30-Year Master Development Plan

2022 - 2052

PORT of/de BELLEDUNE

Land Acknowledgement

The Belledune Port Authority acknowledges that the Port and the Village of Belledune are located on the unceded and unsurrendered traditional territory of the Mi'gmaq People.

This territory is covered by the "Treaties of Peace and Friendship" which Mi'gmaq, Wolastoqiyik, Penobscot and Peskotomuhkati people first signed with the British Crown in 1725-1726. The treaties did not deal with surrender of lands and resources but in fact recognized Indigenous title and established the rules for what was to be an ongoing relationship between nations.

The Belledune Port Authority strives for meaningful partnerships as we search for collective healing and true reconciliation through a commitment to listening, engaging and learning. All those who come to live and work here are responsible for honouring these treaties in the spirit of peace, friendship and respect. We gratefully acknowledge the enduring presence of all Indigenous People and give thanks for their guardianship of this land.

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"This MDP process and resulting report have offered the Port and the region a smart development pathway. We have done our homework and now it's time to take action thoughtfully and with ambition."

Jennifer Cleversey-Moffitt, *Legal Counsel & Corporate Secretary*

Introduction

The Belledune Port Authority (BPA) is part of the Canada Port Authorities (CPAs). CPAs "are federally incorporated, autonomous, non-share corporations that operate at arm's length from the federal government. They operate on a commercial basis with a view to being financially self-sufficient. They have been incorporated as shared governance organizations with the objective of advancing the growth and prosperity of the Canadian economy. While CPAs operate on a commercial basis, they also fulfill important public policy objectives, notably navigational safety and environmental protection."[1]

Facing a new series of challenges tied to its core business, in late 2020, BPA authorized the creation of a long-range roadmap to guide the development of the Port over the next 30 years. The result—the *30-Year Master Development Plan 2022-2052*—outlines a series of recommendations that collectively establish the framework for a highly diverse, dynamic 30-year development plan at the Port.

The Master Development Plan (MDP) offers near- and long-term recommendations at port-wide and district-level scales to ensure that BPA not only continues driving economic prosperity in Northern New Brunswick, but also assumes a leadership role in sustainable and transformational change for the region.

[1]Government of Canada, *Canadian Port Authorities.*

"The Belledune Port Authority is proud to play a leadership role in our region and promote the development of our assets for the benefit of all of our communities, the Rights holders and our partners. We will continue to be an economic driver and partner as we pursue wealth creation and business opportunities for our province and our home in northern New Brunswick."

Denis Caron, *President & CEO*

Meeting the Challenge

The past decade has delivered a combination of successes and challenges for the Port of Belledune. A diversification of commodities handled through the Port drove an overall increase in cargo throughput. This increase has recently been tempered, however, by significant changes that negatively impacted cargo volumes generated by the Port's two major shippers: Glencore Canada Corp. (Glencore), which operated the nearby Brunswick Smelter, and New Brunswick Power (NB Power), which is responsible for the Belledune Generating Station, a coal-fired power plant located adjacent to the Port.

In November 2019, Glencore closed the Brunswick Smelter and subsequently stopped all import/export activity at the Port. The company is now going through an Environmental Impact Assessment process to decommission the smelter and its associated bulk handling facility, both of which bisect the Port.

Similarly, in November 2021, the federal government made final its mandate that NB Power phase out its use of coal at the Belledune Generating Station by 2030. This has already led to the utility's reduction of coal and petcoke volumes imported through the Port, with more significant declines expected in the years to come.

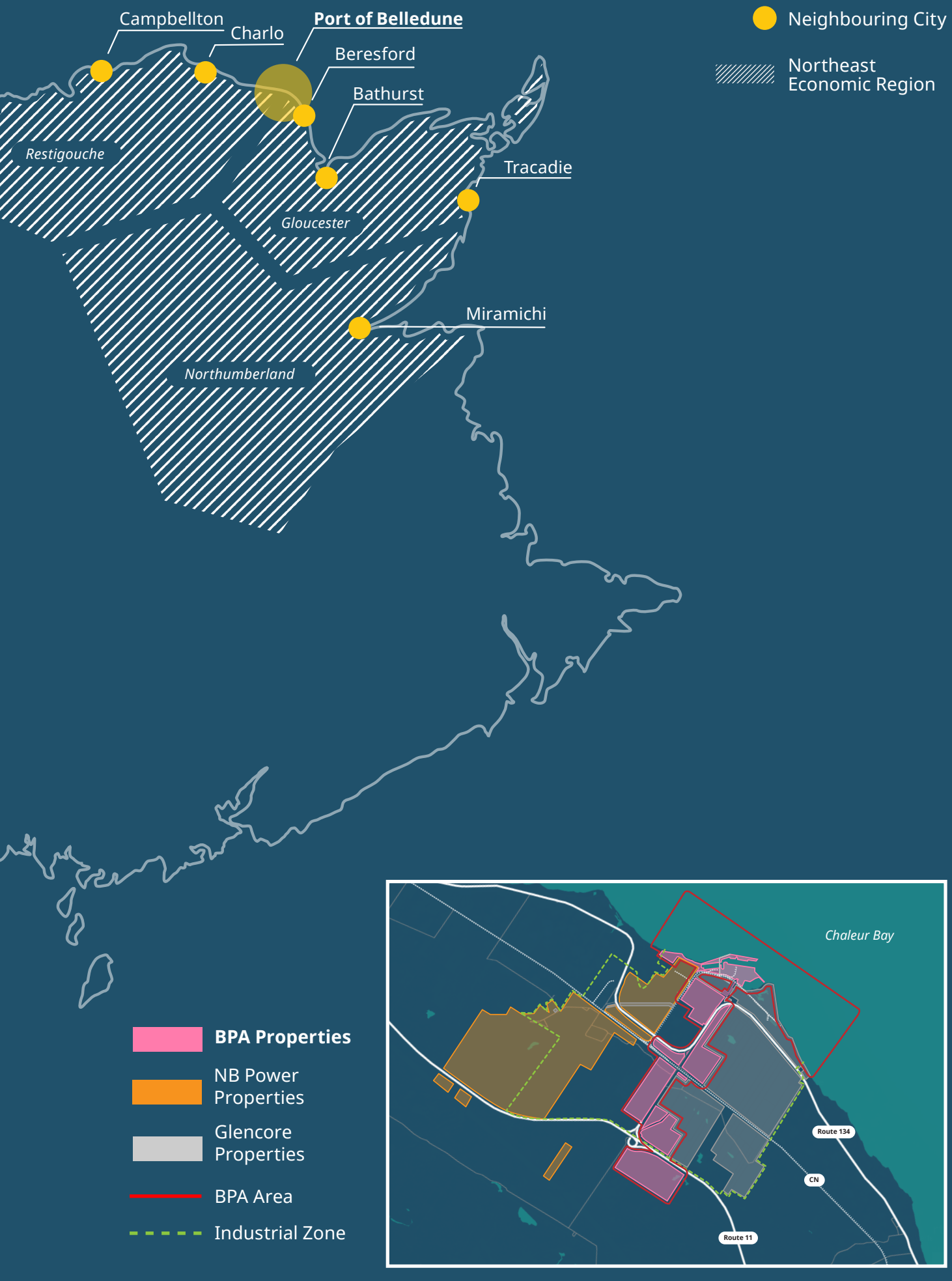
Despite these challenges, implementation of the MDP will allow BPA to leverage new growth opportunities over the next 30 years in a diversified development portfolio featuring maritime-dependent industry, green energy, dry/liquid bulk, light manufacturing, and commercial initiatives.

Local Presence, Regional Impact

Straddling Restigouche and Gloucester counties, the Port of Belledune is located within New Brunswick's Northeast Economic Region, one of five economic regions throughout the province. Comprised of a total land area of 26,192 square kilometres, the Northeast Economic Region consists of Restigouche, Gloucester, and Northumberland counties.

THE BELLEDUNE PORT AUTHORITY'S MISSION: **"LEVERAGE COMMERCE TO DRIVE PROSPERITY IN NORTHERN NEW BRUNSWICK".**

Operations at the Port of Belledune have historically supported major industrial employment centers, positioning the Port as a critical enabler of economic activity for the Northeast Economic Region. The MDP articulates an innovative vision for the future that defines new opportunities for the Port to further drive regional economic prosperity.


Campbellton
Charlo
Port of Belledune
Beresford
Bathurst
Tracadie
Miramichi
Restigouche
Gloucester
Northumberland
Neighbouring City
Northeast
Economic Region
BPA Properties
NB Power
Properties
Glencore
Properties
BPA Area
Industrial Zone
Chaleur Bay
Route 134
CN
Route 11

The Port Today

The Port of Belledune is a four-berth bulk material handling and project cargo marine terminal located on the Bay of Chaleur in the province of New Brunswick approximately 40 kilometres north of Bathurst.

Originally constructed in the late 1960s as a private, single-berth facility designed to serve the lead smelter owned and operated by Noranda, known now as Glencore, the Port has incrementally expanded over its lifespan in order to serve an increasingly diverse set of customers and commodities.

TERMINAL 1

Built in 1967 to serve the local mining industry, Terminal 1 was the first of the Port's four marine terminals.

Terminal 1 was primarily used to support the operation of Glencore's Brunswick Smelter and saw the import and export of dry and liquid bulk commodities such as mineral concentrates, sulphuric acid, and liquid petroleum.

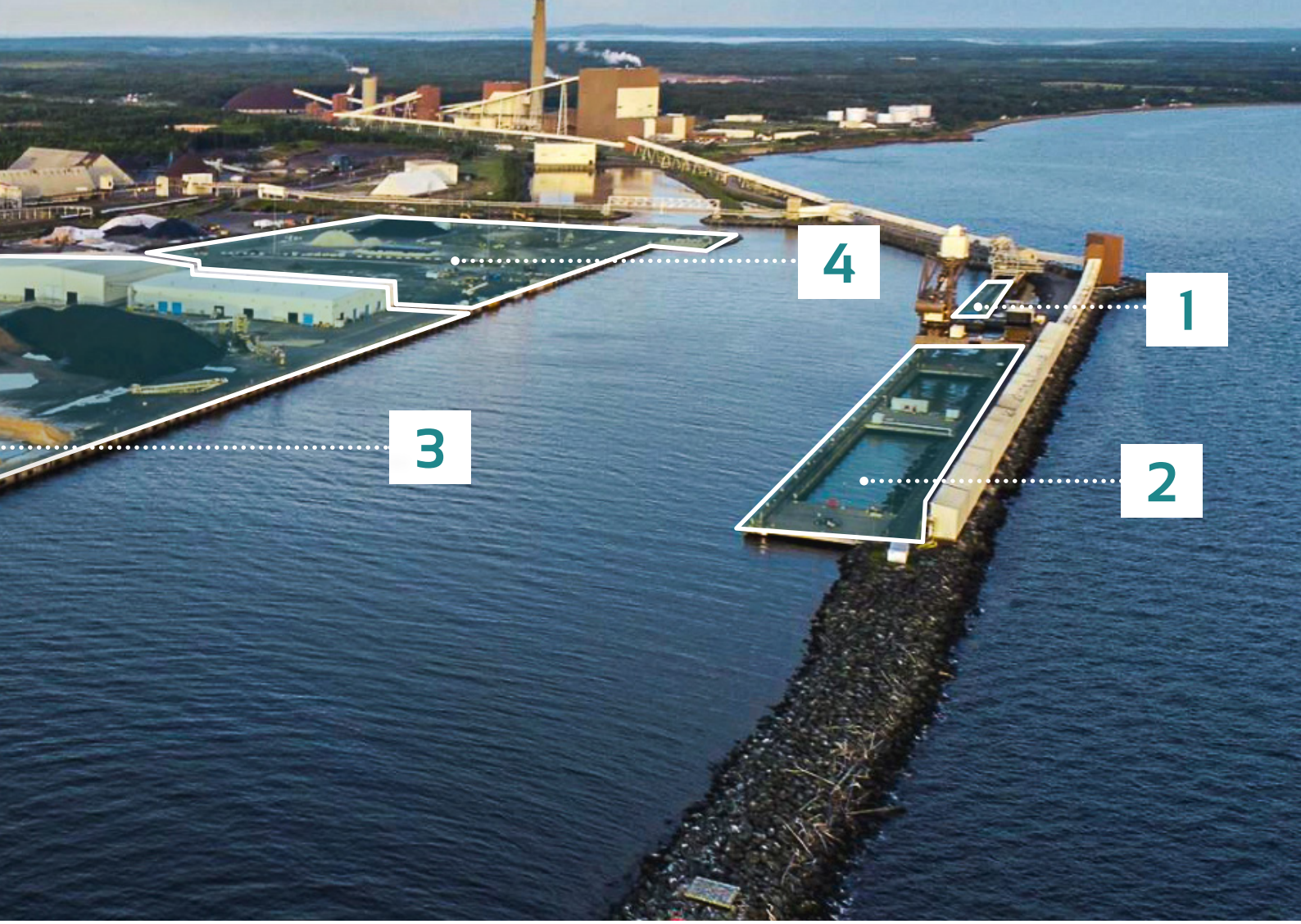
The terminal has not seen significant activity since the closure of the Brunswick Smelter in late 2019.

TERMINAL 2

Terminal 2 was constructed in 1991 to handle coal and petcoke imports for NB Power's coal-fired Belledune Generating Station. The terminal can accommodate Panamax vessels up to 100,000 DWT and is directly connected to the power plant via a series of conveyors.

In addition to dry bulk imports, liquid petroleum products move through the terminal via connections to BPA's Tank Farm located two kilometers to the west.

Terminal 2 is leased and operated by NB Power and sees regular activity.



TERMINAL 3

The 45-acre Terminal 3 was constructed in 1998 to increase the Port's ability to handle a wider variety of commodities in service to the growing needs of the maritime market.

Unlike Terminals 1 and 2, Terminal 3 features significant upland storage and circulation space that can be adapted for a number of uses. Terminal 3 also features an on-dock rail connection.

Terminal 3 is operated by Quebec Stevedoring Company Ltd. (QSL). It is an active facility used to import/export wood pellets, wood chips, gypsum, perlite, armour stone, aggregate, petcoke, bauxite, millscale, and silica sand.

TERMINAL 4

Built in 2010, Terminal 4 is the newest addition to the Port. The 15-acre facility features a roll-on / roll-off (Ro/Ro) berth equipped to handle oversized project cargo and barge traffic. It is unencumbered by any structures, therefore the full facility is available for outdoor storage.

The terminal is licensed and operated by QSL. It is generally utilized as a support facility to Terminal 3. Goods imported via oceangoing vessels at Terminal 3 are transshipped to barges at Terminal 4 for distribution throughout the Bay of Chaleur.


Chaleur Bay
FS 102
Tank Farm
FS 101
FS 100
FS 106
FS 107
FS 108
FS 103
Port Admin. Buildings
FF 104
FF 105
Route 134
CN
Route 11

The Port Today

Additional Facilities

In addition to the marine terminals, there are over 1,600 acres of land under BPA's jurisdiction, which are subdivided into several large, undeveloped parcels.

There are several structures at the Port. These primarily include seven dry storage sheds, a liquid bulk storage compound and a modular fabrication building in addition to the Port's Administration Buildings.

FS 100

Constructed in 1996, the 9,600-square-metre FS 100 storage shed is presently used to store wood pellets.

FS 101

The 1,740-square-metre FS 101 storage shed was built in 1996. It is presently used to store perlite.

FS 102

The FS 102 building was built in 1978. The 1,830-square-metre shed is currently used for perlite storage.

FS 103

FS 103 is currently used for wood pellet storage. The 6,248-square-metre shed was built in 2008.

FF 104

The FF 104 building was constructed in 2003 as a soil remediation facility. The 7,842-square-metre building is currently unoccupied.

FF 105

MODULAR FABRICATION BUILDING

The FF 105 building, also known as the Modular Fabrication Building, was constructed in 2011. The 3,716-square-metre building was intended to support the construction of modular units in service to the mining industry. It is currently unoccupied.

FS 106

The FS 106 building was built in 2020. The 3,251-square-metre building is currently used for wood pellet storage.

FS 107

Constructed in 2021, the 4,816-square-metre FS 107 building is presently used for wood pellet storage.

FS 108

The FS 108 building is the most recent building to be constructed at the Port. Completed in 2022, the 10,800-square-metre shed is used for wood pellet storage.

Tank Farm

LIQUID BULK STORAGE COMPOUND

The Port's Tank Farm lies on a waterside parcel approximately two kilometres west of the marine terminals. The 12-acre compound is comprised of seven liquid bulk storage tanks, an administration building, and ancillary structures. It is directly connected to Terminal 2 via pipeline.

The Tank Farm features a collective working capacity of 271,500 barrels and is actively used as a storage facility for liquid petroleum products that arrive via vessel.

Port Administration Buildings

The Port Administration Buildings include the main office building, the administrative garage, and trailer. They support day-to-day operations at the Port.


Chaleur Bay
Charlo Airport
CN
Route 134
Route 11
Bathurst Airport

The Port Today

Ground and Air Transportation

The Port of Belledune is in close proximity to various routes, airports and a Canadian National Railway (CN) line.

Ground Transportation

ROAD AND RAIL CONNECTIONS

The Port is well-connected to the provincial road network via New Brunswick Routes 11 and 134.

Freight rail access at the Port is provided via a direct connection to CN's Newcastle Subdivision.

Air Transportation

AIRPORT CONNECTIONS

The Port is near two regional airports. The Bathurst Airport (ZBF), approximately 30 kilometres to the southeast, is served by Air Canada. The Charlo Regional Airport (YCL) is approximately 40 kilometres to the northwest. It accommodates small general aviation aircraft.

Establishing the Foundation

Development of the MDP was supported by a strong foundation comprised of the Port's organizational goals, key drivers, market trends, and engagement and partnership with First Nation communities and stakeholders.

"The MDP is so much more than just land-use planning. It has helped us strategically position our assets to maximize the Port's potential for growth and advancement."

Jeffrey David, *Director of Engineering*

Organizational Goals

Creation of the MDP began with a return to BPA's core organizational goals, which focus on the marine terminals, industrial development, harbour services, and economic development.

Marine Terminals

"Achieve a positive financial return for each asset within the Leased Marine Terminals."

Industrial Development

"Achieve a positive financial return for the Industrial Development."

Harbour Services

"Increase revenue through growth and diversification."

Economic Development

"Actively participate in economic development initiatives that benefit the region."

Key Drivers

Building upon the Port's organizational goals, several key drivers were identified to guide the development of the MDP.

Environmental Sustainability

New development coupled with the impacts of climate change will create opportunities for BPA to proactively engage developers, environmental regulators, Rights holders, and other community stakeholders on ways to responsibly mitigate environmental impacts, enhance environmental stewardship, and incorporate resiliency measures into infrastructure design.

Industrial Development

The Northeast region of New Brunswick's industrial sector is in decline. Moreover, the sector has traditionally operated via a linear economic model, extracting resources to depletion before moving on or closing. While the Port cannot completely turn away from new opportunities in traditional resource-related industrial development, it must seek new industrial partners that operate in a circular economy where restoration and regeneration translate to sustainability and longevity.

Technological Innovation

BPA must seek new industrial partners who are well suited to New Brunswick's Northeast region, having embraced technological innovation to create highly productive, low-cost industrial processes that enable efficient workforces.

Governance

Successful growth at the Port will require a combined approach where BPA establishes new public-private partnerships to leverage private sector capital support while simultaneously working with Transport Canada to increase BPA's borrowing limits in order to improve the Port's ability to adequately fund multi-year infrastructure maintenance and expansion projects.

Policy

A unified policy regime amongst provincial and federal administrations and authorities will be critical to future development at the Port. BPA and its development partners will lead the way in identifying opportunities to align and strengthen provincial/federal policy in order to establish a clear and attractive development environment for the region.

First Nation Communities and Stakeholders

BPA's ability to carry out transformational change at the Port depends largely on the support of Rights holders and stakeholders—municipalities, elected officials, regulators, customers and operators—who share a vested interest in the Port's success. BPA will build a coalition of support through formalized opportunities for dialogue with these parties and new opportunities for partnership.


FEDERAL NAKAGAWA

Market Trends

A broad analysis of market and economic trends in three major areas – maritime trade, commercial and industrial real estate, and the regional economy – was used to further guide the development of the MDP. The analysis revealed potential growth opportunities for the Port in the traditional bulk transload business, maritime-dependent industry, light manufacturing, and green energy sectors.

These uses will require access to a large portfolio of developable land with marine infrastructure capable of accommodating large deep-draft vessels, direct connections to the national freight rail network, and adequate access to freshwater and power.

MARITIME MARKET

The market shows increasing demand for transloading direct-to-market bulk products as well as export of processed materials.

Continued growth of containerized cargo is expected, however demand will remain concentrated near major consumer markets.

Demand for greater economies of scale through the use of larger vessels will continue.

COMMERCIAL AND INDUSTRIAL REAL ESTATE MARKET

The Port's unique connection to marine and rail facilities is attractive to firms looking to locate in the region.

Organic demand for commercial and industrial land in the Northeast region of New Brunswick, however, remains relatively soft, especially for non-maritime uses.

REGIONAL ECONOMIC OPPORTUNITIES

Within regional economic sectors relevant to port development, there are near-term light manufacturing opportunities in construction materials, food, and packaging, and heavy industrial opportunities in the agri-chemical space.

There is also strong evidence of longer-term opportunities in the transition and green energy sector.

Engagement and Partnership

BPA recognized that the input and feedback from First Nation communities and Port stakeholders was critical to the development of the MDP and therefore sought a comprehensive engagement strategy. To that end, a Rights holders and stakeholder outreach strategy was crafted around a series of digital (website, online survey and e-mail), phone (public opinion research), and in-person (presentations, meetings, interviews, and workshops) engagements. The objectives of the strategy were to:

- Learn more about the business stakeholders who regularly rely on the Port to import, export, and store their products.
- Achieve awareness and understanding about the MDP process and provide opportunities for input.
- Provide feedback opportunities for members of the public, highly engaged and knowledgeable stakeholders, and First Nation communities.
- Host a values-based conversation about the future of the Port that allowed participants to contributed based on their own perspective, experience, and what is most important to them.

In April and May 2021, a series of intake interviews were conducted with the Port's tenants, terminal operators, and asset owners. Interview topics included details of their respective operations on- and off-terminal, the future of their businesses, impediments to growth, views on port operations and infrastructure, and suggested improvements.

In March 2022, public opinion research was conducted to determine the level of awareness and knowledge about the Port amongst New Brunswick residents. In April 2022, a refreshed website was launched with new content about the MDP and the planning process. The launch was coupled with an online survey that remained open through early June 2022.

In May 2022, a series of engagement workshops were held with Rights holders, municipalities, and private businesses. During the workshops, participants were introduced to the MDP and asked to reflect on two key questions:

- What is most important as we consider this plan and this vision?
- Imagine it is 2030. What do you hope we will have achieved?

The engagement strategy resulted in over 450 participants directly engaging on the MDP whether online, via phone, or in person.

Participants' highest priorities related to the Port were sustainable growth, job creation, and regional economic development, closely followed by the environment. Additionally, participants expressed a strong desire for BPA to continue communication and ongoing engagement with business stakeholders, community members, and First Nation communities as it implements the MDP.


Pabineau First Nation
Honoring our Role Models
BPA TIMELINE & INFLUENCERS
2018
2022
2030
FEDERAL, PROVINCIAL, PRIVATE INDUSTRY


Un port solide et un avenir durable.
Plan maître d'expansion et Carrefour d'énergie verte.
Aider à façonner l'avenir du nord du Nouveau-Brunswick
ÉCHÉANCIER ET PROCESSUS DU PME
PORT DE BELLEDUNE
Master Development Plan
Plan maître d'expansion
Marine Infrastructure
Infrastructures maritimes
Maritime-dependent Industry
Industrie maritime
Light Manufacturing
Fabrication légère
Green Hub
Carrefour verte
High-visibility Commercial
Commercial à haute visibilité
Buffer Parcel
À déterminer
Building
Bâtiment
Capital Work
Projets capitaux
BPA Area
Terrain de l'APB
Chemin de fer
Road
Chemin
Strong Port, Sustainable Future.
Master Development Plan and Green Energy Hub.
Engaging with our community
Help shape the future of Northern New Brunswick
MASTER DEVELOPMENT PLAN PROCESS AND TIMELINE

The Master Development Plan

The MDP offers recommendations at the port-wide and district-level scales across two distinct phases.

Phase I: Maximizing Throughput and Activating New Uses

Years 0 to 10

Phase I will focus on securing new maritime-dependent industrial users to take advantage of existing marine infrastructure and drive additional cargo throughput at the Port with an eye to greening operations as much as possible, further establishing a cluster of industrial activity that includes the import/export of processed materials alongside traditional liquid and dry bulk transload services.

As BPA works to maximize throughput, it will also begin exploring new uses in green energy, light manufacturing, and high-visibility commercial real estate within new development districts sited on upland portions of the Port. This will include establishing development partnerships, securing new deals, and, in the case of green energy, working with regulators and other stakeholders to lay the foundation for first-of-their-kind developments in New Brunswick.

Phase II: Establishing the Green, Diverse Port

Years 10 to 30

Throughout Phase II, BPA will realize its vision of maximum diversification at the Port, pairing the potential expansion of marine infrastructure to accommodate additional cargo demand with the full build-out of the development districts. Specific focus will be on green development that will establish the Port as a leader in green energy and green industrial processes. The full development program seeks to balance maritime-dependent uses with other commercial and industrial development, providing the Port a robust, diverse foundation for growth.


VOLVO

Port-Wide Plan

The MDP's port-wide plan focuses on recommendations that play a critical role in achieving BPA's future vision. The initiation and implementation of the port-wide recommendations is almost exclusively concentrated in the early stages of Phase I of the MDP. While there are only a few port-wide recommendations specific to Phase II, implementation of other Phase I recommendations could continue into Phase II of the MDP as necessary.

Governance & Administration

Phase I

Implementation of the MDP will begin with BPA **establishing an MDP Steering Committee** comprised of BPA leadership, First Nation communities, and Port stakeholders. The MDP Steering Committee will be responsible for overseeing MDP progress including the development and tracking of milestones and key performance indicators to measure results.

The MDP contemplates new development that will likely feature commercial agreements of increasing complexity. In preparation, BPA will implement a series of recommendations designed to enhance its ability to easily procure, execute, and administer these commercial agreements.

BPA will **develop and launch a standardized procurement process for commercial agreements**, adopting standard timelines for solicitation, review and selection periods, memorializing communication protocols, and creating a standing evaluation committee structure, among other items.

Throughout Phase I of the MDP, BPA will also **adopt a comprehensive property disposition strategy**, which will marry BPA's overall goals for commercial development and market trends with the type of disposition to be offered during the procurement process (principally lease vs sale). The strategy would allow BPA to tailor its approach to specific types of development and, consequently, maximize benefits to BPA wherever possible (e.g., direct revenue, third-party capital investments, greater control, etc.). The disposition strategy will also include a policy to **incorporate and enforce cargo throughput guarantees** into those commercial agreements featuring maritime-dependent uses. The guarantees will incentivize tenants, developers, and operators to contribute cargo volumes toward BPA's overarching goal of increasing throughput and, in turn, economic impact within the MDP districts tied to marine infrastructure, liquid and dry bulk, and maritime-dependent industry.

In order to better facilitate the management and administration of these new commercial agreements, BPA will **establish a commercial agreements group**. In addition to procuring and executing commercial agreements, this group will be responsible for ensuring that third party tenants, developers, and operators remain in compliance with the obligations outlined in their respective commercial agreements, which may include throughput guarantees, minimum capital investments, maintenance requirements, environmental stewardship incentives, subleasing permissions, etc.

BPA will **work with Rights holders to enhance partnership opportunities**. This may include establishing employment programs with new tenants, developers, or operators at the Port that extend training and employment opportunities to First Nation communities or, alternatively, opting to enter into a joint development agreement with Rights holders to collaboratively develop specific property at the Port.

Regional Resources Security

Water - Phase I

Two major freshwater networks—the Glencore and NB Power networks—are proximate to the Port. Today, BPA's access to freshwater is limited to a small volume via the Glencore freshwater network. This volume is insufficient to attract new development to the Port, however.

BPA will **conduct and periodically update a forward-looking water study** to assess the 5-10 year forecast for freshwater demand at the Port, using inputs from existing and potential users at the Port to quantify and further guide BPA's actions on freshwater.

While assessing this demand, BPA will actively **participate in the dialogue over the future of the Glencore freshwater network**, which is currently uncertain given the decommissioning of the Brunswick Smelter. BPA will also **seek to maintain access to the Glencore freshwater network** while advocating for:

- Transfer of ownership in the network from Glencore to a new public entity aligned to the needs to the Village of Belledune and BPA;
- New investment to bring the network to a state of good repair;
- A clear commitment from regulators on the maximum draw permitted from the network's freshwater source, the Jacquet River, which may have been significantly higher historically than current volumes; and
- Exclusive access to the network's surplus freshwater.

BPA will separately work to **secure exclusive access to latent capacity available in the NB Power freshwater network**, which can be significantly increased with the installation of additional pumps. With this exclusive access, BPA will seek and secure additional development at the Port, with the goal to **utilize third-party funds to leverage the purchase and installation of the new pumps** necessary to increase capacity.

Regional Resources Security

Power - Phase I

The changing landscape with respect to power generation in New Brunswick and the increased need for access to cost-effective green energy will require the Port to take a leading role in advocating for provincial energy technology and policy innovation.

Working with NB Power and other provincial authorities, BPA will **continue to advocate for the operation of the Belledune Generating Station beyond 2030 through a transition from coal to a carbon neutral alternative fuel source**, ensuring compliance with federal climate plans. This will ensure that NB Power has the capacity to continue supplying the Port and the region sufficient power, forgoing the need to find suitable replacement power through the construction of a new power plant.

BPA will simultaneously work to **secure access to affordable green energy through the pursuit of a Port microgrid project** in partnership with NB Power. The microgrid would allow BPA to supply green energy that is generated by regional solar, wind, biomass, and small modular reactor (SMR) projects to new users at the Port who require renewable energy for their production processes. The full potential of the microgrid project relies on:

- the successful development of adequate renewable energy supply in Northeast region of New Brunswick; and
- the ability to control the ramp rate and intermittency of some renewables (e.g., wind and solar) through energy storage.

To that end, BPA will **advocate for existing and new wind and solar energy projects in the region and investigate the potential for siting a biomass energy plant and/or installing SMRs at the Port**. Both have the potential to further diversify the Port's renewable energy supply via the microgrid.

In addition, BPA will **explore the potential installation of an energy storage system at the Port**, which would allow BPA to firm the energy produced by regional wind and solar projects.

Lastly, BPA will work with NB Power and other stakeholders to **champion energy policy changes that allow for greater innovation and flexibility with respect to the production and sale of energy by third parties**. Currently, NB Power has the sole authority to distribute and sell power in New Brunswick. Collaborative efforts between BPA and NB Power will be critical to creating an attractive economic opportunity for competitive green energy projects in the province.

Marine Infrastructure

The MDP's approach to port-wide marine infrastructure recommendations begins with maximizing utilization of existing marine infrastructure, planning for expansion as cargo volumes grow and available capacity shrinks, and expanding the Port just as the new capacity must come online.

Phase I

As a key first step, BPA will **program all terminals to their maximum practical capacity**. BPA will **solicit and secure anchor user(s) for Terminals 1 and 2**. This could be a single user seeking exclusive access to either terminal or, alternatively, a terminal operator that will bring multiple users to either terminal. As outlined in the Governance and Administration section, the commercial agreement should incorporate throughput guarantees and, separately, could include obligations for third-party funding for capital improvements at either terminal to ensure they remain in a state of good repair.

Separately, BPA will **partner with QSL to secure additional cargo volumes for Terminals 3 and 4**. This may be coupled with initiatives to optimize storage space and further increase storage capacity at the terminals and, separately, to dredge berths to their maximum allowable depths to accommodate larger vessels where possible.

Phase II

In this phase, BPA will **plan and develop a marine infrastructure expansion program** to anticipate the commodities and cargo volumes associated with future capacity needs. This may include the design and construction of a new Terminal 5 at the Port, which could be a single-commodity facility with little upland circulation space such as Terminals 1 and 2 or, alternatively, a multi-commodity facility with significant upland circulation and storage capacity like Terminals 3 and 4. The new terminal could be designed to accommodate 150,000 DWT Panamax vessels with dredging subsequently phased to respond to the need for deeper water only as the market dictates.

BPA will subsequently **implement the marine infrastructure expansion program** in anticipation of volume growth to ensure careful spending of capital dollars such that new capacity is made available just before it is needed.

Climate Change & Resiliency

Phase I

Over the next 30 years, climate change is expected to impact the Port. The event probability of key climate parameters such as sea level rise, wave action, freezing rain, extreme heat, and freeze-thaw cycles is expected to increase, leading to infrastructure impacts and potential limitations on operations.

BPA will continue building on its initial assessment of climate change risk at the Port to further identify physical interventions and strategies to incorporate resilient infrastructure into future development at the Port and, ultimately, adopt a climate change action plan.

In conjunction with environmental regulators and other stakeholders, BPA will conduct feasibility studies to **identify new resilient waterside and landside infrastructure options that address high-event-probability climate parameters**. The outcome of these feasibility studies will allow BPA to **develop a set of port-wide planning standards that incorporate climate change and resiliency into infrastructure works** performed by BPA and other private third parties at the Port.

BPA will **finalize and implement a climate change action plan** sensitive to the timing of changes in the climate that will impact Port operations, incorporating the effective resilient infrastructure options and port-wide planning standards. The climate change action plan will outline programs to monitor the effectiveness of infrastructure interventions and other impacts of climate change on Port infrastructure and operations.

Environmental Stewardship

Phase I

The focus on new development at the Port will require a thoughtful approach to minimizing negative environmental impacts wherever possible. Moreover, BPA's development of the Green Hub District will likely introduce innovative uses that environmental regulations do not currently accommodate or consider.

BPA will **establish a comprehensive dialogue with regulators regarding future projects at the Port**, including the potential for expanding marine infrastructure and the introduction of new uses such as green hydrogen/green ammonia production, SMRs, large scale battery storage, and carbon sequestration in the Green Hub District. This will allow BPA, its development partners, and regulators the opportunity to collaborate early in the development process to explore new ways to minimize project-based environmental impacts and, also, to identify environmental policies or laws that do not accommodate these innovative projects that may be first-of-their-kind in New Brunswick and, therefore, may require modification or adjustment. This early dialogue will enable clear communication and collaboration amongst the parties and will minimize uncertainty throughout the development process, giving developers additional confidence that their projects can advance while mitigating and minimizing avoiding environmental impacts.

Additionally, BPA will collaborate with Rights holders, regulators, and other stakeholders to **develop, launch, and maintain an environmental policy**. Managed by BPA, the policy represents the Port's opportunity to lead community-based environmental work. It could focus on the preservation or restoration of key habitat in the region surrounding the Port or, alternatively, support educational or training programs designed to build awareness and skills in environmental conservation. Funding for the policy could come from a fee levied on new development at the Port.

BPA will further leverage its commitment to environmental stewardship and **incorporate a financial incentive structure into commercial agreements to encourage developers to pursue environmental stewardship beyond statutory and regulatory requirements**. Under such a structure, developers or users may therefore be rewarded with rental or throughput discounts by, for example, shifting energy consumption to off-peak periods, electing to purchase an all-electric-vehicle distribution fleet, incorporating renewable energy generation (e.g., solar panels) into buildings and other structures or adopting water conservation efforts throughout their facility.

District-Level Plan

The future vision for the Port is centered around the development of a diverse series of districts tied to the following land uses:

- Liquid & Dry Bulk, Ro/Ro
- Maritime-Dependent Industry
- Light Manufacturing
- Green Hub
- High-Visibility Commercial

As shown in the accompanying map, districts proximate to Terminals 1 through 4 are reserved for maritime-dependent land uses while other uses are concentrated in districts upland and away from marine infrastructure. Ensuring the highest degree of access to maritime-dependent users will be critical to maximizing throughput at the Port and realizing BPA's vision.

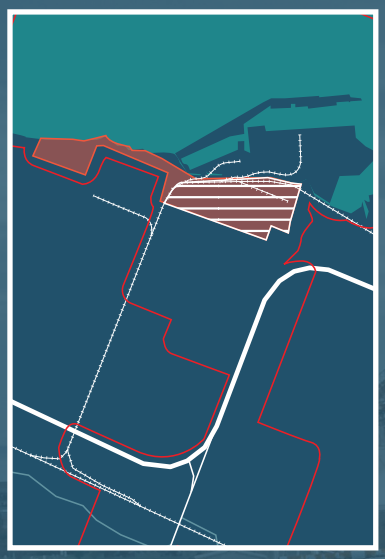
The district-level plan is not absolute. While the aforementioned proximity to critical marine infrastructure is key, the size, the configuration and the location of most districts can be altered over the next 30 years to dynamically accommodate changes in the market, new policy goals and regulatory impacts that influence the development landscape. Buffer parcels between certain districts also provide additional flexibility, acting as an overflow to accommodate development that outgrows a particular district.

Legend

- Marine Infrastructure
- Liquid & Dry Bulk, Ro/Ro District
- Maritime-Dependent Industry District
- Light Manufacturing District
- Green Hub District
- High-Visibility Commercial District
- Acquisition – Glencore's Brunswick Smelter's Bulk Handling Facility
- Buffer Parcel


Chaleur Bay
Route 134
CN
Route 11

Liquid & Dry Bulk, Ro/Ro District



Phase I

The success of the Liquid & Dry Bulk, Ro/Ro District relies on BPA's ability to **acquire the Bulk Handling Facility from Glencore** as the former operator seeks to decommission the Brunswick Smelter. The 87-acre Bulk Handling Facility (PIDs 20444840 and 20278339) lies directly between the marine terminals and the Port's developable upland parcels. More importantly, the Bulk Handling Facility's adjacency to the Port's marine infrastructure makes it extremely attractive to potential users.

After acquisition of the Bulk Handling Facility, BPA will **adopt a multi-commodity approach to developing the district**. This will allow the Port to spread the risk associated with commodity-specific boom/bust cycles across a wide variety of commodities and potential users, minimizing negative impacts to Port revenues. BPA will also **reutilize existing bulk material handling and storage infrastructure wherever practicable**. This may include infrastructure currently located within the Bulk Handling Facility (e.g., the bulk acid tanks and associated piping, the concentrate storage domes, and/or the railcar and truck unloading building) or other infrastructure located on the marine terminals, but owned by third parties who may no longer need the infrastructure in the future (e.g., the Terminal 2 conveyor system owned by NB Power).

Development of the district should include careful consideration of the needs of future users in the neighboring Maritime-Dependent Industry District. Thus, BPA will **preserve rights-of-way throughout the Liquid & Dry Bulk, Ro/Ro District to accommodate the future installation of upland connections** (e.g., conveyors and pipelines) between the marine terminals and Maritime-Dependent Industry District.

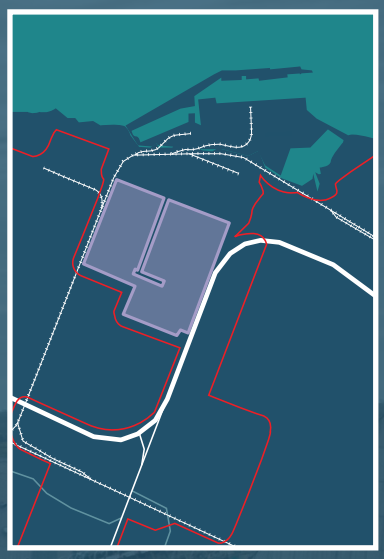
As BPA develops this new district, it will also **enhance utilization of the Tank Farm**. Presently used as a storage facility only, the installation of loading facilities would allow the Tank Farm to also distribute liquid bulk products via truck or rail. Development of the Tank Farm in this fashion will further establish the Port as a new hub for liquid bulk commodities. BPA will identify and procure user(s) of the facility with this goal in mind.

Lastly, BPA will **continue conversations with CN regarding the potential for Ro/Ro operations** and other uses for rail infrastructure at the Port. While these conversations are in very early stages, it will be important to understand how BPA might accommodate the marine, road and rail infrastructure needed to support Ro/Ro operations into the overall program for the district.

Phase II

As liquid bulk, dry bulk and potential Ro/Ro activity increases at the Port, BPA will work with CN, BPA's stakeholders and others to further optimize the Port's rail system to support high-volume bulk material transload operations.

Maritime-Dependent Industry District



Development within this district will focus on heavy industry that is reliant upon access to deep water for import/export of raw materials and finished products. Firms suited to this district would site processing and manufacturing operations at the Port and could produce commodities for use in the chemical, agri-chemical, and iron and steel industries. In alignment with the Port's green goals, industries committing to incorporating green energy and/or greener processes into their production will have the highest priority.

Phase I

As an initial recommendation, **BPA will reserve large parcels (50-60 acres in size) for development throughout the district**. While the ultimate space needs of future users will vary, the ability to offer large developable areas to a potential maritime-dependent industrial user is critical to attracting firms with large footprints or, alternatively, those interested in additional space to accommodate phased growth on the site. The Port will need to carefully weigh requests to accommodate smaller developments in the district that result in suboptimal configurations for the remaining acreage that may impact BPA's potential to market and secure users throughout the rest of the district.

In addition, BPA will **partner with provincial and federal authorities to create and implement an incentive program to attract "anchor" industrial tenants to the Port**. Jump starting industrial activity at the Port will likely require a coordinated effort amongst the Port and economic development authorities at the provincial and federal levels to identify relevant incentives to be made available to eligible users over a specific commercial benefit period. Incentives could include tax abatements and exemptions, fee waivers, low-cost financing, grants for capital construction, or other improvements.

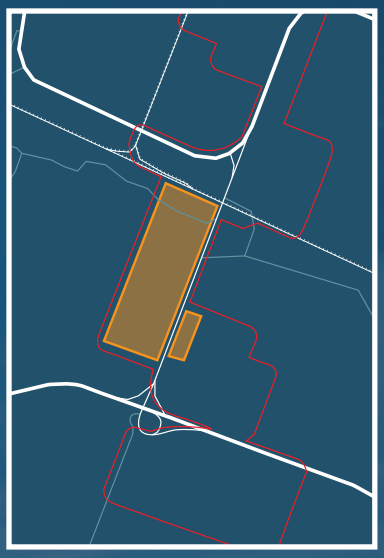
BPA will **preserve rail access to the district throughout the full development timeline**. The Port's freight rail connection to CN's network skirts the western boundary of the Maritime-Dependent Industry District. While rail access may not be paramount for all industrial users, ensuring that no development precludes future rail access will be critical to developing the district to its full potential.

Phase II

BPA will continue to carry the Phase I recommendations for the Maritime-Dependent Industry District into Phase II.

Light Manufacturing District

This district will center around light manufacturers that are not maritime-dependent, making use of the Port's land holdings that lie further upland and away from the marine terminals. Potential users in this district could include packaging manufacturers, food manufacturers, wood pellet producers, and construction material manufacturers.



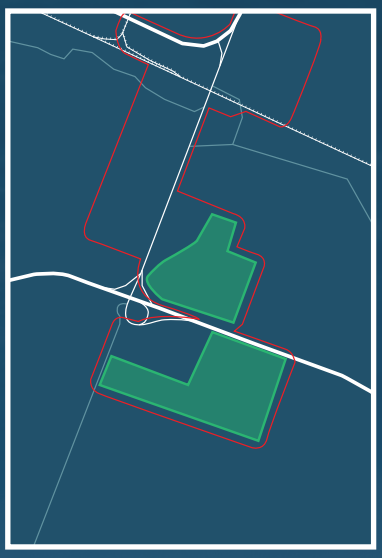
Phase I

While users in this district may not be maritime-dependent, as BPA procures new users it will **prioritize light manufacturers with operations that complement activity at the Port**. Wood pellet producers, for example, may provide feedstock to a repowered Belledune Generating Station that has been converted from burning coal to burning biomass or, alternatively, producers may elect to export finished wood pellets globally. Similarly, construction material manufacturers may export lumber or aggregate through the Port while simultaneously supporting regional demand.

Phase II

Adequate road capacity currently exists within the Port and in the surrounding regional road network, however, as use of the district grows, BPA will **optimize the Port's road network to support continued growth amongst light manufacturers**, most of whom will likely be truck-based. Roadways may be widened or realigned to ensure the efficient and safe flow of traffic within the Port. Connections with the provincial road network will also be evaluated to identify potential areas for improvement.

Green Hub District



While the greening of industry in the Maritime-Dependent Industry District and other port operations will be a key focus of the MDP, BPA will also establish a separate, special district for other key green developments. These could include advanced energy storage systems, and battery manufacturing and carbon sequestration facilities, among others.

Phase I

As an initial recommendation to developing the Green Hub District, BPA will **partner with federal and provincial authorities to align, develop, and market incentives for third-party green development**. This may be an extension of the incentive program described under the Maritime-Dependent Industry District or could exist as a stand-alone incentive program capable of leveraging even more benefits.

To jump start development in the district, the Port will **launch a dedicated marketing campaign to solicit new green development**. Done under the auspices of the MDP, the marketing campaign will lay the groundwork for future procurement opportunities by socializing the development opportunities at the Port via social media, collateral, conference attendance, and partnering with real estate brokers.

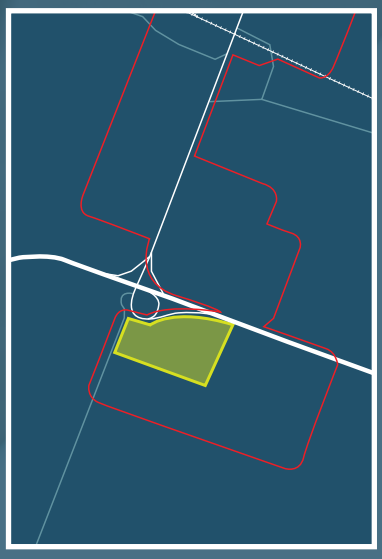
Similar to the Light Manufacturing District, BPA will also **prioritize green development that complements other activities at the Port and can be phased as the market matures**. A battery manufacturing facility, for example, could provide the test bed for the development of an energy storage system at the Port, a key component of the proposed Port microgrid identified under port-wide power initiatives. Equally important is the need for BPA and its development partners to mitigate risk by starting with small pilot project opportunities that can subsequently grow as the emerging markets mature. This phased approach ensures that the Port can advance innovative green projects while still carefully managing overall development.

Building off this complementary and phased approach, the Port will separately **encourage third-party investment in microgrid infrastructure and in potential green energy projects both at the Port and throughout the region**. The Port may elect to tie this investment to other development at the Port via a user fee or special purpose fund to cover capital expenditures in microgrid infrastructure or, alternatively, work as an advocate within the province to identify green energy developers for new projects.

Phase II

BPA will continue to carry the Phase I recommendations for the Green Hub District into Phase II.

High-Visibility Commercial District



The commercial and industrial real estate market analysis conducted as a part of the MDP revealed the potential for the development of commercial projects on the Port's property abutting the "high-visibility" corridor on New Brunswick Route 11 where it intersects Turgeon Road at Exit 344. The district is located on the south side of NB Route 11, ensuring the preservation of north side parcels for the Green Hub District. High-visibility commercial development might include office space, roadside lodging, or retail establishments such as a charging station or restaurant.

Phase I

The MDP market analysis suggested that development of a commercial district warranted additional study. Therefore, as an initial step, the Port will **conduct a targeted commercial market study** to ascertain local demand and determine the appropriate use and scale of a potential high-visibility commercial project. This will also include an overview of potential third-party developers with whom BPA could partner on a potential pilot project.

If the results of the targeted commercial market study are promising, BPA will seek to **secure a third-party commercial development partner to jointly manage a pilot project**. A partner would supplement the market study with additional local knowledge and industry expertise and would guide the development process, ensuring that the pilot project has the greatest chance for success. The partnership would ensure that the Port receives appropriate compensation from revenues generated by the project and could include commitments to continue the partnership for future developments if the parties see a mutual benefit.

Phase II

Although the land associated with the High-Visibility Commercial District is surrounded by the proposed Green Hub District, its proximity to Route 11 is unique and should be preserved for future commercial/retail development. BPA will **bank the remaining land in the district**, carefully monitoring demand before opting to transition any undeveloped property to other land uses.

The First Five Years

Successful implementation of the MDP will require a diligent undertaking of the following port-wide and district-level recommendations within the first five years.

Port-Wide Plan

Governance And Administration
1. Create an MDP Steering Committee.
2. Develop and launch a standardized procurement process for commercial agreements.
3. Adopt a comprehensive disposition strategy.
4. Incorporate and enforce cargo throughput guarantees into commercial agreements.
5. Establish a commercial agreements group to administer commercial agreements and ensure compliance.
6. Work with First Nation communities to enhance partnership opportunities.
Regional Resources Security
Water
1. Conduct and periodically update a forward-looking water study to assess 5-10 year forecast for freshwater demand.
2. Actively participate in the dialogue over the future of the Glencore freshwater network.
3. Maintain access to current water volumes from the Glencore water system and negotiate access to additional volume.
4. Secure exclusive access to latent capacity available in the NB Power freshwater network and utilize third-party funds to leverage the purchase and installation of new pumps to increase capacity.
Power
1. Continue to advocate for the operation of the Belledune Generating Station beyond 2030 through a transition from coal to a carbon neutral alternative.
2. Secure access to affordable green energy through the pursuit of a Port microgrid project in partnership with NB Power.
3. Advocate for existing and new wind and solar energy projects in the region.
4. Investigate the potential for siting a biomass energy plant and/or installing SMRs at the Port.
Marine Infrastructure
1. Program all terminals to their maximum practical capacity: • Solicit and secure anchor user(s) for Terminals 1 and 2; and • Partner with QSL to secure additional cargo volumes for Terminals 3 and 4.
Climate Change & Resiliency
1. Conduct feasibility studies for new resilient waterside and landside infrastructure options that address high-event-probability climate parameters.
2. Develop a set of port-wide planning standards that incorporate climate change and resiliency into infrastructure works.
3. Finalize and implement a climate change action plan.
Environmental Stewardship
1. Establish a comprehensive dialogue with regulators regarding future projects at the Port.
2. Develop, launch, and maintain an environmental policy.
3. Incorporate a financial incentive structure into commercial agreements to encourage developers to pursue environmental stewardship beyond statutory and regulatory requirements.

District-Level Plan

Liquid & Dry Bulk, Ro/Ro District
1. Acquire the Bulk Handling Facility area from Glencore.
2. Adopt a multi-commodity approach to developing the district.
3. Reutilize existing bulk material handling and storage infrastructure wherever possible.
4. Preserve rights-of-way throughout the district to accommodate the future installation of upland connections.
5. Enhance utilization of the Tank Farm.
Maritime-Dependent Industry District
1. Reserve large parcels for development throughout the district.
2. Partner with provincial and federal authorities to create and implement an incentive program to attract "anchor" industrial tenants to the Port.
Light Manufacturing District
1. Prioritize light manufacturers with operations that complement activity at the Port.
Green Hub District
1. Partner with federal and provincial authorities to align, develop, and market incentives for third-party green hub developments.
2. Launch a dedicated marketing campaign to solicit new green development.
3. Prioritize green development that complements other activities at the Port and can be phased as the market matures.
4. Encourage third-party investment in microgrid infrastructure and in potential green energy projects both at the Port and throughout the region.
High-Visibility Commercial District
1. Conduct targeted commercial market study to ascertain local demand and determine the appropriate use and scale of a potential high-visibility commercial project.
2. Secure a third-party commercial development partner to jointly manage a pilot project.

Team, Acronyms, and References

Team

Belledune Port Authority Board of Directors:

Hermel Vienneau, *Chairperson*

Iris Auclair-Bernard, *Vice-Chairperson*

Lorio Roy, *Director*

Luc Roy, *Director*

Lucien Sonier, *Director*

Belledune Port Authority Team:

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Jeffrey David, *Director of Engineering*

Jennifer Cleversey-Moffitt, *Legal Counsel and Corporate Secretary*

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Martin Associates

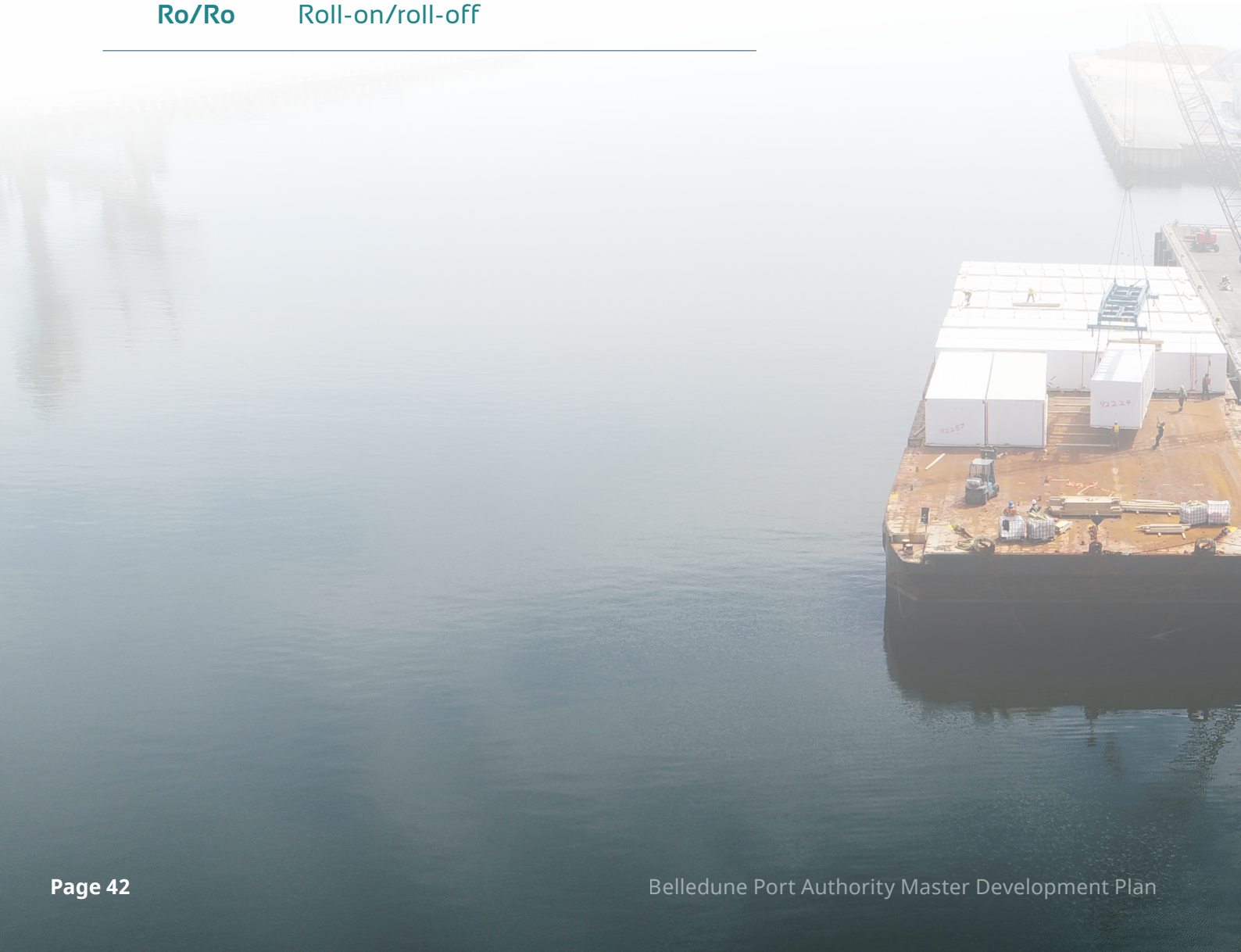
Roy Consultants

Turner Drake & Partners LTD.

Violet Consulting

Acronyms

BPA	Belledune Port Authority
CN	Canadian National Railway
DWT	Deadweight tonnage
Glencore	Glencore Canada Corp.
MDP	Master Development Plan
NB Power	New Brunswick Power
Port	Port of Belledune
QSL	Quebec Stevedoring Company Ltd.
Ro/Ro	Roll-on/roll-off



References

Government of Canada. *Canadian Port Authorities*. 2020.

Pictures

Cover Page: BPA, n.d.
Pages i to 35: BPA, n.d.
Pages 36-37: AdobeStock, 345145931, n.d.
Pages 40 to 43: BPA, n.d.

Version B

PORT of/de BELLEDUNE