participant in that agreement, nor were they involved in associated discussions, notwithstanding its jurisdiction over the federal crown land in question. By applying this land use designation, PRPA is supporting the spirit of that agreement.

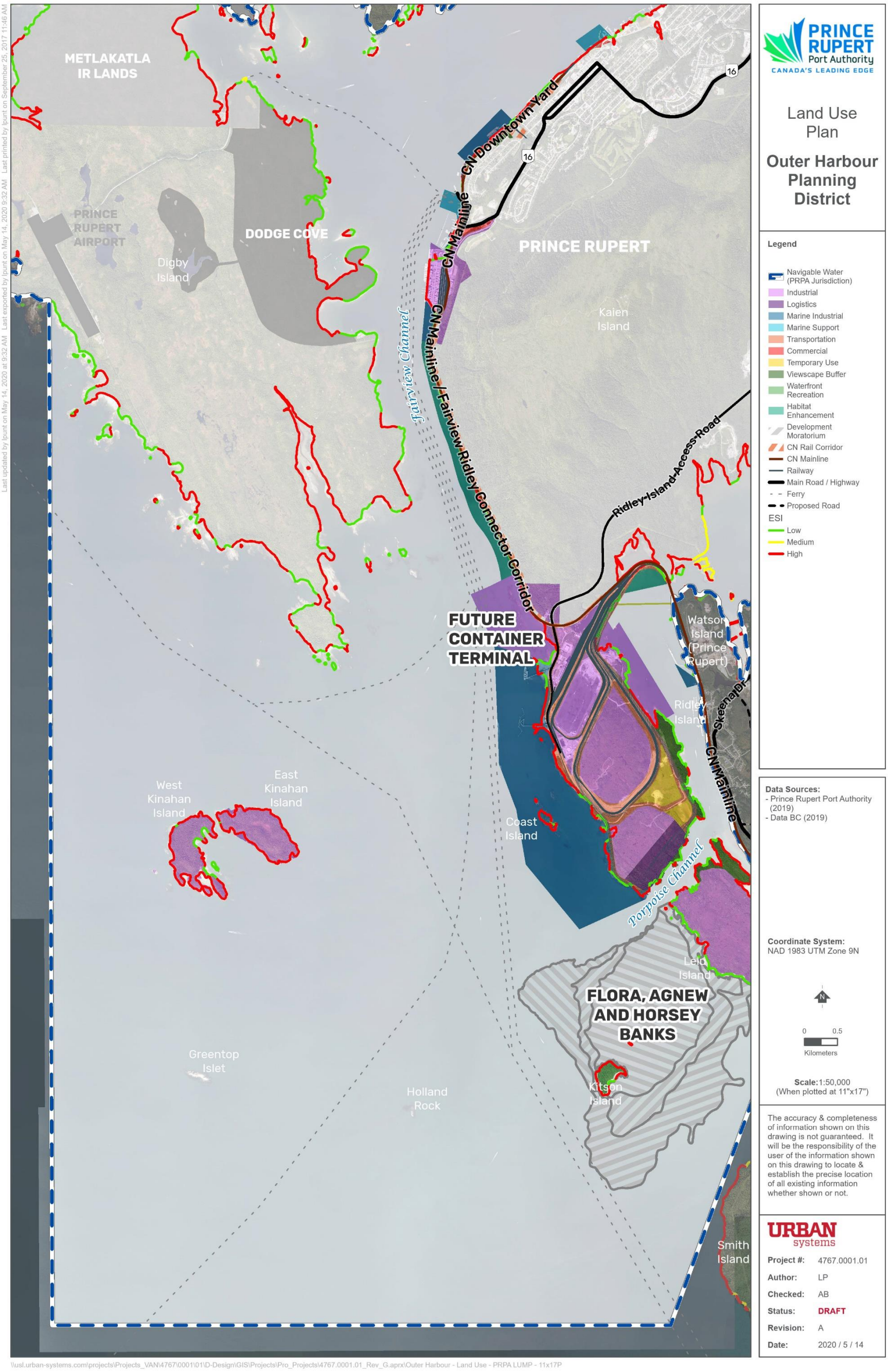


Figure 27 Outer Harbour Map

9 Implementation

The Prince Rupert Port Authority 2040 Land Use Plan provides a vision for development over the next 20 years. The Plan will help guide the Port through the next 20 years of development as a primary employer and economic driver for the entire North Coast of British Columbia. The next 20 years will bring exciting opportunities and challenges to the Port of Prince Rupert, which will be met in partnership with First Nations, local municipalities and the broader community with a continued focus on environmental stewardship.

9.1 Implementation Measures

This section lists key projects that PRPA is committed to completing over the lifetime of this plan. This list signals a commitment to continuously improve and advance key initiatives at the port that benefit PRPA, its partners, the community, and the environment. In addition to these items, this plan lists many new and exciting land use policy directions which will be implemented on a continual basis by PRPA.

Table 5 Implementation Measures

	Initiative	Short Term (1-5 years)	Medium Term (6-10 years)	Long Term (10+ years)	Responsibility and Partner(s)
1	Establish development moratorium for Flora, Agnew and Horsey banks (Section 4.2.1)	✓			PRPA
2	Establish a regional cumulative effects modelling program (Section 4.5)	✓	✓		PRPA, Various Levels of Government, Local First Nations, Research Organizations
3	Establish framework for land use plan referrals with local First Nations and local governments (Section 5.2.2)	✓			Local First Nations and Local Governments
4	Establish framework for project development referrals at PRPA jurisdictional boundaries with the District of Port Edward and City of Prince Rupert (Section 5.2.3)	✓			Local First Nations and Local Governments
5	Establish a Regional Planning Committee (Section 5.2.4)	✓			Local First Nations and Local Governments
6	Develop development approval process (Section 8.2, Policy 1.2.3)	✓			PRPA
7	Establish a greenhouse gas emissions reduction strategy (Section 8.2, Policy 3.2.1)	✓			PRPA
8	Improve platform for communicating PRPA environmental programs and monitoring data (Section 8.2, Policy 3.3.3, 3.4.2)	✓			PRPA, Various Levels of Government, Local First Nations, Academic & Research Organizations

9	Continuously improve safety of marine navigation through qualified risk analyses (Section 8.2, Policy 3.7.1)	✓	✓	✓	PRPA, Industry Partners, Local First Nations
10	Identify new waterfront access projects east of Kwinitsa (Section 8.2, Policy 4.3.1)	✓	✓	✓	Local First Nations and Local Governments
11	Work with local community partners to identify opportunities to build new trails (Section 8.2, Policy 4.3.2)	✓	✓	✓	Local Community Partners
12	Explore opportunities for commercial development in Cow Bay (Section 8.2, Policy 4.3.4)	✓	✓		PRPA
13	Publish communication procedures related to PRPA land use plan updates (Section 8.2, Policy 4.4.1)	✓			PRPA
14	Create policies and procedures for managing impacts to community resources (Section 8.2, Policy 4.4.3)		✓		PRPA, Local Community Partners
15	Establish relationship protocols with local First Nations (Section 8.2, Policy 4.6.1)	✓			Local First Nations
16	Assist local First Nations in identifying lands for port related economic development (Section 8.2, Policy 4.6.2)	✓	✓		Local First Nations
17	Establish a waterfront recreation area on Kitson Island (Section 8.4.3)	✓			PRPA
18	Explore options for access improvements to Stapledon Island and Lelu Island (Section 8.4.2)			✓	PRPA
19	Explore the opportunity to create a new recreation/interpretive site near Ridley Island (Section 8.4.3)	✓			PRPA
20	Investigate acquisition of lands (Section 8.1, Policy 2.2)	✓	✓	✓	PRPA

9.2 Monitoring and Reporting

PRPA Land Use Plan is designed to be a vision for the next 20 years of development at the Port of Prince Rupert. Regular monitoring and reporting on targets and implementation will allow the plan to be a living document that remains relevant through its term. Regular amendments to the Plan are anticipated as new opportunities emerge or planned developments change. As such, a new Amending Process for the Plan is described below.

The Plan will be formally reviewed every five (5) years to assess how PRPA is accomplishing the goals and objectives identified in the Plan and to ensure growth targets and policy direction are still relevant to the operating context of the Port. The performance of new initiatives such as inter-jurisdictional collaboration and non-traditional port land uses (Habitat Enhancement, Viewscape Buffer and Waterfront Recreation) should be included in the Annual PRPA Report and discussed at annual board meetings.

Additional review and reporting can be completed as deemed necessary by PRPA.

9.3 Amending the Plan

The world is rapidly evolving and the Plan will require regular amendments as the development context for the Port of Prince Rupert changes over time. The Plan is designed to be amended as needed to remain a useful document between major updates (every five years). Although the plan has historically been updated on a 10-year schedule, more frequent and minor amendments will help keep the document relevant and bridge the gap between the next scheduled 5-year update. All amendments will proceed with respect to requirements outlined in the CMA.

Minor Amendments

Minor Amendments include small changes, edits and revisions to text or figures within the Plan and will not affect the overall policies, procedures or goals presented in the Plan. Minor Amendments may not require consultation from project partners or stakeholders but can be brought forth by them. A record of all minor amendments will be kept on PRPA website and noted in the version history of this document.

Major Amendments

Major Amendments are changes that will have an effect on the vision, goals, policies, or procedures presented in the Plan and/or amendments that change land use designations, definitions or their application. These amendments will require consultation with project partners, stakeholders and the public before they can be adopted into the Plan. A record of all major amendments will be kept on PRPA website and noted in the version history of this document.

10 Closing and Thanks

Appendix A – Engagement Summary