



Industrial Development Strategy for the Region of Portage la Prairie



InterGroup
CONSULTANTS



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Executive Summary

This report considers many of the factors important to the Portage Region's industrial development strategy. The Portage Region is a partnership between the City and the Rural Municipality (RM) of Portage la Prairie.

The tax-sharing agreement between the City and RM of Portage la Prairie plays a crucial role in fostering partnership rather than competition between the two municipalities in attracting investment. Over the past two decades, the Portage region's agrifood sector has seen substantial investment. The next step is to consolidate the net benefits gained from these investments and ensure the long-term retention of the jobs they have created.

This report considers several growth constraints of the region's agrifood sector. There are constraints in workforce and skill development, industrial collaboration and synergy building, infrastructure assessment and development, resource optimization, foreign direct investment (FDI) attraction and marketing.

The first area of constraint is workforce and skill development: having sufficient trained workers (trades, professionals and management), and retaining them is at times a challenge. There is a need to ensure youth and those already in the workforce have the training to do the work required by industry. This can include having sufficient apprenticeship opportunities for those in the trades/controlled professions to qualify. This includes working with providers of training to ensure there are sufficient seats to train workers needed in the region's agrifood sector, and enough lead time to develop programs relevant to industrial needs. This leads into the upcoming workforce study.

A second area is industrial collaboration and synergy building. There are a variety of adjustments that can be made to help participating firms to get more out of the process. This includes:

- introducing peer-to-peer sessions to facilitate targeted discussion of common problems and sharing between functional peers;
- making these must-attend, invitation-only sessions with a specific topic and an expected outcome/action; and
- sending out a monthly note (newsletter) to keep stakeholder group members updated between quarterly meetings.

A third area is infrastructure assessment and development. This includes analyzing water systems and optimizing wastewater management by evaluating the current infrastructure, anticipating future demands, and identifying the investments required to meet those needs. The region should evaluate the need for additional natural water supplies as part of climate adaptation and resiliency planning, and the investments required to ensure their availability. This includes considering other funding opportunities.

For wastewater optimization, the City's water/wastewater utility could promote the use of treated wastewater for non-potable applications (e.g., irrigation, cooling, and boiler feed) to reduce the

potable water demand. The City's water/wastewater utility could work with clients and third parties to scope out potential wastewater optimization solutions and options to implement.

In the shorter term, cost sharing mechanisms should concentrate on easy to share products and services such as workforce development and training. A strategy for using industrial land in the Portage Region in the future should identify the infrastructure needed to support future industrial growth.

Manitoba Hydro's Portage area capacity enhancement (PACE) project is ongoing, with the Wash'ake Mayzoon converter station in place, and a new 230 kV transmission line connecting Wash'ake Mayzoon to the Dorsey converter station near Winnipeg in late planning stages. A regional power study is recommended to understand how the added power supply could be used to meet new regional load growth over the coming 10- to 20-years. Natural gas seems to be reasonably well supplied; there remains the possibility of renewable natural gas being created as a product from anaerobic digesters.

A fourth area is resource optimization: more specifically, circular supply chains and circular business models. Portage region should work with Manitoba Agriculture and the Food Development Centre (FDC), and stakeholder participants to form a pilot to further the bio-economy action plan. In addition, they should develop the Portage region's chapter of Manitoba's emerging by-product directory and use it as a basis to explore opportunities to share, reuse, repurpose and monetize industrial by-products as part of the circular economy.

The McMillan industrial park (MIP) and Poplar Bluff industrial park (PBIP) were assessed to see if seeking the eco-industrial park designation would be worth pursuing. While the designation itself does not seem worth pursuing at this time, many of the guidelines align with existing design and circularity principles (e.g., wastewater), which are likely to be required or adopted in the future.

A fifth and final area is the need to develop a targeted foreign direct investment (FDI) attraction and marketing plan. A targeted plan is necessary because FDI attraction takes time and money to be effective. Knowing the gaps in the regions' food processing sector enable the Portage region to focus on opportunities that strengthen the sector (develop a FDI roadmap). A targeted plan includes:

- developing, targeting and approaching a prospect short-list of the companies that complement Portage's food processing sector goals. This includes developing tailored contact strategies;
- working with regional stakeholders as ambassadors, and use business visits to build relationships with owners and decision makers;
- going to international markets (trade fairs, and conferences) that fit with businesses Portage region wants to attract;
- developing an investor enquiry form to streamline enquiries; and
- highlighting Portage's stories, particularly to the media in a unique way (e.g., profiles in trade journals or general media).

Selected Abbreviations

Topic	Abbreviation	Meaning
AgriFood	FDC	Food Development Centre
EcDev	BRE	Business Retention and Expansion
EcDev	CEDI	Community Economic Development Initiative
EcDev	FDI	Foreign Direct Investment
EcDev	PISG	Portage Industrial Stakeholders Group
EcDev	PRED	Portage Region Economic Development
Energy	kV	kilovolts
Energy	MW	Megawatts
Energy	PACE	Portage Area capacity enhancement
Energy	RNG	Renewable Natural Gas
Energy	SAF	Sustainable aviation fuel
GEO	City	in this study, this refers to the City of Portage la Prairie
GEO	Portage Region	In this study, this refers to the City and RM of Portage la Prairie
GEO	RM	Rural Municipality
Labour - Training	MITT	Manitoba Institute of Trades & Technology
Labour - Training	PCI	Portage Collegiate Institute
Labour - Training	RRCP	Red River College Polytechnic
Labour - Training	SACI	Southport Aerospace Centre Inc.
Land	DCC	Development Cost Charges
Land	EIP	eco-industrial park
Land	MIP	MacMillan Industrial Park
Land	PBIP	Poplar Bluff Industrial Park
Other	AI	Artificial Intelligence
Other	CME	Canadian Manufacturers and Exporters
Other	CSR	Corporate Social Responsibility
Other	RFP	Request for Proposal
Other	SMEs	Small to medium-sized enterprises
Water and Wastewater	CRWC	Cartier Regional Water Cooperative
Water and Wastewater	ISA	Industrial Service Agreements
Water and Wastewater	PLPPWS	Portage la Prairie Public Water System
Water and Wastewater	WPCF	water pollution control facility
Water and Wastewater	WTP	Water Treatment Plant
Water and Wastewater	YRWC	Yellowhead Regional Water Cooperative

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1.0 INTRODUCTION

1.1 REASONS FOR THE REPORT AND ITS STRUCTURE

This study was produced by the consulting team on behalf of Portage Regional Economic Development Inc's (PRED) Request for Proposal (RFP): Industrial Development Strategy for the Region of Portage la Prairie #007. This study was conducted as a joint project between InterGroup Consultants Ltd., Probe Research Inc., Sinclair Barnes Limited and Urban Systems Ltd.

PRED's mandate covers the Region of Portage la Prairie including the City of Portage la Prairie (City) and the Rural Municipality (RM) of Portage la Prairie. Its goal is to create an environment that successfully attracts new investment, retains and expands current businesses, and leverages the strong regional collaboration between the two municipalities.¹

The purpose of the Industrial Development Strategy was to establish a collaborative framework for Portage la Prairie to enhance its economic landscape, promote sustainability, and attract international investments.

The study's five core objectives and the fifteen subtasks addressed are:

- **Area 1 - Workforce and Skill Development:**
 - Collaborative workforce solutions, Skills assessment, and Training and Development.
- **Area 2 - Industrial Collaboration and Synergy Building:**
 - Multiple Stakeholder Engagement and Create Terms of Reference and Framework.
- **Area 3 - Infrastructure Assessment and Development:**
 - Water resource analysis, Wastewater management, Cost sharing mechanism, and Manitoba Hydro resource analysis.
- **Area 4 - Resource Optimization and Environmental Sustainability:**
 - Circular Supply Chains, Circular Business Models, and Eco-Industrial Park Design.
- **Area 5 - FDI Attraction and Marketing:**
 - Investment promotion, FDI Roadmap, and Regional Industrial database.

Methodology

The study proceeded in four stages.

1. Desktop research using reports from PRED, from the City and RM of Portage la Prairie, Statistics Canada, and various identified sources cited throughout the report.
2. Engagement with members of the Portage Industrial Stakeholders Group (PISG). Twenty individual in-depth interviews were followed by a half-day workshop to build out key

¹ PRED, About Us. Retrieved March 28, 2025. Available from: <https://investinportage.ca/about-us/>

recommendations, specifically around workforce development and potential around the circular economy (Interview Discussion Guide, Workshop Guide and List of Participants in Appendix A).

3. Analysis of findings, testing hypotheses and creation of implications for strategy.
4. Recommendations for actions to help the Region achieve its Industrial Development goals.

Context

PRED helps inspire new investment and re-investment across the Portage Region. The mandate of PRED is to create an environment that successfully attracts new investment, retains and expands current business for the entire community of the City of Portage la Prairie and the RM of Portage la Prairie while leveraging the strong regional approach of the two municipalities working together in collaboration.

The region has developed a significant food processing sector that has built on the strong, local crop farming sector: horticulture (e.g., potatoes), pulses (e.g., dried peas), and cereals (e.g. oats). A major supportive organization is the FDC, which provides crop commercialization with technical and research assistance for agri-food businesses. Their services focus on plant/animal protein products and ingredients, along with waste stream evaluation and co-product processing.²

For example, in the MIP are Avena Foods, Better Hemp Company, McCains Foods, and Nutri-Pea, while in the PBIP are Simplot and Roquette.³ Richardson Milling is also in the region but is located outside of the two industrial parks. The growing agrifood value chains have encouraged organizations that are upstream (e.g., Enns Brothers, Hi-Tech Industries), or downstream (e.g., Catapult Environmental) to establish or expand in the region. CN has a rail yard next to the MIP with a spur that runs beside McCain Foods and Nutri-Pea. There are rail spurs that run into the PBIP, and to Richardson Milling. All the industrial parks are also serviced by trucking routes.

² Food Development Centre, link: <https://www.gov.mb.ca/agriculture/food-and-ag-processing/starting-a-food-business/food-development-centre/index.html>.

³ There are numerous firms located in the industrial parks that unrelated to the food processing sector, such as Armwood Windows and Doors.

2.0 WORKFORCE AND SKILL DEVELOPMENT

Understanding the state of the local workforce is crucial for any investment or economic development strategy. This includes identifying current skills, anticipating future needs, training the workforce, attracting specialized workers, and amplifying innovative solutions already in place. This section explores these issues through a review of existing research and data, supplemented by detailed discussions during the stakeholder engagement phase.

The Workforce and Skill Development section is divided into three subsections:

Section 2.1 – Collaborative Workforce Solutions: This subsection identifies common workforce challenges among industries and develops strategies to share temporary or specialized resources.

Section 2.2 – Skills Assessment: This subsection analyzes current and future workforce needs, focusing on highly specialized roles required by industries in the Region.

Section 2.3 – Training and Development: This subsection identifies skill gaps in the existing workforce and proposes training strategies to upskill local workers, ensuring the Region is ready for future investment.

2.1 COLLABORATIVE WORKFORCE SOLUTIONS

Desktop Research

Due to differences in geographic granularity between Census statistics and more frequent statistics (annual or more frequent) collected, a breakout of less granular economic regions to Census subdivisions was constructed (Appendix B) which includes a review of the Region's population and labour market.

A key finding from statistics is the higher-than-average unemployment rate among the Region's Indigenous population. The average age of the Indigenous population is the youngest of any groups in the Region. This indicates a significant opportunity to bring Indigenous people and particularly indigenous youth into the regional industrial labour force.

Engagement

From interviews, attracting a skilled, experienced and diverse workforce is a common challenge in the Portage Region. Barriers include factory work not appealing to younger, entry-level workers and shift workers lacking workable childcare solutions.

A further stated barrier is the lack of a sufficient local workforce both now and looking ahead. Several mentioned the need to inform and interest the future workforce especially of young people including Indigenous youth. Many interviewees were parents who told us their high-school age children did not see their future in Portage region or in industry. Interviewees suggested that marketing both Portage region and careers in industry would pay dividends.

Attendees at the workshop agreed with this and suggested several ways a shared marketing drive could inspire people to build their careers in Portage region such as:

- Creating a “Come Back Home” campaign targeting former Portage region residents who had moved away, gained higher skills and enticing them to “come back home” to raise their family
- Turning university reading week into a recruiting week with Portage’s industrial companies recruiting students for jobs upon graduation or internships and experiential learning opportunities as part of their course.

These suggestions of marketing Portage region were well received. Indications were that companies would participate in a collaborative, shared initiative if it were centrally organised.

While there are collaborative workplace needs, there was less enthusiasm for collaborating or sharing personnel. Plant managers expressed reservations, preferring the certainty of having their own staff. There were also concerns that shared personnel might not comply with regulations such as provincial regulations require 24/7 onsite monitoring for some processes.

There is also collaborative demand for contract workers, such as plumbers, electricians and millworkers to support the large plants. All companies reported needing them on occasion and all contract them out as needed with most being sourced from Winnipeg. There is both support for and demand to increase a local supply either by establishing or expanding local companies or by encouraging the establishment of local offices of their current Winnipeg- based contractors.

Implications for Strategy

Findings from interviews and the workshop point to many opportunities for industry in Portage region working together to build the workforce it needs. To attract a workforce, it can both reduce lifestyle barriers as well as create and facilitate pathways to employment for local youth including Indigenous youth as well as more experienced workers including at managerial level and including former residents returning to Portage. Additionally, it can encourage development of new local businesses including contractors that many plants need on occasion but not as permanent staff.

Recommendations

As part of a larger, foundational workforce study planned for 2025/2026, Portage region could:

- Detail solutions to reduce and eliminate the lifestyle barriers such as childcare that impact hiring and retention of workers.
- Develop and implement motivating programs to bring Portage’s next generation into the industrial workforce. Work with local educators at high school and college level such as Red River College Polytechnic (RRCP) and with Portage region students at the University of Manitoba and other universities. Leverage Portage’s participation in Community Economic Development Initiative (CEDI) to work with Indigenous organisations to develop culturally relevant training and employment support.
- Look at attracting former residents with skills and experience gained elsewhere. Target especially those who may now be looking to raise their family in a more affordable community, close to extended family and offering a city plus rural lifestyle. A two-income enticement program is needed to help secure spousal employment. This would require

the collaboration of various potential employers in the region. This could mean a regional cross-listing of open positions.

- Inventory the types, numbers and costs of non-staff contractors needed. Use this data as a basis to encourage the creation or expansion of new local businesses to fill these needs and support the large industries.

2.2 SKILLS ASSESSMENT

Desktop Research

The desktop research reviewed and analyzed the Region's current and future workforce needs. This involved reviewing official population and labour statistics to establish a baseline understanding of the Region's population and workforce. The analysis included reviewing applicable Statistics Canada data tables as well as Census data from 2021, 2016, and 2011.

The research covered statistics for the Region as well as other surrounding communities that play a significant role in the economic success of the Region.

See Appendix B for detailed data.

Engagement

Stakeholders and industry leaders reported that, while there are challenges retaining factory workers, current workforce needs are generally being met. Most factory workers live within the Region. Managerial staff are either local or commute from outside the Region, from Winnipeg or further afield, including cities or towns such as Brandon.

Plant managers and human resource (HR) managers highlighted concerns that, as operations become increasingly digitized, they expect a shortage of highly skilled, technology-forward employees to fill new positions such as systems monitoring and control. There is already a nationwide shortage of power engineers as well as a global shortage of Class 1 truckers, especially with experience driving new artificial intelligence (AI)-enabled rigs.

Workshop attendees also discussed having to "compromise then certify" - hiring workers with fewer ideal qualifications, then helping them gain certification. One example was power engineers coming out of post-secondary at Class 5 - lower than the company needs - and helping them gain skills and experience to achieve Class 1 certification.

Implications for Strategy

While there are steps the Region can take in the immediate term to improve conditions that attract and retain employees - such as flexible childcare mentioned above - the skills gap is an issue with longer term impact. It will affect not only individual companies but also the Region's reputation as an attractive, competitive industrial business hub.

It should be noted that fundamental decisions on future workforce needs will not be taken by local managers and stakeholders but rather in head offices located elsewhere. Decision makers will be owners, boards and executives responsible for multiple, often global operations. Portage's businesses are important sites in these global operations and care should be taken to avoid their being seen by either side as simply remote branch plants. It is imperative that the Region builds

relationships and consults at the head office-level and, ideally, collaborates with head offices on the shared future of local operations and the impacts on the Region's growth.

Recommendations

PRED is planning to undertake a workforce development strategy in 2025/2026. This study is an opportunity to audit current and near-term workforce gaps but, more fundamentally, to look at a minimum five-year horizon of future needs. What skills will be needed? What specific roles and tasks will emerge, and how many jobs in each category are projected?

The study should look beyond local to national and global conditions and game out scenarios which could impact the Region's economic development, both positively (such as cultivating new markets) and negatively (such as tariffs).

Additionally, the forward-looking workforce study should consult beyond the current local stakeholders' group to the owners, boards and top-level decision makers of both its current and its prospective industrial players. These C-suite-level targets will not respond to group formats such as workshops and roundtables. Instead, they require a personal, relationship-building approach which Portage region could begin immediately and in partnership with the companies' local operations and including the Region's governance. This can begin with Portage region inviting individual company owners and executives to visit Portage region and its plant. (We cover this as well in Section 7.1.2– FDI Roadmap).

2.3 TRAINING & DEVELOPMENT

Desktop Research

The Region of Portage la Prairie has labour needs that require training in the trades, and degree programs, including food sciences, agriculture, engineering, and executives.

At the secondary level, the Portage Collegiate Institute (PCI) ⁴ offers technical – vocational training in automotive technology, building construction & trades, hairstyling, applied commerce, photography, and early childhood education. They also offer training that enable students to attend college or university.

At the post-secondary level, RRCP has two campuses in the Portage Region. One is 32 5th St SE, Portage la Prairie, and offers a wide variety of training opportunities.⁵ The other campus is Stevenson (Southport) on 75 Musketeer Road West, which offers mainly courses related to aerospace.⁶ Red River College Polytechnic offers a wide array of training opportunities in their Winnipeg campuses that may not be currently offered in the Portage Region, including the skilled trades. This possibility can be explored as RRCP is known to work with industry to develop programs.

At a specialist level, the Portage Region boasts Southport Aerospace Centre Inc (SACI) home to aviation and aerospace training facilities, product research and development initiatives, light manufacturing, and educational institutions.

Other post-secondary training institutions for many trades in the province include Assiniboine Community College in Brandon, International College of Manitoba, Manitoba Institute of Trades & Technology (MITT) in Winnipeg, and University College of the North in The Pas. There are also online, and in-person courses offered in other provinces that offer related training if it is not available in Manitoba ⁷ although a downside is that graduates may then not return to Manitoba.

The University of Manitoba's offers both undergraduate and graduate degrees in engineering, agriculture, food sciences, and business. Brandon University, Université de Saint-Boniface, and University of Winnipeg, and the University College of the North offer training that can help workers to meet labour market demands in the region of Portage la Prairie.

For many skilled trades, career progress requires significant apprenticeship hours, and additional training. This includes, for example, power engineering, which has at least 5 classes, and allows a power engineer to operate small boilers ([5th class](#)) all the way to the largest power plants ([1st class](#)). A variety of issues in trades training in Canada were identified in a report by Statistics Canada in 2020 and summarized in (Chris Ferris 2021, Box 1, page 4).⁸ These issues include

⁴ PCI (accesses 2025) "Technical Vocational Education," link <https://pci.plpsd.mb.ca/pages/technical-vocational>.

⁵ RRC Polytech (accessed 2025). "List of Portage Campus Programs," link <https://catalogue.rrc.ca/Programs/PC>.

⁶ RRC Polytech (accessed 2025). "Stevenson Campus – Southport," link <https://www.rrc.ca/stevenson/>.

⁷ E.g. Alberta and Ontario appear to have significant training institutions for power engineers. E.g. Power Engineer Training Accredited Education Providers – Institute of Power Engineers, <https://nipe.ca/accredited-education-providers/>.

⁸ Chris Ferris (Dec 2021) "Manitoba's Employment Continues to Expand," Weekly Economic Digest, Vol 2, Issue 41, link:

people taking a long time to complete their trades certification or dropping out altogether. Some suggested resolutions to these issues include:

- Improving strength, use and transferability of standards,
- Better incentives for employees and employers,
- Flexibility of classes, and
- Gender related considerations.

Food and Beverage Manitoba has specialized training that supports the food and beverage industry.⁹ The Manitoba chapter of the Canadian Manufacturer's and Exporters (CME) also offers training and services.¹⁰

Engagement

Skills assessment and training are linked. Interviewees cite increasing demand for highly trained workers such as power engineers and other tech-enabled trades. They also note that supply is restricted by a lack of local training facilities or training "on the wrong things" meaning workers must be retrained on the plant's own systems.

While all companies accept that they will provide specific training on their proprietary systems, employers feel candidates must bring a set of fundamental, high-quality skills to the table prior to in-house training. Training can be expensive (one described it as a cash grab by training establishments) and cumbersome for a single employer to set-up themselves.

Employers are also concerned about investing in attracting and retaining highly skilled and in-demand workers and then losing them to better-paid and better-located opportunities.

"More training" as a solution was a common comment expressed during engagement sessions, but the most helpful insights came from Manitoba Building Trades and Apprenticeship Manitoba. Their experience shows that setting up training is the easy part. More critical is that such training must be based on:

- a) identification at a detailed level of the specific skills needed for which specific roles and tasks and therefore what exact training will deliver that; and
- b) a genuine commitment – even a guarantee – that, once trained, candidates will have jobs. This commitment could even include details on specific roles and plant locations.

As Manitoba Building Trades and Apprenticeship Manitoba point out, training not based on these criteria risks becoming training for training's sake. It also risks creating frustration and dashing expectations among trainees and employers and offering no real solution to actual workforce needs.

https://www.economicdevelopmentwinnipeg.com/uploads/document/weekly_economic_digest_vol_2_issue_41.t1639431119.pdf. See box 1 on page 4 for the summary.

⁹ Food and Beverage Manitoba, link <https://foodbeveragemb.ca/>.

¹⁰ Canadian Manufacturers and Exporters, Manitoba chapter, link <https://cme-mec.ca/manitoba/>.

Some promising solutions exist including ones not yet trialled in Manitoba. One is Apprenticeship Pooling Agreements where multiple employers collaborate through a single coordinating portal to share the costs and resources associated with training apprentices in a specific trade, rather than each employer bearing the full burden individually. This allows for more apprenticeships and broader access to training, especially for smaller businesses. One example is the Rupertsland Institute's Apprenticeship Service Program based in Alberta. This program, coordinated by the Rupertsland Institute and supported by Employment and Social Development Canada, allows eligible small to medium-sized enterprises (SMEs) to sponsor first-year apprentices, with funding available for those who self-identify as Indigenous (Métis, First Nations, Inuit) and/or women.¹¹

Interviews also indicated that there was untapped potential and interest to further integrate Southport into the region's training landscape. Its training while specialised to flight training, includes training in potentially transferable skills relevant to activities in the wider industrial ecosystem. Additionally, as the Southport site develops, several older buildings may become available with potential to be used by training establishments such as Red River College Polytechnic for training in skills such as power engineering.

Implications for Strategy

In identifying opportunities for a circular, shared economy in the Region, training is an obvious candidate. Furthermore, the Region is already an education and training hub both within the City such as at RRCP and in the Region including Southport. Demand is high. Employers indicated both shared need and common barriers. Foundational, certification-level training is generally beyond the scope or resources of a single employer. This is especially true with apprenticeships that require upwards of 1,200 hours of on-the-job training. Innovative programs such as Apprenticeship Pooling Agreements present a possible – and a shared – solution. These would also set the Portage Region apart from other manufacturing hubs and help attract both industry and ambitious employees.

Recommendations

As part of a fundamental workforce skills audit (already in PRED's planning calendar):

- Work with current and prospective employers to create detailed job descriptions with a 2– to 5-year horizon that provide direction to both employers and future candidates as to job content, qualifications and experience needed, and prospects and opportunities to advance.

Following that, work with Portage-aligned training establishments to create courses, internships, experiential opportunities, apprenticeships and other initiatives that will be genuinely useful to both employers and employees and not generic training for training's sake. Prioritize locally located training which helps keep workers, once graduated, in the Region.

- Work with organisations such as Apprenticeship Manitoba to scope out workable opportunities for shared training such as Apprenticeship Pooling Agreements that fit within employers' work needs, patterns and training budgets. Consider the possibility of

¹¹ Source: Rupertsland Institute, www.rupertsland.org/apprenticeship-services.

PRED or a local educational establishment becoming the coordinating body for such a program.

- Further integrate Southport into the region's training ecosystem. Its expertise in highly technical, skilled air force training could interface with several in-demand skill sets which are priorities of both employers and future workers.

3.0 INDUSTRIAL COLLABORATION AND SYNERGY BUILDING

Key to creating a strong industrial development strategy is involving and learning from existing leaders in the sector to understand their challenges and their ideas for solutions. It helps to build out the investment ecosystem, creating the sense of common purpose that fosters collaboration and mentorship, joint workforce development, infrastructure investments and ultimately the kind of strong business-to-business relationships that help create a circular economy.

The industrial collaboration and synergy building section is divided into two subsections:

Section 3.1 – MULTI-STAKEHOLDER ENGAGEMENT: Organize forums and focus groups with key stakeholders (some interviews and surveys): Include local industry, government bodies, and community reps.

Section 3.2 – Create Terms of Reference and Framework: Review the existing framework of the Portage Industrial Stakeholders Group – its terms of reference, its meeting and governance approach.

3.1 MULTI-STAKEHOLDER ENGAGEMENT

Desktop Research

PRED facilitates the PISG – bi-monthly meetings between current industrial stakeholders and prospecting companies. It also includes representatives of the City of Portage la Prairie, Rural Municipality of Portage la Prairie, and PRED.¹² These meetings aim to foster synergies in a circular economy model. This award-winning economic development approach is part of PRED's unique concierge service built on transparency and collaboration.

Engagement

Current members interviewed speak positively of the stakeholder group. Several – including prospects – said such inclusion and openness is unique in their experience of developing operations in other municipalities. Participants appreciate meeting each other, sharing issues and hearing from guest speakers, especially with new ideas and solutions. Several mentioned that in their day-to-day activity, they tend to become isolated and the stakeholders' group is welcomed in bringing them together.

While the stakeholder meetings are valued as a venue to discuss wide-ranging and shared issues, interviews also uncovered that participants also want more focused connections and engagement with their peers – plant managers, HR managers and so on. One model to consider and adapt is the CME's peer-to-peer groups. These invitation-only groups meet regularly (CME's are quarterly), choose topics and issues in advance and aim to be action-oriented –solve a

¹² The PISG meetings can include resource organizations such as KAP, Manitoba Agriculture, Manitoba Water (<https://www.gov.mb.ca/sd/water/index.html>), Manitoba Education and Early Childhood Learning. Other organizations that may occasionally be invited include Manitoba Hydro, Manitoba Transportation and Infrastructure, and railways such as CN.

problem, agree on an action, identify genuine opportunities for synergy – versus the more general networking in the larger industrial stakeholder group.

Implications for Strategy

Peer-to-peer groups could be a valuable addition to the industrial stakeholder group program by enhancing (not duplicating) the wider networking sessions and creating a context for actionable shared solutions. Participation/thresholds to attend should be by-invitation to genuine peers and limited to companies already present in Portage region with options to invite occasional guests such as subject-matter experts. Peer-to-peer groups should be positioned as a benefit of doing business in Portage region for companies already committed to the Region. As such they can be marketed as an added value element of Portage's business advantage and align with PRED's Business Retention and Expansion (BRE) programs.

Recommendations

Introduce peer-to-peer sessions to facilitate targeted discussion and sharing between functional peers such as plant managers and HR managers. Increase their status as "must-attend" by making these sessions invitation-only with a specific topic and an expectation of action – a problem solved, an action taken, a follow-up identified.

To be mindful of stakeholders' schedules and to ensure buy-in, consult stakeholders as to what frequency would work best – adding additional peer-to-peer sessions to the current quarterly schedule or alternating sessions.

3.2 CREATE TERMS OF REFERENCE AND FRAMEWORK

Desktop Research

The PISG provides its participants with a local industrial "community", an open forum, a learning opportunity (with expert guest speakers) and inclusion of prospects. It is a unique aspect of Portage's "open for business" attitude. Portage region rightly wants to ensure it is sustained and effective long term.

Engagement

While the concept of a stakeholders' group is much praised, the current framework, according to those interviewed, is becoming tired and somewhat predictable. Some said that, because meetings are regular and recurring vs. a one-off event, they view them as "nice to attend" vs. "must attend" and not everyone feels inclined to make every meeting. As a result, some participants feel they have "got behind" or "missed out", especially regarding networking, as attendees including personnel from the City, RM and businesses change frequently from one meeting to the next. One consequence is that news and updates from the various participant companies do not always get passed on within the group and then onward to others in their organizations who might benefit.

Participants also indicated that they would like to connect one-on-one outside these sessions with fellow attendees. While admitting that they could 'look them up myself," they suggested this could be facilitated by sharing contact information and titles/roles of group members.

Interviewees praised the group's broad attendance across Portage's industrial ecosystem including current and prospect companies. They value the bird's eye view of industrial Portage and believe that hearing about experiences and solutions across a wide range of industries could spark new thinking and lead to collaborative opportunities. However, there was some confusion about the inclusion of companies who "are on the list but they're not here and they never attend".

As noted in the section above, interviewees also expressed a desire for deeper, focused discussions, especially with direct peers – for example, plant managers with other plant managers. Therefore, the creation of several peer-to-peer groups is suggested, which could meet outside the larger stakeholders group.

Implications for Strategy

Portage region has an opportunity to build on the tradition and existing strengths of the PISG to enhance its value both to Portage region and to its participants. This can be achieved by building on, refreshing and enhancing the current framework.

Maintaining the wide and inclusive attendance across existing and prospect companies is a strength. However, to enhance its significance and sense of a shared industrial community, the PISG should have thresholds to attend. Inclusion should be a privilege based on a level of commitment to locating in Portage region and being involved in its future as a business location and as a community. Including existing companies would be a given. However, to maintain the sense of "ownership" of the group, it would be wise to include only prospects who have a working concept and draft proposal already vetted by the investment team versus someone "just looking". Once vetted, prospects could be issued an invitation to join the group, which would add a level of commitment benefiting the prospect and the existing stakeholders.

In addition to tightening attendance thresholds, enhancement could include providing additional contact details to facilitate networking and disseminating information and updates between meetings. These steps can reenergize the group and underline its status as a "must attend" format.

In addition, creating a separate-but-linked peer-to-peer program can provide stakeholders with an opportunity for deeper, action-oriented sessions with their direct peers.

As noted above, one caution would be to avoid overburdening participants with meetings. Time crunch was mentioned by many interviewed. Solutions exist such as alternating wider PISG meetings with separate peer-to-peer sessions. Taken together, this could provide an effective cross-pollination of ideas, solutions and opportunities to share.

Recommendations

Build on and enhance the award-winning PISG and make it even more valuable to participants by including:

- an informal monthly note with news and updates from participants between quarterly meetings.
- contact details (with permission) and titles/roles of participants so they can contact each other between meetings.
 - Institute a tighter attendance threshold based on current businesses and invitations to vetted prospects while streaming out those "just looking".

- Link the Industrial Stakeholders Group with new peer-to-peer groups (discussed above). Ensure the roles, activities and mandates of each are laid out clearly and communicated as such.
- Consult stakeholders on the optimal frequency of the two programs to ensure attendance at both if relevant while avoiding overburdening participants with meetings.

4.0 INFRASTRUCTURE ASSESSMENT AND DEVELOPMENT

4.1 WATER AND WASTEWATER MANAGEMENT

Understanding existing and available water sources is crucial for framing discussions on sustainable water use. This analysis involves a comprehensive review of completed studies to collate and summarize the quality, quantity, and long-term availability of various water sources, including municipal supplies, groundwater, surface water, and potential reuse options. The water resource requirements of different industrial users were assessed to better understand their specific issues and needs. Additionally, opportunities for water reuse within and between companies were explored, aiming to minimize freshwater withdrawal and promote sustainable practices.

The Water and Wastewater Management section is divided into two subsections:

- **Section 4.1.1 – Water Resource Analysis:** This subsection provides an overview of the water resources in the Region, the supply and demand for water, the water treatment plant, and planned upgrades.
- **Section 4.1.2 – Wastewater Optimization Strategies:** This subsection provides an overview of existing wastewater infrastructure, planned upgrades, and suggestions for optimal wastewater use.

4.1.1 Water Resource Analysis

Desktop Research

System Background

The City of Portage la Prairie Public Water System (PLPPWS) is a comprehensive infrastructure designed to provide potable water to the residents of the City of Portage la Prairie, regional customers, and several large industries. The system encompasses raw water conveyance, potable water treatment, storage, and distribution. The primary source of raw water is the Assiniboine River, which is treated at the Water Treatment Plant (WTP) located on Yellowquill Trail. The WTP was constructed in 1978 and has undergone several upgrades to enhance its capacity and efficiency.

The City is responsible for the maintenance and management of the entire water system, ensuring that it meets regulatory standards and operates efficiently. The operation of the water system is overseen by a team of qualified professionals who manage the day-to-day activities, including monitoring water quality, maintaining equipment, and addressing operational issues.

The PLPPWS serves a diverse range of customers, including:

- City Residents: The primary users of the water system are the residents of the City of Portage la Prairie, who rely on the system for their daily water needs.

Regional Customers: The system also supplies water to regional customers, including the Rural Municipality of Portage la Prairie, the Yellowhead Regional Water Cooperative (YRWC), Cartier Regional Water Cooperative (CRWC), and the Southport Aerospace Center.

- **Large Industries:** There are several large industries within the RM that depend on water supplied by PLPPWS. They are generally split between two industrial parks, with notable customers being McCain Foods and Nutri-Pea (in MIP), and Simplot and Roquette (in PBIP).

The water system is designed to meet the demands of these varied customer classes, ensuring a reliable and safe water supply for all users.

Water Supply

The primary raw water source for the PLPPWS is the Assiniboine River.¹³ The Assiniboine River experiences large variability in annual flows, with peaks occurring during the spring melt and low flows during the fall and winter.

The Water Right's License for the PLPPWS was reissued in July 2023 and is effective for 10 years. The license specifies the maximum withdrawal rate, and the annual quantity based on the projected raw water requirements for the proposed upgrades to the WTP. The maximum rate of withdrawal is 75 MLD (870 L/s), and the annual quantity is 18,761.34 cubic decameters (average of 51.4 MLD).¹⁴ Note that availability of raw water can be significantly reduced in spring due to debris and ice blocks, and during fall due to frazil ice.

The raw water river intake structure consists of two 600 mm diameter pipes, each with an estimated capacity of approximately 900 L/s. Raw water is conveyed from the river intake to the WTP via three vertical turbine pumps, each rated at 265 L/s, operating in a lead/lag/standby fashion. The total capacity is 62.2 MLD and the firm capacity is 41.5 MLD.¹⁴

In addition to the Assiniboine River, the City and RM can explore the use of alternate water sources to supplement demand. Groundwater extraction, for example, could provide a reliable and consistent supply during periods when river water availability is reduced due to seasonal variations.¹⁵ The City and RM have historically reviewed the feasibility of alternate sources, specifically looking at the Carberry Aquifer, riverside shallow wells, and drawing directly from Lake Manitoba. While developing infrastructure to support the conveyance and treatment from

¹³ Any areas not serviced by water from the Assiniboine River may come from private wells.

¹⁴ MLD = Million litres per day.

¹⁵ Possible additional water sources that were investigated in the 1990s: the Carberry aquifer, riverside shallow wells, and Lake Manitoba. Useful information sources and related research from the mid-1990s. Manitoba's Water Management Strategy: <https://www.gov.mb.ca/sd/water/index.html>. This includes Manitoba Government (2022). "Manitoba's Water Management Strategy," https://www.gov.mb.ca/sd/pubs/water/water_mgmt_strategy2022.pdf, and Manitoba Government (2023) "Initial Water Strategy Action Plan," https://www.gov.mb.ca/sd/pubs/water/water_action_plan2023.pdf. Groundwater information about Manitoba: [Manitoba wells and groundwater](#). Including Betcher, et al (1995) "Groundwater in Manitoba: Hydrology, Quality Concerns, Management," link: https://www.gov.mb.ca/sd/pubs/water/groundwater/publication/1995_betcher_groundwater_manitoba_hydrogeology_quality_concerns_management.1db, and Surendra N. Kulshreshtha (1994). "Economic Value of Groundwater in the Assiniboine Delta Aquifer in Manitoba," Environment Canada, link: https://publications.gc.ca/collections/collection_2018/eccc/En36-507-29-eng.pdf.

an alternate source can be capital intensive, it can offer a sustainable and resilient solution to meet the growing water needs of the community and regional customers.

Water Demand

The following table provides a summary of the average day demands distributed from the WTP, from data provided for 2022.¹⁶

Table 1: Existing Average Daily Demands

Customer Class	Average Day Demand (MLD)	Percentage
City of Portage la Prairie	6.5	28%
Regional Customers and Industry	17.0	72%
Total	23.5	100%

For comparison, the 2024 average day demand was approximately 24.3 MLD, which represents an approximate 3% increase in demand across the system. This is in comparisons to 2022 when it was 23.5.

Stantec completed a technical study to project water demands, which can be summarized as follows:

- **Residential Demands:** The projected population for the City of Portage la Prairie is based on the 2016 Census of Population of 13,304 people, with an annual growth rate of 0.5% for a projected population in 2050 of 15,763.
- **YRWC:** The allocation for YRWC is based on an annual growth of 1% for a projected population in 2050 of 4,860. This would result in an average day demand of 1.53 MLD and a maximum day demand of 2.75 MLD.
- **Southport Aerospace Centre:** The estimated residential service population for Southport is 750 people, with an additional 300 people working within the development. No growth has been projected for this area.
- **Industrial Demands:** The projected demands for various industries, including Simplot, Roquette, McCain Foods, and Nutri-Pea, are based on current agreements and updated information provided by the City.

The total projected future (2050) demands are summarized in the table below.

¹⁶ 2022 flows were used since that was the latest information showing the split between City and regional/industrial demands. Total 2024 water demand from the City's report is reported at the bottom of the table, which shows a slight increase.

Table 2: Future (2050) System Demands

Customer Class	Average Day Demand (MLD)	Maximum Day Demand (MLD)	Average Percentage
City of Portage la Prairie	8.2	12.6	22%
Regional Customers and Industry	31.8	42.4	78%
Total	40.0	55.0	100%

The values from Table 2 are from a report done on the City's behalf by Stantec, including Simplot, Roquette, McCain, Nutri-Pea and projected future industries.

Water Treatment Plant

The WTP treats raw water from the Assiniboine River using a multi-step process involving ballasted flocculation, lime softening, re-carbonation, ozonation, dual media filtration, granular activated carbon filtration, and chlorine disinfection to ensure the quality of potable water. The WTP currently has a firm design capacity of 17 MLD and a total design capacity of 34 MLD. When required to operate under the firm capacity, the WTP cannot supply the system average day demand (ADD). There have been occasions where industrial users must stop operations because a unit is out of service at the WTP. As such, capacity upgrades are required to reliably meet the system demand as well as provide additional capacity for residential growth and industrial development.

Water Treatment Plant Upgrades

The City has engaged Stantec to complete design upgrades to the WTP through either a Design-Build or Design-Bid-Build process. While currently in the design phase, the scope of the proposed capacity upgrades generally includes:

- Increasing the raw water intake flow rate to 75 MLD (match max permit withdrawal rate).
- Twinning the ballasted flocculation (provide redundancy and operational flexibility).
- Adding an integrated membrane system consisting of ultrafiltration (UF) membranes followed by low-energy reverse osmosis (RO) membranes.¹⁷

The proposed UF and RO will provide an additional treated water production rate of 38 MLD to meet the total projected MDD of 55 MLD. The City and Stantec are currently in the design phase of the proposed upgrades. The cost for design and construction has been estimated at \$96.5M.

¹⁷ According to staff at the city, distribution system corrosion will be addressed by blending two treated water sources to maintain adequate pH balance (this is the current plan).

Engagement

As evidenced by interviews and the workshop, stakeholders are in favour of initiatives to facilitate water capacity and increase efficiency of infrastructure and systems across the industrial parks and the Region. However, most of the current stakeholders have no expertise in how to implement this. Exceptions are City staff who are actively looking at options and companies' environmental officers. Simplot and Roquette both have environmental officers who understand the challenges but whose remits are limited to their plants versus looking at the issue across the industrial park. One finding is that the head offices of the various plants have relevant experts who look at such issues across their global operations and whose experience could be useful to consult.

Implications for Strategy

The City currently struggles to reliably meet the water demands of all its industrial users. This also does not provide confidence in the City and RM to accept new industrial development. The proposed upgrades to the WTP and intake structure will increase treatment capacity to reliably meet existing and projected demands. The risk to these proposed upgrades is managing the capital expenditure of \$96.5M. Provincial funding has been secured for approximately \$40M and the City is actively seeking federal funding to support the remainder of the upgrades. Without federal funding, the City will need to borrow for the upgrades and water rates to users is expected to increase approximately 60%.

Recommendations

In addition to seeking federal funding opportunities to support the proposed upgrades, consider exploring alternative public-private partnerships, grants, and other funding opportunities to support the water treatment plant upgrades and other infrastructure projects.

Explore opportunities for water reuse within the industrial parks to reduce the demand and reliance on potable water for industrial applications. A case could be made for the City/RM to attract new industrial users with the option for reuse without raising unit rates.

Collaborate with the industrial plants to leverage the expertise of the "water specialists" at their head offices. While these specialists can provide valuable feedback, their roles should remain advisory with the ultimate decisions on system operations resting with the City. This collaborative approach will help build relationships with owners and decision makers (proposed above in Section 2.2 Skills Assessment), enhancing efforts to optimize water management strategies.

4.1.2 Wastewater Optimization Strategies

Desktop Research

System Background

The City of Portage la Prairie operates a wastewater collection and treatment system designed to manage both municipal and industrial wastewater. The collection system is comprised of gravity sewers, lift stations, and force mains which all convey sewage to the Water Pollution Control Facility (WPCF). The WPCF has undergone several upgrades to accommodate growth and comply with changing effluent guidelines. The existing facility provides secondary treatment and includes

infrastructure to accommodate high-strength organic loading from industrial customers. The system was initially built in 1996, with upgrades and expansions conducted since then.

The influent wastewater can be broadly characterized as either municipal or industrial wastewater. Municipal wastewater is generated in the City of Portage la Prairie and some small surrounding residential areas in the RM. It services residential areas, urban reserves, and a variety of commercial establishments. Industrial wastewater is generated in the PBIP and MIP and is pre-treated at WPCF before being sent to the secondary system. McCains operates a clarifier for primary treatment before conveyance to the WPCF. The City maintains Industrial Service Agreements (ISA's) with major users to manage wastewater flows, biological loading and to recover operating costs equitably. Note that Simplot, located in PBIP, is the only development where industrial process wastewater is not serviced by the WPCF. Simplot manages its own industrial process wastewater treatment and effluent discharge.

The City has been tasked with upgrading the WPCF to comply with new effluent guidelines set by the Province of Manitoba and the Government of Canada in 2018. These regulations primarily focus on reducing nutrients in the effluent discharged into the Assiniboine River, aiming to limit total phosphorus and nitrogen concentrations to prevent eutrophication in Lake Winnipeg. The target reductions are:

- Total Phosphorus – 1 mg/L (30-day rolling average)
- Total Nitrogen – 15 mg/L (30-day rolling average)

The Province has stipulated that processes used to achieve these limits should be sustainable, rely on biological methods, and minimize chemical use. The City requested an extension for the implementation deadline based on funding availability. The Province granted an extension requiring the upgrades to meet nutrient limits be successfully constructed and commissioned by October 31, 2030.

The City has been working with AECOM to identify suitable processes for phosphorus and nitrogen reduction. In 2019, AECOM prepared a Functional Design Report to provide the basis for the design of many components of the proposed facility upgrades, as well as to better estimate capital costs. In general, the recommended upgrades include phosphorus recovery, de-ammonification, chemical feed systems, tertiary filters, anaerobic digesters, biosolids storage tanks, and a biogas utilization facility.

Existing Water Pollution Control Facility

The 2019 Functional Design Report AECOM prepared provides a wastewater characterization of municipal and industrial design flows and loads to the WPFC. The following table compares these two characterizations.

Table 3: WPCF Design Wastewater Characterization ¹⁸

Description	Municipal – Design	Municipal – Percentage	Industrial – Design	Industrial – Percentage
Design Flows				
Average Annual Flow (AAF), MLD	9.8	53%	8.6	47%
Maximum monthly Flow (MMF), MLD	13.5	46%	15.6	54%
Peak wet weather flow (PWWF), MLD	38.2	63%	22.7	37%
Design Loads				
Total suspended solids (TSS)				
Annual Average Load (AAL), kg/d	1,300	8%	14,280	92%
Maximum month load (MML), kg/d	1,800	6%	28,120	94%
Chemical oxygen demand (COD)				
AAL, kg/d	2,900	8%	34,490	92%
MML, kg/d	3,300	5%	65,700	95%
Total Kjeldahl nitrogen (TKN)				
AAL, kg/d	240	15%	1,350	85%
MML, kg/d	330	12%	2,360	88%
Total phosphorus (TP)				
AAL, kg/d	40	14%	254	86%
MML, kg/d	50	11%	403	89%

While design flows between municipal and industrial influent are relatively similar, the industrial wastewater is very high strength. The treatment process of the WPCF involves several key steps and unit processes to manage both municipal and industrial wastewater.

¹⁸ Kilograms per day (kg/d), Million litres per day (MLD), and maximum month load (MML) the maximum 30-day running average during any calendar year.

Table 4: Existing WPCF Treatment Processes¹⁹

Facility	Unit Process	Comments
WPCF industrial pre-treatment	- anaerobic LRAR (volume of 70,000 m³ with a 15,000 m³ burnout basin) - pH adjustment - methane production (not currently utilized)	This provides pre-treatment to the high organic loadings produced within the MIP and PBIP. This reduces the organic carbon and solids loading in the industrial wastewater before it's blended with municipal wastewater.
WPCF liquid stream treatment	- headworks (incl. screening and grit removal) - secondary treatment (four aerobic sequencing batch reactors) - UV disinfection	This provides most of the wastewater treatment, including mechanical, biological, and disinfection.
WPCF solids stream treatment	- sludge thickening (gravity belt) - sludge digestion - biosolids storage	This side stream process manages the solids removed from the wastewater and prepares them for land application.

Wastewater Treatment Plant Upgrades

The City is planning significant upgrades to the WPCF to comply with new effluent guidelines set by the Province of Manitoba and the Government of Canada. These guidelines mandate a reduction in nutrient levels, specifically limiting total phosphorus to 1 mg/L and total nitrogen to 15 mg/L in the effluent discharged into the Assiniboine River. The proposed upgrades aim to enhance the facility's capacity to meet these stringent standards through sustainable processes that minimize chemical use and promote the beneficial use of resources in biosolids/sludge and methane.

Key components of the proposed upgrades include the installation of a phosphorus recovery system, which will remove phosphorus from industrial streams and convert it into a marketable fertilizer product, thereby reducing chemical usage and operating costs. Additionally, a de-ammonification system will be implemented to reduce the nitrogen load in industrial streams before reaching the secondary treatment, decreasing the reliance on chemicals like methanol.

¹⁹ Some definitions: Low-rate anaerobic reactor (LRAR). Sequencing batch reactor (SBR). Other definitions can be found here: https://www.gov.mb.ca/sd/eal/archive/2014licence.updates/2543r_1020-50.pdf.

Chemical feed systems for the sequencing batch reactors (SBRs), a wastewater treatment system, will be installed to further reduce nutrients, and tertiary filters will provide final polishing of the effluent to meet the new standards. The proposed upgrades also include:

- construction of a new anaerobic digester to increase treatment capacity and facilitate maintenance on the existing digester (different from the LRAR digester);
- addition of two new biosolids storage tanks to handle increased sludge production;
- replacement of the UV disinfection and odour control systems; and,
- establishment of a biogas facility to use biogas generated from the digesters for heat and electricity, enhancing energy efficiency.

The upgrades are based on extensive studies, pilot testing, and life cycle cost analyses to ensure low life cycle costs, environmental sustainability, reliable process performance, and minimal disruption to industrial operations. The overall cost for these upgrades was estimated in 2019 to be approximately \$113.7M. Inflationary cost escalation to today projects the upgrades to be approximately \$240M. The proposed design upgrades are based on a Design-Build procurement with AECOM; under the P3 model, design and wastewater process upgrades are unknown until the contract is awarded.

Wastewater Reuse

Wastewater reuse is an innovative approach to managing water resources by treating and reusing wastewater for various purposes, thereby reducing the demand for potable water. This concept is particularly beneficial in industrial settings where large volumes of water are required for processes such as cooling, irrigation, and boiler feed. There are numerous benefits to wastewater reuse, including:

- Conserving water by reducing the reliance on freshwater sources, which is crucial in areas facing water supply uncertainty.
- Leading to cost savings by lowering water purchase and sewer use fees.
- Protecting the environment by reducing the discharge of treated wastewater into natural water bodies, thereby minimizing the impact on aquatic ecosystems.
- Enhancing sustainability by promoting efficient water management practices and reducing the overall environmental footprint of industrial operations.

In 2023, Stantec completed a study on potential opportunities for wastewater reuse within the PBIP. The study outlined several key benefits, including water conservation, cost savings, environmental protection, and enhanced sustainability. It examined the feasibility of reusing Simplot's secondary effluent in the PBIP across three distinct concepts. The preferred concept includes a pump station designed to convey 100% of Simplot's treated effluent to industries in the PBIP, with a portion further treated using a demineralization process to supply a boiler feeder. The opinion of probable cost provided for this concept totalled approximately \$38.7M.

Although the initial capital investment is large, wastewater reuse can reduce lifecycle costs by decreasing reliance on potable water. This study demonstrates that there is industrial demand

for wastewater reuse, and implementation is feasible. Even if further treatment is required to reuse wastewater from one process, the cost to locally treat and manage industrial wastewater within the industrial park may be more economical than the cost to the user for potable water. The proposed upgrades to the WPCF and potable water demand have cost implications on existing users as well as prospective industrial developments. It is important to consider the opportunity and local demand for industrial wastewater management through reuse in a holistic manner.

There are several strategies that the City and industrial parks could adopt to further enhance the benefits of wastewater reuse. One approach is to encourage industrial users to develop on-site wastewater treatment and reuse systems. This would allow industries to retain control over their wastewater management, reducing their dependence on the WPCF. The merits of this approach include increased autonomy and potentially lower long-term costs. However, the challenges include the significant initial investment and the need for technical expertise to manage these systems effectively. Alternatively, the City could explore public-private partnerships to fund and manage wastewater reuse projects. This approach leverages the expertise and resources of private entities, potentially leading to more efficient and innovative solutions. The benefits include shared financial risk and access to specialized knowledge; however, the challenges involve coordinating between public and private stakeholders and ensuring that the interests of all parties are aligned. Finally, promoting the use of treated wastewater for non-potable applications such as irrigation, cooling, and boiler feed can further reduce the demand for potable water and enhance the overall sustainability of industrial operations. This strategy can be integrated with either of the aforementioned approaches to maximize benefits.

By adopting these strategies and leveraging the insights from this study, the City and RM should prioritize opportunities to implement wastewater reuse practices that provide significant environmental, economic, and operational benefits.

Engagement

As with the previous discussion on water treatment, the discussion around wastewater treatment is outside both the technical expertise and the decision-making level of most of the stakeholders. However, when positioned as an element of the circular economy with environmental and cost efficiency benefits, reaction is positive – though again and for most, outside their individual mandates.

There is increased interest in a potential real example if the Simplot/Azure deal is realised, where Simplot's industrial process wastewater can be used by Azure in the production of Sustainable Aviation Fuel (SAF). While this would be limited to those two companies, it will be an opportunity to test the application and could possibly kick-start other similar initiatives on a larger scale across the industrial park.

Implications for Strategy

The City is facing several issues with its wastewater management system, primarily due to the need to comply with new effluent standards set by the Province of Manitoba and the Government of Canada. The estimated cost to complete these upgrades is approximately \$240M, and provincial funding to support the project is stipulated on a P3 procurement model.

For most of the stakeholders interviewed, this issue is not within their remit or expertise. There is, therefore, a lack of familiarity and understanding as to what solutions for wastewater reuse exist within the Region and the industrial parks and how their own companies fit into these potential solutions. Additionally, any decisions made by their companies on these issues will be mostly taken at head office not at local level.

The Portage Region cannot solve this issue alone. However, it can take a lead and promote this as another aspect of the “Portage Advantage”. Organisations such as Manitoba Hydro, academic departments at universities as well as the technical expertise of the head offices of Portage’s existing industrial companies (and prospects such as Azure) are already connected to Portage region (many in the stakeholders’ group) can be consulted to help. In addition, the new federal Water Agency located in Winnipeg is a significant resource.

Recommendations

Work with water “experts” such as Manitoba Hydro, universities, the new Canada Water Agency and the technical experts at head offices of companies located in Portage region to audit the situation and scope out potential solutions and options to implement.

Seek other funding opportunities, including private entities, to support implementation of the WPCF upgrades. Explore various government grants and subsidies available for environmental and sustainability projects. Encourage local industries to collaborate on wastewater management projects through their own Corporate Social Responsibility (CSR) programs. Finally, offer Portage region as a pilot site for solutions that benefit wider uptake by allowing shared learning.

Detail the industrial wastewater characterizations and side stream outputs to more effectively present opportunities for reuse and promote sustainable water management practices.

Promote the use of treated wastewater for non-potable applications such as irrigation, cooling, and boiler feed to reduce the demand for potable water.

Continue to work with current and future industrial users – and include their owners and decision makers – to develop on-site wastewater treatment and reuse systems to reduce their dependence on the WPCF.

In the immediate term, use the proposed Simplot/Azure deal as a learning opportunity. Work with both companies to create a case study (which they can also use in their marketing) of lessons learned while not compromising any competitively sensitive information. Whether the deal is fully implemented or not, the issues raised, and requirements and barriers highlighted will prove useful in accelerating solutions in the Region and especially in its industries and industrial parks from concept to implementation.

4.2 COST SHARING MODELS

The Region’s infrastructure has benefited from a robust partnership between the City and Rural Municipality of Portage la Prairie. Maintaining existing infrastructure and planning for future expansion requires a cost-sharing mechanism that addresses the needs of both infrastructure providers and end users. This section explores various cost-sharing models and mechanisms to ensure that the appropriate infrastructure is built to support the ongoing operation and future growth of industrial lands in the Region.

Desktop Research

Industrial land development in the Region has often been cited as a model example of municipal cooperation in Manitoba. This co-operation was first demonstrated in a general tax sharing agreement, dating back roughly 25 years, that was key to attracting Simplot and other agricultural processing operations to the Region. The PBIP, located in the Rural Municipality of Portage la Prairie, had suitable land and transportation facilities but lacked appropriate services. The City of Portage la Prairie had the necessary water and wastewater capacity as well as the urban infrastructure needed to house hundreds of potential employees. The City and RM entered into a Commercial and Industrial Development Agreement in December 2000 which shared incremental property taxes generated on lands located in both municipalities.²⁰

Although the partnership between the City and Rural Municipality of Portage la Prairie has largely been successful, recent changes in infrastructure funding strategies and the need to address enhanced environmental considerations (including the circular economy) demand that new cost-sharing mechanisms be explored to develop and maintain needed infrastructure improvements.

What is a circular economy? According to IBM, the circular economy is “an economic model that aims to eliminate waste and promote sustainability through reuse and resource efficiency. Through sharing, repairing, refurbishment, remanufacturing and recycling, this model creates a closed-loop system that minimizes the amount of resource used. It also reduces the creation of waste, pollution and carbon emissions—a leading cause of climate change.”²¹ In addition to environmental benefits, building a circular economy in this context can result in decreased demand for energy, water, and wastewater in particular and the associated infrastructure. These principles can be applied to the management of industrial lands in the Region with benefits distributed to both tenants and taxpayers.

Although a thorough literature review has identified several potential means to generate revenues that finance infrastructure (identified briefly below), none addressed the topic of the circular economy specifically. The basic ‘user-pay’ principle, where whomever consumes the resource pays for it, remains a consistent theme throughout the research. The same principle applies to the secondary value of a resource (the heat energy contained within wastewater for example).

POTENTIAL REVENUE SOURCES

Potential sources of revenues identified include:

1. Dynamic (Demand) Pricing

- a. The City of Vancouver charges different rates for water during high season and low season

²⁰ A copy of the tax sharing agreement is available when the City and RM of Portage la Prairie jointly won an Association of Manitoba Municipalities (2005), municipal innovation award, link: https://www.amm.mb.ca/download/mea/MEA_winner_2005.pdf.

²¹ Source: IBM (2025). “What is a circular economy?” link <https://www.ibm.com/think/topics/circular-economy>.

- b. Hydro Quebec and various utilities across Ontario offer dynamic pricing for electricity.
- 2. A **Storm Drainage Utility** fee is being explored in Kelowna. It would employ a user pay approach. Properties with larger surface areas or more impervious surfaces causing higher runoff would be charged higher fees. Currently, storm drainage infrastructure is included in Kelowna's Development Cost Charge bylaw (21):
 - a. It is not clear whether this utility could generate more fees than a Development Cost Charge.
 - b. North Vancouver incorporated drainage into a Sewerage and Drainage Utility in 1995; and
 - c. Victoria established a stormwater utility in 2016 with fees based on the amount of impervious area, frontage, street type, and property density.
- 3. **Frontage Works Programs** collect fees from all developments within a defined area to help fund streetscape improvements on a neighbourhood level.
- 4. **Development Agreements** can fund on-site or off-site works for the development or greater community. Like Development Cost Charges in principle but can fund community-scale amenities.
- 5. A **Green Utility** could be established to 'invest in green infrastructure projects in the short term to achieve energy savings and greenhouse gas emission reductions in the long term.' Clean energy projects include solar, wind, micro hydro, and wastewater thermal energy capture projects.
 - a. Examples include renewable solar energy projects on rooftops, community centres, arenas etc.
 - i. Potential opportunities atop commercial buildings in PBIP
 - b. A wastewater heat recovery system has been integrated into the City of Richmond's Gateway Theatre heating system. The system accesses wastewater and captures thermal energy from the sewage to heat the building. The City operates an additional wastewater heat recovery system at their wastewater treatment plant.
 - c. A solar system with battery could be installed to offset electricity consumption for tenants.
- 6. **Latecomer Agreements:** In Kelowna, a Latecomer Charge is a 'charge imposed on properties which connect to, or use, excess or extended services.' Latecomer Charges entitle developers that build excess or extended services to recover these costs from properties that will benefit from these services. Excess services would include upsizing of infrastructure beyond what is required ... whereas extended services are infrastructure extensions that will benefit future development along the extension. The City administers the Agreement, collects charges from properties as they develop, and passes those

charges on to the developer who originally bore the costs. Latecomer agreements expire after 15 years.

7. In Edmonton, City Council adopted an **Industrial Infrastructure Cost Sharing Policy** intended to 'assist in financing large municipal infrastructure in industrial areas, and to ultimately encourage the servicing and development of industrial land which provides an increased tax assessment base, employment, and other growth.' Front End Developers are entitled to recover their over-expenditures through Development Levies collected within a specific area over a specific period.
8. **Public-Private Partnerships (P3s)**.²² The OECD defines public-private partnerships as "long term contractual arrangements between the government and a private partner whereby the latter delivers and funds public services using a capital asset, sharing the associated risks".^{23, 24} Similarly, a P3 "typically involves a private entity financing, constructing, or managing a project in return for a promised stream of payments directly from government or indirectly from users over the projected life of the project or some other specified period of time."^{25, 26}
9. **Carbon Taxes** can be used to discourage the production of greenhouse gases and support environmentally friendly alternatives.
10. A **Commuter Tax**, although not used in Canada, can be used to fund infrastructure used by non-residents.
11. **Development Cost Charges (DCC)** or **Local Improvement Charges** are used to recover municipal infrastructure costs
12. **Fuel Tax Transfers** (such as Building Canada's Gas Tax Fund) support capital investments in environmentally sustainable municipal infrastructure to improve water and air quality and reduce greenhouse gas emissions. Eligible investments include water, wastewater, solid waste, public transit, community energy systems, and local roads and bridges.²⁷

ISSUES AND OPPORTUNITIES

In terms of developing a potential cost-sharing mechanism, the following issues should be considered:

²² The required capital upgrade to the City of Portage la Prairie's water pollution control facility is proceeding under a design-build-finance-operate-maintain (DBFOM) model. The DBFOM framework has additional challenges compared to a design-build framework, so the City of Portage la Prairie is reconsidering whether DBFOM is a viable option for this project.

²³ OECD (2012), Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships, <https://www.oecd.org/governance/budgeting/PPP-Recommendation.pdf>.

²⁴ Wikipedia, link https://en.wikipedia.org/wiki/Public-private_partnership.

²⁵ Vining, Aidan R.; Weimer, David L. (2011). Policy Analysis, 5th edition, Pearson, Inc. p. 309.

²⁶ PPPs have many different flavours, with some appropriate for a given situation, while others are not appropriate.

²⁷ Housing, Infrastructure and Communities Canada (2008). "Building Canada's Gas Tax Fund," Link https://www.infrastructure.gc.ca/site/alt-format/pdf/gtf-fte/Infrastructure_Canada_ENG.pdf.

1. There is financial risk associated with building infrastructure, particularly if it is industry- or tenant-specific. The demand of an individual tenant can be significant and may require specific infrastructure to be installed to meet their needs.
2. Even if the demand is not industry-specific, such as water or wastewater, the demand may be considerable and create risk due to the sheer volume of the requirement.
3. Who should bear the risk of building new infrastructure? Case study research suggests that there is no consistent formula and that every situation must be considered individually. Tenants are expected to contribute to the infrastructure they are using (particularly if they are industry-specific). Ideally the risk of their financial contribution should be addressed through a financial guarantee such as a letter of credit or performance bond. Consultation with tenants however suggests that many tenants are reluctant to make a commitment to infrastructure that potentially extends beyond their operation or tenancy.
4. Research suggests that risk associated with water and wastewater should be borne by the public sector, while risk associated with industry-specific infrastructure should be borne by the tenant or association of tenants. However, public sector support for industry-specific infrastructure can help build an industry cluster which in turn spreads the risk across a wider grouping of tenants.
5. A P3 model is being used to implement upgrades planned for wastewater infrastructure. There is no consensus as to whether a P3 has proven to be the most appropriate financing and ownership model for these improvements.

Engagement

From the engagement interviews, companies showed no inclination to cost-share infrastructure development and maintenance for large infrastructure such as wastewater treatment plants or medium infrastructure such as anaerobic digestors or warehouses. Although owners or ultimate decision-makers were not interviewed at this level, those we spoke to mentioned financial risk and a possible loss of autonomy as barriers to sharing infrastructure.

Provincial economic development staff echoed this sentiment, pointing out that implementing cost-sharing of this type requires tax structures that currently do not exist in Manitoba or across Canada. The current economic climate does not help. For large capital items especially, companies want to control their costs and, as mentioned by one of the current stakeholders, “ensure we are holding all our own cards”. Several interviewees also pointed out that each of their operations is unique, limiting opportunities for sharing like-for-like infrastructure.

However, beyond the large initial infrastructure and maintenance issues, there are opportunities and possible current instances of company-to-company infrastructure sharing in terms of by-products. The Simplot/Azure wastewater-into-airline-fuel collaboration, if it happens, is essentially a cost-sharing model. Azure will use Simplot’s unused wastewater, saving Azure money by not having to build waste treatment infrastructure itself. Simplot can monetize a by-product the company is not otherwise benefitting from. The financial deal with Simplot was not disclosed, but it is an example of circularity, and it benefits both parties.

Implications for Strategy

Sharing and cost-sharing large industrial infrastructure and maintenance is unlikely to be a reality for Portage soon. As a concept, it is too big, too complex and too expensive. Additionally, given the lack of examples and case studies to show proof of concept, it is a very hard sell.

Looking ahead – and outside the scope of this study – there may be opportunities for Portage region to design and develop within a master development plan, further industrial parks with some degree of shared infrastructure built in at the outset. This would then form part of the site's concept and value proposition and include crucial questions such as "what is the overall goal for this industrial park and industrial development in this Region?", "what uses do we want to see?" and "what criteria do we want to mandate for usage (including but not limited to water usage and reuse)?" Land and development costs would reflect that ethos and positioning and could be an industrial development differentiator for Portage. The principles of eco-industrial parks discussed in Section 6.2 provide some guidelines as to how that movement could begin.

Although there is not an immediate opportunity to cost-share infrastructure development and maintenance, significant opportunities exist in the Portage Region in by-product circularity, see Section 6.1.

Recommendations

In the short to medium term:

Focus on easier-to-share products, services and processes to develop opportunities for circularity, such as workforce development and training described above (Section 2.3).

Additionally, Portage region has a significant opportunity to leverage its many by-products to create opportunities for cost sharing within a circular economy (Section 6.1 below).

In the medium to longer-term:

Develop a strategy, outlined in a Master Development Plan, for all industrial lands in both municipalities that identifies and confirms the vision, opportunity, and direction for future industrial growth in the Region. The strategy should also identify the infrastructure needed to support that growth, including industry-specific infrastructure.

Develop a Governance Strategy to complement the Master Development Plan. Business Parks in both the City and RM could be governed by a stand-alone not-for-profit organization with representation from the City, RM, and tenants. This organization could own land and build infrastructure.

Consider integrating relevant elements of the eco-industrial park concept. While not all will be workable, some aspects of land planning and resources use can be the basis for designing a circular economy and shared cost models within the individual parks.

Explore a regional strategy for enhancing water and wastewater infrastructure, beyond the City and Rural Municipality of Portage la Prairie. This strategy can build upon recent initiatives such as the Red-Seine-Rat Wastewater Co-operative and the CRWC, aiming to mitigate risk by distributing it through a greater population. Additionally, operational efficiencies are likely to be achieved through increased economies of scale.

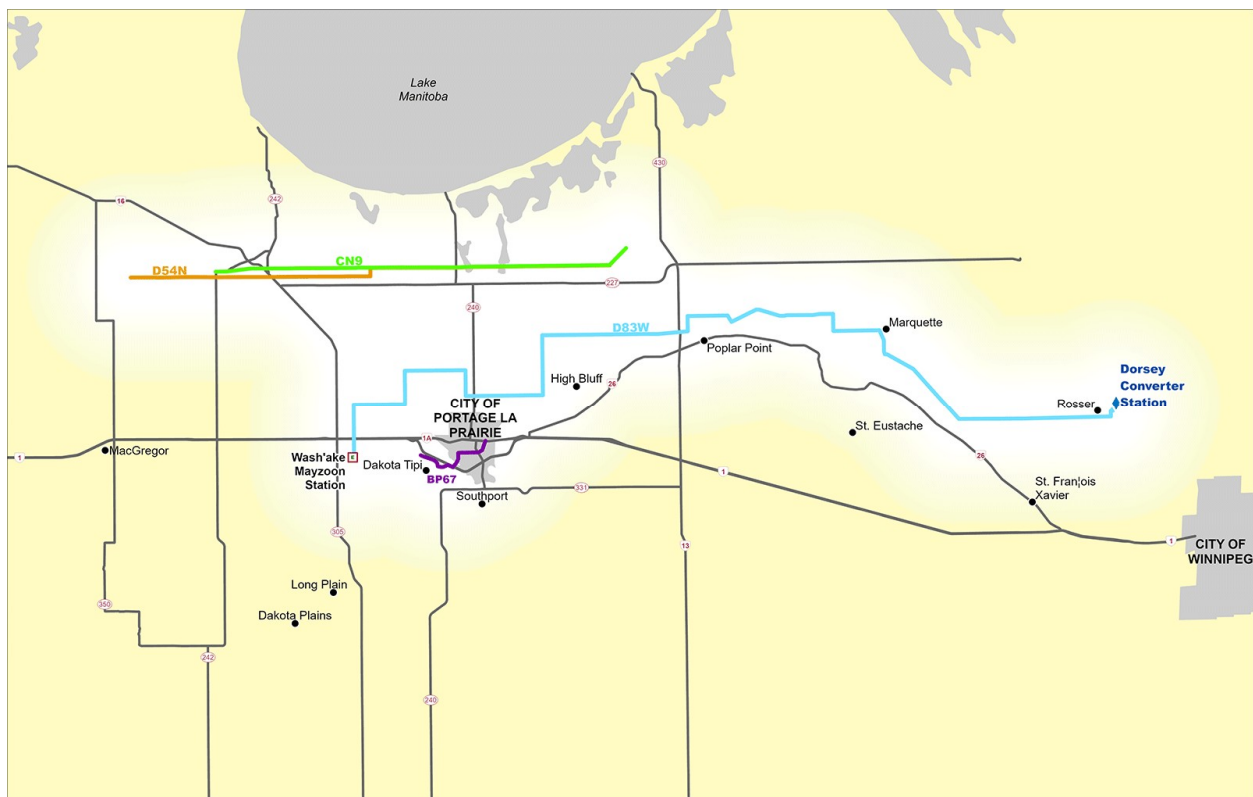
5.0 MANITOBA HYDRO RESOURCE ANALYSIS

This section evaluates the current and future infrastructure in the Region, focusing on developments in electricity infrastructure and the potential for renewable natural gas (RNG) expansion. It highlights key projects, funding, and recommendations to enhance capacity and sustainability in the Region.

5.1 ELECTRICITY AND NATURAL GAS INFRASTRUCTURE ASSESSMENT

Desktop Research: Portage Area Electricity

Figure 1: Portage Region recent transmission projects



A powerful storm hit the Portage la Prairie Region in October 2019, damaging hundreds of kilometers of electrical transmission lines. Thus, significant restoration work was undertaken in the Region, including the transmission lines: Parkdale-Neepawa (CN9), Dorsey – Neepawa (D54N), and Brandon – Portage la Prairie (BP6/BP7).²⁸

²⁸ See <https://www.hydro.mb.ca/corporate/operations/transmission/#portage>

Manitoba Hydro's Portage Area Capacity Enhancement (PACE) project has added significant transmission level (230 kV) capacity to the Portage la Prairie Region. The PACE project provides a second 230 kV transmission line to the Portage Region, along with additional station capacity for serving new load in the region. Manitoba Hydro has indicated that this addition makes the Portage Region one of the better locations within the Province for accommodating electricity needs associated with new large or expanding industrial clients. Manitoba Hydro has indicated that it can reasonably serve several large industrial clients in the 5 to 25 MW range as a direct result of these additions. Manitoba Hydro has indicated that there are several inquiries (prospects) in the range of 5 to 20 MW considering the Portage Region for this reason. The added transmission capacity is also expected to provide sufficient capacity for added distribution level (25 kV) substations that would be required to serve smaller industrial, commercial, and residential developments that may be planned for the surrounding area.

At its recent Wind Symposium, held on March 19th, 2025, Manitoba Hydro identified fourteen transmission station locations across southern and south-western Manitoba for their potential to integrate new wind generation in the near-term. Manitoba Hydro's planning criteria for this 600 MW call for wind power (the largest single project being 200 MW) will require the interconnection point for a wind project to be within 20 km of an identified transmission station. The new Wash'ake Mayzoon transmission station located west of Portage la Prairie was noted as having the transmission capability to connect up to 331 MW, making it an ideal point for interconnecting new wind power project(s).

Due to concerns about reliability and potential for lower bulk power rates, proponents for large industrial projects often seek a transmission level (230 kV) connection for planned new projects. Costs for transmission interconnections are estimated at approximately \$1.25 million/km in Manitoba Hydro's wind symposium handout, while termination costs from a transmission line to plant are estimated at approximately \$4.5 million.²⁹

Manitoba Hydro named the PACE project several times in its 2023/24 annual report.³⁰ The Deputy Prime Minister of Canada at the time announced funding of \$185 million for two clean energy projects in November 2023, including PACE.³¹ PACE will see the construction of a new transmission line in the Portage la Prairie area for Manitoba Hydro. Manitoba's provincial government noted at the same announcement that the PACE project is projected to cost \$161.6 million. The federal government has committed \$70.9 million, and the Manitoba government has committed \$90.6 million.³²

²⁹ Given construction inflation, these prices are likely to rise over time.

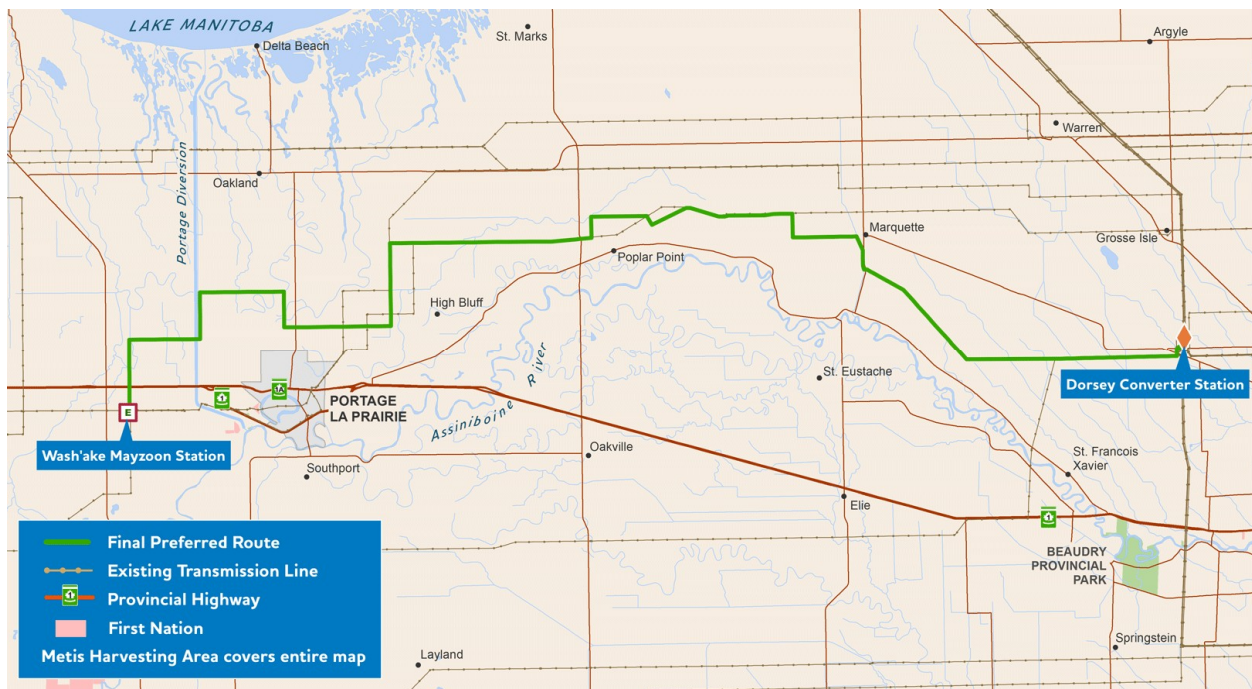
³⁰ Manitoba Hydro (2024). "73rd Annual report, for 2023/24." https://www.hydro.mb.ca/docs/corporate/annual_report_2023_24.pdf.

³¹ Department of Finance (November 9, 2023). "Remarks by the Deputy Prime Minister announcing funding for clean energy projects in Manitoba," <https://www.canada.ca/en/department-finance/news/2023/11/remarks-by-the-deputy-prime-minister-announcing-funding-for-clean-energy-projects-in-manitoba.html>.

³² Manitoba Government (November 9, 2023). "Governments of Canada and Manitoba Invest Nearly \$500 Million to Deliver Clean, Reliable, and Affordable Electricity to Manitobans," <https://news.gov.mb.ca/news/index.html?item=60637>.

Manitoba Hydro noted the work on PACE follows on the restoration work required due to the October 2019 storm.³³ The PACE project includes building the Wash'ake Mayzoon station, and a 230 kV transmission line (D83W) from the Dorsey Converter Station to Wash'ake Mayzoon Station.

Figure 2: Wash'ake Mayzoon station and D83 230 kV transmission line



The Wash'ake Mayzoon station received its development license, and construction was to have begun in the spring of 2023.³⁴ The expectation is that Wash'ake Mayzoon station should be completed in May 2025.³⁵ Construction on the 230-kV transmission line (D83W) is projected to begin in 2025, conditional on regulatory approval.³⁶ The overall project is meant to better service Portage area customers and meet future electricity demand.

Desktop Research: Natural Gas

The Trans Canada Pipeline (TCP) crosses the RM of Portage la Prairie to the South of the City of Portage la Prairie. Centra Gas's Transmission & Major Distribution system draws off the TCP

³³ Manitoba Hydro (accessed October 2024). "Portage la Prairie area restoration and expansion," <https://www.hydro.mb.ca/corporate/operations/transmission/#portage>.

³⁴ Manitoba Hydro (November 2021). "Wash'ake Station Map," accessed October 2024, https://www.hydro.mb.ca/docs/projects/portage-la-prairie/pace_new_station_map.pdf.

³⁵ Abiola Odotola (January 2024). "Brandon on track for 100 MW energy boost," Brandon Sun, link <https://www.brandonsun.com/business/2025/01/04/brandon-on-track-for-100-mw-energy-boost>.

³⁶ Manitoba Hydro (November 2022). "D83W final preferred route map," accessed October 2024, https://www.hydro.mb.ca/docs/projects/portage-la-prairie/d83w_final_preferred_route_map.pdf

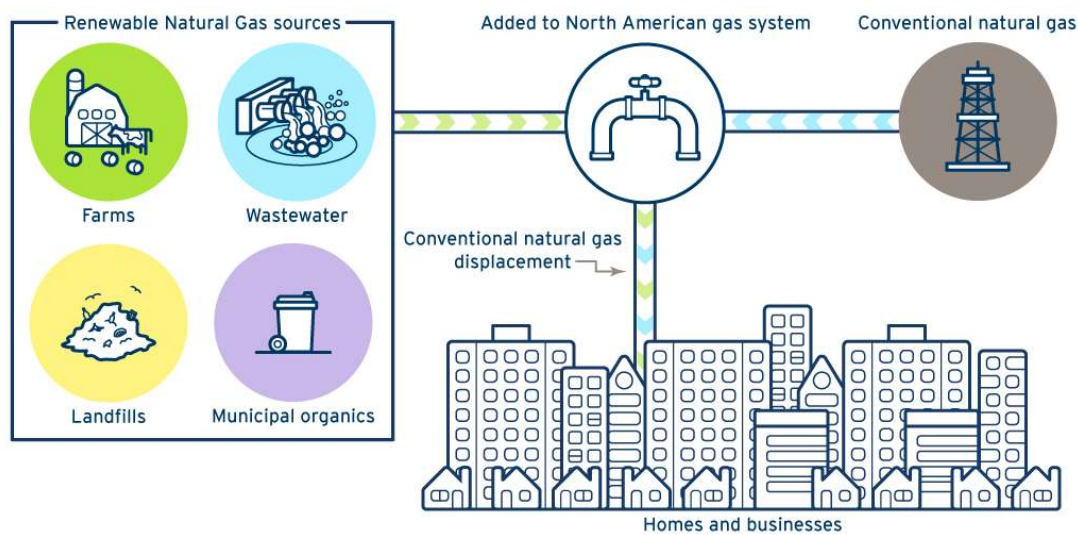
system and goes into both the City of Portage la Prairie and the RM of Portage la Prairie on the West side of the city. In the City, and to the West, South and East of the City, Centra runs its local distribution system. The City of Portage la Prairie and nearby is reasonably well supplied with natural gas from TCP and the Centra Gas pipelines to the City's distribution system.

Countries and organizations around the world are attempting to reduce their carbon footprint to combat climate change. One way to do that is to displace natural gas from fossil fuels with renewable natural gas.

Renewable Natural Gas

The role of RNG? ³⁷ RNG is made from farm, wastewater, landfills and municipal organics waste (**Figure 3**); see Fortis (2023).

Figure 3: RNG role in natural gas system



RNG is captured, cleaned, and blended into the natural gas system with fossil fuel natural gas. Given what RNG is made from, this can mean local RNG can displace a portion of fossil NG.³⁸ So long as its carbon footprint is lower than fossil natural gas, then RNG would cut the CO₂-equivalent output of natural gas.³⁹

³⁷ See Fortis (2023). link <https://www.fortisbc.com/services/sustainable-energy-options/renewable-natural-gas/so-what-is-renewable-natural-gas-anyway>.

³⁸ CER (2023). "Market Snapshot: Two Decades of Growth in Renewable Natural Gas in Canada," link: <https://www.cer-rec.qc.ca/en/data-analysis/energy-markets/market-snapshots/2023/market-snapshot-two-decades-growth-renewable-natural-gas-canada.html>

³⁹ See: Carey, J. J. (2023). 'While some tout "renewable natural gas" to mitigate climate change, others see a false solution.' Proceedings of the National Academy of Sciences, 120(28). <https://doi.org/10.1073/pnas.2309976120>

There is scope for RNG expansion, but supply potential has limits. The Canadian Biogas Association (CBA) (2023)⁴⁰ noted that Canada is using only 14 per cent of its easily accessible potential for energy production. As of 2021, Manitoba represented only 3 per cent of Canada's operational biogas facilities.

The CBA (2019) report describes many aspects of anaerobic digesters in the Canadian context. If the municipalities or firms wish to pursue an anaerobic digester plant for the Region, then this report would be helpful to read. Writers of the report and members of the CBA are obvious ones to reach out to if pursuing the design and building of such a plant.⁴¹

Note that the Simplot plant in the Region has an anaerobic digester on site as part of its wastewater treatment project.⁴² Other potential suppliers and users can explore the sizing of feedstocks that are locally abundant in the region and are similar enough not to require excessive capital investment to accommodate. Manitoba agriculture is developing three related databases that could be helpful in identifying some of the feedstocks for anaerobic digesters.

Engagement

Discussion with stakeholders was limited on the topic of energy needs and environmental sustainability. Other than Manitoba Hydro and City staff, stakeholders had no expertise in this area.

One area of possible cost-sharing identified in the RFP was some form of joint or regional energy study which would obviate the need for each company to commission its own study. In discussions, Manitoba Hydro noted that regional studies would be possible, but, very often, each company needs its own study to examine its specific elements and energy needs.

However, Manitoba Hydro also noted that there are opportunities, especially when designing and developing the industrial parks, to save money and resources by leveraging procedures such as a "main trench agreement" where multiple utility lines are installed at one time when the trench is open.

Implications for Strategy

In looking at large infrastructure and energy needs, some considerations will be shared across the full industrial park – and indeed Portage's two current and possible future parks. Other considerations will be specific to individual plants, offices and operations. In both cases and to maximize the benefits of development including but not limited to energy considerations (for example roads, rail access), the Region would be wise to design and develop each industrial park as a whole and from the outset or at a major juncture in expansion or redevelopment.

⁴⁰ Canadian Biogas Association (October 2023) "Canadian Biogas & RNG Market Summary Report," link: https://www.biogasassociation.ca/images/uploads/documents/2023/resources/CBA_Market_Summary_2023.pdf, see page 9, figure 6.

⁴¹ Canadian Biogas Association (2019). "Canadian Anaerobic Digestion Guideline: Food and Organic Waste Processing Facilities," link https://biogasassociation.ca/resources/page/canadian_anaerobic_digestion_guideline

⁴² Evoqua (2021). "Simplot Partners with Evoqua on Wastewater Treatment Projects," LINK <https://www.xylem.com/en-us/support/case-studies-white-papers/simplot-partners-with-evoqua-on-wastewater-treatment-projects/>.

This would require a fundamental, overarching vision and decisions as to what the Region wants to do with the land, how the industrial site could be developed, what uses it wants to see populating the site, what capacity implications this involves and what and who would constitute the governance structure. This aligns with the idea of a Master Development Plan discussed in the previous section.

As well as realising benefits and savings in terms of cost, building efficiencies, resources and timelines, it would also be a marketing and investment attraction benefit. Investors would be attracted to a location with a strong, clear, focused and differentiated positioning that would be more “move in ready” than simply a brownfield site. Equally, Portage region would benefit by having a clear proposition as a basis with which to specify and target what types of uses it is looking for and how it can support such businesses.

Recommendations

Conduct a regional power study to understand how the added power supply could potentially be used to meet new regional load growth demand over a ten- or twenty-year period.

Understanding the industry sectors that the Region aims to attract, and the scale of the plants will be the most important component of understanding potential load growth. The load demand growth analysis should also consider increased demand from institutions such as the new Portage la Prairie District General Hospital,⁴³ expansion at Southport due to the Future Aircrew Training Program,⁴⁴ potential industrial projects, and planned net new housing.

Develop a Vision and a Master Plan for the development of Portage’s Industrial lands which includes allied, sub-plans for each existing industrial park. Use this thinking as the template for developing additional industrial parks as they are developed.

Work with utilities and major infrastructure suppliers and users to coordinate development and implementation as the parks are built out. This would take advantage of conventions such as main trench agreements, enabling utilities to be installed simultaneously.

Leverage the vision and features of the Master Planned industrial Park in PRED’s Investment Attraction marketing and activities.

⁴³ See Portage Online (2024). “Portage’s new hospital on track for completion by 2026,” link <https://portageonline.com/articles/portages-new-hospital-on-track-for-completion-by-2026>.

⁴⁴ See Portage Online (2024). “Massive contract means strong future for Southport,” link <https://portageonline.com/articles/massive-contract-means-strong-future-for-southport>.

6.0 RESOURCE OPTIMIZATION AND ENVIRONMENTAL SUSTAINABILITY

In the agriculture and agrifood sectors, resource optimization is crucial for adapting supply chains to meet evolving demands, especially considering climate change and waste concerns. This section explores the implementation of circular supply chains, where waste products are repurposed or sold to new buyers, thereby reducing waste and potentially increasing revenue. It also examines the application of these practices in the Region and highlights the adoption of and interest in circular business models. Additionally, the concept of eco-industrial parks is evaluated for potential benefits and challenges for the Region.

The Resource Optimization and Environmental Sustainability section is divided into two subsections:

Section 6.1 – Circular Economic Strategies: This subsection outlines strategies for implementing circular economic principles in the Portage Region, focusing on utilizing industrial by-products and supporting circular business models to enhance sustainability and resource efficiency.

Section 6.2 – Eco-Industrial Park Evaluation: This subsection evaluates the concept of eco-industrial parks (EIPs) and their potential benefits and challenges for the Portage Region, providing strategic recommendations for integrating EIP principles into local industrial parks.

6.1 CIRCULAR ECONOMIC STRATEGIES

6.1.1 Circular Supply Chains / Circular Business Model Support Strategy

Desktop Research

When firms choose to build a processing plant for crops, choosing a location of a food processing plant falls into three categories according to Prentice (2019).⁴⁵ These are Supply-Oriented Firms (Weight/Volume Losing), Demand-Oriented Firms (Weight/Volume Gaining), and Footloose Firms (Neither Gaining/Nor Losing).

Some Manitoba agrifood processing plants from the Portage la Prairie region include potatoes (e.g., McCain Foods and Simplot), peas (e.g., Roquette, and Nutri-Pea Limited), and oats (e.g., Richardson Milling). Other Manitoba examples include canola crush plants (e.g., Bunge in Altona, MB), malt houses (e.g., Malteurop in Winnipeg, MB), grain alcohol products (e.g., Diageo Whiskey in Gimli, MB), and non-food ethanol made from corn (e.g., Cenovus Energy in Minnedosa, MB). When firms decide to build such a plant, they expect to see changing market conditions and regulations over a period of decades.

⁴⁵ Barry Prentice (2019). "Canola Crushing: Location of a Footloose Industry," presented at 54th Annual Meetings of the Canadian Transportation Research Forum, May 26 - 29, 2019, link: <https://ctrf.ca/wp-content/uploads/2022/08/201943Prentice.pdf>, Table 1, page 3.

While the food processing plants have key inputs, and a primary product, finding a home for co-products is ongoing. Finding new uses or buyers for what currently is a waste product under a circular supply chain model is part of this always evolving process. Gonçalves, and Maximo (2023) layout how the circular economy theory can be applied to food processing and food waste management.⁴⁶ Food chain evaluation demands are highlighted in the three main circular economy principles:

- i. *"Preserving, restoring and enhancing natural capital,*
- ii. *Optimizing the yields of the production system by recirculating the products, materials and components, and*
- iii. *Design productive systems considering the mitigation of their negative externalities."*⁴⁷

These three principles are thought to be reachable by industry and business if combined with six actions: Regenerate, Share, Optimize, Loop, Virtualize and Exchange, or the ReSOLVE framework. We highlight a few examples most relevant to the Portage la Prairie Region below.

- **Share:** For small scale producers, capital costs are a relevant bottleneck, and the sharing of the same equipment and technologies can allow small producers to scale up.⁴⁸ An existing example is Manitoba Agriculture's Food Development Centre, located in the MIP.⁴⁹
- **Loop:** Examples can include: (a) reusing outputs in a closed- or open-loop system. (b) Producing renewable energy and bio-products from food waste, wastewater, and (c) using waste cooking oils to make soaps, biofuels and polymers. Several firms in the Region have built projects that reuse outputs (wastewater processing, anerobic digester), while several others are currently proposed (sustainable aviation fuel, renewable natural gas).
- **Exchange:** Replacing non-renewable materials, technologies and services with renewable, advanced, and more efficient technologies and services.⁵⁰
- **Regenerate, Optimize and Virtualize:** these have suggestions that may be relevant in the medium to longer term.

While it is often the case that firms modify their business model to take on circularity, there are many different models for doing this (Donner and de Vries 2023).⁵¹ This includes circular business models, place-based social food networks, new logistics or online food distribution

⁴⁶ See Gonçalves, and Maximo (2023). "Circular Economy in the Food Chain: Production, Processing, and Waste Management," Circular Economy and Sustainability, 3:1405 – 1423, link: DOI:[10.1007/s43615-022-00243-0](https://doi.org/10.1007/s43615-022-00243-0).

⁴⁷ Ibid, page 1413.

⁴⁸ Ibid, page 1415.

⁴⁹ Food Development Centre (accessed 2025). Link: <https://www.gov.mb.ca/agriculture/food-and-ag-processing/starting-a-food-business/food-development-centre/index.html>.

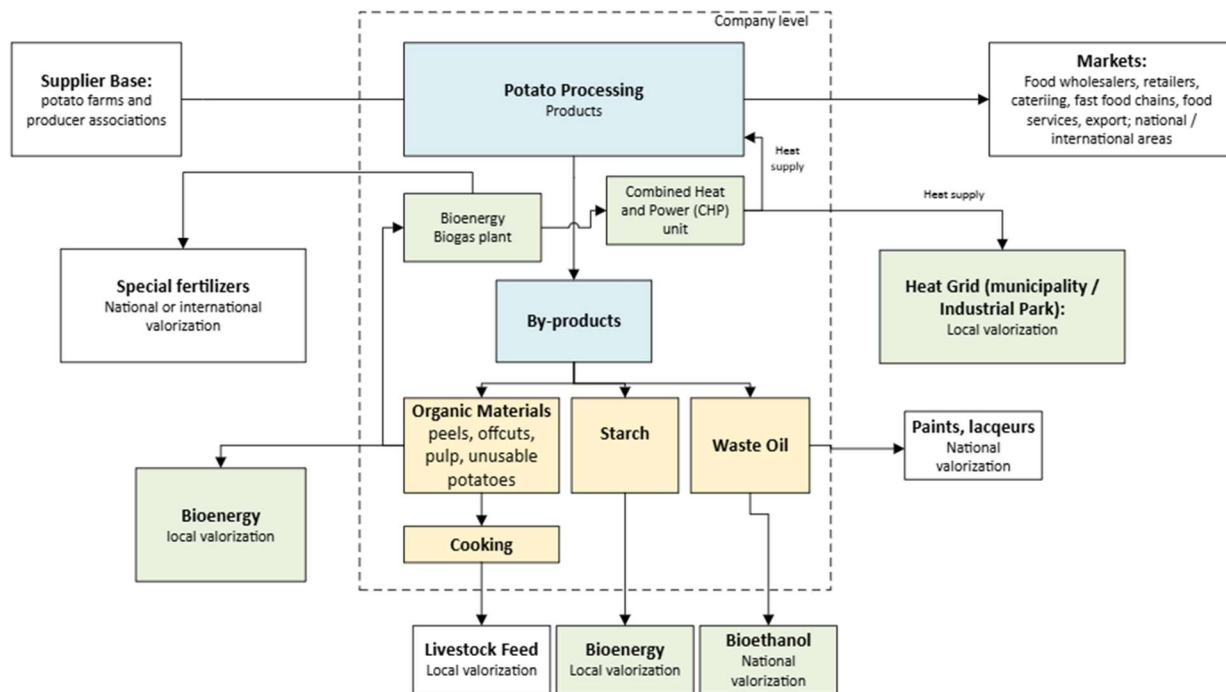
⁵⁰ Gonçalves, and Maximo (2023), page 1418.

⁵¹ Donner, M. and de Vries, H. (2023). "Business models for sustainable food systems: a typology based on a literature review," Volume 7, Frontiers in Sustainable Food Systems," link: <https://doi.org/10.3389/fsufs.2023.1160097>.

business models, disruptive, sufficiency, inclusive and family business models, the focal company and regional food hubs.

Klein and Nier (2022)⁵² look at a case of a circular business model and practices in the German potato industry. **Figure 4** is a blend of Klein and Nier (2022)'s Figures 3 and 4 on page 2245. Similar circular economy business models (CEBM) can be sketched for each crop and value chain, such as peas and oats.

Figure 4: Circular economy business models



Portage la Prairie has several focus companies and acts as a regional food hub in conjunction with the FDC and other supporting institutions. There are typically many opportunities for firms to add processes internally to transform waste streams into useful products, either directly in the firm,⁵³ or by finding a new buyer for what had been a waste stream. At times, this may be an existing firm's nearby plant, or it may be a new to the area plant (it could be a local firm, or a foreign firm that simply did not have a plant in Manitoba before).

⁵² Klein, Oliver & Nier, Stefan & Tamásy, Christine. (2022). Circular agri-food economies: business models and practices in the potato industry. Sustainability Science. 17(6). DOI: [10.1007/s11625-022-01106-1](https://doi.org/10.1007/s11625-022-01106-1).

⁵³ A case noted by [EVOQUA](#) of using waste to reduce other costs: Simplot had completed an anaerobic reactor and aeration tank at their Portage la Prairie region plant, which helps offset natural gas expenses, with further waste helping irrigate and fertilize nearby agricultural land. There may be other cases that could work to produce similar natural gas substitutes for heating.

Engagement

The circular economy was a key lens through which this study conducted Engagement and developed Recommendations. A key finding during the Engagement phase was that while stakeholders were generally in favour of the idea of circular economy when presented to them, it was not a topic they had explored or felt they understood. Having said that, it was an idea met with curiosity in interviews and was the top area of stated interest of participants in the workshop. There was a definite indication of wanting to know more.

One aspect which resonated was by-products and how utilizing them in some way could deliver mutual benefit in terms of cost, resource and environmental efficiencies. And significant opportunities exist. Every industrial plant interviewed has some type of by-product, such as oat husks, potato starch or biogas. Currently, no circular business models exist in the industrial parks, which limits imagination as to what could be. However, that could soon change as Simplot and Azure have plans in principle to use Simplot's wastewater as Azure's feedstock to produce SAF. If this and other opportunities are leveraged, many of the Region's by-products could provide the base materials to establish new businesses to collect, process or sell this waste. A key current barrier gap was identified as lack of data – not only facts and statistics but genuine examples of possibilities.

Our Engagement outreach included Manitoba Agriculture which has developed a Bio-Economy Action Plan and a By-Product Directory which is taking a province-wide view of opportunities. They participated in our stakeholder workshop and generated significant interest particularly in the By-product Directory. They are currently seeking a pilot opportunity, and this study has proposed the pilot location be the Portage Region. Discussions are in progress.

In creating opportunities for a bioeconomy based around agrifood, Portage has the advantage of having a leading R&D facility, the FDC, located within the MIP. The FDC works with industry including on the Bio-Economy Action Plan to develop opportunities across the agrifood spectrum. They also attended the stakeholder workshop and are keen to be involved in developing further opportunities.

Implications for Strategy

Opportunities exist in the Portage Region to leverage its collaborative stakeholder networks to maximize the use of its many by-products. Additionally, Portage can explore ways to recycle, reuse and repurpose these by-products with the help of Manitoba Agriculture with its Bio-Economy Action Plan and with the FDC based in MIP.

There is also an immediate opportunity to explore with Manitoba Agriculture a Portage-based pilot project which can benefit both the Action Plan and Portage industries. It can kick-start initiatives among local companies which can gain momentum and excite others to think and act in a circular manner. Additionally, it can further differentiate Portage, support positioning as a forward-thinking industrial location and add to its investment attraction efforts.

Recommendations

Work with Manitoba Agriculture, FDC and participating Stakeholders to position Portage region as the pilot project in furthering the Bio-Economy Action Plan. Conduct a detailed by-product audit – what by-product does each participating company have, what quantity, how is it available, with what frequency, what do they do with it now.

Develop the Portage region “chapter” of Manitoba Agriculture’s By-product Directory. Encourage Stakeholder companies and vetted prospects to participate and be listed.

Use this as a basis for exploring opportunities to share, reuse and repurpose - and monetize - its industrial by-products as part of a circular economy system. This can be the basis of new companies which could collect, process and market the materials which would otherwise be wasted.

Leverage the Portage region /Manitoba Agriculture / FDC pilot (see above) to work with local companies to identify and conceptualise workable by-product solutions. This should include both barriers and opportunities to monetize the solution both by making money (by selling the by-product) and saving money (by avoiding the need for additional costs such as infrastructure).

6.2 ECO-INDUSTRIAL PARK EVALUATION

Desktop Research

EIPs are dedicated areas for industrial use designed to support sustainable industrial development by encouraging collaboration among businesses to minimize environmental impacts and enhance resource efficiency. These parks integrate social, economic and environmental factors into their planning, management and operations. By grouping businesses, EIPs promote efficiency, reduce pollution and support socio-economic development.

EIPs also drive benefits like improved resource management, cost-effectiveness and better community cohesion. They offer strategic advantages, such as enhanced competitiveness, reduced exposure to resource risks and improved stakeholder relationships.

Implementing EIPs has various challenges, including both internal and external barriers related to technology, management and cost. Few fully developed EIPs exist due to issues such as the high cost of eco-efficient technologies, the lack of competitively priced resources like water and energy, and disruptions caused by innovations. Retrofitting existing parks is especially challenging due to the integration of sustainable processes into older infrastructures.

Additionally, the absence of clear guidelines and international benchmarks makes it difficult to distinguish EIPs from traditional industrial parks and hinders effective communication of their benefits.

Engagement

Current stakeholders are not familiar with the concept of EIPs. When described, several suggested that developing one was beyond the scope of individual companies and would likely be something the owner or developer of the land would design in at the outset. They could see the link of the environmental aspects within the circular economy. However, it was not clear to them

how the social / employment aspects such as complaints and grievance procedures fit within the “eco” positioning.

Implications for Strategy

At its full deployment, an EIP includes collective across-the-park business practices outside the scope of what Portage region is likely to do, such as institute common complaints and grievance processes. However, as it looks to upgrade or implement new technologies in PBIP and MIP, the elements of EIPs can provide Portage with guidelines around the circular economy and environmental sustainability. As there is no EIP governing body or official designation criteria, Portage can pick and choose to adopt those elements which best suit its circumstances and benefit its industrial parks.

Recommendations

Until it becomes a regulated designation, there is little upside to attempting to become an EIP. It will cost time, money and resources which are unlikely to pay off in terms of new investment or otherwise.

However, taken individually, many of the guidelines included in the EIP framework overlap with design and circularity guidelines (e.g., wastewater) that Portage is likely to enact and are often mandates which companies, prospects and investors are now demanding at their sites.

In that capacity, we recommend reviewing the EIP analysis (Appendix D) to determine which specific guidelines and actions are relevant, beneficial and implementable for PBIP and MIP, and any of the Region’s future industrial parks (See Appendix C for a detailed account of EIPs).

When relevant guidelines are actioned, include them in the environmental profile of the industrial park either as proof of mandated compliance issues or as differentiators to demonstrate Portage region’s progressive attitudes and practices.

7.0 FOREIGN DIRECT INVESTMENT (FDI) ATTRACTION AND MARKETING PLAN

The Portage Region, renowned for its robust agrifood cluster, is strategically positioned to meet the rising global demand, especially for plant protein. This section outlines the Region's strategic approach to investment promotion and FDI, highlighting its strengths in agrifood production and the need to diversify export markets due to changing global trade dynamics, particularly the new and evolving tariff regime by the United States. It emphasizes the importance of adopting a circular economy to enhance Portage's competitive edge in attracting global investors. This section also provides an overview of the regional industrial database, created using PRED's sales sheets and local client information that will be used for better tracking of FDI and other opportunities.

The FDI Attraction and Marketing Plan section is divided into two subsections:

Section 7.1 –Investment Promotion: This subsection provides an overview of the Region's strategic approach to investment promotion through its marketing plan and FDI roadmap, with key inputs for marketing plan improvements to maximize the impact of its outreach.

Section 7.2 – Regional Industrial Database: This subsection provides an overview of the regional industrial database.

7.1 FDI ATTRACTION AND MARKETING

7.1.1 Investment promotion

Desktop Research

As a major agrifood cluster with strengths in key sectors of primary production, food processing, agricultural value-add, and transport and logistics, the Portage Region is well positioned to maximize opportunities to fulfill growing global demand, particularly for plant protein. Its award-winning economic development and investment attraction process centered around an easy-to-navigate "concierge service" for streamlining investment onboarding, and stakeholder and prospect networking has given the Region a competitive edge in attracting – and landing – inward investment.

However successful in the past, the Region is now looking ahead and addressing a shift in its pursuit particularly of FDI. At the time of writing, there is a fundamental shift in the world trade and investment order – notably the tariff regime instituted by the United States, Canada's largest trading partner and main customer for Portage's processed agrifood. Currently, upwards of 95 per cent of Portage's food production is sold to the US. Even apart from the current tariff situation, such overreliance on a single market is not in the interests of either Portage or its processing companies. To address this, Portage region is targeting several European and Asian markets, both as export markets and candidates for inbound FDI.

This is taking place alongside Portage region's move to a circular economy. This gives Portage region a stronger proposition in an economic and environmental value system that investors across the globe are seeking even in the face of tariffs. This helps Portage region leverage its values along with its positioning and key sectors to create an even stronger competitive offer.

Engagement

Stakeholder interest and involvement with investment attraction is context dependent. For existing companies, it is about attracting complementary uses to the existing parks including filling gaps such as childcare and leveraging opportunities such as for local contractors both as mentioned above. For prospects which are themselves potential investors, it was about the process of Portage region's investment attraction itself - potential opportunities, the offer and likely competition. For Region officials, the issue was how the Portage Advantage stacked up against competing jurisdictions.

As to what uses Portage region should look to attract, the wish to attract large employers which could also increase the tax base was tempered by the concern of demand exceeding capacity of resources – primarily water. Several City and RM officials stressed the importance of attracting support industries as opposed to only “wet” and similarly resource-intensive large plants.

Over the course of the Engagement process, concern increased regarding tariffs and especially how this would affect companies which sold most of their product to the US. Several spoke of protecting the Region's economy by diversifying trade and seeking investment as well as growing the export/customer base in additional markets including within Canada as internal trade barriers come down.

Implications for Strategy

To maximize opportunities and stand out in an increasingly competitive world, the Region must strengthen its targeting and differentiate its messaging. Specifically, it must clarify its offer, highlighting its competitive and practical benefits – available, industrial-zoned land, an agrifood tradition and mindset, a thriving agrifood cluster and a streamlined, can-do municipal investment ecosystem. Overlaid on this is its industrial value system around the circular economy as its basis for development – a value system that is increasingly important globally.

As an already successful location for investment, Portage region has the influence to specify, target and approach industries and companies that fit its development plans – as opposed to waiting to see who turns up or entertaining approaches PRED knows it cannot fulfill. Some expressed concern that if Portage region is too targeted, it will lose out on opportunities. However, investment attraction research and experience including PRED studies such as its investment readiness assessment for the Region of Portage la Prairie, carried out with support of Community Futures and other funders, shows that investors and their site selectors want clarity and direction as they consider locations – including how their investment could fit within the Region's key sectors, targets and criteria for potential investors. It is helpful neither for investors nor for Portage to expend effort and raise expectations for investments that will not fit its goals.

In terms both of inward investment including FDI and in encouraging exports, Portage region should leverage the greater awareness, contacts, reach and promotional budgets of Canada, Manitoba and (where appropriate) Winnipeg. On a global stage and especially looking to non-US

markets, small cities in Canada are an unknown quantity and the costs of building significant awareness is prohibitive. Portage region's strategy will be strengthened by creating and marketing its own identity and offer within the larger ecosystem – and marketing clout – especially of Team Canada.

Recommendations

Attract “dry” industry that helps to fill gaps in the food processing industry (including upstream and downstream of food processing plants).

Take the initiative. Develop, target and approach a prospect short list of the types of uses/companies that will complement Portage region's goals along with the existing laydown of significant anchor tenants in its industrial parks. For each prospect, develop a tailored contact strategy and approach based on matching Portage region's competitive offer with the visions, goals, operations and growth strategies of the targeted companies.

Overlay a circular economy context on PRED's upcoming Market Gap Analysis/Targeted Sector Analysis (scheduled for 2025/2026). Consider investment opportunities not simply in their own right or within the key sectors but in how they can contribute to the growth of a circular economy. Criteria for inclusion should include a prospect's willingness and buy-in to this concept to become a collaborative member of Portage region's industrial community.

Work with Team Canada, Manitoba and Winnipeg as well as regional groupings such as the Prairie region to amplify Portage's efforts and share marketing resources and costs such as participation in foreign events and trade shows. This will also have the advantage of promoting Portage within the larger Canadian context and taking advantage of interprovincial trade opportunities as those barriers are being eliminated.

7.1.2 FDI Roadmap

Desktop Research

The Region is investment-ready and is currently working to create additional communication tools to support this. There are plans – and potential funding in 2025/2026 to add to its suite of marketing communications materials and to attend select trade fairs and conferences. Portage is now looking to further actionable steps to strengthen investment attraction.

Investment attraction is led in Canada by Invest in Canada and in Manitoba by Invest Manitoba. Both are government agencies with remits to promote, identify and onboard investors; particularly foreign investors. Additionally, Winnipeg has a strong investment attraction arm within Economic Development Winnipeg which, while mainly promoting the City of Winnipeg, works with other Manitoba municipalities and increasingly other prairie provinces on joint attraction and workforce initiatives. Each has well-established programs, promotions, communications, and funding models. Each has advantages and opportunities for Portage to collaborate while also selling Portage as a differentiated investment destination.

Engagement

Interviews particularly with prospects who are still in the process on deciding – or not – on Portage were useful in identifying some of the reasons for “Why Portage” and therefore some of

the aspects Portage region could promote going forward. Apart from the presence of a core feedstock (such as a crop, wastewater as a by-product), reasons included sufficient and zoned industrial land, proximity to transport – especially rail – and (as already noted) a unique and very helpful economic development ‘concierge service,’ including the stakeholder group.

Stakeholders involved in investment attraction both from the City and the Province echoed these aspects but added that the perception of Portage as Manitoba’s primary location for “wet industries” was a mixed blessing. Partly, this links back to comments earlier in this study that Portage region wants to attract a wider industrial base than only high water-volume wet industries. They felt that if wet industries became Portage region’s main “calling card”, it risked missing out on other types of investment.

There were also mentions that Portage region’s much praised streamlined and collaborative “concierge service” with its warm welcome to business enquiries could be a burden if staff time and resources were spent dealing particularly with unsolicited opportunities that were unlikely to be workable in Portage region. Nobody wanted to turn away business but often felt pressure to answer enquiries and arrange site visits often with little notice.

Implications for Strategy

In recent years, the practice of business attraction – including FDI – is changing as more countries, cities and municipalities dial up their FDI efforts. There is now a sameness to FDI communication. Messages and communication approaches are becoming commoditized and less distinctive. It is becoming more difficult to stand out with investors and their site selector consultants and more difficult to cut through and make the connections that can lead to success.

While Portage region needs to comply with the communication conventions of FDI (website, videos, sell sheets and so on), it also needs to leverage and build awareness of its unique identity, its strong, in-demand sectors, its record of success and its business values – among these being a focus of development along circular economy guidelines. It also needs to take advantage of the marketing alliances especially within the Canadian trade promotion landscape as mentioned above.

A key strategy in building awareness is outreach – with both communication materials as well as in-person, face-to-face meetings. Portage region’s first audience for outreach should be itself – its internal audience of stakeholders, City and RM councils, the Region’s Indigenous population (leveraging CEDI mentioned above) and the larger business community outside the industrial parks. Some of this is already being done through PRED’s Business Walks, Developer Days and other economic development activities. However, a finding of the interviews is that news, updates and information is not circulating within the Region as well as it could. This negatively impacts awareness, networking, and opportunities for collaboration including business investment.

Not all audiences particularly higher-level executives and decision makers will be reached effectively with promotional and communications materials – although these are industry conventions and must be in place. Again, targeted, person-to-person outreach will be a more dynamic and effective way for Portage region to build awareness and connections and discover investment opportunities. While in-person connections are ideal, they can be expensive and

time-consuming, especially when targeting foreign markets. But they can be used effectively alongside other person-to-person tactics such as those below.

Recommendations

There are several actionable steps Portage region can take – some immediately - to begin to secure international investors and integrate them into the Region.

Stakeholders as ambassadors:

Leverage formats such as the stakeholder meetings to develop an international trade mindset in Portage region's business and wider community including current prospects.

Encourage Stakeholders to use their networks to help make introductions especially in foreign markets. Provide them with an elevator pitch about Portage and details of who to contact (PRED) to circulate to their contacts when relevant.

Use Business visitation to begin to build relationships with owners and decision makers:

None of the owners of Portage region's large industries are based in Portage region. So, what is their awareness of the Region and its selling features? Equally, what can Portage region do to get owners to see the Portage region sites as simply another branch plant? Rather than a hard sell or sending standard communications materials, Portage region can use a soft sell of Industrial tourism/Business visitation to begin to build a relationship. Invite owners and decision makers to visit the Region for a tour ("we're so pleased your company is here – we'd love you to visit"). There is mutual benefit in such visits – PR for the company concerned is just one. Costs could be offset or at least shared by the company as well as through government programs.

Show up in international markets:

Being present is the best starting point for Portage region to operate in international markets. Events such as trade fairs and conferences make it easy to build networks, gather market intelligence and cultivate an international business mindset. Costs can be managed by targeting attendance and using government programs to defray costs.

Time and cost will limit frequent travel to trade fairs and events, but becoming associated with foreign trade associations is an easier entrée into foreign markets. For example, the Brussels-based European Vegetable Protein Association (EUVEPRO) represents manufacturers of vegetable proteins for human consumption in Europe. It welcomes international attendance at its webinars, facilitates introductions and in-person events. For Portage, it could be an opportunity to get to know and make connections in the European pea protein sector, as well as a channel to build awareness of Portage and its agrifood and vegetable protein landscape.

Create an investor enquiry form:

The downside of Portage region's open and easy-to-navigate concierge system is the steady stream of enquiries at an early and imprecise stage. While some opportunities go the distance, both Portage and potential investors/site selectors would be better served by an initial, easy-to-use "tell us about you and how we can help you" form that lays out Portage region's offer, what Portage region is looking for (sectors, etc.) and key information including land availability.

Equally, the form would ask potential investors to provide information which would allow Portage to decide their response at an early stage.

Highlight Portage region stories, especially in media:

Portage region is in the process of updating its communications materials. As part of this, it should create Portage stories that animate and add personality to its message in unique ways that differentiate it from competitors.

Examples include how some new products were developed at the FDC and, once it is realized, the Simplot/Azure wastewater-to-SAF story.

7.2 REGIONAL INDUSTRIAL DATABASE

The regional industrial database is in a separate excel file, based on the existing template shared by PRED. The Portage la Prairie & District Chamber of Commerce member directory lists some of the organizations that form the database.⁵⁴

Recommendations

Current agrifood processing companies and relevant upstream and downstream companies should be added to the current CRM/database for the Region.

Prospective companies should be added as part of a business development effort to enable tracking of opportunities and their stage in the business development process.

Leverage the provincial agriculture department databases to understand the supply and demand for coproducts, supporting circular supply and business model development.

Ensure this database is distributed internally to stakeholders to support internal awareness and provide additional information to stakeholders in their role as Ambassadors in promoting Portage (as mentioned above).

⁵⁴ See Portage la Prairie & District Chamber, link <https://www.portagedistrictchamber.com/member-directory>.

8.0 SWOT ANALYSIS

The purpose of a SWOT analysis is to evaluate the strengths, weaknesses, opportunities, and threats of a particular entity, such as a region, organization, or project. This strategic planning tool helps identify internal and external factors that can impact success and growth. By understanding these elements, stakeholders can make informed decisions, leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats.

The economy of the Portage Region has a strong food processing industry. The food processing industry is in an area of significant crop production (e.g., potato, field peas and oat), which derives significant benefit from having food processor demand in Central Manitoba. The food processing industry relies on Portage's water and wastewater services, power, natural gas, and local labour. At the same time the local water and wastewater, power and natural gas utilities benefit from having large industrial demand in the Portage Region. Regional labour benefits from stronger labour demand. The adoption of more circular business models and supply chains (see **Figure 4**) are expected to reduce waste, while also intensifying the economic benefits derivable from economic activity.

In the context of the Portage Region, the SWOT analysis aims to provide a comprehensive overview of the factors influencing the region's economic development and strategic planning.

This includes examining the cooperative agreements, market opportunities, and potential challenges posed by external factors like trade wars.

8.1 STRENGTHS

There are several strengths that underpin the success that the Portage Region has enjoyed. One is the tax revenue sharing agreement that exists between the City and RM of Portage la Prairie. This encourages both municipalities to collaborate rather than compete over the siting of new industrial plants covered by the agreement.

This plays a role in underpinning the cooperation in the region as embodied in PRED, Portage la Prairie Planning District and other jointly governed organizations in the region.

Another strength is the FDC, which provides crop commercialization with technical and research assistance for agri-food businesses. Their services focus on plant- and animal-based protein products and ingredients, as well as waste stream evaluation and co-product processing.

Southern Manitoba's agriculture is resilient and capable of adapting its crop production in response to changes in demand. Farmers continue to adopt improved seed varieties, and production processes (e.g., zero tillage, and use of drones) that improve drought resistance and optimize the inputs required (e.g., precision agriculture, and soil nutrient mapping). Crop irrigation is available in at least some parts of the region.

The Portage Region has rail and road access to transport food processing inputs and outputs, and relatively low energy rates.

8.2 WEAKNESSES

There are several weaknesses that currently exist.

One is the currently stalled wastewater plant project. The City is in discussions with the province to advance the wastewater plant expansion. PRED may be involved in supporting water and wastewater use studies.

Another weakness is the vulnerability of agriculture production to climate-related changes such as increased heat, drought, or flooding. This has broader implications for the Portage region, particularly in ensuring reliable water supply through supply diversification, conservation, reuse. It also has implications for fire and other hazards under municipal responsibility.

Additionally, the absence of a comprehensive labour market plan is a current gap; however, an upcoming labour market study for the Portage region is expected to address this issue.

8.3 OPPORTUNITIES

One of the key opportunities for the Portage Region is extracting greater value from co-product outputs or leveraging others' co-products to reduce capital costs. Another opportunity to strengthen Portage's food processing value chains is to use Manitoba Agriculture's three new GIS databases (or build new ones) to help firms in the Portage Region to discover potential buyers for their products or coproducts.⁵⁵

Sustainable, circular development is a differentiator in some markets, while it has become "table stakes" in other markets (e.g., European Union, Japan). Thus, having a more sustainable, circular value chain in the Portage Region can be an incentive for firms to stay or locate in the region. This can include finding ways to conserve/ re-use water to support industry and residents. In turn this supports the regional economy of Southern Manitoba and improves the natural environment.

Focusing on filling company gaps in subsectors of the food processing industry either from domestics or foreign countries (Inbound FDI) is an opportunity. The current Canada-USA trade war/dispute, the uncertainty gives an opportunity for non-US firms to be sources of inbound FDI.⁵⁶

- Export encouragement to markets outside Manitoba and the US are significant opportunities. Finding other markets for the Portage Regions' agrifood sector due to expanding interprovincial trade (encouraged due to the trade war with the US); and,
- increasing overseas markets where Canada already has Free Trade Agreements: example the CETA agreement with the EU, and the CPTPP agreement with mainly Pacific Rim countries.

⁵⁵ These ArcGIS databases are: (1) Manitoba [Bioproduct and Service Finder](#), (2) [Discover Manitoba Agri-food By-Products](#), and (3) Manitoba [Food Ingredient & Product Directory](#).

⁵⁶ The longer trade disruptions continue, the greater the impact on the Canadian economy. It is too early to tell how long disruptions may go on.

8.4 THREATS

Although the City has a water rights license from the Province, it does not mean that the current water supply (Assiniboine River) volume and quality is guaranteed or will be sustainable in the future. Agriculture production/food processing specific threats comes from climate change, particularly increased heat, droughts or floods. Upon completing the water supply expansion, the region will have sufficient water for industrial, irrigation and residential use, particularly in non-drought scenarios. Still, prudent risk management would suggest diversifying the potable water supply and exploring the use of non-potable water where appropriate. It would be wise to do this before the end of the City's 2050 plan, perhaps after the completing of the wastewater plant upgrades.

The substantial capital investment required to upgrade the City's water and wastewater infrastructure presents a significant financial risk if a major industrial user were to leave. Reduced utility sales in such a scenario would still need to cover significant levels of debt, potentially leading to increased utility rates. Thus, finding ways to mitigate these risks are particularly important to the City and maintaining the local economy.⁵⁷

Severe weather events also pose risks to infrastructure, as we saw from the downing of the transmission line in October 2019.

Another threat is the absence of mass transit originating from the City of Portage la Prairie that enables workers to reach industrial parks and Southport for their shifts. This makes it harder to retain staff from Portage that do not have automobiles.

A threat that exists for the agribusiness cluster in the Portage Region is the trade war between the US and Canada. If tariffs are applied to Canadian goods being exported to the US, this poses a threat to the related value chains and processors.

In some cases, the lack of alternative supplies in the US means more of the tariff is borne by US buyers, and there is the potential for competing firms to increase their prices to match. In other cases, more of cost will be borne by Canadian based exporters, especially if there are sufficient US based alternatives.

⁵⁷ Knock on effects of this: If a large industrial food processor were to leave, it would mean lower prices to farmers for those crops, fewer job opportunities and few opportunities for firms supplying food processors and farmers.

9.0 CONCLUSION

The recommendations from each section of the report are listed below.

Workforce and Skill Development

Collaborative Workforce Solutions

As part of a larger, foundational workforce study planned for 2025/2026, Portage could:

- Detail solutions to reduce and eliminate the lifestyle barriers such as childcare that impact hiring and retention of workers.
- Develop and implement motivating programs to bring Portage's next generation into the industrial workforce. Work with local educators at high school and college level such as Red River College Polytechnic and with Portage students at the University of Manitoba and other universities. Leverage Portage's participation in CEDI to work with Indigenous organisations to develop culturally relevant training and employment support.
- Look at attracting former residents with skills and experience gained elsewhere. Target especially those who may now be looking to raise their family in a more affordable community, close to extended family and offering a city plus rural lifestyle. A two-income enticement program is needed to help secure spousal employment. This would require the collaboration of various potential employers in the region. This could mean a regional cross-listing of open positions.
- Inventory the types, numbers and costs of non-staff contractors needed. Use this data as a basis to encourage the creation or expansion of new local businesses to fill these needs and support the large industries.

Skills Assessment

PRED is planning to undertake a workforce development strategy in 2025/2026. This study is an opportunity to audit current and near-term workforce gaps but, more fundamentally, to look at a minimum five-year horizon of future needs. What skills will be needed? What specific roles and tasks will emerge, and how many jobs in each category are projected?

The study should look beyond local to national and global conditions and game out scenarios which could impact the Region's economic development, both positively (such as cultivating new markets) and negatively (such as tariffs).

Additionally, the forward-looking workforce study should consult beyond the current local stakeholders' group to the owners, boards and top-level decision makers of both its current and its prospective industrial players. These C-suite-level targets will not respond to group formats such as workshops and roundtables. Instead, they require a personal, relationship-building approach which Portage could begin immediately and in partnership with the companies' local operations and including the Region's governance. This can begin with Portage region inviting individual company owners and executives to visit Portage and its plant.

Training & Development

As part of a fundamental workforce skills audit (already in PRED's planning calendar):

- Work with current and prospective employers to create detailed job descriptions with a 2– to 5-year horizon that provide direction to both employers and future candidates as to job content, qualifications and experience needed and prospects and opportunities to advance.

Following that, work with Portage-aligned training establishments to create courses, internships, experiential opportunities, apprenticeships and other initiatives that will be genuinely useful to both employers and employees and not generic training for training's sake. Prioritize locally located training which helps keep workers, once graduated in the Region including:

- Work with organisations such as Apprenticeship Manitoba to scope out workable opportunities for shared training such as Apprenticeship Pooling Agreements that fit within employers' work needs, patterns and training budgets. Consider the possibility of PRED or a local educational establishment becoming the coordinating body for such a program; and
- Further integrate Southport into the region's training ecosystem. Its expertise in highly technical, skilled air force training could interface with several in-demand skill sets which are priorities of both employers and future workers.

Industrial Collaboration and Synergy Building

Multi-Stakeholder Engagement

Introduce peer-to-peer sessions to facilitate targeted discussion and sharing between functional peers such as plant managers and human resource (HR) managers. Increase their status as "must-attend" by making these sessions invitation-only with a specific topic and an expectation of action – a problem solved, an action taken, a follow-up identified.

To be mindful of stakeholders' schedules and to ensure buy-in, consult stakeholders as to what frequency would work best – adding additional peer-to-peer sessions to the current quarterly schedule or alternating sessions.

Create Terms of Reference and Framework

Build on and enhance the award-winning PISG and make it even more valuable to participants by including:

- an informal monthly note with news and updates from participants between quarterly meetings.
- contact details (with permission) and titles/roles of participants so they can contact each other between meetings.
- Institute a tighter attendance threshold based on current businesses and invitations to vetted prospects while streaming out those 'just looking'.

- Link the Industrial Stakeholders Group with new peer-to-peer groups (discussed above). Ensure the roles, activities and mandates of each are laid out clearly and communicated as such.
- Consult stakeholders on the optimal frequency of the two programs to ensure attendance at both if relevant while avoiding overburdening participants with meetings.

Infrastructure Assessment and Development

Water Resource Analysis

In addition to seeking federal funding opportunities to support the proposed upgrades, consider exploring public-private partnerships, grants, and other funding opportunities to support the water treatment plant upgrades and other infrastructure projects.

Explore opportunities for water reuse within the industrial parks to reduce the demand and reliance on potable water for industrial applications. A case could be made for the City/RM to attract new industrial users with the option for reuse without raising unit rates.

Collaborate with the industrial plants to leverage the expertise of the “water specialists” at their head offices. While these specialists can provide valuable feedback, their roles should remain advisory with the ultimate decisions on system operations resting with the City. This collaborative approach will help build relationships with owners and decision makers (proposed above in Section 2.2 Skills Assessment), enhancing efforts to optimize water management strategies.

Wastewater Optimization Strategies

Work with water “experts” such as Manitoba Hydro, universities, the new Canada Water Agency and the technical experts at head offices of companies located in Portage to audit the situation and scope out potential solutions and options to implement.

Seek other funding opportunities, including private entities, to support implementation of the WPCF upgrades. Explore various government grants and subsidies available for environmental and sustainability projects. Encourage local industries to collaborate to wastewater management projects through their own CSR programs. Finally, offer Portage as a pilot site for solutions that benefit wider uptake by allowing shared learning.

Detail the industrial wastewater characterizations and side stream outputs to more effectively present opportunities for reuse and promote sustainable water management practices.

Promote the use of treated wastewater for non-potable applications such as irrigation, cooling, and boiler feed to reduce the demand for potable water.

Continue to work with current and future industrial users – and include their owners and decision makers – to develop on-site wastewater treatment and reuse systems to reduce their dependence on the WPCF.

In the immediate term, use the proposed Simplot/Azure deal as a learning opportunity. Work with both companies to create a case study (which they can also use in their marketing) of

lessons learned while not compromising any competitively sensitive information. Whether the deal is fully implemented or not, the issues raised, and requirements and barriers highlighted will prove useful in accelerating solutions in the Region and especially in its industries and industrial parks from concept to implementation.

Cost Sharing Models

In the short to medium term:

Focus on easier-to-share products, services and processes to develop opportunities for circularity, such as workforce development and training described above (Section 2.3).

Additionally, Portage has a significant opportunity to leverage its many by-products to create opportunities for cost sharing within a circular economy (Section 6.1).

In the medium to longer-term:

Develop a strategy, outlined in a Master Development Plan, for all industrial lands in both municipalities that identifies and confirms the vision, opportunity, and direction for future industrial growth in the Region. The strategy should also identify the infrastructure needed to support that growth, including industry-specific infrastructure.

Develop a Governance Strategy to complement the Master Development Plan. Business Parks in both the City and RM could be governed by a stand-alone not-for-profit organization with representation from the City, RM, and tenants. This organization could own land and build infrastructure.

Consider integrating relevant elements of the eco-industrial park concept. While not all will be workable, some aspects of land planning and resources use can be the basis for designing a circular economy and shared cost models within the individual parks.

Explore a regional strategy for enhancing water and wastewater infrastructure, beyond the City and Rural Municipality of Portage la Prairie. This strategy can build upon recent initiatives such as the Red-Seine-Rat Wastewater Co-operative and the CRWC, aiming to mitigating risk by distributing it through a greater population. Additionally, operational efficiencies are likely to be achieved through increased economies of scale.

Manitoba Hydro Resource Analysis

Electricity and Natural Gas Infrastructure Assessment

Conduct a regional power study to understand how the added power supply could potentially be used to meet new regional load growth demand over a ten- or twenty-year period.

Understanding the industry sectors that the Region aims to attract, and the scale of the plants will be the most important component of understanding potential load growth. The load demand growth analysis should also consider increased demand from institutions such as the new

Portage la Prairie District General Hospital,⁵⁸ expansion at Southport due to the Future Aircrew Training Program,⁵⁹ potential industrial projects, planned net new housing.

Develop a Vision and a Master Plan for the development of Portage's Industrial lands which includes allied, sub-plans for each existing industrial park. Use this thinking as the template for developing additional industrial parks as they are developed.

Work with utilities and major infrastructure suppliers and users to coordinate development and implementation as the parks are built out. This would take advantage of conventions such as main trench agreements, enabling utilities to be installed simultaneously.

Leverage the vision and features of the Master Planned industrial Park in PRED's Investment Attraction marketing and activities.

Resource Optimization and Environmental Sustainability

Circular Supply Chains / Business Model Support Strategy

Work with Manitoba Agriculture, FDC and participating Stakeholder to position Portage as the pilot project in furthering the Bi-Economy Action Plan. Conduct a detailed by-product audit – what by-product does each participating company have, what quantity, how is it available, with what frequency, what do they do with it now.

Develop the Portage "chapter" of Manitoba Agriculture's By-product Directory. Encourage Stakeholder companies and vetted prospects to participate and be listed.

Use this as a basis for exploring opportunities to share, reuse and repurpose - and monetize - its industrial by-products as part of a circular economy system. This can be the basis of new companies which could collect, process and market the materials which would otherwise be wasted.

Leverage the Portage/Manitoba Agriculture / FDC pilot to work with local and companies to identify and conceptualise workable by-product solutions. This should include both barriers and opportunities to monetize the solution both by making money (by selling the by-product) and saving money (by avoiding the need for additional costs such as infrastructure).

ECO-Industrial Park Evaluation

Until it becomes a regulated designation, there is little upside to attempting to become an EIP. It will cost time, money and resources which are unlikely to pay off in terms of new investment or otherwise.

⁵⁸ See Portage Online (2024). "Portage's new hospital on track for completion by 2026," link <https://portageonline.com/articles/portages-new-hospital-on-track-for-completion-by-2026>.

⁵⁹ See Portage Online (2024). "Massive contract means strong future for Southport," link <https://portageonline.com/articles/massive-contract-means-strong-future-for-southport>.

However, taken individually, many of the guidelines included in the EIP framework are overlap with design and circularity guidelines (e.g., wastewater). that Portage is likely to enact and are often mandates which companies, prospects and investors are now demanding at their sites.

In that capacity, we recommend reviewing the EIP analysis (Appendix D) to determine which specific guidelines and actions are relevant, beneficial and implementable for PBIP and MIP, and any of the Region's future industrial parks (See Appendix C for a detailed account of Eco-Industrial Parks).

When relevant guidelines are actioned, include them in the environmental profile of the industrial park either as proof of mandated compliance issues or as differentiators to demonstrated portage's progressive attitudes and practices.

FDI Attraction and Marketing Plan

Investment promotion

Attract "dry" industry that helps to fill gaps in the food processing industry (including upstream and downstream of food processing plants).

Take the initiative. Develop, target and approach a prospect short list of the types of uses/companies that will complement Portage's goals along with the existing laydown of significant anchor tenants in its industrial parks. For each prospect, develop a tailored contact strategy and approach based on matching Portage's competitive offer with the visions, goals, operations and growth strategies of the targeted companies.

Overlay a circular economy context on PRED's upcoming Market Gap Analysis/Targeted Sector Analysis (scheduled for 2025/2026). Consider investment opportunities not simply in their own right or within the key sectors but in how they can contribute to the growth of a circular economy. Criteria for inclusion should include a prospect's willingness and buy-in to this concept to become a collaborative member of Portage region's industrial community.

Work with Team Canada, Manitoba and Winnipeg as well as regional groupings such as the Prairie Region to amplify Portage region's efforts and share marketing resources and costs such as participation in foreign events and trade shows. This will also have the advantage of promoting Portage region within the larger Canadian context and taking advantage of interprovincial trade opportunities as those barriers are being eliminated.

FDI Roadmap

There are several actionable steps Portage region can take – some immediately - to begin to secure international investors and integrate them into the Region.

Stakeholders as ambassadors:

Leverage formats such as the stakeholder meetings to develop an international trade mindset in Portage region's business and wider community including current prospects.

Encourage stakeholders to use their networks to help make introductions especially in foreign markets. Provide them with an elevator pitch about Portage region and details of who to contact (PRED) to circulate their contacts when relevant.

Use Business visitation to begin to build relationships with owners and decision makers:

None of the owners of Portage region's large industries are based in Portage region. So, what is their awareness of the Region and its selling features? Equally, what can Portage region do to get owners to see the Portage region sites as simply another branch plant? Rather than a hard sell or sending standard communications materials, Portage region can use a soft sell of Industrial tourism/Business visitation to begin to build a relationship. Invite owners and decision makers to visit the Region for a tour ("we're so pleased your company is here – we'd love you to visit"). There is mutual benefit in such visits – PR for the company concerned is just one. Costs could be offset or at least shared by the company as well as through government programs.

Show up in international markets:

Being present is the best starting point for Portage region to operate in international markets. Events such as trade fairs and conferences make it easy to build networks, gather market intelligence and cultivate an international business mindset. Costs can be managed by targeting attendance and using government programs to defray costs.

Time and cost will limit frequent travel to trade fairs and events, but becoming associated with foreign trade associations is an easier entrée into foreign markets. For example, the Brussels-based European Vegetable Protein Association (EUVEPRO) represents manufacturers of vegetable proteins for human consumption in Europe. It welcomes international attendance at its webinars, facilitates introductions and in-person events. For Portage region, it could be an opportunity to get to know and make connections in the European pea protein sector, as well as a channel to build awareness of Portage region and its agrifood and vegetable protein landscape.

Create an investor enquiry form:

The downside of Portage region's open and easy-to-navigate concierge system is the steady stream of enquiries at an early and imprecise stage. While some opportunities go the distance, both Portage region and potential investors/site selectors would be better served by an initial, easy-to-use "tell us about you and how we can help you" form that lays out Portage region's offer, what Portage is looking for (sectors, etc.) and key information including land availability. Equally, the form would ask potential investors to provide information which would allow Portage region to decide their response at an early stage.

Highlight Portage region stories, especially in media:

Portage region is in the process of updating its communications materials. As part of this, it should create Portage region stories that animate and add personality to its message in unique ways that differentiate it from competitors.

Examples include how some new products were developed at the FDC and, once it is realized, the Simplot/Azure wastewater-to-SAF story.

Regional Industrial Database

Current agrifood processing companies and relevant upstream and downstream companies should be added to the current CRM/database for the Region.

Prospective companies should be added as part of a business development effort to enable tracking of opportunities and their stage in the business development process.

Leverage the provincial agriculture department databases to understand the supply and demand for coproducts, supporting circular supply and business model development.

Ensure this database is distributed internally to stakeholders to support internal awareness and provide additional information to stakeholders in their role as Ambassadors in promoting Portage.

Appendix A: Engagement

The Engagement phase was conducted by consultants Probe Research Inc. and Sinclair Barnes Limited.

The Engagement programme targeted members and associates of the Portage Industrial Stakeholders group. It consisted of:

- 20 confidential, individual in-depth interviews - in-person or on Zoom
 - Conducted between February and March 2025
 - Several interviews included multiple executives of the same company – 30 individuals in all
- A half-day workshop - hybrid
 - March 17, 2025 – at Fusion Arts Centre, Portage la Prairie
 - 30 attendees including stakeholders in person and online

The purpose of the Engagement Phase was to involve and attain stakeholder buy-in to the creation of the industrial strategy, to look specifically at certain issues such as the circular economy, workforce development, and to identify their issues and suggest directions for future action.

The Engagement has not been positioned as a separate research project. Rather its role has been to inform the Implications for Strategy and Recommendations. As such, findings and analysis generated at the Engagement stage are integrated into the main study as opposed to forming a separate report.

Note on Respondents and interviewees

All respondents and interviewees were current members of the Portage Industrial Stakeholders Group. This included:

- representatives of industrial companies currently operating in the Portage Region
- prospects at varying stages of considering locating in either MIP or PBIP
- City and RM staff particularly involved in industrial development
- associates such as provincial government officials and utilities with whom Portage works with regularly on industrial development.

Note on Response and willingness to participate

The extent to which stakeholders wished to be involved was notable and unusual in a study of this type. There were no refusals to be interviewed or to attend the workshop – although scheduling prevented some from attending the latter.

Apart from making the Engagement phase easier, we note this to make two points:

- First, the willingness to participate speaks to the success of the current Industrial Stakeholder Group concept. It was evident that those interviewed felt they had a stake in

the Region's industrial development, were committed to its success and had confidence in its leadership – significantly in PRED. Additionally, their willingness to participate indicated their confidence that their views would be both listened to and considered as the strategy was developed. While our Recommendations include several additional elements to the stakeholders' group to ensure it is sustainable long term, these are enhancements versus changes and are based on even more contact and collaboration among stakeholders.

- Second, interviews and the workshops were notable that they did not turn into complaint sessions as often happens when constituents are consulted in projects such as this. Rather, interviewees provided details, made suggestions and indicated areas and issues where they would like to know more (such as by-products). Additionally, there was very much a willingness and a general ethos of sharing – a sense that working together, they would all draw benefits.

Probe Research and Sinclair Barnes – along with our fellow consultants and with PRED thank all who participated in this study.

Participants are listed in the following sections:

- Interview Discussion Guide
- Workshop Facilitation Plan

A.1 PRED Industrial Strategy Engagement / Interview Discussion Guide

Introduction

Background (as needed):

- Project recap. We're working for PRED on an Industrial Development Strategy, which will explore the best ways to establish a collaborative framework to pursue opportunities to position Portage la Prairie as a leader in the circular economy – ways to bring together diverse companies to collaborate on common challenges such as workforce development, water and wastewater management, and infrastructure sharing.
- Participation in this engagement is voluntary and confidential. Comments will be aggregated. Individual interviewees will not be quoted. We want you to be honest based on your experiences. We will be preparing a report for PRED, but this report will not attribute your comments to you by name or company, nor name you.
- Questions? Before we get started, do you have any questions for me? Don't hesitate to ask questions or for clarification at any point during the interview.

About Your Company & The Circular Economy

IF NEEDED: The circular economy covers a wide range of practices from reusing Company A's waste as inputs for Company B, to inter-company sharing of personnel or services to infrastructure sharing.

Q1. How are things going in your company/business/organization?

- Was 2024 a successful year?
- What were some of those successes and challenges?

Q2. Is your company considering/currently leveraging opportunities in the circular economy?

- In Portage or another location, including international?
- What and how? How is that working? How did it come to be?

Q3. What is your initial reaction to exploring opportunities in the circular economy such as infrastructure sharing?

- Good idea/bad ideas/initial interest/unsure. Why do you say that?

Circular Economy Opportunities

In previous PRED consultations, including with the steering group in 2022, a few opportunities were identified as having potential for collaboration within a circular economy in the Portage Region.

Q4. I'm going to mention a few, and we can discuss the ones that are most relevant to you and your business: **FOCUS ON PROCESS/BARRIERS/OPPORTUNITIES (NOT TECHNICALITIES) OF EACH**

- Workforce development: **PROBE ON:** Ways to attract (including through immigration) and retain the right talent - shared labour, crew swaps, and immigration policies.
- Training and education: **PROBE ON:**
 - Possibility of providing common training and education programs, particularly in power engineering, electrical and automation, including in the surrounding First Nations.
 - Possibility of a Portage Industries Scholarship Program to support professional development and encourage local participation.

Lobbying for change in provincial legislation that would benefit the industry was also considered essential.

- Anaerobic coordination plan – need for biodigesters in the region
- Transloading services, to facilitate more efficient and cost-effective transportation of goods.
- Warehousing, including food certified warehousing to ensure the safe and secure storage of food products.
- Human logistics. **PROBE ON:**

Potential for collaborating on transportation and human logistics solutions, to improve efficiency, reduce costs, deal with challenges posed by winter, such as reduced productivity, road closures.

Need for sustainability, particularly regarding dedicating specific routes and maximizing productive time management for all industries in the PBIP.

- Renewable diesel (cleaner and more sustainable alternative to traditional diesel fuel)
- Shared utilities specifically in water and wastewater reuse, to minimize waste and maximize resources. **PROBE ON:**
 - Global process and the AG Water Support strategy (?)
 - Role/importance of federal and provincial grants and challenges in accessing them.
 - Also, for renewable natural gas, hydro, collaborating on green power projects using Efficiency Manitoba incentives or the Energy Sustainability Hub
 - Joint utilities studies (to expand hydro, water and wastewater processing capacity) to provide insights into their potential for the region or specific site such as the PBIP vs. each company doing its own.

- Master developer/master plan: Opportunity to work with a private developer to create an industrial park supported by a master developer or master plan. The goal would be to create a sustainable and comprehensive development plan for the next decade.

Q5. Are you familiar with how PRED sees the opportunities in these? What are the issues on the table?

Q6. If you were advising PRED, which of these would make sense as the first project – and why.

- What are the pros of that (greatest impact, cost least etc.)
- What are the cons or the risks/barriers? Why isn't this happening?

Q7. If successfully implemented, which has potential to be most beneficial:

- For your company?
- For the region?

Q8. Are there any that you think wouldn't work or would be more difficult? Why is that?

Q9. Are there any you could add to the list? Any ways we haven't talked about that local companies could work better together or share resources?

Scenarios/Working Through an Example

I'd like to run you through a practical example or two to help understand what you see as the opportunities and the risks... **Discuss one or two**

- A locally based training course delivered for a fee by Red River Polytech or similar.
- An anaerobic digester (biodigester) located in one of the industrial parks for multi-users.

Q10. What is your initial reaction – good idea/bad idea/initial interest. Why do you say that?

Q11. Would it be relevant to your company? In what ways?

- **Probe on:** What courses would you like to see (power engineers to run boilers? welders?) Delivered by who, for whom (locals? First Nations, Newcomers? Winnipeggers?) For how long?
- **Probe on:** What would you put into this digester – input? What product of the digester could you use – output? Could one company take this on and manage it? Or a pay-for-service model instead. Can we consolidate waste for a biodigester?

Q12. What would it take to make it happen for your company?

- What barriers are there? What/who makes it hard to make this happen?
- Would your headquarters OK this? What would be their worry?
- What would have to happen to make it attractive for you to take on a biodigester?

Q13. What are the implications for:

- Your workforce?
- Your IP?
- Your competitiveness?
- Existing deals/partnerships?
- Physical changes/investments needed?
- Your systems/procedures?

Q14. For each of these, how would you be willing to pay for this?

- Money up front as part of the initial investment
- PRED/government pays and then pay-for-use/pay-for-service or subscription.
- Other models?

Q15. Previous consultation shows there is interest but there is also risk and it's difficult to get a first mover.

- Why do you think getting this first mover is difficult? What would need to happen for it to be you?
- What do you see as barriers – and what might others see as barriers?
- How might this be overcome?
- How could a potential collaborative framework help?

Building the Framework

Our task in this project is not to get into the weeds of implementation but rather to help come up with a framework in which discussions, relationship building, learning, debate and collaboration can occur to then actually implement some of these ideas.

We are interested in your input on what that framework could look like.

Q16. What form should it take?

- Collaborative steering committee/working group?
- Co-op?
- Something like the current steering committee?

Q17. What format would work best for:

- Relationship cultivation, between companies and to identify areas of common interest?
- Practical implementation?

Q18. Who sits as members? Who sits as observers, guests, external subject experts?

- Who coordinates and staffs, offers admin support?
- What's the group's make-up? PRED's tourism stakeholders group includes representative by type/sector – so, in this case, someone for water, wastewater, transport, etc.? Another membership approach?
- How likely is it that relevant stakeholders would participate? What would deter them?

Q19. What meeting frequency?

Q20. What are the group's responsibilities? Just review and endorse? Or would it also be responsible for generating leads/formulating initiatives?

Q21. In terms of governance, who should lead this initiative? Why is that?

- PRED? Government?
- A specific company/companies?
- Depends on the project.
- Any specific person?

In Closing

Q22. What did we miss?

- What did we not cover that you think we should have?
- Would you be open to speaking to us again if we have additional questions?

Close, describe next steps, thank.

Workshop Interviewees

- Grant Carlson - Manitoba Agriculture
- John Crandlemire and Alex Singbeil - Catapult Environmental
- Ian Currie - Richardson Milling
- James Gargot and Liam Carlin - Simplot Canada
- Kyle Hamilton - Rural Municipality of Portage la Prairie
- Karly Friesen - City of Portage la Prairie
- Romain Jaspar - Total Energies
- Sharilyn Knox - City of Portage la Prairie
- Chris Mankewich - Manitoba Hydro
- Brent Maryniuk, Edward Simonds and Naweel Yousfani - McCain Foods
- Shyam Moorthi - Manitoba Agriculture
- Jim Neirinck - Canadian Manufacturers & Exporters
- Tanya Palson, Manitoba Building Trades
- Nathan Peto- City of Portage la Prairie
- Leo Prince - Business, Mining, Trade and Job Creation, Government of Manitoba
- Christianne Rossett - NutriPea
- Leanne Shewchuk - Climate Action and Energy Innovation, Government of Manitoba
- Roy Tufford - Rural Municipality of Portage la Prairie
- Vanessa Vredenburg - Azure Sustainable Fuels
- Robin Young - Food Development Centre

A.2 PRED Workshop Facilitation Plan

Session Goals

Direct: Gather practical next steps around three key draft recommendations in the Updated: 2025-04-17

Re: Pred Industrial Strategy

industrial strategy.

Indirect: Build buy-in and relationships around local industrial cooperation.

Participants (working list)

- William Ryzniczuk, Manitoba Gov
- Grant Carlson, ARD (tentative)
- Grant Gessell, planning district
- Leo Prince, ARD (online?)
- Kyle Hamilton, PlaP
- Karly Friesen, PlaP
- Jocelyn Lequier-Jobin, PlaP
- Liam Carlin, Simplot
- Roy Tufford
- Sharilyn Knox, Mayor
- Ian Currie
- Alyssa Montsion, Manitoba Gov
- John Crandlemire, Catapult
- Robin Young, Manitoba Gov
- Vanessa Vredenburg, Azure (online)
- Shyam Moorthi, Manitoba Gov
- Tanya, Palson, Trades (likely)
- Darren Ongyerth, Azure (online)
- Mike Manastyr, planning district (tentative)
- Nora Goodyear, Roquette (tentative)
- Tanis Brako, (tentative)
- Christianne Rosset, Nutripea (tentative)
- Chris Mankewich, Hydro (tentative)
- Laurence Nguyen, Savage (tentative)
- Nathan Peto
- Alex Singbeil
- Naweet Yousfani, McCain
- Nelson Bowley (tentative)
- James Gargol, Simplot (tentative)
- Femi Ferreira, Veolia (tentative)

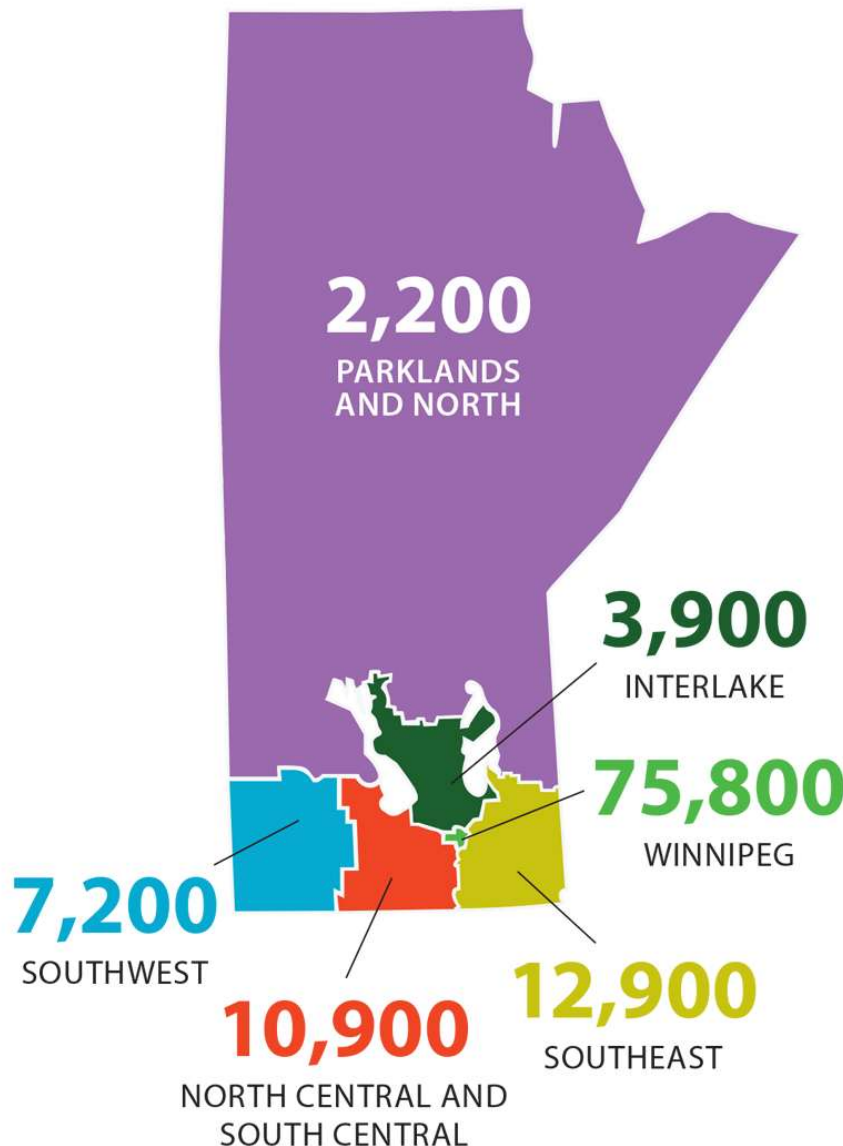
Run of Show

Timing	Activity	Details/Notes
9am (60 mins)	Set up	All arrive - Put up flips - Test projector
10am	Arrival	Participants arrive, schmooze Coffee
10:15 - 10:20 (5 mins)	Welcome	Eve Why we're here, what this project is about
10:20 - 10:30 (10 mins)	Intros/agenda	MA lead - Agenda - Intros around the room - one thing you are looking forward to hearing
10:30 - 11:00 (30 mins)	Presentation of recommendations	Maggie/Chris lead - Background to project (Chris, short, with five areas) - Recommendations (Maggie/Chris/Shyam, recco and two things we heard)
11:00-noon (60 mins)	Breakouts/ Workshop 3 topics, 20 mins each	MA lead (Maggie support) - Two stations set up around the room, one for MA, one for Maggie - Chris to facilitate online - Notes captured on the flip charts - In-room rotation among participants (stay vs. swap) 20mins per topic: - Byproducts - Workforce dev./shared personnel - Contractors/support service attraction - Eve to nudge us at the 20min mark Prompt questions (more to come): - If this was successful, what would it look like? - What do you need to participate/make this work?

Timing	Activity	Details/Notes
		- What does your boss need to hear? What's the message that resonates that could help move this? - How would this help your business? (Any cons?) - How does this help grow Portage's industrial sector
Noon - 12:15 (15 mins)	Review and discuss/prioritize	MA lead Quick recap of break-outs (MA, Maggie, Chris)
12:15 - 12:20 (5 mins)	Wrap up/next steps	Eve lead - Next steps in the project - Thank yous
12:30 - onward	Informal lunch	Stay and schmooze or grab-and-go

APPENDIX B: Challenges of Data Granularity by Geography and Population and Labour Statistics Overview

Figure 5: Manitoba Labour Market Groupings of Economic Regions



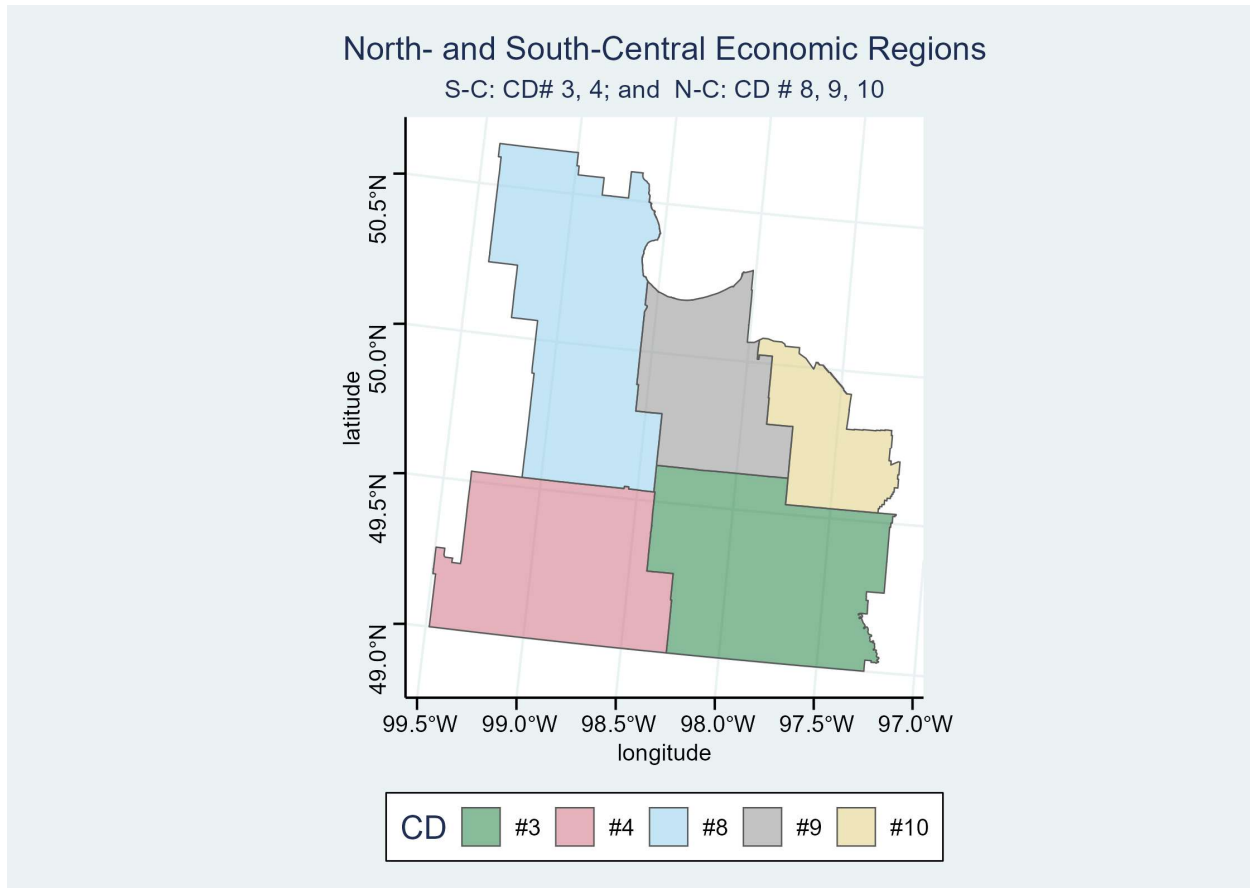
The Canadian census is conducted every five years and provides significant data granularity by geography due to its comprehensive coverage of the Canadian population. More frequent data sets are based on samples, resulting in less granular data to preserve reliability.

The Manitoba Government's Business, Mining, Trade and Job Creation department produces Manitoba's Labour Market Outlook (**Figure 5**).⁶⁰ This outlook is segmented by Manitoba's economic regions. The Southwest, Southeast, Winnipeg and Interlake economic regions are distinct and not combined with other regions. However, the Parklands & North economic regions are combined, as are the North-Central and South-Central economic regions.

For the purposes of this project, the combination of North-Central and South-Central economic regions is shown in relation the City and RM of Portage la Prairie. The South-Central economic region is composed of census divisions 3 and 4. The North-Central economic region comprises census divisions 8, 9, and 10 (**Figure 6**).

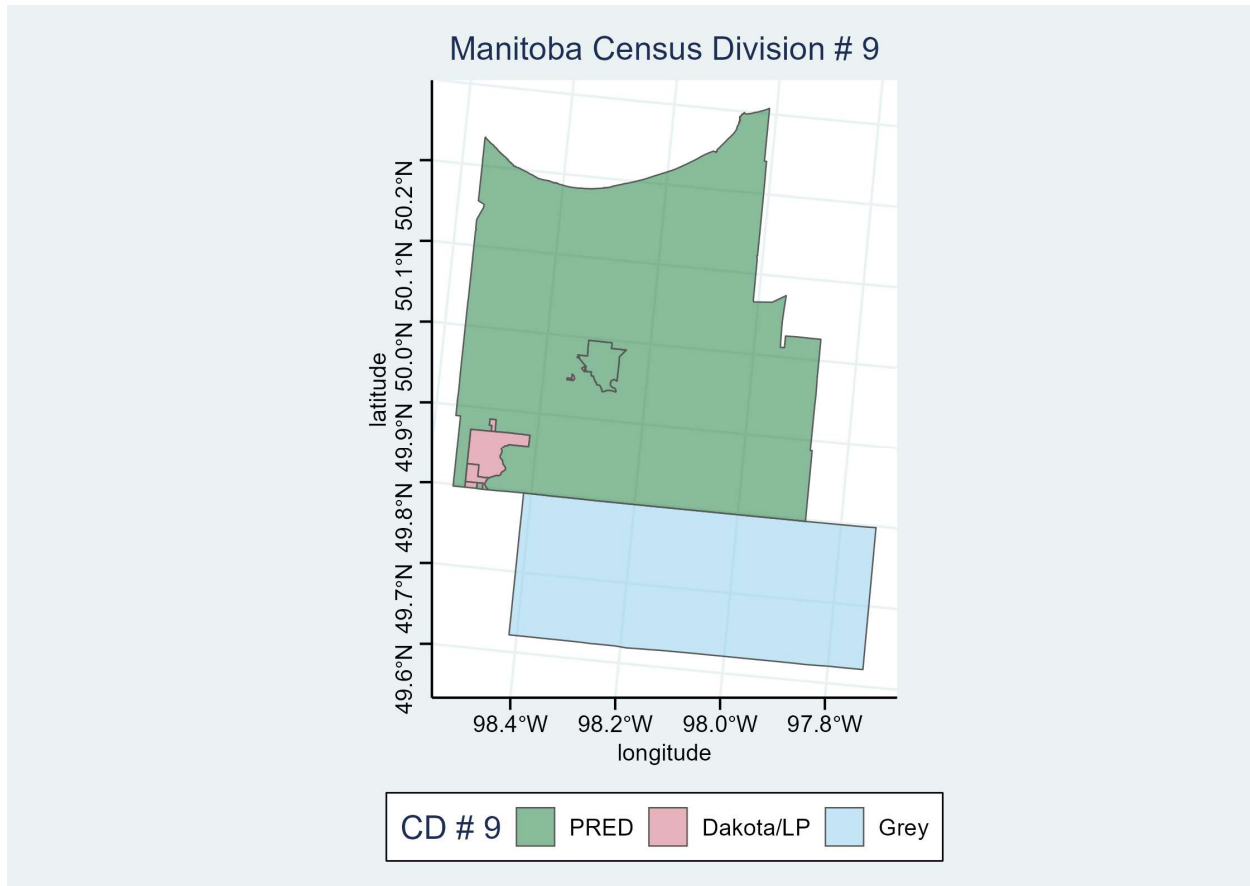
⁶⁰ Source: Manitoba Government (2025). "Manitoba Labour Market Outlook," link <https://www.gov.mb.ca/jec/lmi/outlook/regional.html>.

Figure 6: North- and South-Central Economic Regions



Manitoba's census division 9 comprises the City of Portage la Prairie, RM of Portage la Prairie, the RM of Grey, and the Reserves of Dakota Tipi 1, Dakota Plains 6A, Long Plain, and Long Plain 6. Portage Regional Economic Development (PRED) is a joint venture of the City of Portage la Prairie, and the Rural Municipality of Portage la Prairie (coloured green in **Figure 7** below).

Figure 7: Manitoba Census Division # 9 includes the City and RM of Portage la Prairie



To effectively evaluate the skillsets of individuals living in the Region, InterGroup reviewed Statistics Canada datasets to better understand the population and workforce of the area. This analysis included reviewing applicable Statistics Canada data tables as well as Census data from 2021, 2016, and 2011.

This appendix presents population and labour statistics for the region encompassed by PRED, which includes the City of Portage la Prairie, the Rural Municipality (RM) of Portage la Prairie, and several Indigenous communities. These Indigenous communities play a significant role in the economic success of the Portage la Prairie region and fall within the region that PRED operates in, as shown in **Figure 7**. The Indigenous communities are:

- Long Plain First Nation (Long Plain 6 and Long Plain);
- Dakota Plains First Nation (Dakota Plains 6A); and
- Dakota Tipi First Nation (Dakota Tipi 1).

For the purposes of this analysis, these are collectively referred to as “Indigenous Communities”.

In this appendix:

- The “Region” includes the City of Portage la Prairie, the RM of Portage la Prairie, and Indigenous Communities.
- “PRED Communities” refer specifically to the City of Portage la Prairie and the RM of Portage la Prairie.

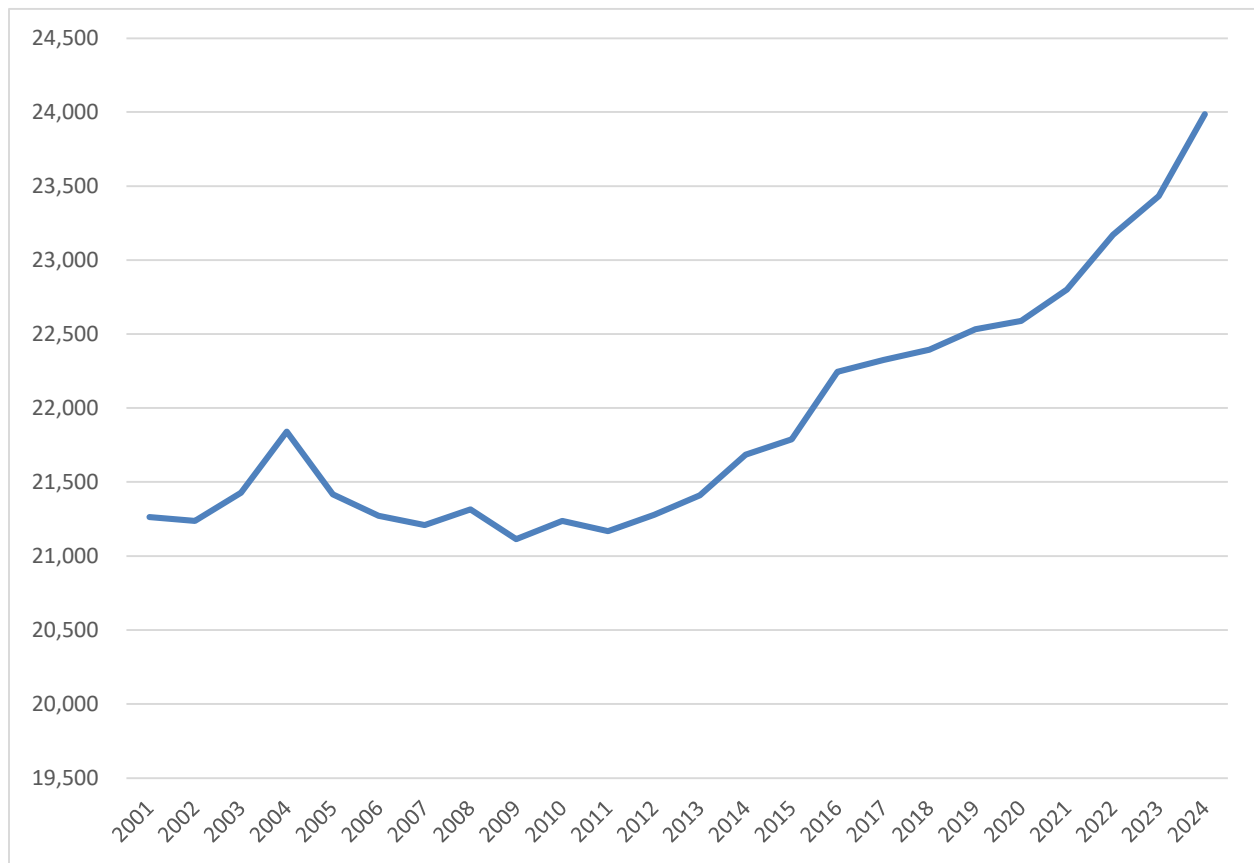
B.1 Demographics

The following demographic statistics provide an overview of the population trends and distribution in the Region, PRED Communities, and Indigenous Communities.

Population

The Region has experienced an increase in population, rising from 21,263 in 2001 to 23,987 in 2024.⁶¹ This growth represents an average annual increase of 0.5%. The Region is currently undergoing strong growth, with the population demonstrating an upward trend since 2011, following a period of stagnation. **Figure 8** illustrates the population growth in the Region from 2001 to 2023. Although the Region has generally grown at a slower pace than the Manitoba average, recent years have shown a significant increase. The population has grown by over 1,000 people since 2021, with an average annual growth rate of 1.5% between 2001 and 2024.

⁶¹ PRED statistics note that the population of the region in 2024 is 23,316. April 3, 2025. Available from: <https://investinportage.ca/demographic-data/>. The difference could be due to data revisions.

Figure 8: Population of the Region

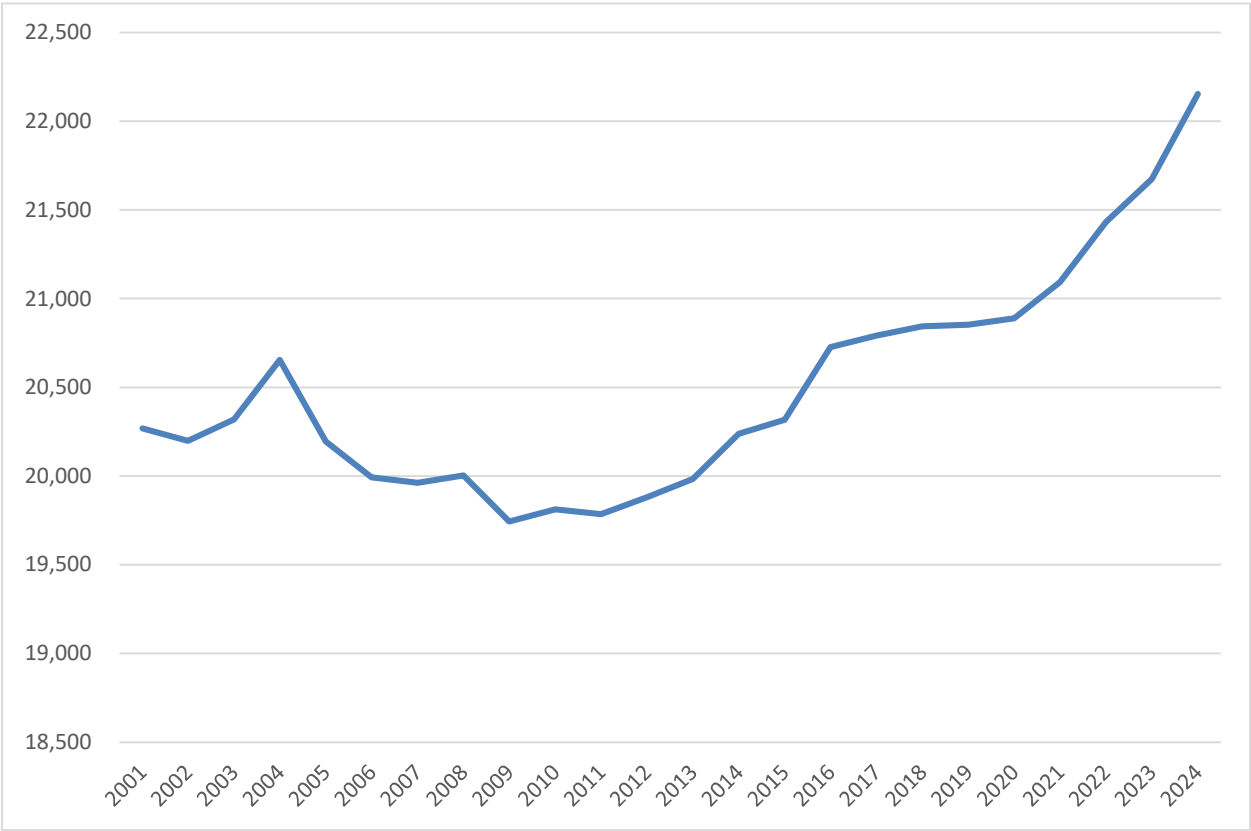
Source: Statistics Canada, Table 17-10-0155-01. Retrieved April 4, 2025.

For the purposes of the analysis in this appendix:

- the “Region” includes Portage la Prairie (City), the RM of Portage la Prairie, and Indigenous Communities.
- “PRED Communities” include Portage la Prairie (City) and the RM of Portage la Prairie.

The population of PRED Communities has grown from 20,268 in 2001 to 22,154 in 2024, averaging an annual increase of 0.4%. **Figure 9** provides a visual representation of this growth. Notably, the population growth rate of PRED Communities is slightly lower than that of the Region as a whole. However, PRED Communities have experienced consistent population growth since 2011, with an annual growth rate of 1.5% between 2001 and 2024.

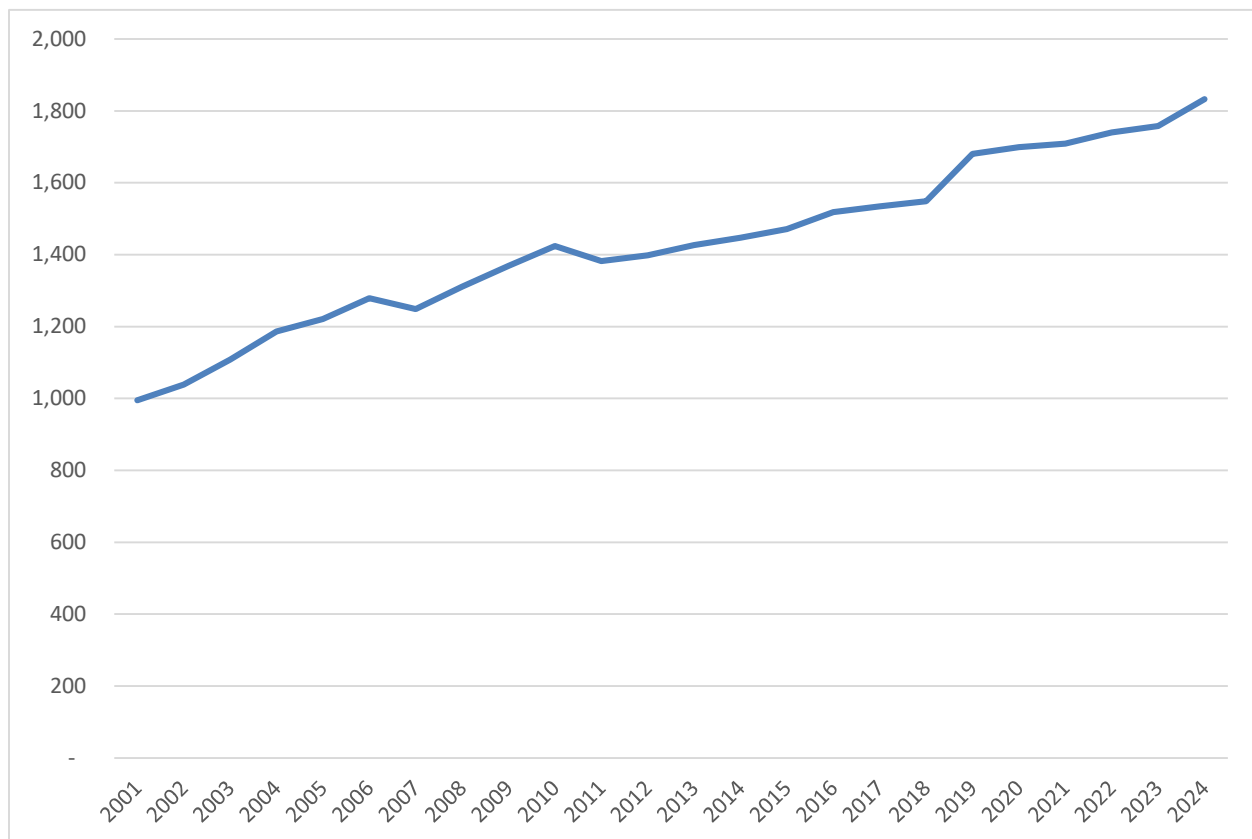
Figure 9: Population of PRED Communities



Source: Statistics Canada, Table 17-10-0155-01. Retrieved April 4, 2025.

Indigenous Communities have seen a significant increase in population, contributing significantly to the overall increase in the Region. Their population has risen from 995 in 2001 to 1,769 in 2023, with an annual average increase of 2.7%. **Figure 10** highlights this growth. Indigenous Communities have enjoyed nearly uninterrupted growth over the last 20 years and are expanding in population at a faster rate than the Manitoba average.

Figure 10: Population of Indigenous Communities

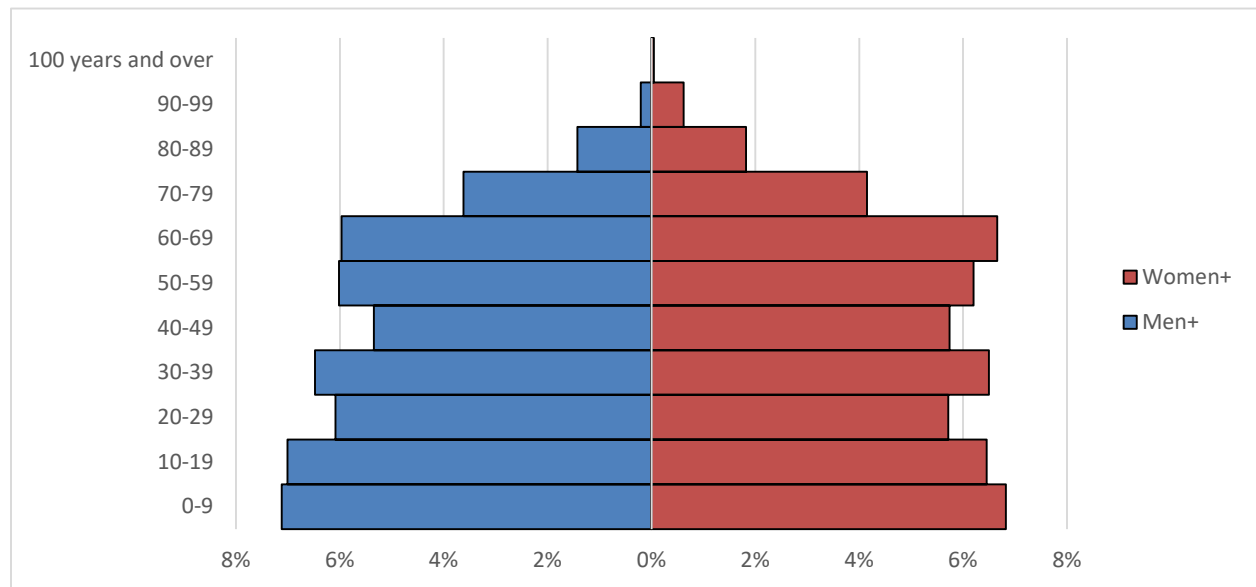


Source: Statistics Canada, Table 17-10-0155-01. Retrieved March 17, 2025.

Population Distribution

The population distribution of the Region is presented in **Figure 11**, which depicts a similar pattern to that of the rest of the province. The distribution, shown as a population pyramid, reflects the percentage of male and female individuals across various age categories. Ideally, a population pyramid resembles a triangle, with a high proportion of young individuals and fewer proportion of older ones. The Region's population distribution indicates promising trends, with the largest demographic being individuals aged 0-9, and a substantial percentage in the 30-39 age category. However, there is also a significant percentage of individuals aged 50-69, signaling an aging population.

Figure 11: Population Distribution of the Region



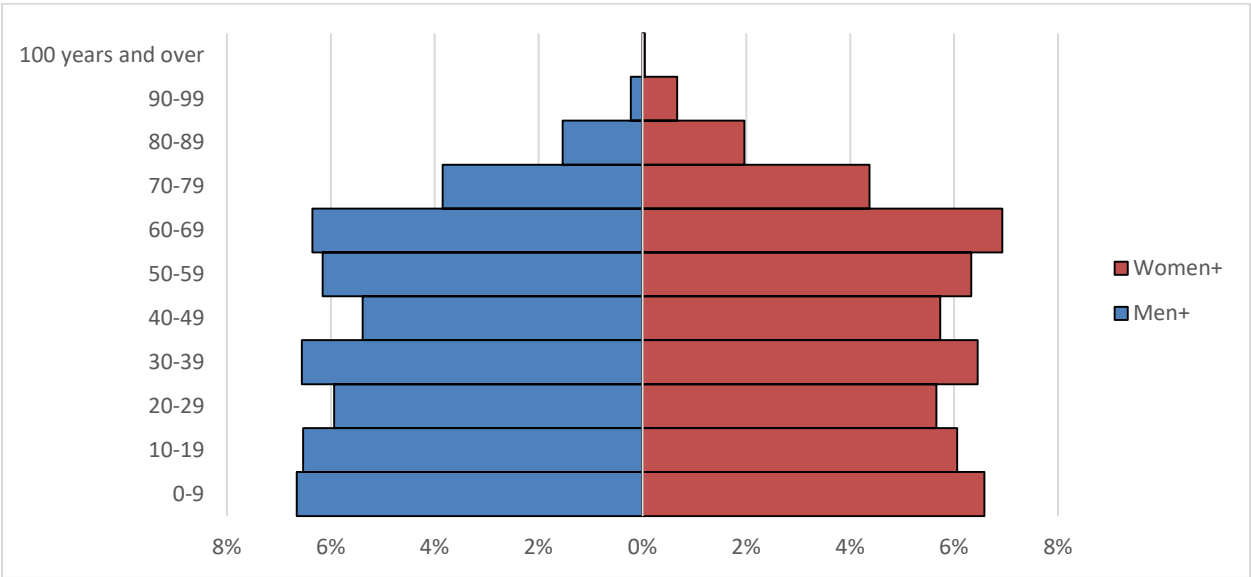
Source: Statistics Canada, 2021 Census, Table 98-10-0022-01. Retrieved March 17, 2025.

For the purposes of the analysis in this appendix:

- the “Region” includes Portage la Prairie (City), the RM of Portage la Prairie, and Indigenous Communities.
- “PRED Communities” include Portage la Prairie (City) and the RM of Portage la Prairie.

The population distribution of PRED communities, depicted in **Figure 12**, is less favourable compared to that of the Region as a whole. It shows a lower percentage of individuals in the 0-19 age group and a higher percentage of those in the 50-69 age category. Nonetheless, PRED Communities have a strong presence of working-age individuals in the 30-39 age group.

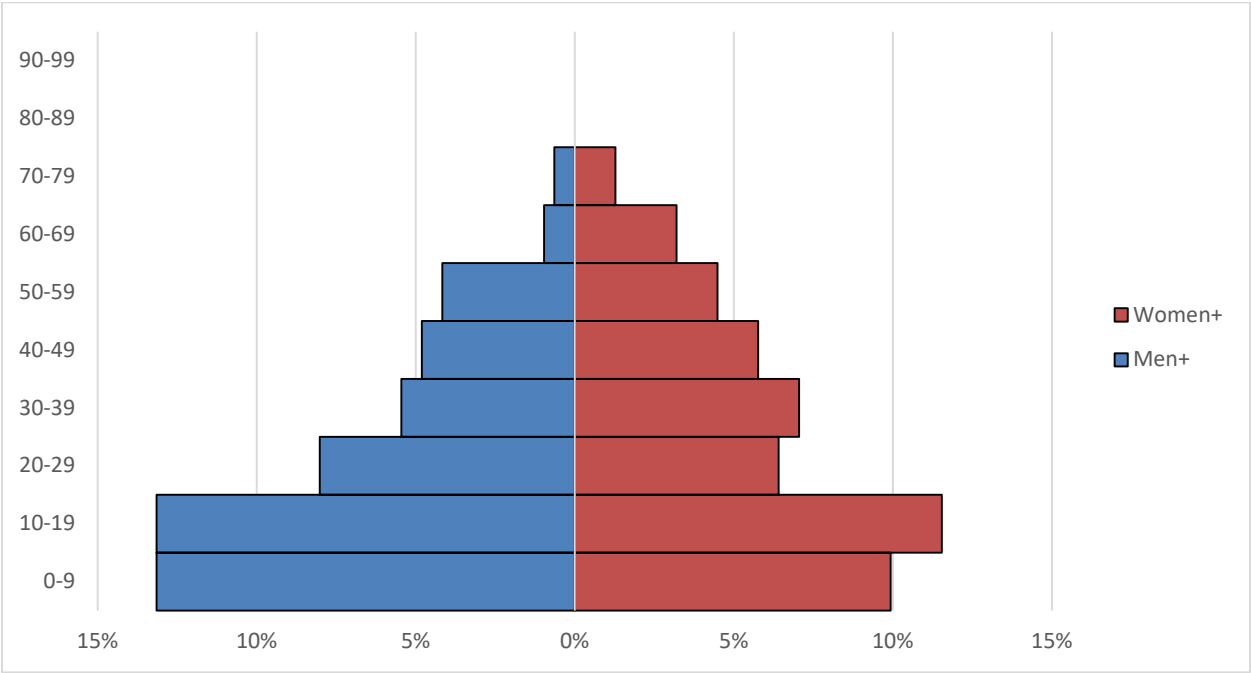
Figure 12: Population Distribution of PRED Communities



Source: Statistics Canada, 2021 Census, Table 98-10-0022-01. Retrieved March 17, 2025.

Indigenous Communities demonstrate a more favorable population distribution, characterized by a higher proportion of individuals in the 0-19 age category and a smaller proportion of seniors. **Figure 13** illustrates this population distribution.

Figure 13: Population Distribution of Indigenous Communities

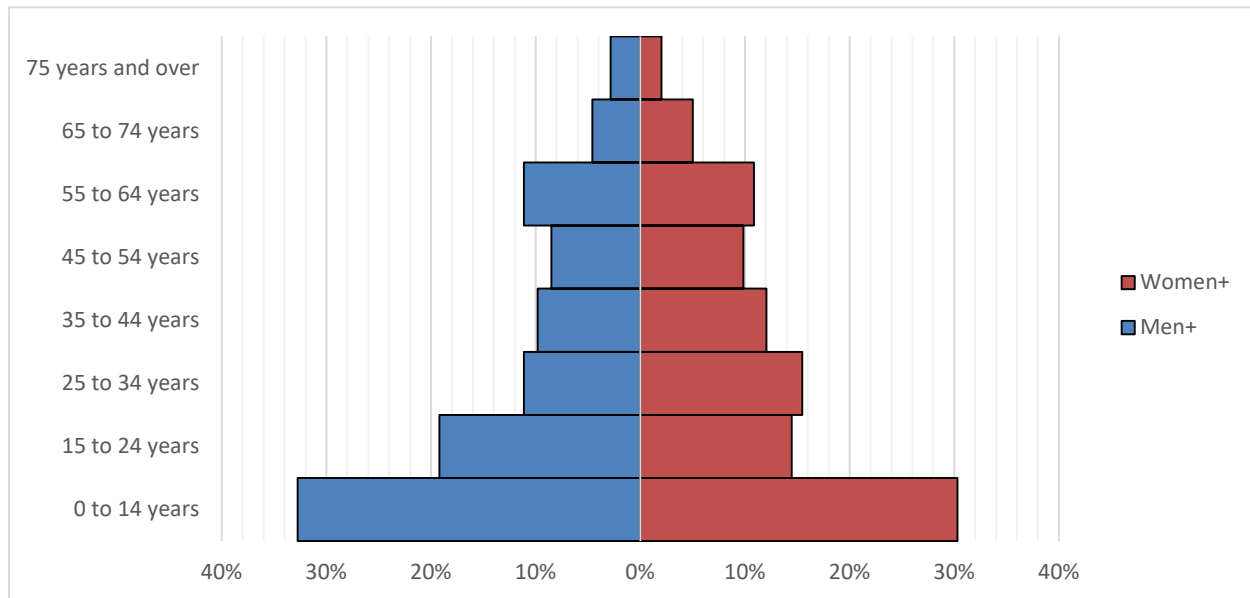


Source: Statistics Canada, 2021 Census, Table 98-10-0022-01. Retrieved March 17, 2025.

Indigenous Population Distribution

The Indigenous population distribution is analyzed separately to identify differing trends within the PRED Communities.⁶² **Figure 14** shows the population for those who identify as Indigenous in PRED Communities. The Indigenous population has a higher percentage of younger individuals, especially those in the 0-14 age category, compared to the general population. This distribution is considered more favorable.

Figure 14: Indigenous Population in PRED Communities



Source: Statistics Canada, 2021 Census, Table 98-10-0266-01. Retrieved March 17, 2025.

⁶² The indigenous population within the RM and City of Portage la Prairie (PRED communities) is much younger than the overall population within the PRED communities.

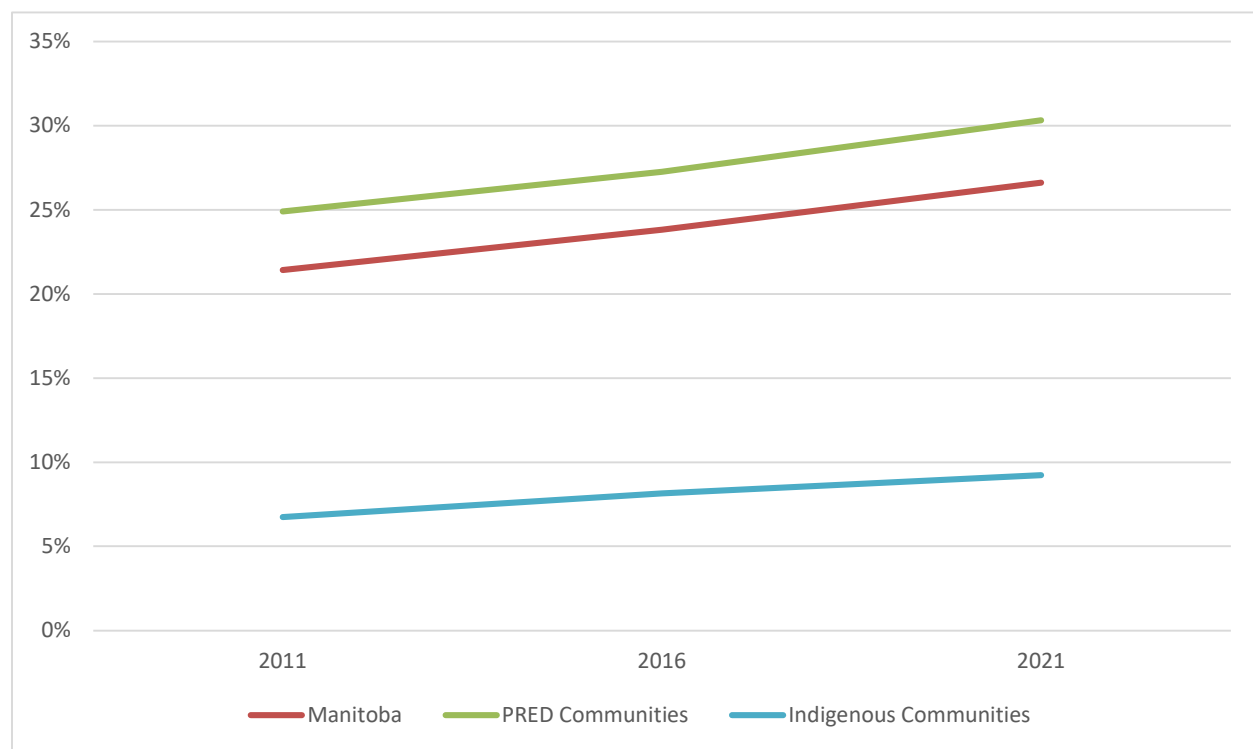
Dependency Ratios

Dependency ratios provide insight into the number of individuals of non-working age compared to those of working age. These figures assess the economic burden on the productive segments of the population, those who are currently contributing more to tax revenue, compared to younger or older individuals of non-working age, who are more likely to require social services.

Figure 15 represents the old-age dependency ratio of the communities in the Region, indicating the ratio of individuals aged 65 and older to those of working age (15 to 64). A higher old-age dependency ratio can place a greater burden on health services in a region, as older individuals typically require more healthcare.

From **Figure 15**, it is evident that the old-age dependency ratio is increasing across all communities. The PRED Communities, Indigenous Communities, and the province all exhibit rising old-age dependency ratios. The Region has the highest old-age dependency ratio at 30% in 2021, compared to the Manitoba average of 29%. Indigenous Communities have the lowest old-age dependency ratio, at 9% in 2021.

Figure 15: Old-age Dependency Ratio

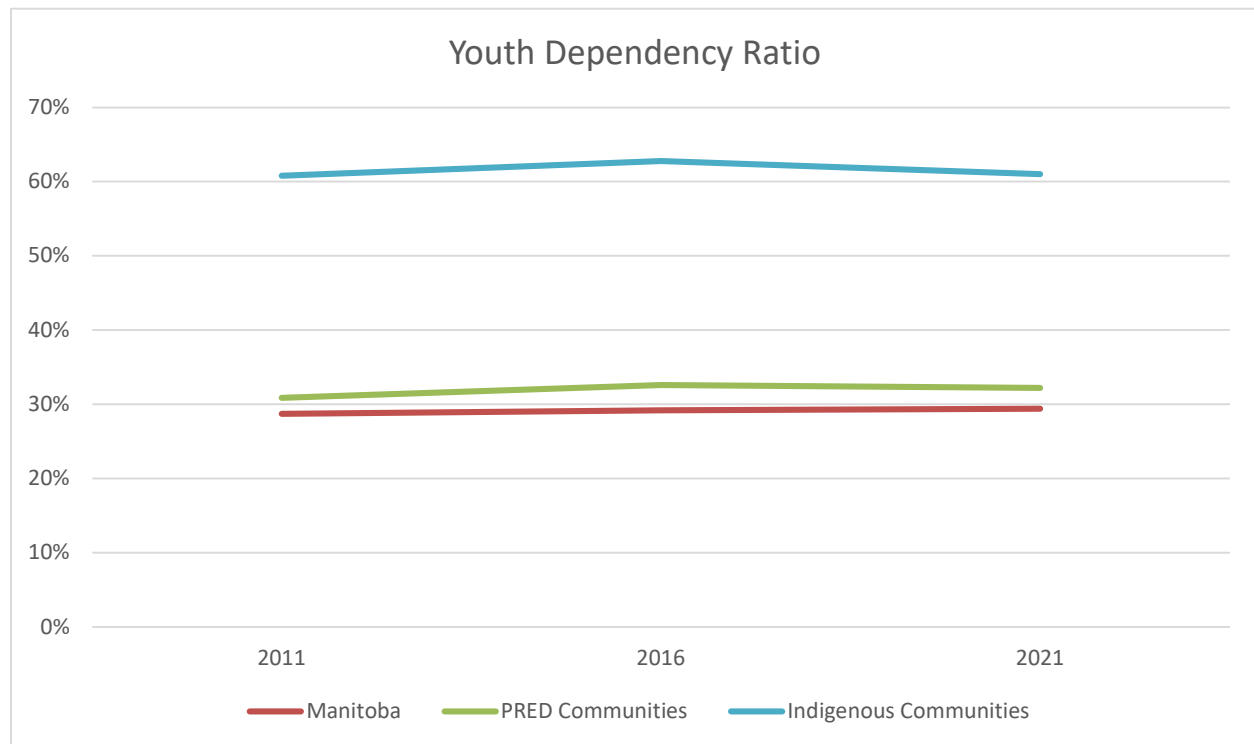


Source: Statistics Canada, 2021 Census, Table 98-10-0022-01 (also contains 2016 data); Statistics Canada, 2011 Census, Table 98-311-XCB2011018. Retrieved March 17, 2025.

Figure 16 represents the youth dependency ratio of the communities in the Region, indicating the ratio of individuals aged 0 to 14 to those of working age (15 to 64). A higher youth dependency ratio can place a greater burden on certain social services, including education and healthcare.

Figure 16 shows that the youth dependency ratio in PRED Communities has remained relatively stable at around 30%, decreasing slightly from 33% in 2016 to 32% in 2021. This is higher than the average youth dependency ratio in Manitoba, which has remained steady at 29%. The youth dependency ratio in Indigenous Communities is significantly higher than in other communities in the region, at 61% in 2021.

Figure 16: Youth Dependency Ratio



Sources: Statistics Canada, 2021 Census, Table 98-10-0022-01 (also contains 2016 data); Statistics Canada, 2011 Census, Table 98-311-XCB2011018. Retrieved March 17, 2025.

B.2 Labour Force Statistics

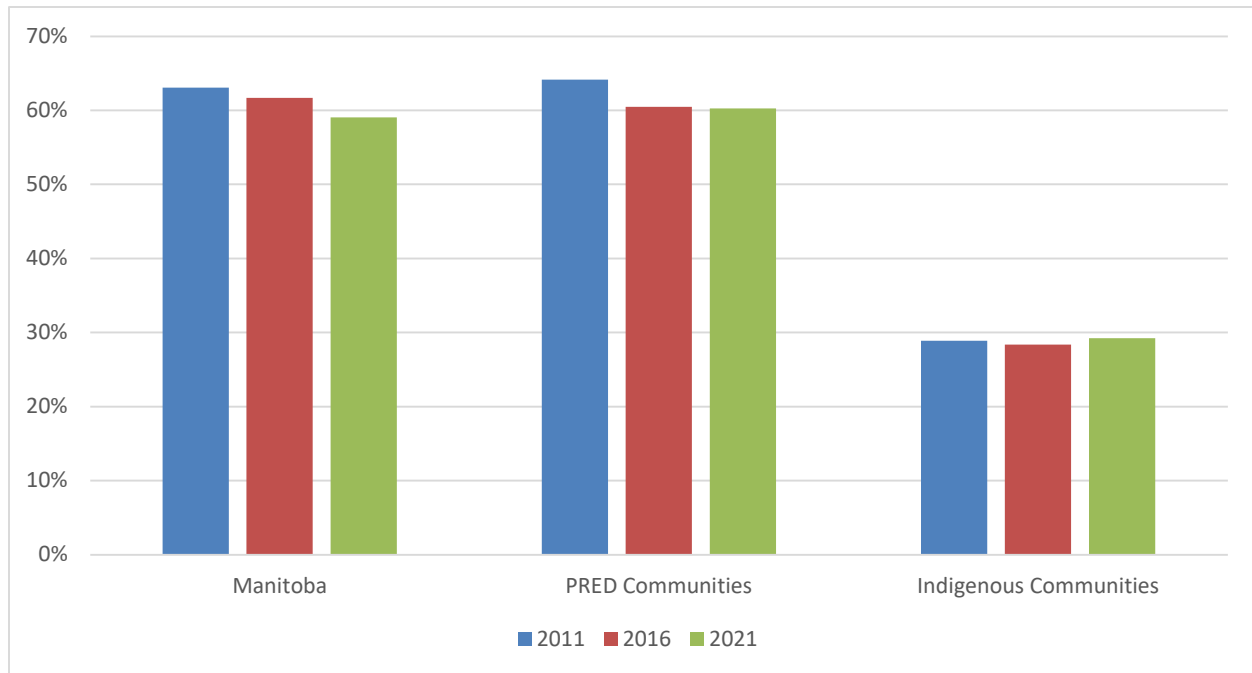
The following labour force statistics provide an overview of the labour characteristics in the Region and surrounding areas. These statistics offer insights into the health of the labour market in the region.

Employment Rate

Figure 17 illustrates the employment rate of the province, PRED Communities, and Indigenous Communities. The employment rate is defined as the number of people employed expressed as a

percentage of the population aged 15 years and over. This metric includes individuals who are employed who did any work for pay or profit or had a job and were absent from work during the time when the census survey was conducted.⁶³

Figure 17: Employment Rate



Sources: Statistics Canada, 2021 Census, Table 98-10-0040-01;
 Statistics Canada, 2016 Census, Table 98-400-X2016365;
 Statistics Canada, 2011 Census, Table 98-311-XCB2011018. Retrieved March 17, 2025.

According to **Figure 17**, the employment rate for PRED Communities is like the provincial average for Manitoba, indicating a higher percentage of employed individuals aged 15 and over. In 2021, the employment rate for the Region was 60%, compared to the Manitoba average of 59%. Indigenous Communities had a lower employment rate, at 29% in 2021, approximately half that of other communities in Manitoba. It is noteworthy that the employment rate has declined in most communities over this period, while it has remained relatively stable in Indigenous Communities.

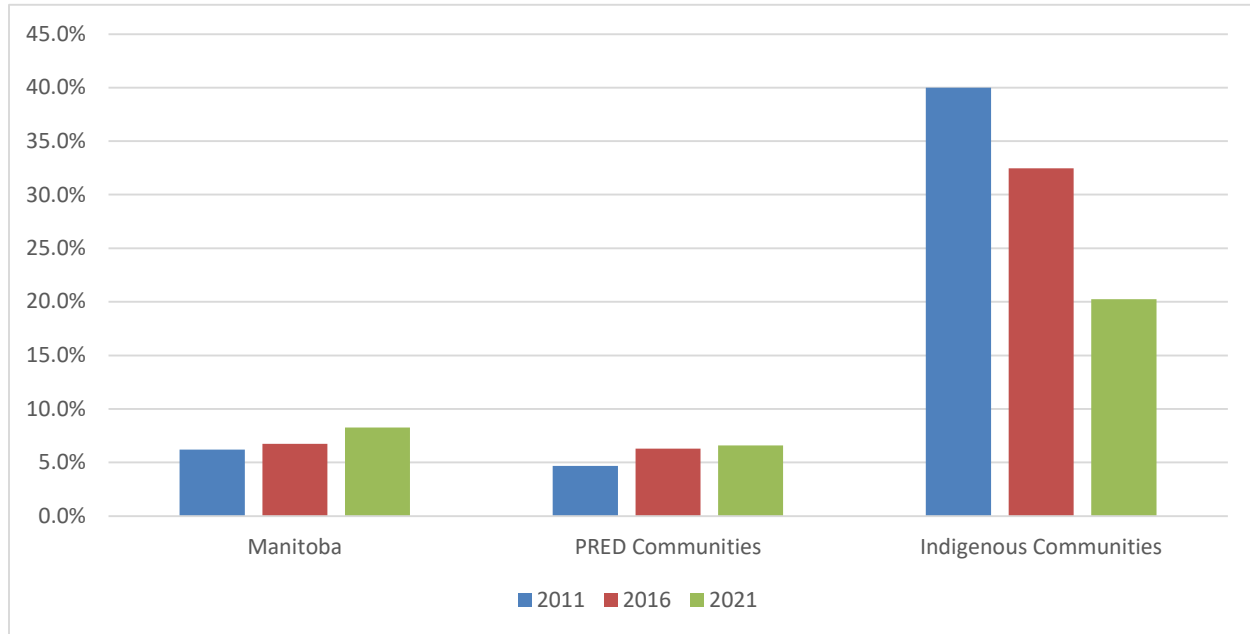
Unemployment Rate

Figure 18 illustrates the unemployment rate of the province, PRED Communities, and Indigenous Communities. The unemployment rate is defined as the number of unemployed individuals expressed as a percentage of the labour force. Unemployed persons include those

⁶³ Statistics Canada, Employment. December 2, 2024. Available: <https://www160.statcan.gc.ca/prosperite/prosperite/employment-emploi-eng.htm>

who are available for work and are not working but have looked for work in the past four weeks, are on temporary layoff due to business conditions, or have a job to start within four weeks.⁶⁴

Figure 18: Unemployment Rate



Sources: Statistics Canada, 2021 Census, Table 98-10-0040-01;
 Statistics Canada, 2016 Census, Table 98-400-X2016365;
 Statistics Canada, 2011 Census, Table 98-311-XCB2011018. Retrieved March 17, 2025.

The data in **Figure 18** indicates that PRED Communities had a lower unemployment rate than the Manitoba average, at 6.6% compared to 8.3%. The unemployment rate in Indigenous Communities was higher, at 20.3% in 2021. It is important to note that the unemployment rate has been rising in most communities over this period, while it has decreased in Indigenous Communities.

Participation Rate

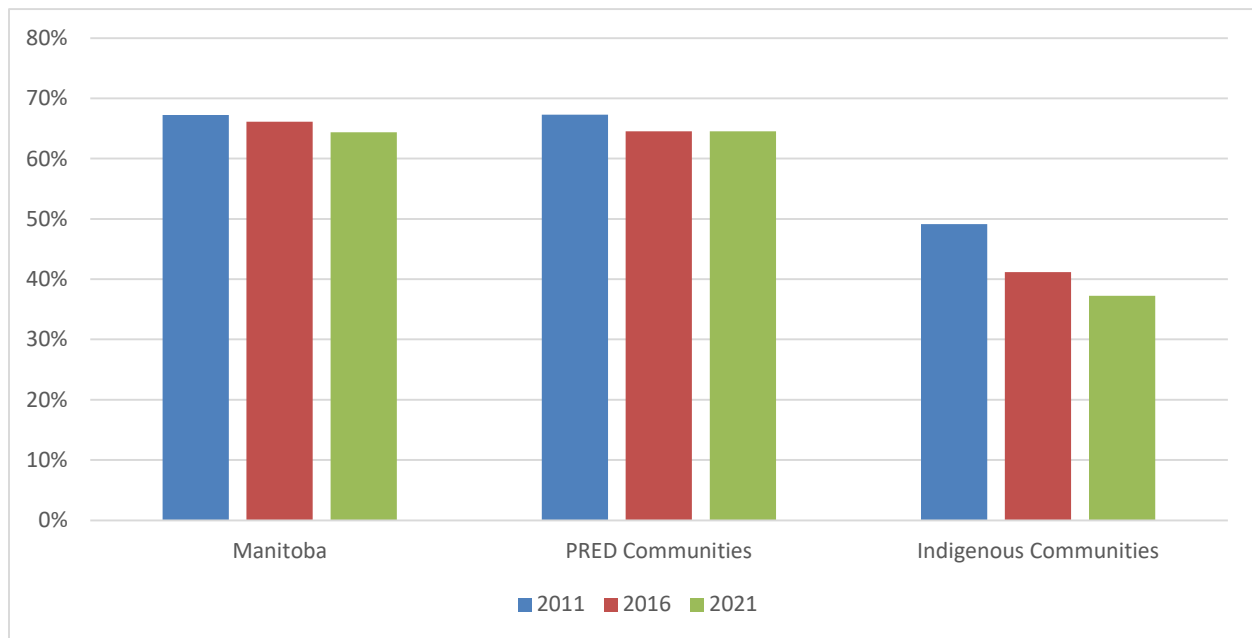
Figure 19 illustrates the participation rate of the province, PRED Communities, and Indigenous Communities. The participation rate is the percentage of people aged 15 and over who are in the labor force, including both employed individuals and unemployed individuals who are actively seeking work.

The data in **Figure 19** indicates that PRED Communities have a participation rate like the provincial average. In 2021, the participation rate in the Portage Region was 65%, compared to

⁶⁴ Statistics Canada, Labour force status of person. June 7, 2021. Available: <https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=84961>

64% in the province as a whole. However, the participation rate in Indigenous Communities was lower, at 37% in 2021.

Figure 19: Participation Rate



Sources: Statistics Canada, 2021 Census, Table 98-10-0040-01;
 Statistics Canada, 2016 Census, Table 98-400-X2016365;
 Statistics Canada, 2011 Census, Table 98-311-XCB2011018. Retrieved March 17, 2025.

This data suggests that the percentage of individuals in the labour force in the province, PRED Communities, and Indigenous Communities is declining. This can mean that people are retiring or otherwise no longer seeking work. Differing trends are noted in **Figure 18**: while the percentage of unemployed individuals in the labour force who are seeking work is increasing in the province and PRED Communities, it is decreasing in Indigenous Communities.

APPENDIX C: Eco-Industrial Park Designation

A review of the United Nations Industrial Development Organization (UNIDO) International Framework for Eco-Industrial Parks Performance Requirements

The following section provides a review of the United Nations Industrial Development Organization's (UNIDO) *International Framework for Eco-Industrial Parks Version 2.0* performance requirements, along with recommendations for PBIP and MIP industrial parks to better align with the UNIDO framework.

What are Eco-Industrial Parks?

Eco-industrial parks (EIPs) are dedicated areas for industrial use that are designed to support sustainable industrial development by encouraging collaboration among businesses to minimize environmental impacts and enhance resource efficiency. These parks integrate social, economic, and environmental factors into their planning, management, and operations.⁶⁵

What are the Benefits of Eco-Industrial Parks? Why Implement them?

Eco-Industrial Parks (EIPs) help manage industrialization's environmental and social risks while maximizing sustainability. By grouping businesses together, EIPs promote efficiency, reduce pollution, and support socio-economic development, particularly in emerging economies. They drive benefits like improved resource management, cost-effectiveness, and better community cohesion. EIPs also offer strategic advantages, such as enhanced competitiveness, reduced exposure to resource risks, and improved stakeholder relationships.

Key drivers for EIPs include environmental protection, climate change mitigation, and resource efficiency. EIPs reduce greenhouse gas emissions and support circular economy practices. They also contribute to economic benefits, including job creation, skills development, and technology transfer.

Socially, EIPs foster better working conditions, local employment, gender equality, and community outreach, ensuring sustainable land use and a stable local workforce. They mitigate reputational risks for businesses and can lead to better infrastructure, security, and social services. Through careful planning and collaboration, EIPs offer long-term economic and environmental benefits while promoting social well-being ultimately leading to increased profitability and a more sustainable business model, with significant economic benefits, especially in terms of job creation.

While initial costs may be higher, EIPs can save money in the long run by attracting new people, boosting the local economy, and offering potential savings through resource efficiency, energy savings, and waste reduction. They also improve environmental performance, market competitiveness, and community impact by promoting collaboration and resource-sharing among companies.

⁶⁵ World Bank. 2021. *International Framework for Eco-Industrial Parks v.2*. Washington, DC: World Bank.

Barriers to Implementation of Eco-Industrial Parks

Implementing Eco-Industrial Parks (EIPs) face various challenges, including both internal and external barriers related to technology, management, and cost. While some industrial parks have taken steps toward sustainability, few fully developed EIPs exist due to issues such as the high cost of eco-efficient technologies, the lack of competitively priced resources like water and energy, and disruptions caused by innovations. In developing countries, the upfront investment required for advanced systems, like wastewater treatment plants, can be prohibitive. Retrofitting existing parks is especially challenging due to the integration of sustainable processes into older infrastructures.

Additionally, the absence of clear guidelines and international benchmarks makes it difficult to distinguish EIPs from traditional industrial parks and hinders effective communication of their benefits. Overcoming these barriers requires detailed planning, skilled management, and potentially, external assistance.

Performance Criteria of Eco-Industrial Parks

The framework for EIPs sets prerequisites and performance indicators that can be measured qualitatively and quantitatively. National governments use these benchmarks to establish country-specific standards for EIPs. For a park to be considered an EIP, it must meet these standards, which typically include sustainable management, resource efficiency, cleaner production, industrial symbiosis, community and environmental interactions, proper spatial planning, and acceptable working and living conditions. Additionally, EIPs often involve shared infrastructure and facilities management. As a baseline, EIPs must comply with all applicable local and national regulations, and environmental and social commitments must go beyond these regulatory requirements.

While various tools and processes exist to help governments and industrial park stakeholders achieve sustainable industrial development, international guidelines for eco-industrial parks (EIPs) are limited. As such a set of "performance requirements" has been established that address compliance, socio-economic, environmental, and management factors. These standards serve as benchmarks for evaluating existing parks, planning upgrades to existing parks (or retrofits), or developing new parks.⁶⁶ Performance criteria charts can be found in Appendix X: The United Nations Industrial Development Organization (UNIDO) International Framework for Eco-Industrial Parks Performance Requirements.

As set out in the *International Framework for Eco-Industrial Parks Version 2.0.*, the framework focuses on four key categories as follows:

1. Park management performance
 - a. Park management services
 - b. Monitoring and risk management
 - c. Planning and park design
2. Environmental performance

⁶⁶ World Bank. 2021. *International Framework for Eco-Industrial Parks v.2*. Washington, DC: World Bank.

- a. Management and monitoring
 - b. Energy management
 - c. Water supply and wastewater management
 - d. Waste and material usage and management
 - e. Climate change and natural environment assessments
- 3. Social performance
 - a. Social management systems and monitoring
 - b. Social infrastructure
 - c. Community outreach and dialogue
- 4. Economic performance
 - a. Local business and small and medium-sized enterprise promotion
 - b. Employment generation (maximizing local opportunities)
 - c. Economic value creation
 - d. Park entity's financial viability

Recommendations for Poplar Bluff and McMillan Industrial Parks: A Toolkit

The analysis finds that while PBIP and MIP are considering upgrades to their existing parks, or implementing new technologies in greenfield sites, further research and assessment to track progress and measure the impact of improvements is needed. A more detailed study is needed to assess the benefits versus costs of Eco-Industrial Parks (EIPs) for PBIP and MIP.

Actionable steps for these industrial parks include evaluating their environmental performance and taking specific measures to move toward achieving eco-industrial park status as outlined in the performance requirement charts in **Figures 20 – 24**. This is an opportunity to plan and manage industrial parks as they develop to achieve the desired economic, social, and environmental targets and Sustainable Development Goals (SDGs). Considerations for developing an EIP framework specific to PBIP and MIP, as well as future parks, include:⁶⁷

1. Develop a cohesive approach for existing and future EIPs within Portage La Prairie and surrounding areas

Step 1: Continue to engage local stakeholders and secure commitment during the EIP policy development process.

Step 2: Conduct a technical analysis of the existing parks that includes an analysis of policies and regulations, institutional analysis, and analysis of financial needs.

Step 3: Develop an EIP roadmap that outlines policy and regulatory reform, establishes governance structures, and determines financial mechanisms.

Step 4: Launch, monitor, and evaluate the framework (regular reporting and verification).

⁶⁷ For more detailed information consult: World Bank. 2018. *A PR actioner's Handbook for Eco-Industrial Parks: Implementing the International EIP Framework*. Washington, DC: World Bank.

2. Implement the EIP framework for Poplar Bluff, McMillan, and future parks

Step 1: Develop stakeholder commitment and conduct preliminary and pre-feasibility assessments of the EIP framework (at a park-level).

Step 2: Establish an EIP management team to assess the needs, roles and responsibilities, and functions of the EIP management team.

Step 3: Establish an internal performance audit to monitor and evaluate the performance of EIP programs within the park(s).

Step 4: Reporting and marketing – build a business case.

3. Explore EIPs and industrial symbiosis

Step 1: Identify opportunities for an industrial symbiosis network by understanding the flow of materials, energy, and waste, determine target materials, review existing regulatory and institutional frameworks, identify receiving and supplying businesses, secure commitment from participating businesses and discuss their roles, and shortlist industrial symbiosis opportunities for feasibility assessments.

Step 2: Implement and verify industrial symbiosis opportunities by conducting a feasibility assessment, arrange financial support, empirical analysis, review the economic return of reused materials, and have businesses make investment decisions and sign a Memorandum of Understanding.

Step 3: Launch and develop the business cases through investment, design and construction, commissioning and operations, and evaluate and verify performance.

Next Steps

The transition toward Eco-Industrial Parks (EIPs) presents a promising opportunity for PBIP and MIP, as well as the development of future parks in the Region, to enhance sustainability, economic growth, and community development. By aligning with the UNIDO International Framework for Eco-Industrial Parks, both parks can address environmental and social challenges, foster resource efficiency, and create a more competitive business environment. However, further research and detailed assessments are needed to fully evaluate the potential benefits and costs, as well as to track the impact of implemented improvements. Through proactive planning, stakeholder engagement, and strategic implementation, PBIP and MIP can achieve significant progress toward becoming fully functional EIPs, contributing to long-term sustainability and local prosperity.

Figure 20: Park Management - Performance Requirements for Eco-Industrial Parks

Table 2: Park Management - Performance Requirements for Eco-Industrial Parks

EIP Prerequisites for Park Management				
Topic	Sub-topic	Description/Requirement	Prerequisites/Evidence	Checklist
Park management services	Park management entity	A park management entity (or alternative agency, where applicable) exists to handle park planning, operations and monitoring.	A distinct park management entity (or agency, where applicable) exists to handle park planning, operations, management, and monitoring.	Available [Yes / No]
	Park property, common infrastructure and services	The park management entity provides and facilitates common services and infrastructure to resident firms to ensure smooth operations.	Park management entity to manage and maintain the Industrial park property, common infrastructure, and services as prescribed in the tenant contract. This should include at least the following: • Property management, including plot allotments, development, land use monitoring. • Utilities, roads, security (including IT security) and emergency response services/facilities and wastewater treatment plants and operations, including waste heat/energy recovery and distribution networks • Environmental monitoring and advisory activities • Common landscaping, buffer zones, street lighting, security surveillance and street cleaning. • Provide facilitating services to and between tenant firms (for example, networking, collaboration and training opportunities). • Engagement with the park's stakeholders and business representatives. • PR and community participation center/platform/activities.	Available [Yes / No]
Monitoring and risk management	Monitoring performance and risks	The park management entity has established and maintains a system for monitoring achievement of threshold EIP performance targets and management of critical risk factors within the park.	Park management entity maintains an EIP framework monitoring system in place, tracking and reporting: • Progress on environmental, social and economic performance at the park level annually. • Critical risk factors and related responses, at least for: ◦ Risk points for the accidental release of hazardous solid, liquid and gaseous effluents, including during transportation and disposal when fire hazards are possible; and ◦ Applicable natural disaster risks (for example, earthquakes); ◦ Environmental performance; ◦ Social performance; ◦ Economic performance; and ◦ Critical risk management at the level of the park. • Acts as monitoring and pre-clearing institution for environmental issues on behalf of the regulatory bodies, as delegated. • May operate a central environment control unit with an emergency alert system for environmental and other hazards.	Available [Yes / No]
		The park management establishes measures to deal with climate change adaptation and disaster preparedness.	Park management has a plan, to be updated every seven years, in place to react to possible negative impacts due to climate change (heat waves and droughts, storms and floodwater events). All adaption needs for infrastructure and services are identified and in place for the industrial park to protect against climate change and potential damages. Park management entity and resident firms have plans and measures to ensure continued operation of critical infrastructure systems within the park (e.g., wastewater treatment plants, power plants, recycling facilities, etc.) that can be activated even in emergencies.	Available [Yes / No]
	Climate risk assessment	The park management entity collects, assesses, and reviews comprehensive climate risk information specific to the location of the park.	Park management entity investigates risks due to climate change and updates this information on a regular basis.	Available [Yes / No]
	Information on applicable regulations and standards	Park management has a good understanding of regulations and international standards applicable to industrial park compliance and enforces them in the park.	Park management entity has a system to collect, register and comply with local/national regulations and international standards applicable to the industrial park. Park management enforces compliance by resident firms and requests and collects compliance information that firms share with the park management entity.	Available [Yes / No]
Planning and park design ¹³	Master plan	A master plan for the EIP is developed by park developers and is applicable to both planning and operations by park managers.	A master plan (or equivalent planning document) for any new and existing industrial park has been developed and is reviewed periodically (minimum every seven years) and updated if required, including the following core elements: • Based on various risk analyses; essential and efficient infrastructure (onsite and offsite, in particular ensuring access to decent housing), utilities, transportation network; environmental and social issues; buffer zone around the park; procedure to safely locate high risk industries; and cluster synergistic industries and similar. • Integration into master plan of relevant requirements specified in this EIP framework.	Available [Yes / No]
Performance Indicators for Park Management				
Topic	Sub-topic	Description/Requirement	Performance Indicator	Unit (Target value)
Park management services	Park management empowerment	Distinct park management entity is empowered to provide and charge fees through a legally binding instrument.	Proportion of firms in the industrial park to have signed a residency contract/park charter/code of conduct (depending on what is legally binding on park firms according to the existing legislation in the country ¹⁴) and additional legally binding arrangements that empower the park management entity to perform its responsibilities and tasks, and charge fees (sometimes absorbed in rental fees) for common services. This may include transparent fees for services pertaining to the achievement of EIP performance targets.	Percentage of firms [100%]
	Park management entity property and common infrastructure operations	The park management entity provides and facilitates efficient common services and infrastructure to resident firms.	Proportion of satisfied resident firms with regard to the provision of services and common infrastructure by the park management's entity (or agency, where applicable) out of total respondents.	Percentage of firms [75%]

¹³ While planning and design processes of an industrial park are most relevant for greenfield initiatives, the original industrial park masterplan remains useful as a guide to park management regarding future expectations and plans.

¹⁴ In most developing countries, a park's charter or code of conduct may not be a legally binding instrument. Therefore, it would not provide the park management entity with the necessary authority.

Figure 21: Environment - Performance Requirements for Eco-Industrial Parks (1 of 2)

Table 3: Environment - Performance Requirements for Eco-Industrial Parks

EIP prerequisites				
Topic	Sub-topic	Description/Requirement	Prerequisites/Evidence	Checklist
Management and monitoring	Environmental and Energy Management Systems (EMS and EnMS, respectively)	The park has appropriate, functioning EMS and EnMS systems (for example, ISO 14001 Environmental Management Standard and ISO 50001 Energy Management Standard) in place to set and achieve targets, and covering key issues (for example, energy waste and material use; water; point-source emissions; carbon footprint; and the natural environment).	• Park management entity operates an environmental/energy management system in line with internationally certified standards, monitoring park performance and supporting resident firms in the maintenance of their own firm-level management systems. For this purpose it records all relevant data, preferably managed by a dedicated environmental monitoring and recording unit/group.	Available [Yes / No]
		The park actively supports and facilitates industrial synergies and symbiosis.	• Park management entity keeps updated records on energy, water, waste products, and materials inefficiencies and needs at tenant firms to provide a basis for industrial synergies development.	Available [Yes / No]
Energy	Energy efficiency	Energy efficiency strategies are in place for the park management infrastructure and major energy-consuming resident firms.	• Supporting programs (e.g., energy efficiency networks) are in place to improve the energy efficiency of major energy-consuming businesses in the park.	Available [Yes / No]
	Energy network and waste heat recovery	A program/mechanism is in place to identify opportunities for common energy and heat exchange networks to be established. The park management will provide the required physical network and offers support programs to assist resident firms with implementation.	• An industrial heat recovery strategy is in place to investigate opportunities for heat and energy recovery for the major thermal energy-consuming firms in the park. (Typically, these are firms that individually use at least 10–20 percent of total firm level energy consumption). • Park management provides the physical network for waste heat/energy exchange at park level, and assists firms to connect to the network. A commonly accepted rewards system for waste heat/energy provision/use is in place.	Available [Yes / No] Available [Yes / No]
Water supply and wastewater	Water efficiency, reuse and recycling	Water-saving and re-use plans are important to reduce total water consumption and manage water use. The industrial park may face challenges related to climate and non-climate related uncertainties that can shock and/or stress a system (land use changes, demographics, shifts in demand, etc). The park and firms should have systems in place to increase water savings and reuse.	• Park management entity has operational plans to increase water reuse in next five years. This would be achieved by either reuse of industrial effluents, or by rainwater/storm water collection.	Available [Yes / No]
			• Park management entity provides the physical network for water reuse/cascading of water.	Available [Yes / No]
Waste and material use	Dangerous and toxic material	Tenant firms are obliged to make as little use as possible of hazardous materials in their production process; to generate as little hazardous waste as possible, and to seek alternative materials.	• Obeying the principles of good practices for the management of hazardous materials and waste as part of legally binding agreements.	Available [Yes / No]
	Resource conservation	The park management and firms are obliged to consider circular economy principles and practices (e.g. circular products, using as little virgin raw material as possible, reuse and remanufacturing of components and parts and making extensive use of secondary/ recycled materials generated in the park).	• Obeying the principles of circular economy is part of the Park's Code of Conduct, and any legally binding agreement between tenant firms and the park authority.	Available [Yes / No]
	Treatment of waste	Waste generated in the production process is recovered, as far as possible, through sorting, cleaning, conditioning etc., so that it can be used as raw material for other firms in and outside of the park.	• A central park facility or other mechanism is in place to treat waste that cannot be processed by individual firms.	Available [Yes / No]
	Disposal of waste	Waste/secondary raw materials (including hazardous waste) leaving the park is being monitored to check that the material is either reused or further processed by authorised firms outside of the park, or disposed of according to legal and environmental standards.	• A monitoring system is in place that controls and registers origin, type, mode and route of transport, and final destination of waste/secondary raw material leaving the park.	Available [Yes / No]
Climate change and the natural environment	Air, GHG emissions and pollution prevention	The park seeks to limit and mitigate pollution and GHG emissions, including air, waterway, and ground pollution. A set of measures at the park level is introduced (for instance, low-carbon technologies, energy efficiency measures, circular economy practices, waste heat recovery) to reduce GHG emissions.	• A program is established with clear evidence of steps taken to monitor, mitigate and/or minimize GHG emissions such as carbon dioxide (CO ₂), methane (CH ₄), and nitrogen oxides (NO _x). • Reducing CO ₂ emissions is an integral part of the park's code of conduct, which urges firms to reduce their carbon footprint. The park acknowledges actions in this regard through an awards and incentive system.	Available [Yes / No] Available [Yes / No]
	Environmental assessment and ecosystem services	The industrial park demonstrates an understanding of the potential impact of park activities on priority ecosystem services in and around the vicinity of the park, and takes needed actions.	• The park management entity has a plan in place to assess operational environmental impacts, and aims to limit these impacts on prioritized local ecosystem services. • The park management implements measures to protect biodiversity, and protects or creates natural/recreational areas in and surrounding the park.	Available [Yes / No] Available [Yes / No]
Performance indicators				
Topic	Sub-topic	Description/Requirement	Performance indicator	Unit [Target value]
Management and monitoring	Environmental/Energy Management Systems (EMS and EnMS, respectively)	Firms have functioning and fit-for-purpose EMS/EnMS systems. Summary information from these management systems is provided to park management, who aggregate and report on data at the park level.	• Proportion of a firm's energy consumption that is covered by an energy management system.	Percentage of energy consumption by firms to be covered by an energy management system [10%]

Figure 22: Environment - Performance Requirements for Eco-Industrial Parks (2 of 2)

Performance Indicators				
Topic	Sub-topic	Description/requirement	Performance Indicator	Unit (Target value)
Energy	Energy consumption	The industrial park has adequate metering and monitoring systems in place to measure thermal energy and electricity consumption at both the park and firm levels.	• Proportion of the park management and tenant firms that have a metering system in place.	Percentage of park facilities (100%)
			• Proportion of firm-level energy consumption that is monitored.	Percentage firm-level energy consumption monitored (20%)
	Renewable and clean energy	The industrial park leverages available renewable energy with plans to increase its contribution for shared services (for example, solar streetlamps).	• Total renewable energy use for electricity and heat production in the industrial park is equal to or greater than the renewable energy share in the annual national electricity mix in the grid.	National grid emission factor ¹⁵ $\geq$ the combined CO ₂ emissions intensity ¹⁶ as per unit of produced and purchased heat and electricity for use by EIP firms
	Energy efficiency	Energy efficiency opportunities should be identified at the park and firm levels to reduce energy use and associated greenhouse gas emissions. EIPs should identify and promote technological and process-related interventions in their own and resident business operations.	• The equivalent of at least 10% of the total CO ₂ emissions (Scope 1 and 2) at park level is covered by the percentage of firms that have a qualified energy efficiency certification (LEED, Industry EDGE, DGNB or ISO 50001 or their national equivalent).	Percentage of CO ₂ emissions covered by the firms with energy management certification (10%)
Water supply and wastewater	Water consumption	A mechanism is in place to monitor water consumption across the park, and establish demand management practices in case of water stress. Extraction from water sources (such as rivers and groundwater sources) should take place at sustainable levels. ¹⁷	• Total water demand from firms in industrial park that does not negatively impact local water sources or communities.	Percentage of water demand (100%)
	Wastewater treatment	The industrial park has provisions to treat, recycle and reuse treated wastewater. No effluents significantly impact potable water resources, or the health of local communities or nearby ecosystems.	• Proportion of industrial wastewater generated by industrial park and resident firms which is treated in accordance with appropriate environmental standards.	Percentage of wastewater treated/total wastewater (100%)
	Water efficiency, reuse and recycling	The park and firms have systems in place to increase water savings and reuse.	• Proportion of total industrial wastewater from firms that is reused responsibly within or outside the industrial park.	Percentage of water reused or recycled/total water consumed (25%)
Waste and material use	Waste/by-products re-use and recycling	A waste management plan with a program/mechanism in place to promote and encourage reuse and recycling of materials by firms in the park (for example, raw materials for process and non-process applications).	• Proportion of non-hazardous, solid industrial waste generated by firms that is reused-recycled by other firms, neighbouring communities, or municipalities.	Percentage of solid waste reused/total waste (25%)
	Dangerous and toxic materials	Program/mechanism in place with clear targets to reduce, and avoid the use of, dangerous and hazardous materials by firms in the park.	• Proportion of firms in park which appropriately handle, store, transport and dispose of toxic and hazardous materials.	Percentage of firms with programs for handling and disposing of hazardous materials (100%)
	Resource conservation	Circular economy practices (e.g., Industrial Symbiosis Networks, Exchange Platforms for waste and secondary raw materials, for reuse and recycling, etc.) are in place and used by firms. Circular economy practices consist of a) redesigning products for ease of reuse, remanufacturing, disassembly and recycling; b) reuse of waste and/or by-product within its own operations; c) collecting back and remanufacturing products or parts and components of products.	• Proportion of manufacturing firms adopting circular economy practices, including engagement in industrial Symbiosis Networks in the park; or actively exchanging secondary raw materials, or waste, or other circular economy practices.	Percentage of tenant firms participating in CE practices (20%)
	Waste disposal	A waste management system with a systematic approach to collection, treatment, recycling and disposal of waste, and which correctly manages unusable waste materials (e.g., disposed of in proper landfills, burned in proper incinerator).	• Waste generated by firms in the industrial park which is safely disposed of. Open burning of waste generated in an EIP is prohibited.	Percentage of industrial waste without re-processing, reuse or recycling options that go to sound disposal (100%)
Climate change and the natural environment	Flora and fauna	Native flora and fauna are important to maintain the proportion of natural areas. They are integrated within the industrial park and natural ecosystem where possible.	• Proportion of open space ¹⁸ in the park for native flora and fauna.	Percentage of open space (5%)
	Air, GHG emissions and pollution prevention	A mechanism is in place to avoid, minimize, and/or mitigate significant point-source pollution and GHG emissions. Covering GHG gases (CO ₂ , methane (CH ₄), nitrous oxide (N ₂ O), and hydrofluorocarbons (HFCs)), local particulate and air pollution emissions such as PM 2.5, heavy metals (Hg, Cd, Pb and other relevant heavy metals), selected unintentional toxic organic pollutants (dioxins, PCDD/Fs). Program for on-site chemical management.	• Proportion of firms in park which have pollution prevention and emission reduction strategies to reduce the intensity and mass flow of pollution/emission releases which exceed national regulations. • Proportion of firms in industrial park which have a risk management framework in place that: (a) identifies activities which have an impact on the environment, and; (b) assigns a level of significance to each activity, and; (c) have appropriate mitigation measures in place.	Percentage of firms (50%) Percentage of firms (30%)

15. National Grid Emission factor is the measure of CO₂ emissions intensity per unit of electricity generation in the national grid (kg CO₂/kWh).

16. This should cover Scope 1 emissions: direct emissions from owned or controlled sources, and Scope 2 emissions: indirect emissions from the generation of purchased energy.

17. Sustainable levels refer to the rights/concessions allocated to incentivize lower water usage as compared to the business-as-usual baseline.

18. Open space refers to natural areas not allocated for industrial use but used to maintain native flora and fauna.

Figure 23: Social - Performance Requirements for Eco-Industrial Parks

Table 4: Social - Performance Requirements for Eco-Industrial Parks

EIP prerequisites				
Topic	Sub-topic	Description/Requirement	Prerequisites/Evidence	Checklist
Social management systems	Management team	Functioning system(s) are in place for ensuring social infrastructure provisioning, operations and performance, as well as collecting, monitoring, and managing key social information and impacts relevant to the industrial park.	Dedicated personnel exist (as part of the park management entity) to plan, manage and enforce social quality standards.	Available [Yes / No]
Social Infrastructure	Primary social infrastructure	Social Infrastructure addresses different aspects to improve the living and working conditions of employees and neighbouring communities. Provision of primary social infrastructure is vital for employees' health and welfare, paying special attention to the needs of women. Primary social infrastructure covers inter alia adequate medical services, educational and training institutions, separate toilets and washing facilities, and provision of cafeterias and recreational areas.	Essential primary social infrastructure has been adequately provided in the site master plan and is fully operational in the park. Gender perspectives are incorporated in the formulation, management and monitoring of plans and programs. A particular entity (e.g. planning unit or facilitated group of interested firm representatives) exists, which investigates and plans for future developments/ challenges to the social environment due to the introduction of new technologies such as "Industry 4.0" and AI controlled production processes.	Available [Yes / No]
Performance indicators				
Topic	Sub-topic	Description/Requirement	Performance indicator	Unit [Target value]
Social management systems	OH&S management system	Firms should have an OH&S management system in place (based on ISO 18001 standard) to record occupational diseases, absenteeism, and numbers of work-related injuries and fatalities.	Proportion of firms with more than 250 employees that have an OH&S management system in place.	Percentage of firms [75%]
	Grievance management	A grievance mechanism to receive and address grievances from within and outside the park. Examples include help desks, complaint boxes, and hotlines (phone booths) located inside and outside of the industrial park.	- Proportion of grievances received by the park management entity which are responded to with statements of reasons within 14 days. - Proportion of grievances received by the park management entity which are concluded within 60 days. - Proportion of firms with more than 250 employees that have a code of conduct system in place to deal with grievances.	Percentage of grievances [100 %] Percentage of grievances [100%] Percentage of firms [75%]
	Discrimination and harassment prevention and response	Employees of the park management and resident firms should have a working environment free of violence, harassment, discrimination, exploitation or intimidation. A discrimination and harassment prevention and response system with clear complaint and response procedures should be in place.	Proportion of firms with more than 250 employees that have a harassment prevention and response system in place.	Percentage of firms [75%]
	Decent work	Conditions of employment should meet the following work criteria: - a fair income with security and social protection which allows access to decent housing, - recognition of contractually agreed rights of workers and employees including - but not limited to - working hours, leave and maternity leave. - establish and join organizations, of their own choosing, and without prior authorization, to represent workers.	At least 80 percent of women and 80 percent of men of the surveyed workers agree that each of these decent work criteria are met.	[≥80%]
Social infrastructure	Primary social infrastructure	Social infrastructure should meet the norms and requirements of the workforce, and client expectations, paying special attention to the needs of female workers.	Proportion of surveyed employees reporting satisfaction with social infrastructure.	Percentage of surveyed employees [80%]
	Industrial park security	The industrial park has security systems and services that are fully operational and fit-for-purpose, taking the particular security needs for women into consideration. Examples include, among others: appropriate lighting systems in and around the park, closed circuit television (CCTV) systems, a centralized security office, and provision of transport at night.	Proportion of reported security and safety issues that are adequately addressed within 30 days.	Percentage of reported security and safety issues [100%]
	Capacity building	Programs for skills training and development at park management and firm level are in place, emphasizing equal opportunities for skills training and career development, and addressing new technologies and changes in the labour market. Examples include skills development programs, and women entrepreneurship development programs.	- Proportion of firms in park with more than 250 employees with a program for skills/vocational training and development. - Proportion of underrepresented genders in workforce in the park management and firms who benefit from skills development programs.	Percentage of firms [75%] Percentage of underrepresented gender workforce [≥50%]
Local community outreach	Community dialogue	Provision of established, accessible communication platforms or other means to maintain regular dialogue with the community and relevant civil society organizations. Examples include news bulletins, regular media releases, and information display boards.	Over 80 percent of the surveyed community members are satisfied with the park's efforts to communicate.	Percentage of surveyed community members [80%]
	Community outreach	The park management entity and resident firms engage in community outreach activities and maintain documentation. These activities could include: an annual day with celebrations inside the park; clean-up drives or public service activities that are organized in community areas by the park management; infrastructure for community areas (for instance, drinking water supply, sanitation).	Number of outreach activities implemented by the park management entity annually that are regarded as positive by over 80 percent of the surveyed community members.	Number of outreach activities per year [2]

Figure 24: Economic - Performance Requirements for Eco-Industrial Parks

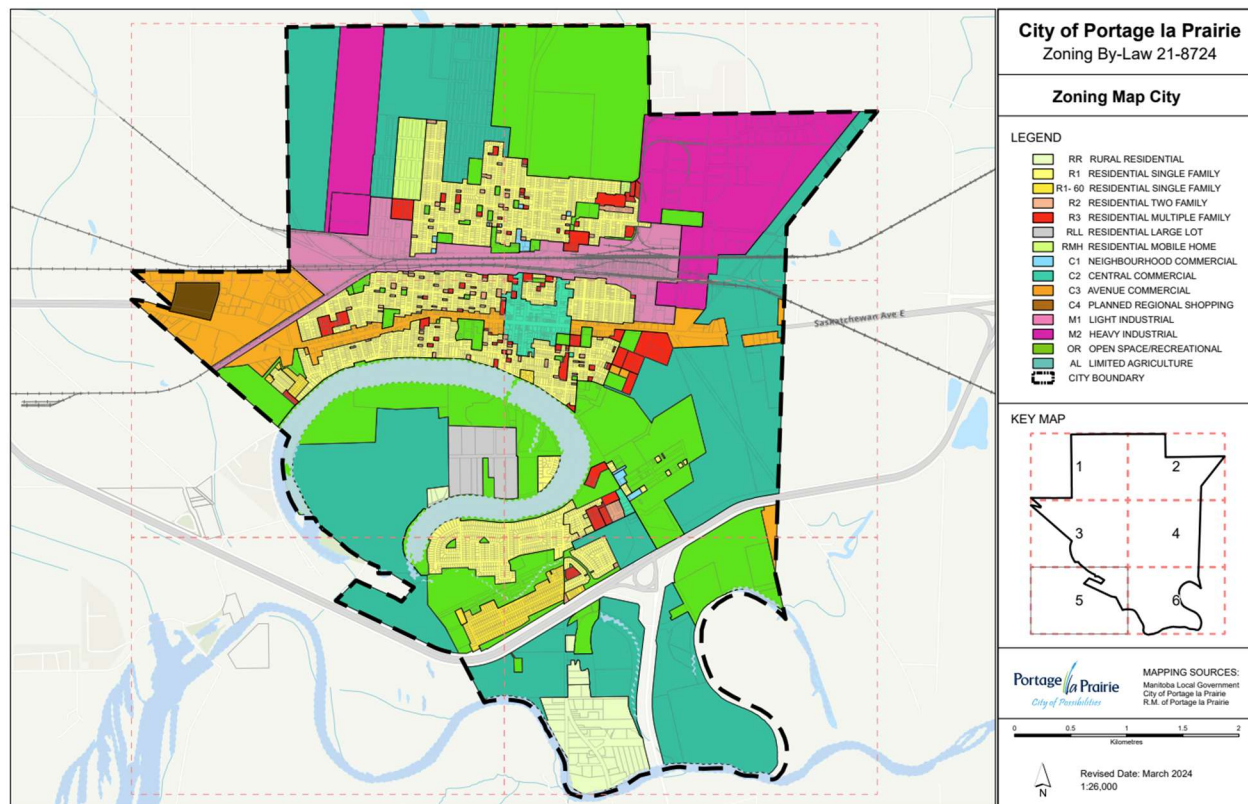
Table 5: Economic - Performance Requirements for Eco-Industrial Parks

EIP prerequisites				
Topic	Sub-topic	Description/Requirement	Prerequisites/Evidence	Checklist
Local business and SME promotion	SME development	An EIP provides opportunities for local, regional, and national SMEs, enabling them to benefit from EIP activities.	• Park management entity allows and promotes the establishment of SMEs that provide services and add value to park residents.	Available [Yes / No]
Employment generation	Maximizing local benefits	An EIP must generate employment opportunities in the areas in which it operates to ensure revenue linkages and development opportunities.	• Park management entity has a strategy in place to maximize local benefits.	Available [Yes / No]
Economic value creation	Market demand for EIP services and infrastructure	The development of an EIP, including green infrastructure and services, must be based on realistic market and industry demands to ensure economic feasibility.	• A market demand and feasibility study, supported by a business plan for specific "green" infrastructure and services has been undertaken to justify planning and implementation in the industrial park.	Available [Yes / No]
			• Park management is financially solvent to operate/provide park infrastructure and services.	Available [Yes / No]
			• The park management should be economically viable in terms of contributing to jobs, technology, and acting as a catalyst to development of local industry.	Available [Yes / No]
			• Park management entity is responsible for marketing the park and park concepts (EIP concept) to potential national and international investors.	Available [Yes / No]
Park entity's financial viability	Service delivery pricing	A dedicated financial model capturing EIP salient features must be used to set pricing levels and anticipated revenues in order to enhance financial viability of EIP investments.	• The park management should render its services at realistic costs to cover operational expenditures.	Available [Yes / No]
Performance indicators				
Topic	Sub-topic	Description/Requirement	Performance indicator	Unit [Target value]
Employment generation	Type of employment	The EIP provides longer-term employment contracts to employees.	• Proportion of total firm workers in industrial park employed through direct employment (that is, not employed on a fee-for-output basis or provided through a labor supply firm) and permanent contracts.	Percentage of employees [30%]
Local business and SME promotion	Local value added	An EIP must use local suppliers where possible. EIPs provide local businesses with opportunities to grow.	• Proportion of resident firms using local SME suppliers or service providers for at least 25 percent of their total procurement value.	Percentage of firms [25%]
			• Proportion of procurement budget paid to local service providers within 100 km radius by the park management entity.	Percentage of total procurement value of park management entity [90%]
Economic value creation	Investment-ready park for firms	An EIP should be "investment ready" so that it offers lower economic risks and better investment opportunities to firms. Infrastructure should be offered, including water, energy, roads and service corridors.	• Percentage of space rented or used by resident firms compared to the total amount of available space earmarked for firms within the park.	Average percentage occupancy rate over 15 years [50%]

APPENDIX D: Portage la Prairie Region Zoning and Location of Industrial Parks

Two areas of interest in this study are MIP and PBIP. The MIP is in the Northeast quadrant of the City of Portage la Prairie and is zoned M2 Heavy Industrial (**Figure 25**).⁶⁸

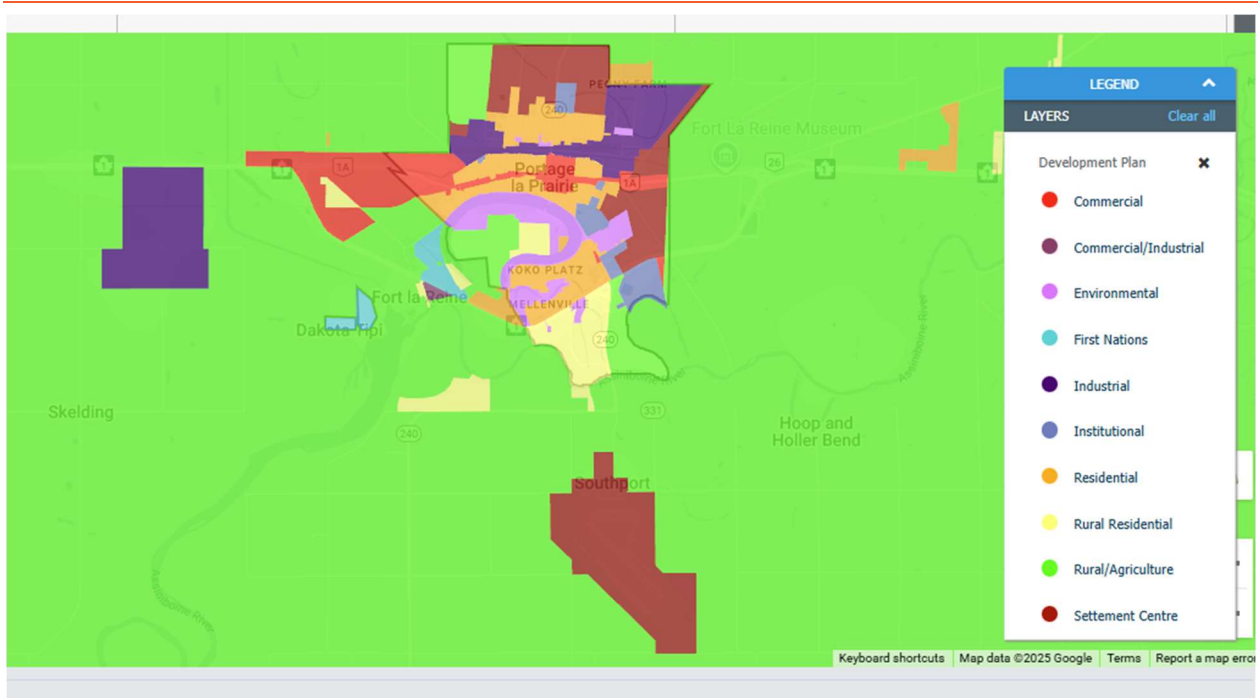
Figure 25: City of Portage la Prairie Zoning map



⁶⁸ The map source is the Portage la Prairie Planning District (March 2024), [link](#).

The PBIP is on the West side of the city in the Rural Municipality of Portage la Prairie (**Figure 26**).⁶⁹

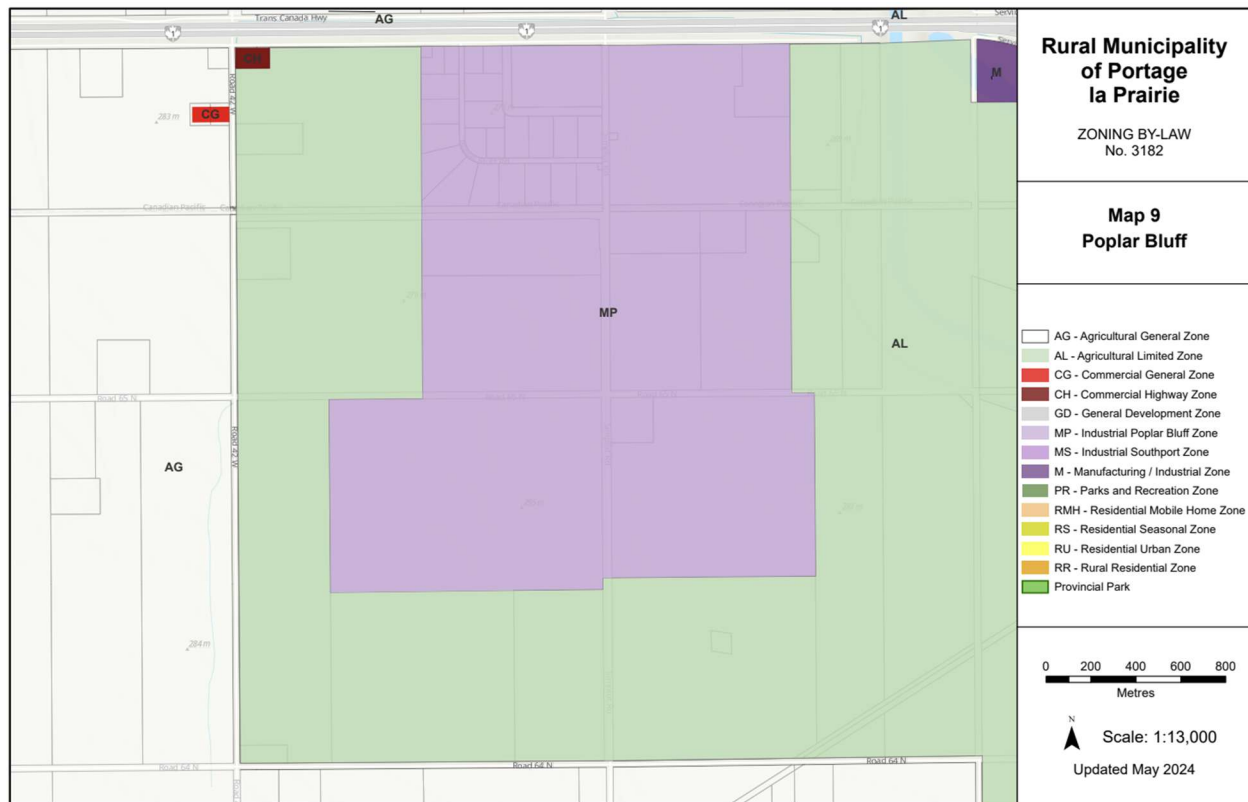
Figure 26: Map of Poplar Bluff in relation to the City of Portage la Prairie and Southport



⁶⁹ The map source is Portage Regional Economic Development (May 2024). "Mapping & GIS data, Map Layers, RM of Portage, Development Plan, RM Zoning, [link](#)."

The community development – development plan maps from the Portage la Prairie Planning District (**Figure 27**).⁷⁰

Figure 27: Poplar Bluff Industrial Park



⁷⁰ The map source is the Portage la Prairie Planning District (May 2024), [link](#).



InterGroup

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