



PLAN20-50

draft VERSION 2.0

A Regional Growth Plan for the
Winnipeg Metropolitan Region

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Securing
Our Future

A stylized, teal-colored map of the Winnipeg Metropolitan Region serves as the background. It features a network of roads, a winding river (likely the Red River), and various land parcels. The map is rendered in a simplified, line-art style with different shades of teal.

PLAN 20-50

draft **VERSION 2.0**

**A Regional Growth Plan for
the Winnipeg Metropolitan Region**

OUR VISION

In 2050, the quality of life here is second to none in the world.

Our communities will thrive because of the environment of trust, coordination, and collaboration that guides good decision-making, transforming all 18 member municipalities into a globally attractive and resilient region.

Through collaboration, innovation, and a focus on best practice, we can facilitate strategic infrastructure investment and coordinate land use planning and services while protecting our land and water.

Plan20-50 will ignite the Manitoba economy and create a high quality of life in a way that cultivates resilience to secure our future for generations to come.

IN THIS FUTURE, WE SEE...

- ✓ A broad and diversified economy that provides good jobs to support our growing region, leveraging our competitive advantage with an eye toward a circular economy.
- ✓ A vibrant collection of unique and thriving complete communities that provide a range of housing choices, amenities, and recreation to support a high quality of life for all.
- ✓ Long term, strategic, and planned infrastructure and services that support our growing communities, business, and industry, and protect our environment.
- ✓ Future ready and coordinated transportation routes that safely connect our communities to, from, and within the region, moving people to jobs and goods to market.
- ✓ Strong collaborative relationships between all levels of government, including Indigenous, business, and industry, NGOs, and the public.
- ✓ Robust, healthy ecosystems supported by a network of natural assets, protecting our communities and enhancing resilience to the impacts of a changing climate.
- ✓ Innovative, high performing wastewater treatment, and high-quality, abundant water for communities, the economy, and ecosystem health.
- ✓ Protection of agricultural lands to support the economy and food security.



LETTER OF PRESENTATION

The Honourable Eileen Clarke
Minister of Municipal Relations

Room 317 - 450 Broadway Avenue
Winnipeg, Manitoba
R3C 0V8

Dear Minister Clarke,

In my official capacity as Co-Chair of the Winnipeg Metropolitan Region (WMR) Board, it has been an honour to be entrusted by the Province of Manitoba to lead the coordination of Plan20-50 – the first long-term regional growth and servicing plan for the Winnipeg Metropolitan Region.

This path we are on stretches back long before our work on Plan20-50 began in 2019, it goes back generations, to leaders who championed a vision of a strong and prosperous Winnipeg Metropolitan region for all.

The Plan20-50 process was, and continues to be, inclusive and far-reaching and has given each municipality, as well as hundreds of other stakeholders, the opportunity to participate and provide valuable information and feedback. Moving to a coordinated collaborative approach is not easy as it will bring change to each WMR member municipality. Plan20-50 calls on us to think and act differently.

We recognize that now the path stretches forward, and we believe that Plan20-50 can offer a strategic approach to realizing the full potential of our region and to deliver an economy that will attract the population we need, and the opportunities to support a strong quality of life and a beautiful environment in Manitoba for generations to come.

On behalf of the Mayors and Reeves of the Winnipeg Metropolitan Region Board, I am pleased to provide you with Plan20-50 that we understand will be provided to the capital planning board for consultation, review and consideration.

Sincerely,

Scott Gillingham
City of Winnipeg – Councillor

Co-chair, Winnipeg Metropolitan Region



MESSAGE FROM THE EXECUTIVE DIRECTOR

It has been an honour and a large part of my personal legacy to work with this dedicated team of leaders and experts to develop Plan20-50.

Informed by global best practice, Plan20-50's policy lenses consider future climate conditions, actions to protect our precious land, water, and natural resources, and activities that will ensure our region will remain economically competitive and is ready for technological transformations as they emerge. The policy lenses set the direction for respectful relationships with Indigenous governments and peoples, honoring our Treaty Relationship, this is perhaps the most important and critical aspect of the plan.

We know that moving to a coordinated, collaborative approach is not easy, but we believe it is achievable, and that Plan20-50 will change the trajectory of our great province by harnessing the strengths of our communities toward shared opportunities. Through thousands of hours of research, dialogue and information sharing, we have produced a framework for growth to address the challenges of our rapidly changing times.

Plan20-50 is not an end result, it is a shared beginning and pathway for the 18 municipalities in the Winnipeg Metropolitan Region to secure a prosperous, sustainable and bright future for all.

This WMR team has been disciplined in their work, resolute in their spirit, and confident that they have been striving in the best interest of us all—for the people, businesses, and governments in our province. We have seen that Manitobans are capable of great things, and we are proud and humbled to know that our children, and their children, will reap the rewards of our legacy. We believe Plan20-50 is rigorous, best in class, and offers a strategic approach to realizing Manitoba's full economic potential.

Thank you for letting me be a part of this historic journey.

Sincerely,

Colleen Sklar

Executive Director, Winnipeg Metropolitan Region

MESSAGE FROM JIM BEAR

I would like to take this opportunity to acknowledge the important work that the Winnipeg Metropolitan Region (WMR) has undertaken to work collaboratively with all of the communities and interest holders within the 18 municipalities that include and surround the City of Winnipeg. This planning work is very important, especially now as we plan together and rely on each other to build a stronger, more vibrant community for all who reside in the region.

Planning is very important in Indigenous communities. Our ancestors understood the importance of planning and looking ahead to ensure that there was enough food, clothing, medicines, and lodgings for community members so that they may not only survive, but also thrive throughout the changing seasons.

The signing of the Treaties is another example where our ancestors planned for our future generations - they wanted to ensure that our peoples' future remained connected to what matters to our nations, the land, our cultures, and languages. Since their signing, numerous studies have been conducted and reports written providing a clear path forward that honours the original spirit and intent of the Treaties.

One of the first in-depth reports that highlighted a number of recommendations was the Royal Commission on Aboriginal Peoples. Recommendations within this report were based on the principles of recognition, respect, sharing and responsibility. Many important recommendations are also noted in the Truth and Reconciliation Calls to Action, including recommendations 42, 75, and 92 that the WMR Planning Process, Plan20-50 would assist with addressing.

I commend the WMR for taking steps to be inclusive of Indigenous perspectives in this process as the United Nations Declaration on the Rights of Indigenous Peoples has recommended, by building a commitment to respectful relationships with Indigenous peoples. The ultimate goal of this regional plan with Indigenous communities is that it will assist in ensuring that we have equitable access to opportunities in all sectors within the Winnipeg Metropolitan Region, and that Indigenous communities gain long-term sustainable benefits from economic development projects.

Throughout my 4-year involvement as a member of the Collaborative Leadership Initiative, I witnessed the beneficial results of bringing leaders together to learn from each other, find common ground, and explore solutions to ongoing challenges. It gave me hope that future generations will benefit from what has been started.

Sincerely,

Jim Bear

Project Advisor - Collaborative Leadership Initiative



“ I witnessed the beneficial results of bringing together leaders to learn from each other, find common ground, and explore solutions to ongoing challenges.

It gave me hope that future generations will benefit from what we started.

”

THE WINNIPEG METROPOLITAN REGION BOARD 2021 - 2022



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(Executive Member)



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RM of West St. Paul | Mayor
Cheryl Christian



Town of Stonewall | Mayor
Clive Hinds



Village of Dunnottar | Mayor
Rick Gamble

THE PLAN20-50 TEAM

Plan20-50 has been delivered through an integrated team of experts, bringing global best practice and leading market intelligence to local expertise and understanding. The Core Project Team is comprised of:

Colleen Sklar

EXECUTIVE DIRECTOR
Winnipeg Metropolitan Region

is strategic lead for the plan. Colleen has many years of experience working with government, business, and NGOs to help make sense of complex issues and find tangible paths forward in an increasingly globalized world. She has ensured the vision and commitments of Plan20-50 meet the expectation for a regional plan and provide benefits for all.

Natalie Lagassé, MCP

REGIONAL PLANNER
Winnipeg Metropolitan Region

is a regional planner for Plan20-50. Natalie has provided policy support and a thorough understanding of best practice. Her knowledge of the region was foundational to the development of the plan.

Ryan Litovitch, MCP

REGIONAL PLANNER
Winnipeg Metropolitan Region

is a regional planner for Plan20-50. Ryan provided in-depth data, mapping, and policy support, critical components to developing the plan.

Anuj Kathuria, MCP, MLA, B. Arch.

is a regional planner for Plan20-50. Anuj provided plan review and analysis for best practice and reviewed and supported consultation sessions on the plan.

Lisa A. Prime, MES, MCIP, RPP, LEED AP

PRINCIPAL
PRIME Strategy & Planning Inc.

is Lead (Chief) Planner for Plan20-50. Lisa's wealth of experience in sustainable community planning policy and implementation brings 25 years' experience on projects at all scales, including regional initiatives in Canada and internationally. Lisa's understanding of governance, infrastructure planning investment and policy have guided the approach to this plan with a goal of economic success of the region and the Province of Manitoba.

Peter Thoma, MCIP, RPP, PLE

PARTNER
urbanMetrics Inc.

is the Land Economics Expert for Plan20-50. Peter is a nationally recognized expert in planning and market analysis with 25 years of experience. Peter's work includes a broad range of clients focused on commercial, residential, industrial, institutional, and recreation assets. Metro Economics and urbanMetrics have provided the population and employment forecasting and land supply analysis for the region, a foundation for Plan20-50.

Meagan Boles, MCIP, RPP, LEED AP

MANAGER PLANNING, LANDSCAPE
ARCHITECTURE AND URBAN DESIGN
WSP Canada Inc.

is a local policy expert for Plan20-50. Meagan has over 15 years' experience in land use planning in Manitoba. She has provided vast knowledge and interpretation of local and provincial policy to support development of regional policy for this plan. Ensuring a local lens and practical application is embedded in the plan was a priority.

Hazel Borys, BSEE, MBA

CEO
PlaceMakers, Inc. (Canada), PlaceMakers, LLC (USA)

is a policy and by-law specialist assisting with Plan20-50 engagement, edits, and implementation. She guides governments around the world through policy and land use law reforms and helps developers build high-performance compact, mixed-use, walkable neighbourhoods. Hazel is co-author of the Pandemic Toolkit, Codes Study, and Code Score and serves on the Manitoba Municipal Board, Transect Codes Council, and Winnipeg Foundation Board.

WITH SUPPORT FROM:

Tom McCormack, MA Econ., Metro Economics
Prepared regional population and employment projections to 2050.

Cameron Dyck, P.Eng., Stantec

Nick Szoke, P.Eng., Stantec

Prepared a regional water and wastewater infrastructure capacity assessment.

Laren Bill, MNRM, Chair Person of the Implementation Monitoring Committee of Treaty Land Entitlement.

Jim Bear, First Nations Advisor

Assisted with First Nations engagement and peer-reviewing regional policies to support collaborative governance and reconciliation.

Susan Henderson, AIA, MBA, LEED-AP, CNU-A, PlaceMakers, LLC

Assisted with Plan20-50 edits and implementation.

Gerard Roemers, MSc., Metabolic

Andrew McCue, BA., Metabolic

Peer reviewed regional policies to ensure the concept of circular communities and a circular economy are embedded.

Henry David (Hank) Venema, PhD, P.Eng., Strategic Community Consulting

Peer reviewed regional policies to ensure considerations for climate change risk and resilience.

Greg Dandewich, MCP, GDan Solutions Ltd.

Peer reviewed regional policies with a lens toward regional economic development.

Jeannette Montufar, PhD, P.Eng., PTOE, RSP, FITE, FCAE, FEC, MORR Transportation Consulting

Peer reviewed regional policies with a lens toward transportation and goods movement - regional road network.

Adam Kroeker, MCP, MA, BA Hons., HTFC Planning & Design

Prepared a regional recreation asset assessment.

Michelle Kuly, Blueprint, Inc.

Etoile Stewart, Blueprint, Inc.

Assisted with transparent engagement and accessible communications to ensure all voices were heard.

Sherril Matthes, Partner, Honest Agency

Provided strategic communications, brand development, graphic design, and web design.

Robert Raleigh, PhD, PathSight Predictive Science

Provided strategic survey development, analytics and communications support.

The following Winnipeg Metropolitan Region staff and interns supported the research and development of Plan20-50:

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Jennifer David

Gisele Sarbandi, MCP

Anders Turim, MCP

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Daniel Iskierski, MCP

We would like to acknowledge and thank all of our partners and stakeholders from the municipalities, the planning and development community, business, industry, NGOs, and the public for their expertise and input.

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If you want to go fast, go alone. If you want to go far, go together.

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THE MANDATE

Organizations exist for one purpose: to help people reach ends together that they couldn't achieve individually.

BACKGROUND

In 2019, the Province of Manitoba mandated the Winnipeg Metropolitan Region (WMR) to:

Coordinate economic development, reduce red tape and duplication, and develop a strategy to coordinate land use and servicing in the Metro Region.

In June 2019 Dr. Robert Murray, one of North America's leading authorities on public policy with extensive experience in the Edmonton Metropolitan Region, was engaged by the WMR to develop a clear path forward to achieve the goals of a strong, prosperous, and sustainable Winnipeg Metropolitan Region for all. Economic development is supported by enhancing the region's global competitiveness, which relies on building mutually beneficial regional relationships. This is fostered by developing a collective approach to land use planning, infrastructure development, and service delivery. Regional collaboration and coordination

drives innovation, capacity building, efficiencies, and allows for the leveraging of resources and economies of scale¹. The report, *For the Benefit of All*, offered three key steps to enhance economic development and move toward regional coordination:

- Develop a culture of regional collaboration for increased competitiveness;
- Build solid foundations for ongoing economic success; and
- Develop an investor-ready climate.

A foundational first step to achieving these goals is to develop a long-term regional growth and servicing plan.

¹Robert W. Murray, "For the Benefit of All: Regional Competitiveness and Collaboration in the Winnipeg Metro Region" (Dentons, October 2019).

REGIONAL MANDATE

Plan20-50 has been established by legislative changes proposed under The Planning Amendment and The City of Winnipeg Charter Amendment Act (the Act). Section 9(1) of the Act allows the Minister, by regulation, to establish a planning region for any region of the province. In accordance with Section 9(2) of the Act, when establishing a planning region, the Minister must have regard for the economic and social integration of the region and the need to include at least one area that has sufficient population density, infrastructure and services to serve as the centre of the region, with contiguous municipalities forming the region as per Section 9(3).

Through adoption of this plan, the mandate of a planning region, according to Section 10.1(1), is to enhance economic and social development by improving and coordinating sustainable land use and development.

The Act provides the Winnipeg Metropolitan Region with the ability to create a plan that facilitates and promotes regional considerations in providing infrastructure and services and leading development responses to local planning issues. It identifies and promotes opportunities for cooperation between municipalities for cost-effective development of regional infrastructure and services. This will strengthen the ability of municipalities to act regionally, supporting the emergence of a strong regional economy that benefits all.

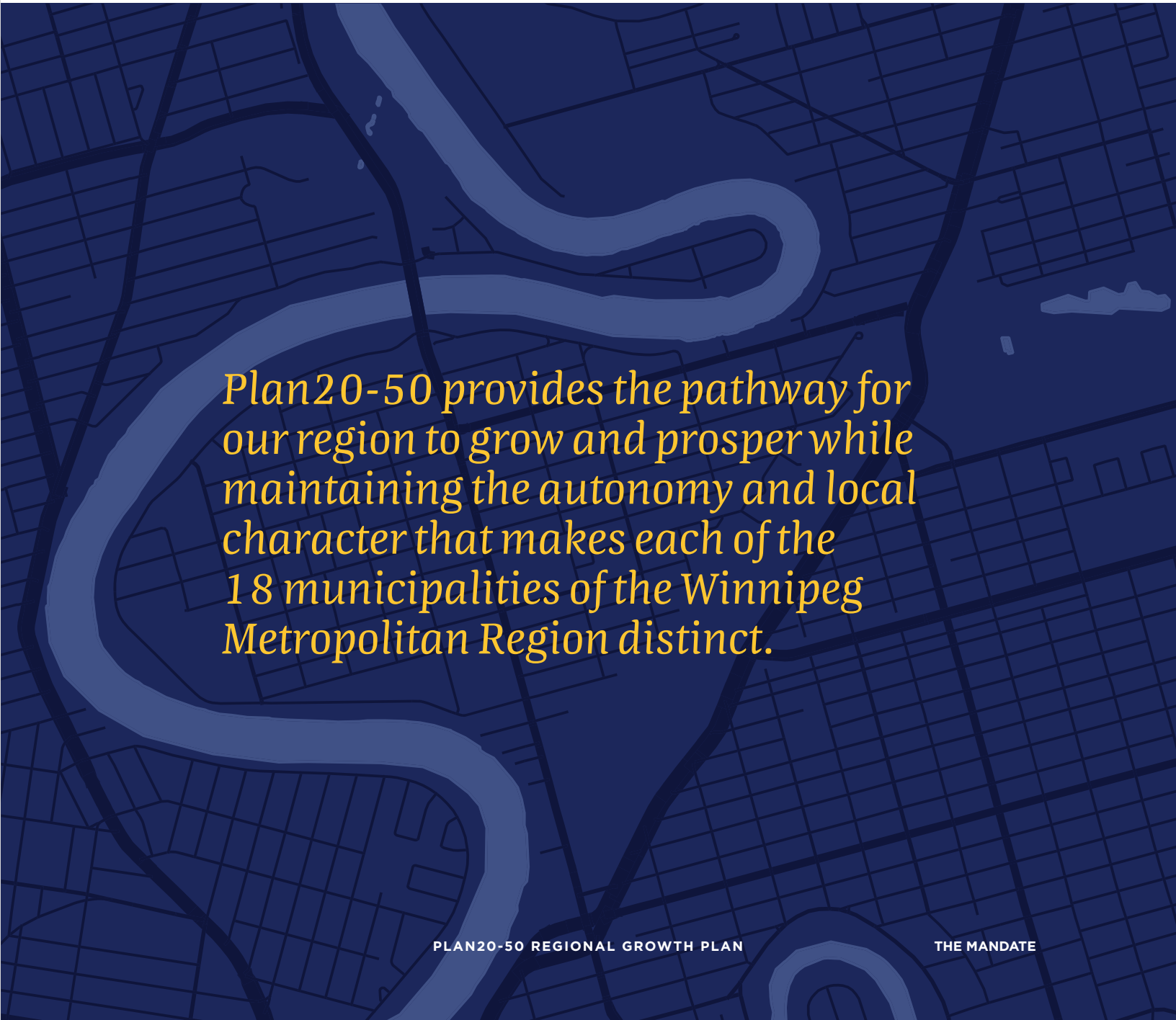
PROVINCIAL DIRECTION FOR ESTABLISHING A REGIONAL PLAN

With direction from the Province of Manitoba, in 2020 the Minister of Municipal Relations provided direction to establish the first draft of Plan20-50. Informed by legislation and provincial direction, this provided a clear focus and the components necessary to include in the regional plan including:

- Establishing a regional structure;
- Establishing a growth policy framework for each component of the regional structure including, but not limited to, development, servicing, criteria and density targets;
- Identifying regional systems and corridors to be enhanced to support economic development and livability of the region;
- Addressing airport protection requirements;
- Advancing efforts to preserve economic development resources through the plan including the requirement for contiguous, compact form;
- Establishing a common language and data repository for the region;
- Establishing an intention for a comprehensive servicing strategy;
- Establishing an intention to create common development parameters for the region; and
- Establishing a robust implementation plan.

REGIONAL PLANNING

A regional plan is a framework which aligns growth, servicing, and infrastructure investment to support a growing region and economic development. Plan20-50 is a 30-year regional plan that is the blueprint for a resilient, sustainable, and globally competitive Winnipeg Metropolitan Region. This plan provides the consistency and predictability required for investors to grow the economy and population of our region in a sustainable manner, supporting a high quality of life for all residents. Regional planning provides a critical lens for the decision-making and investment necessary to achieve sustainability. Regional planning ensures the infrastructure and service needs are available to attract global investment and economic competitiveness.



Plan20-50 provides the pathway for our region to grow and prosper while maintaining the autonomy and local character that makes each of the 18 municipalities of the Winnipeg Metropolitan Region distinct.

SECTION 1

INTRODUCTION

Our history of leadership
is our future.

OUR HISTORY

The complexity of today's challenges requires more than any single leader, municipality or community can reasonably manage.

OVER A CENTURY OF PLANNING

The Winnipeg Metropolitan Region and the Province of Manitoba have a long rich history of planning with the establishment of the City Planning Commission in 1911 and in 1916 with the Province of Manitoba adopting the first Planning Act in Canada.

Over the last century, there have been many great examples of multi-municipal planning to deliver services and support shared infrastructure investments for the benefit of all Manitobans.

A STRONG FOUNDATION

- A Blueprint for Collaboration - Building Something Big (2014);
- Capital Region Transportation Master Plan (2014);
- Regional Growth Strategy – Securing our Future (2016);
- Transportation Driving Growth (2016);
- Emergency Services Review (2016);
- Multi-Modal Feasibility Study (2016);
- Regional Tourism Planning (2018);
- Regional Economic Development (2018);
- A Guide to Recreation Planning in the Winnipeg Metropolitan Region (2018);
- Waste Rationalization Feasibility Study (2018);
- West Winnipeg Park and Ride Transit Hub Feasibility Study and Plan: Development of a Regional Park and Ride Facility West Winnipeg (2019);
- Fibre Optics: Connecting to Opportunity (2019);
- Report on Regional Recreation for the Winnipeg Metropolitan Region (2020);
- Capital Region Growth Strategy: Long-Range Residential and Employment Land Forecasts (2020);
- Winnipeg Metropolitan Region Water and Wastewater Treatment Systems Capacities Study (2021);
- Integrating the Principles of Circular Economy: Policy Recommendations for the Winnipeg Metropolitan Region (2021);
- Inventory of WMR Asset Base for Foreign Direct Investment (2021); and
- Regional Goods Movement Study and Freight Model (2021).

A TIMELINE OF PLANNING

1911

The City Planning Commission: the first known planning initiative involving multiple municipalities in the region



1916

The Province of Manitoba adopted The Town Planning Act



1968

A development plan for the Metropolitan Corporation of Greater Winnipeg was adopted



1913

Provincial legislation formed the Greater Winnipeg Water District



1944

The Province of Manitoba has engaged in long term planning for land use planning and municipal works

Timeline of multi-municipal planning in the Winnipeg Metropolitan Region.

2001

The Province of Manitoba appointed the Regional Planning Advisory Committee (RPAC)



2016

A regional growth strategy, Securing our Future, was completed by the Winnipeg Metropolitan Region



1990s

The Province of Manitoba undertook a major program called the Sustainable Development Initiative (SDI)



2006

The Capital Region Partnership Act was passed by the Province of Manitoba



2020

Plan20-50 is drafted by the Winnipeg Metropolitan Region

WINNIPEG METROPOLITAN REGION MUNICIPALITIES

There is no power
for change greater
in the world than a
community discovering
what it cares about.

Today, the Winnipeg Metropolitan Region includes eighteen (18) municipalities, covering an area of approximately 7,800 square kilometers. While this translates to approximately 1.4% of Manitoba's land base, the region represents nearly two thirds of the provincial population with over 874,290 residents. Municipalities in the Winnipeg Metropolitan Region include:

CITY OF WINNIPEG

The City of Winnipeg is Canada's eighth largest city located at the junction of the Red and Assiniboine Rivers near the geographic centre of North America. Winnipeg was incorporated as a city in 1873 and has since grown to a land area of 464 square kilometres with a population of 749,607 people. The city is the largest urbanized area within the region. Known as the "Gateway to the West", Winnipeg has historically been and continues to be a transportation hub and supports a considerable transportation sector. Winnipeg has a fairly diverse economy with substantial employment supported in the health and social services, retail trade, and manufacturing sectors. Employment is focused in the downtown but also other areas including CentrePort Canada, a tri-modal inland port, partially located in the city. The city supplies regional levels of service and has the ability to support complete communities with higher density. Three major rivers flow through the city including the Assiniboine River, Red River, and Seine River.

CITY OF SELKIRK

The City of Selkirk is located along the Red River approximately 35 kilometres northeast of the City of Winnipeg. Selkirk was incorporated in 1882 and has since grown to a land area of approximately 25 square kilometres with a population of 10,504 people. It is known as the gateway to the Interlake Region of Manitoba and the last stop before cottage country. Selkirk is an Urban Centre with many regional level services. The mainstays of the local economy are tourism, steel, light manufacturing, the service sector, and government administration. The Great Trail, a regional trail that crosses the region, passes through Selkirk.

TOWN OF NIVERVILLE

The Town of Niverville is located 42 kilometres south of the City of Winnipeg. Niverville was first incorporated as a village in 1969 and later as a town in 1993. Niverville encompasses an area of 2.3 square kilometers and has a population of 5,947 people. Niverville is an Urban Centre with some regional level services. While agriculture remains the heart of Niverville's economy, there are additional employment sectors including retail, health, and social services. The Great Trail passes through Niverville.

TOWN OF STONEWALL

The Town of Stonewall is located 37 kilometres north of the City of Winnipeg. Stonewall was incorporated in 1908 and has grown to encompass an area of 6 square kilometres with a population of 5,046 people. Stonewall is an Urban Centre with some regional level services. Limestone quarrying has been central to Stonewall's economy since the early 20th century, but since the 1960s Stonewall has been diversifying its economy and moving away from its dependence on limestone.

VILLAGE OF DUNNOTTAR

The Village of Dunnottar is located on the shores of Lake Winnipeg, 73 kilometres north of the City of Winnipeg and has a population of 989 people, which expands in the cottage communities during the summer season. Three settlement centres, Ponemah, Whytewold, and Matlock, incorporated in 1948 as the Village of Dunnottar. Dunnottar is surrounded by rural areas and provides local level services. The municipality is well-known for its beaches and has been a vacation spot for Manitobans for many years. The economic base of Dunnottar consists mainly of retail services which support local cottages and summer tourists. Lake Winnipeg has historically provided residents with employment in commercial fisheries.

RURAL MUNICIPALITY OF ROCKWOOD

The RM of Rockwood is located 32 kilometres northwest of the City of Winnipeg. It consists of multiple communities including Gunton, Balmoral, Stony Mountain, and Argyle, and surrounds the Towns of Stonewall and Teulon. The municipality was incorporated in 1880 and encompasses an area of roughly 1,200 square kilometres and has grown to a population of 8,440. Rockwood provides local level services and is home to Oak Hammock Marsh, a regional park and protected area. Netley Creek flows through the municipality. Throughout its history, one of the main industries in the municipality has been limestone quarries, however, today agriculture is the predominant industry.

RURAL MUNICIPALITY OF ST. ANDREWS

The RM of St. Andrews is located along the Red River north of Winnipeg. It consists of multiple communities including Lockport, Clandeboye, and Petersfield. The municipality was incorporated in 1880 and encompasses an area of 752 square kilometres and has grown to a population of 11,723. St. Andrews provides local level services and Netley Creek flows through the municipality. The RM can be described as an agricultural community with residential areas, seasonal cottages, neighbourhood businesses, and an industrial area surrounding the St. Andrews Airport.

RURAL MUNICIPALITY OF WEST ST. PAUL

The RM of West St. Paul abuts the City of Winnipeg on its northern edge, directly west of the Red River. West St. Paul was incorporated in 1916 and encompasses an area of 87 kilometres and has grown to a population of 6,682 people. West St. Paul supplies regional levels of service and has the ability to support complete communities. The municipality is largely agricultural, with concentrations of residential development abutting the City of Winnipeg. West St. Paul has some business park-type development, largely within the Perimeter Highway and adjacent to the City of Winnipeg.

RURAL MUNICIPALITY OF EAST ST. PAUL

The RM of East St. Paul abuts the City of Winnipeg on its northern edge, directly east of the Red River. East St. Paul was incorporated in 1916 and encompasses an area of 42 square kilometres and has grown to a population of 9,725 people. East St. Paul supplies regional levels of service and has the ability to support complete communities. The municipality has significant development in its southern half, including serviced residential, industrial, and commercial areas, and further north remains agricultural in nature. East St. Paul is home to two regional trails: the Great Trail and Duff Roblin Parkway Trail.

RURAL MUNICIPALITY OF ST. CLEMENTS

The RM of St. Clements is located northeast of Winnipeg east of the Red River. It consists of multiple communities including East Selkirk and Grand Marais. St. Clements was incorporated in 1883 and encompasses an area of 730 square kilometres and has grown to a population of 11,586 people. St. Clements provides local level services and is known for its many parks and beach communities including Grand Beach Provincial Park on Lake Winnipeg – Manitoba's most popular tourist destination on the province's largest lake. Cooks Creek flows through the municipality. St. Clements is home to two regional trails: the Great Trail and Duff Roblin Parkway Trail.

RURAL MUNICIPALITY OF SPRINGFIELD

The RM of Springfield abuts the City of Winnipeg on its eastern edge. Springfield was incorporated in 1873 and encompasses an area of 1,100 square kilometres and has grown to a population of 16,142 people. Springfield provides local level services. The largest communities in Springfield are the villages of Oakbank, Dugald, and Anola. The municipality contains the well-known Birds Hill Provincial Park, one of the busiest of Manitoba's Provincial Parks with about one million visitors per year and host of the annual Folk Festival that draws in 80,000 visitors annually to the region. A section of the Great Trail goes through Springfield from Birds Hill Park to Oakbank. Cooks Creek flows through the municipality.

RURAL MUNICIPALITY OF TACHÉ

The RM of Taché is located 39 kilometres southeast of the City of Winnipeg and was incorporated in 1880. Today, Taché encompasses an area of roughly 580 square kilometres and has a population of 11,916. Taché provides local level services. Communities within the Taché include Landmark, Lorette, Ste. Genevieve, Dufresne, Ross, and Linden. The Trans-Canada Highway intersects the municipality and the Seine River flows through it. The municipality has a diverse resource-based industry supported by mineral aggregate and strong agricultural roots. Taché contains a large and notable Indigenous population, particularly Métis people, with 14.3% of the population identifying as Métis, resulting in Taché having the second-largest Metis population ratio for any settlement with more than 10,000 people in Canada. The RM has a historic Franco-Manitoban culture and continues to support several French-speaking communities.

RURAL MUNICIPALITY OF RITCHOT

The RM of Ritchot abuts the City of Winnipeg on its southern edge and encompasses an area of 333 square kilometres. Ritchot was incorporated in 1890 and has grown to a population of 7,469 people. Ritchot provides local level services. Communities within Ritchot include St. Adolphe, Ste. Agathe, Ile des Chênes, and Grande Pointe. Highway 75 intersects the municipality and four main rivers flow through it including the Red River, Rat-Marsh River, La Salle River, and Seine River. The Great Trail crosses Ritchot. The RM has a historic Franco-Manitoban culture and continues to support several French-speaking communities.

RURAL MUNICIPALITY OF MACDONALD

The RM of Macdonald abuts the City of Winnipeg on its southwestern edge and encompasses an area of approximately 1,106 square kilometres. Macdonald was incorporated in 1881 and is home to 8,120 residents. It provides local level services and includes the communities of Oak Bluff, La Salle, Domain, Brunkild, Sanford, and Starbuck. The La Salle River flows through the municipality. The municipality's economy is primarily focused on agriculture, wood processing, and building supply products.

RURAL MUNICIPALITY OF HEADINGLEY

The RM of Headingley abuts the City of Winnipeg on its western edge. The municipality was incorporated in 1992 and has a population of 4,331. Headingley encompasses an area of 107 square kilometres and is intersected by the Assiniboine River, the Trans-Canada Highway, and the Great Trail. The municipality is largely agricultural, with residential concentrated around the Assiniboine River, and commercial development adjacent to the Trans-Canada Highway and along the Perimeter Highway.

RURAL MUNICIPALITY OF ST. FRANÇOIS XAVIER

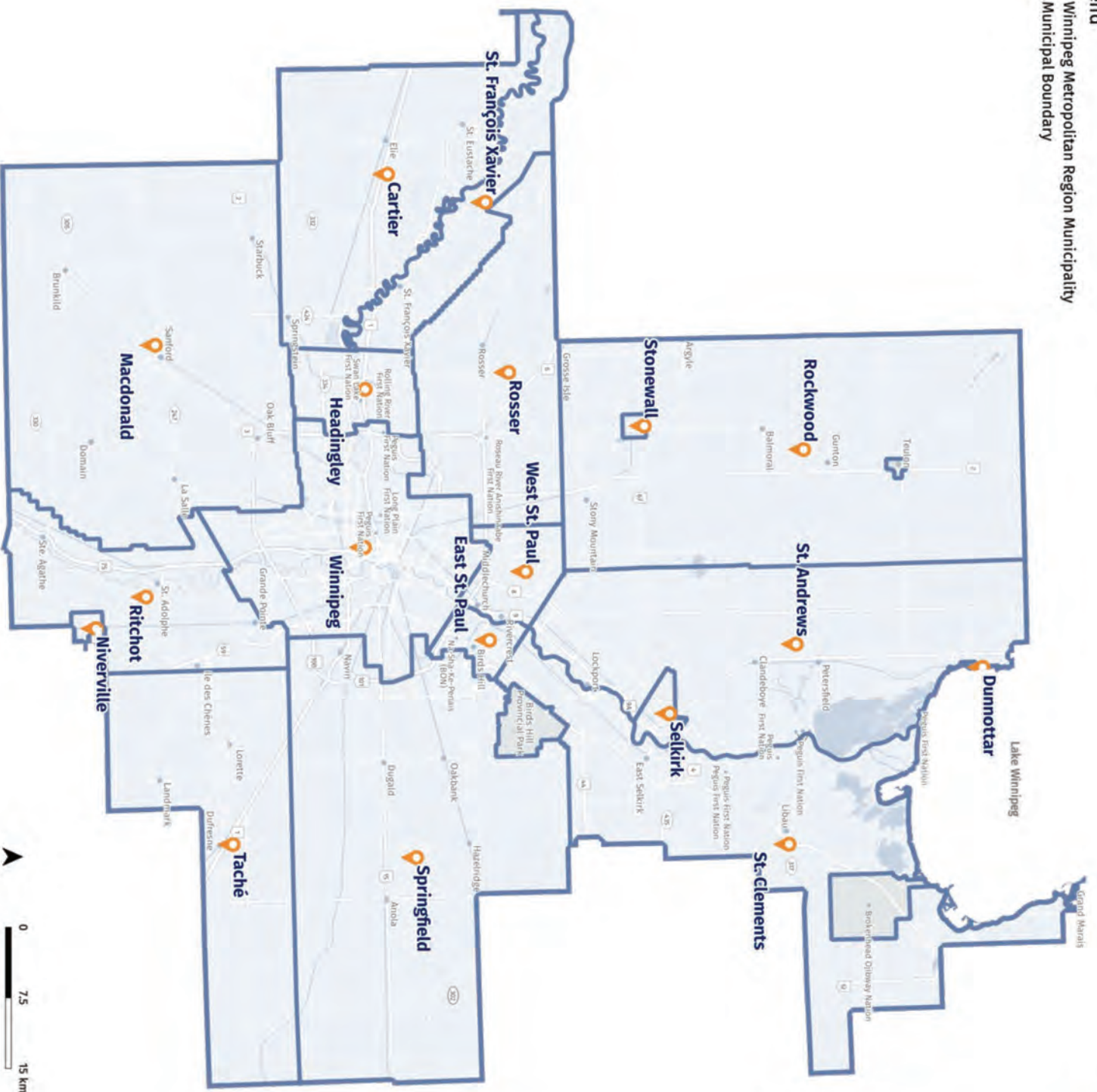
The RM of St. François Xavier is located west-northwest of the City of Winnipeg along the Assiniboine River. The municipality was incorporated in 1880 and encompasses an area of 204 square kilometres. The population of the municipality has grown to 1,449 people and contains the communities of Pigeon Lake and St. François Xavier. St. François Xavier provides local level services. The economy is largely focused on agriculture. The RM has a historic Franco-Manitoban culture and continues to support several French-speaking communities.

RURAL MUNICIPALITY OF CARTIER

The RM of Cartier is located 40 kilometres west of the City of Winnipeg and is bordered by the Assiniboine River. The municipality was incorporated in 1914, encompasses an area of 553 square kilometres and has grown to a population of 3,344. Cartier provides local level services and includes multiple communities including Dacotah, Elie, St. Eustache, Springstein, and White Plains. Cartier is home to Beaudry Provincial Park, which is connected to the Great Trail. The RM has a historic Franco-Manitoban culture and continues to support several French-speaking communities.

RURAL MUNICIPALITY OF ROSSER

The RM of Rosser abuts the City of Winnipeg on its northwestern edge. Rosser was incorporated in 1893 and has grown to a population of 1,270 people. Rosser provides local level services. It is comprised of an area of 440 square kilometres and is made up of the communities of Grosse Isle, Meadows, Marquette, Gordon, and Lilyfield. While the majority of Rosser remains agricultural in nature, significant industrial development is occurring within the Rosser CentrePort lands, with approximately half of the lands designated for industrial development in CentrePort located within Rosser.



WINNIPEG METROPOLITAN REGION MUNICIPAL MEMBERS

Notes

Identified lands are located on Treaty 1 Territory.

Map Projection

NAD83 / UTM zone 14N (EPSG:26914)

Feature Layer Sources

Municipal Boundaries: Province of Manitoba, 2020, Manitoba

Municipal Boundaries

Municipal Boundaries

First Nations Territory: Government of Canada, 2020, Aboriginal Lands

Rail Lines: Government of Canada, 2020, National Railway Network

Roads: Government of Canada, 2020, National Road Network; Province of Manitoba, 2020, Manitoba Road Network; City of Winnipeg, Road Network, 2021

Places: Manitoba Geographical Names Program, Manitoba

Geographical Names Toponymic Data, 2016, Natural Resources

Canada, Canadian Geographical Names, 2021

Waterways: Government of Canada, 2020, National Hydro Network

Provincial Parks: Manitoba Land Initiative, 2020, Parks and Park



SECTION 2

PLAN20-50

The following constitutes the formal content of Plan20-50. This includes Regional Structure, the Policy Areas, Implementation and Plan Interpretation.



We owe our children
the opportunity to be
successful here.

REGIONAL STRUCTURE

We are one –
but we're not the same.

POLICY TIERS

The Winnipeg Metropolitan Region is a large geographic area of diverse communities with varying urban and rural characteristics, creating a complex mixture of communities. The Winnipeg Metropolitan Regional Structure to 2050, is a core component of Plan20-50 and provides a visual interpretation of the region (Schedule 1). The regional structure provides for a spatial representation of the alignment of where policies of the plan apply and does not represent a governance model. It relates to where and how growth and development will be accommodated in the region.

The focus of this plan is to align growth with servicing to maximize the region's infrastructure investment and support complete communities that include a range of housing, employment, services, and amenities. The Winnipeg Metropolitan Regional Structure to 2050 supports communities and employment areas, and builds on existing infrastructure and land use patterns. The policies of this plan are aligned with the regional structure.

The regional structure fosters sustainable climate-resilient growth, supports the development of complete communities, and considers the servicing and infrastructure investments needed to meet the demands of the future at scale.

THREE TIERS

The regional structure introduces three policy tiers that allow policies to be applied differently across the region. The three tiers are:



Within each of these tiers, policy development occurs in three ways:

Drivable single-use

Walkable mixed-use

Rural

Policies within this plan support the transition of single-use communities toward complete communities.

Tiers

- [illegible]

Notes

Identified lands are located on Treaty 1 Territory.

Map Projection

NAD83 / UTM zone 14N (EPSG:26914)

Feature Layer Sources

Metropolitan Area: City of Winnipeg, *Complete Communities*, 2011.
Winnipeg Transit, Winnipeg Transit System Map, 2005, Winnipeg.
Transit, Winnipeg Transit, *Old Term Network Plan*, 2000.
Inner Metropolitan Area: Province of Manitoba, 2020, Manitoba Land Use and Development, Province of Manitoba, 2020, Manitoba Municipal Boundaries.
Outer Metropolitan Area: Province of Manitoba, 2020, Manitoba Municipal Boundaries.
Centres, Settlements: Manitoba Geographical Names Program, Manitoba Geographical Names Toponymic Data, 2008, Natural Resource Canada, Canadian Geographical Names, 2021.
Communicator Sheet: Manitoba Highway Traffic Information System, Traffic Plan, 2006, Province of Manitoba, 2020, Manitoba Land Use and Development.
Base Layer Sources
Province of Manitoba, 2020, Manitoba Municipal Boundaries.
Province of Manitoba, 2020, Manitoba Land Use and Development.
First Nations Territory: Government of Canada, 2020, Aboriginal Lands of Canada Legislative Boundaries.
Rail Lines: Government of Canada, 2020, National Railway Network.
Roads: Government of Canada, 2020, National Road Network, Province of Manitoba, 2020, Manitoba Road Network, City of Winnipeg, Road Network, 2021.
Places: Manitoba Geographical Names Program, Manitoba Geographical Names Toponymic Data, 2008, Natural Resources Canada, Canadian Geographical Names, 2021.
Waterways: Government of Canada, 2020, National Hydro Network.
Provincial Parks: Manitoba Land Initiative, 2000, Parks and Park Reserves

POLICY TIER DESCRIPTIONS



METROPOLITAN CORE

Represents Transformative Areas defined to land use from *Our Winnipeg Complete Communities* including *Downtown Winnipeg; Major Redevelopment Sites; Regional Mixed Use Centres, Regional Mixed Use Corridors; and Rapid Transit Corridors*. The Metropolitan Core is planned and developed to the highest density within the region, served by higher order transit, and comprises the highest concentration of regionally significant amenities and services.



INNER METROPOLITAN AREA

Represents the area that surrounds the **Metropolitan Core**, including parts of the City of Winnipeg and parts of the municipalities of Headingley, West St. Paul, East St. Paul, Macdonald, and Rosser. Based on a variety of factors including the identified population and employment projections, the **Inner Metropolitan Area** encompasses the highest regional concentration of existing and future growth and development. The **Inner Metropolitan Area** blue line on the map has specific policy direction but is not intended to be interpreted as a growth boundary.

In the communities outside of the City of Winnipeg areas within the municipalities of Headingley, West St. Paul, East St. Paul, Rosser, and Macdonald, development should focus density where servicing is available and include mixed-use complete communities where most appropriate. Designated employment lands should be protected for the defined use.

OUTER METROPOLITAN AREA

Represents lands beyond the **Inner Metropolitan Area** within the wider **Winnipeg Metropolitan Region**. The **Outer Metropolitan Area** consists of agricultural areas that provide a full range of agricultural uses, natural resources, and natural asset areas as well as **Urban Centers, Rural Centres,** and **Settlements** with varying levels of services and amenities.

STRUCTURE COMPONENTS

The *Winnipeg Metropolitan Regional Structure to 2050* components should be read together with the policies and the implementation chapter of this plan. The *Winnipeg Metropolitan Regional Structure to 2050* is not set by municipal or parcel based boundaries but describes the regional context.

• SETTLEMENTS

Smaller urban areas within the **Outer Metropolitan Region** that provide a *local level of service* for their community.

▲ RURAL CENTRES

Urban areas within the **Outer Metropolitan Area** that provide a *local level of service* to serve their community with potential to accommodate higher density mixed-use development, appropriate to the size and scale of the community.

○ URBAN CENTRES

Larger urban areas in the **Outer Metropolitan Area** that provide some *regional level of services* and are intended to accommodate mixed-use development at higher densities.

📍 DOWNTOWN WINNIPEG

The regional scale centre in the **Metropolitan Core** and the central core of the region, with a concentration of regionally significant amenities and services, the highest levels of residential and employment density, mixed-use development, higher order transit services and *active transportation* options.

▲ MAJOR REDEVELOPMENT SITES

Sites located within or adjacent to existing communities within the City of Winnipeg with potential to support higher density, mixed-use development, and optimize existing and planned *infrastructure* capacity to maximize investment.

⚡ RAPID TRANSIT CORRIDOR

Existing and planned dedicated right of way for transit vehicles or a right of way for a multitude of modes. Existing and planned transit corridors will accommodate bus service.

— REGIONAL MIXED USE CORRIDORS

Designated major regional arterial roads in the City of Winnipeg intended to serve as a link between *Downtown Winnipeg* and one or more *Regional Mixed Use Centre* or major activity area.


● REGIONAL MIXED USE CENTRES

Intensely developed, regional attractions located in the City of Winnipeg. They are well-served by public transit and can contain mixed-use development, including residential and specialized employment, commercial, or cultural services.

STABLE COMMUNITIES

Areas within the  **Inner Metropolitan Area** that will accommodate moderate growth and change.

TRANSFORMATIVE COMMUNITIES

Areas within the  **Inner Metropolitan Area** that represent the best opportunities for growth and change.



INTEGRATED POLICY AREAS

Nature laughs at the
difficulties of integration.

OVERVIEW

Plan20-50 includes five integrated policy areas. The policies are comprehensive in nature and must be read together and applied consistently. Plan20-50 focuses on land use policies to guide growth and development to support the efficient and effective provision of *infrastructure* and services.



Plan20-50 Policy areas

POLICY AREA 1

INTEGRATED COMMUNITIES AND INFRASTRUCTURE



OUR GOAL

Building strong, prosperous and sustainable communities by aligning growth with infrastructure and services.

ACTIONS:

- Coordinate growth and servicing across the region
- Manage growth to protect agriculture lands, resource areas and the *natural asset network*
- Provide resiliency from flooding
- Provide housing for all to address an aging population, affordability, and accessibility
- Collaborate with Indigenous Nations
- Prioritize *infrastructure* investment for servicing and transit aligned with urban *intensification* and supportive densities within the region
- Provide equitable access to regional services to support a high quality of life

Integrated Communities and *Infrastructure* aligns growth with servicing in order to maximize the region's *infrastructure* investment. It focuses on *intensification* in areas with critical *infrastructure* for servicing and transit within the city centred region. Providing *complete communities* includes supply of a range of housing, employment, services, and amenities, including access to broadband.

A coordinated region encourages the *compact* and *contiguous* development of a mix of land uses toward existing communities to reduce consumption of *agricultural lands*, protect natural lands and water, and support economic development and community well-being.

An integrated region promotes a strong transportation network that guides the efficient movement of goods, provides for community connectivity to enable access to employment, services, and amenities, and promotes mode shift from a dependency on single-occupancy vehicles.

The region's global economic competitiveness relies on strong *complete communities* with regional objectives that provide fluid movement through transportation networks to access global markets, an available skilled and educated labour force, and access to available serviced lands.

The region will see the majority of growth within the City of Winnipeg, with communities around the city accommodating growth through new development.

Gentle *density* and *compact* communities will ensure efficient use of existing *infrastructure*, preservation of natural areas, and protection of drinking water and *agricultural lands*. Higher densities within the region does not mean overcrowding and congestion. *Intensification* in the region will happen in a subtle, incremental way through built form that "fits" into the existing community.

1.1 COMMUNITY GROWTH AND DEVELOPMENT

- 1.1.1 To optimize investment in *infrastructure* and services, the majority of growth and development should be accommodated in the **Metropolitan Core, Inner Metropolitan Area, and Urban Centres.**
- 1.1.2 To support sustainable *infrastructure* and servicing investment and to promote orderly *compact* and *contiguous* development supporting *low carbon* objectives and climate-resiliency, the majority of growth and development should:
 - a) Be connected to existing municipal water and wastewater servicing;
 - b) Support connectivity between existing *built-up areas*;
 - c) Support *density* minimums and targets as per Schedule 2 for the **Metropolitan Core** and for greenfield area development in the **Inner Metropolitan Area, Urban Centres, Rural Centres and Settlements**;
 - d) Provide a mix of land uses in *compact* form;
 - e) Promote a mix of housing types close to existing and planned local employment areas;
 - f) Support *active transportation* routes and trails, with a focus on *Regional Active Transportation Trails* as per Schedule 3; and,
 - g) Incorporate transit and protect for future transit viability, where appropriate.
- 1.1.3 To optimize existing *infrastructure* and minimize the expansion of the *built-up area*, municipalities should develop *infill* guidelines and tools appropriate to the local context where *infill* development:
 - a) Should be focused to the **Metropolitan Core, Inner Metropolitan Area, Urban Centres, Rural Centres, and Settlements**;
 - b) Will be connected to municipal water and wastewater servicing and include existing un-serviced development in a phased approach where available;
 - c) Will be identified and planned appropriately to support *intensification*, housing diversification, and *infrastructure* investment; and,
 - d) Should include a mix of uses where appropriate.
- 1.1.4 To support transit-oriented development, centres along rapid transit lines will be identified and should be planned to the *density* requirement as per Schedule 2, and include a greater diversity of uses, and a pedestrian-oriented urban design.
- 1.1.5 Where development straddles municipal boundaries within the **Inner Metropolitan Area**, those areas should be planned and developed to support land use compatibility and road, *active transportation*, and *natural asset* corridor connections.



Schedule 2—Density Minimums and Targets

Tier	Community	Residential and Mixed-use Density— units/ha (units/acre)	
		Minimum	Target
Metropolitan Core	Downtown Winnipeg	124 (50.2)	370+ (149.7+)
	Major Redevelopment Sites and centres along rapid transit lines in City of Winnipeg	99 (40.1)	247+ (100.0+)
	Regional Mixed Use Centres and centres along Regional Mixed Use Corridors in City of Winnipeg	86 (34.8)	247+ (100.0+)
Inner Metropolitan Area	Stable Communities including parts of City of Winnipeg	*	*
	Transformative Communities including parts of City of Winnipeg	12 (4.8)	24+ (9.7+)
	Transformative Communities including parts of the: RM of East St. Paul, RM of West St. Paul, RM of Headingley	10 (4.0)	24+ (9.7+)
Outer Metropolitan Area	Urban Centres: City of Selkirk, Town of Niverville, Town of Stonewall	12 (4.8)	22+ (8.9+)
	Rural Centres: Oak Bluff, La Salle, Iles des Chênes, Lorette, Oakbank	12 (4.8)	17+ (6.9+)
	Settlements**	7 (2.8)	7+ (2.8+)

Notes:

*Density minimums and targets for Inner Metropolitan Area Stable Communities will be considered through the City of Winnipeg's infill strategy.

**As identified in Schedule 1 Winnipeg Metropolitan Regional Structure to 2050.

1.1.6 To protect *agricultural lands* and to encourage *complete communities*, expansion of the **Inner Metropolitan Area** and an **Urban Centre, Rural Centre, or Settlement** will only be permitted if the area proposed for expansion is:

- a) *Contiguous* with existing land use designations and can be serviced;
- b) Supported through studies identifying potential impacts of the expansion including, but not limited to:
 - i. Demographic, population, and employment projections;
 - ii. Supply and demand or market analysis for residential and other land uses, which may include consideration for development constraints;
 - iii. Traffic and transportation;
 - iv. Existing and future municipal servicing *infrastructure*; and,
 - v. A *natural asset* assessment.

- 1.1.7 To protect *agricultural lands* and promote *infill* in existing *built-up areas* in the **Outer Metropolitan Area**, municipalities with **Settlements** will identify these centres as a location to focus growth and development:
- a) In a *contiguous* and *compact* form through *infill* and rounding out of *built-up areas*; and,
 - b) Where new development will be connected to municipal water and wastewater *infrastructure*, where available.
- 1.1.8 To protect *agricultural lands*, prevent *fragmentation*, and encourage *complete communities*, new *rural residential* designations, including cottage development, will only be permitted in the **Outer Metropolitan Area** (Schedule 1) and beyond the **Rural Residential Boundary** identified in Schedule 4 if the *municipality* has met the following criteria:
- a) The proposed *rural residential* lots represent a maximum of five-year land supply based on the *municipality's* last five-year absorption rate of *rural residential* land;
 - b) 90% or more of the *municipality's* existing *rural residential* land supply has been built out;
 - c) Can be developed in a *contiguous* form where planned open space may be considered a component of such development through *conservation design*;
 - d) If proposed *rural residential* is located on or adjacent to *natural assets* identified in Schedule 3, environmental and technical studies completed by qualified professionals will be submitted, identifying the impacts of development on *natural assets*, include conservation buffers, development setbacks, and mitigation measures into the proposed development, following *conservation subdivision design*; and,
 - e) Be serviced with on-site water and wastewater *infrastructure* in accordance with provincial regulations:
 - i. Areas located in the *Red River Corridor* as identified in provincial regulation require connection to municipal wastewater *infrastructure*.

1.2 FLOOD PROTECTION

- 1.2.1 To protect communities from the risk of flooding, development will be restricted in *flood risk areas* including *Designated Flood Areas* as per provincial regulation. This includes restrictions on multi-lot subdivision in areas where flood protection would require expansion. Within these *flood risk areas*:
- a) Where *infill* is not possible, expansion may be permitted within the *Designated Flood Area* provided development is within an area with existing municipal servicing *infrastructure*;
 - b) Growth will be directed away from (low lying) wetland areas; and,
 - c) Standards for flood resiliency using internationally recognized Canadian Standards Association (CSA) tools should be incorporated in local land use and *infrastructure* planning and development, as identified in Section 6 Implementation.



1.3 HOUSING

- 1.3.1 Providing a diversity of housing types, forms, and affordability is a priority for the region. Municipalities will:
- a) Promote and support housing close to jobs, community services, and where the housing can be integrated as part of *mixed-use development*; and,
 - b) Encourage building of affordable, inclusive, supportive, multi-generational, and high-performance housing close to community services and integrated as *mixed-use developments*.
- 1.3.2 The *Winnipeg Metropolitan Region (WMR)* in collaboration with member municipalities may develop a Regional Housing Strategy.

1.4 COLLABORATION WITH INDIGENOUS NATIONS

- 1.4.1 Where land has been selected or acquired as part of a Treaty Land Entitlement (TLE) agreement, land claim agreement or Addition to Reserve (ATR) process, municipalities will:
- a) Enter into servicing agreements expeditiously; and,
 - b) Identify in municipal development plans and secondary plans the location of Reserve lands and all lands referred to in this section where they exist abutting to the municipal jurisdiction.
- 1.4.2 When a development application is proposed by an Indigenous Nation(s) on Reserve land or fee simple land that is owned by an Indigenous Nation(s), municipalities will negotiate in good faith with the Indigenous Nation(s) regarding the development application proposal.

1.5 INFRASTRUCTURE INVESTMENT

- 1.5.1 Planning for new or expanded *infrastructure* will occur in an integrated manner and be informed by a Regional Servicing Strategy and other studies.

1.6 WATER AND WASTEWATER

- 1.6.1 To ensure sufficient revenue to recover the full cost of providing and maintaining necessary services, planning for municipal water and wastewater services will be coordinated, where possible:
- a) Municipalities should explore opportunities for service sharing when *infrastructure* expansion and upgrades are required; and,
 - b) Capital *infrastructure* investments will be identified in partnership with the Manitoba Water Services Board, when applicable.

- 1.6.2 To ensure *infrastructure* is planned, designed, constructed, or expanded in an efficient manner, municipalities will prepare drinking water and wastewater management plans as per provincial legislation and as outlined in the Manitoba Water Quality Standards, Objectives and Guidelines.
- 1.6.3 The extension of water or wastewater services will not be permitted unless:
- a) The need for the extension has been demonstrated;
 - b) The *municipality* has completed the applicable assessment process in accordance with The Manitoba Water Rights Act and The Environment Act; and,
 - c) Where the province has declared a public health and safety issue.
- 1.6.4 To foster the development of a *circular economy*, municipalities should incorporate wastewater resource recovery through water reclamation processes.

1.7 TRANSPORTATION

- 1.7.1 The *Winnipeg Metropolitan Region (WMR)* in collaboration with the Province of Manitoba and member municipalities will:
- a) Establish a common regional road hierarchy with consideration for safety, efficiency, connectivity, and reliability of the regional transportation network including identified *Regional Roads* as per Schedule 5; and,
 - b) Establish common municipal road standards for modification by municipalities, including typologies for *street* standards that are designated for contexts that are *walkable mixed-use* and auto-centric single-use.
- 1.7.2 To coordinate the investment in regional transit priorities, integrated regional transit corridor planning and development will be undertaken by the *Winnipeg Metropolitan Region (WMR)* in collaboration with member municipalities and other stakeholders to:
- a) Develop a regional transit governance and cost-sharing model for the provision of regional public transit services;
 - b) Identify lands and corridors for a regional transit system, with a focus on the ***Inner Metropolitan Area, Urban Centres*** and *Regional Employment Areas*;
 - c) Support modal shift and alignment with *active transportation* trails, with a focus on *Regional Active Transportation Trails* as per Schedule 3; and,
 - d) Support the co-location of *infrastructure* in these corridors, where appropriate.



- 1.7.3 To maintain and enhance the movement of goods to support trade, the efficiency and safety of the transportation system will be preserved by:
- a) Ensuring *Regional Roads* provide and maintain connections to *Regional Employment Areas*, the region's links to the Mid-Continent Trade and Transportation Corridor, and the effective and efficient movement of goods into and out of significant industrial, commercial, and agricultural areas; and,
 - b) Delivering viable *multi-modal transportation* choice to reduce congestion and provide urban and *rural* residents transportation options to economic, educational, recreational, and cultural opportunities.
- 1.7.4 To support the efficient movement of people and goods across the region, municipalities will participate in regional transportation master planning led by the *Winnipeg Metropolitan Region (WMR)* which at minimum:
- a) Identifies where possible to implement regional transportation options;
 - b) Ensures transportation *infrastructure* planning is aligned with land use planning;
 - c) Develops and strengthens a regional network of *active transportation* trails;
 - d) Supports the establishment of regional park and ride facilities;
 - e) Considers future technology such as *zero emission vehicles* and autonomous vehicles; and,
 - f) Encourages member municipalities to complete a transportation master plan that is coordinated with adjacent municipalities and the regional transportation master plan.
- 1.7.5 To support *greenhouse gas* mitigation and advance *low carbon* transportation options, the *Winnipeg Metropolitan Region (WMR)* will pursue strategies and options that:
- a) Identify potential zero emission vehicle charging/refuelling corridors; and,
 - b) Identify opportunities to install and align supporting *infrastructure*.

1.8 UTILITY

- 1.8.1 To support equitable access to *infrastructure*, all services for development will be planned for coordinated efficient and effective delivery with a focus on:
- a) Utility *infrastructure* planning for hydroelectricity; and,
 - b) Broadband networks to support equal access to high speed and high-quality coverage to bridge the urban and *rural* digital divide.

1.9 SOLID WASTE

- 1.9.1 To support a regional approach to waste resourcefulness, minimization, and diversion, municipalities will support the cost effectiveness of waste management through rationalization by coordinating capacity and service levels, particularly as it relates to consolidating and upgrading waste disposal grounds and waste transfer stations and implementing innovative approaches and technologies relating to servicing and *infrastructure*.
- 1.9.2 To support the *circular economy*, the *Winnipeg Metropolitan Region (WMR)* will work towards developing regional waste recovery, reduction, and reuse strategies and plans.

1.10 RECREATION

- 1.10.1 To support the management and accessibility of high quality social, cultural, and recreational opportunities to all municipalities, regional recreational assets are identified in Schedule 3 of this plan. Regional recreation will:
 - a) Include the consideration of management through shared servicing agreements; and,
 - b) Support opportunities for passive recreation and co-location of assets.
- 1.10.2 To ensure sustainable fiscal stewardship and industry best practice in operating and maintaining recreation assets and services, municipalities will:
 - a) Consider partnerships and collaboration for the inter-municipal use of recreation services, including private-public partnerships; and,
 - b) Focus on the co-location of recreation services and multi-purpose facilities with a contemporary mix of recreation options to meet long-term needs.

1.11 EMERGENCY SERVICES

- 1.11.1 To protect communities from risk and hazards and provide resiliency, municipalities will:
 - a) Guide growth away from areas deemed at risk from natural hazards, including:
 - i. Areas included in the *Designated Flood Area* in accordance with provincial regulation;
 - ii. Areas at risk from *climate change* induced hazards;
 - b) Review fire suppression requirements as per the Manitoba Office of the Fire Commissioner and Manitoba Water Services Board guidelines and update firefighting protection plans accordingly;
 - c) Consider emergency response catchment areas; and,
 - d) Incorporate standards for fire, emergency response, and water supply, and may use National Fire Protection Association (NFPA) standards, as identified in Section 6 Implementation.



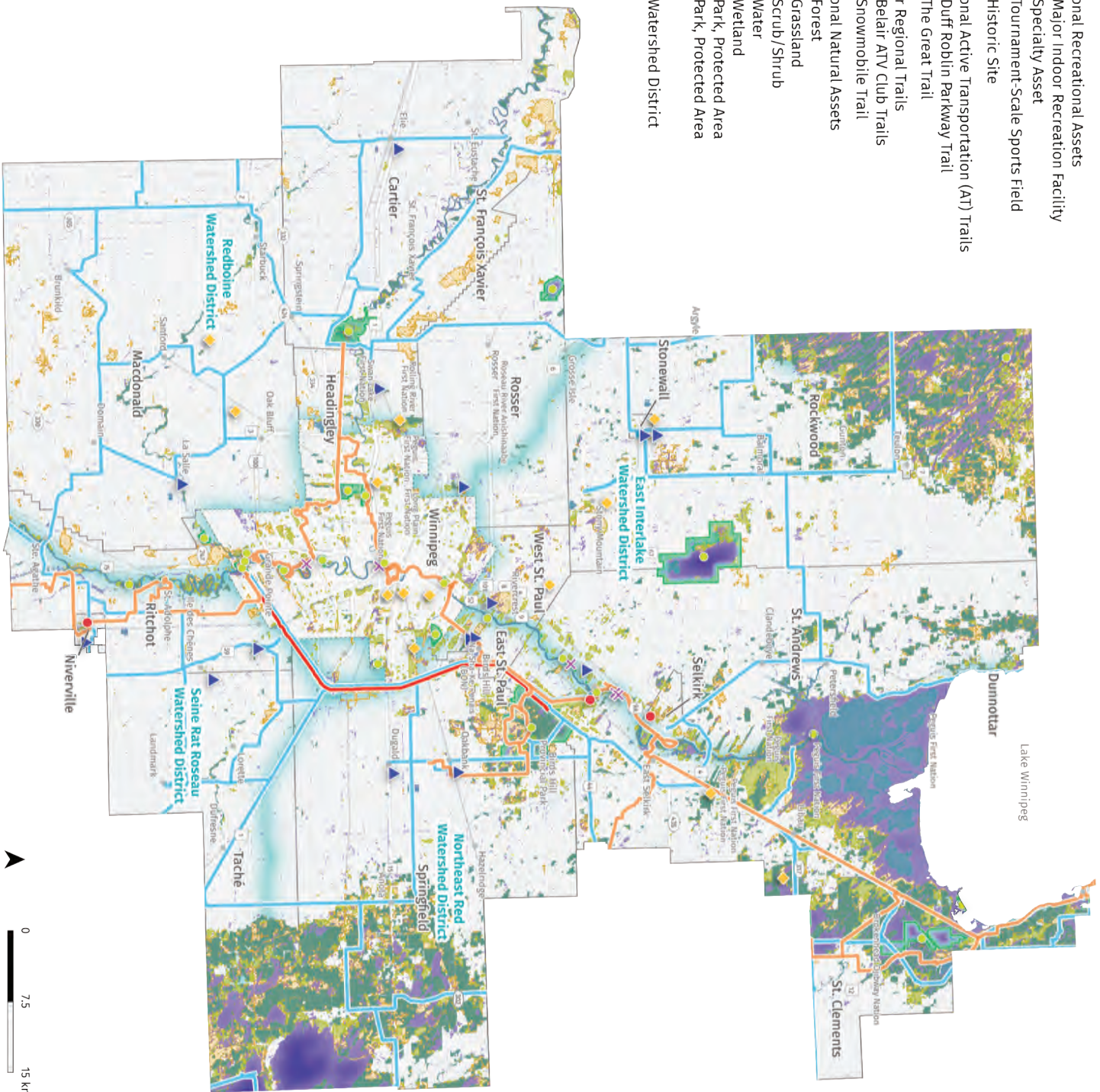
SCHEDULE 3—REGIONAL NATURAL AND RECREATIONAL ASSETS

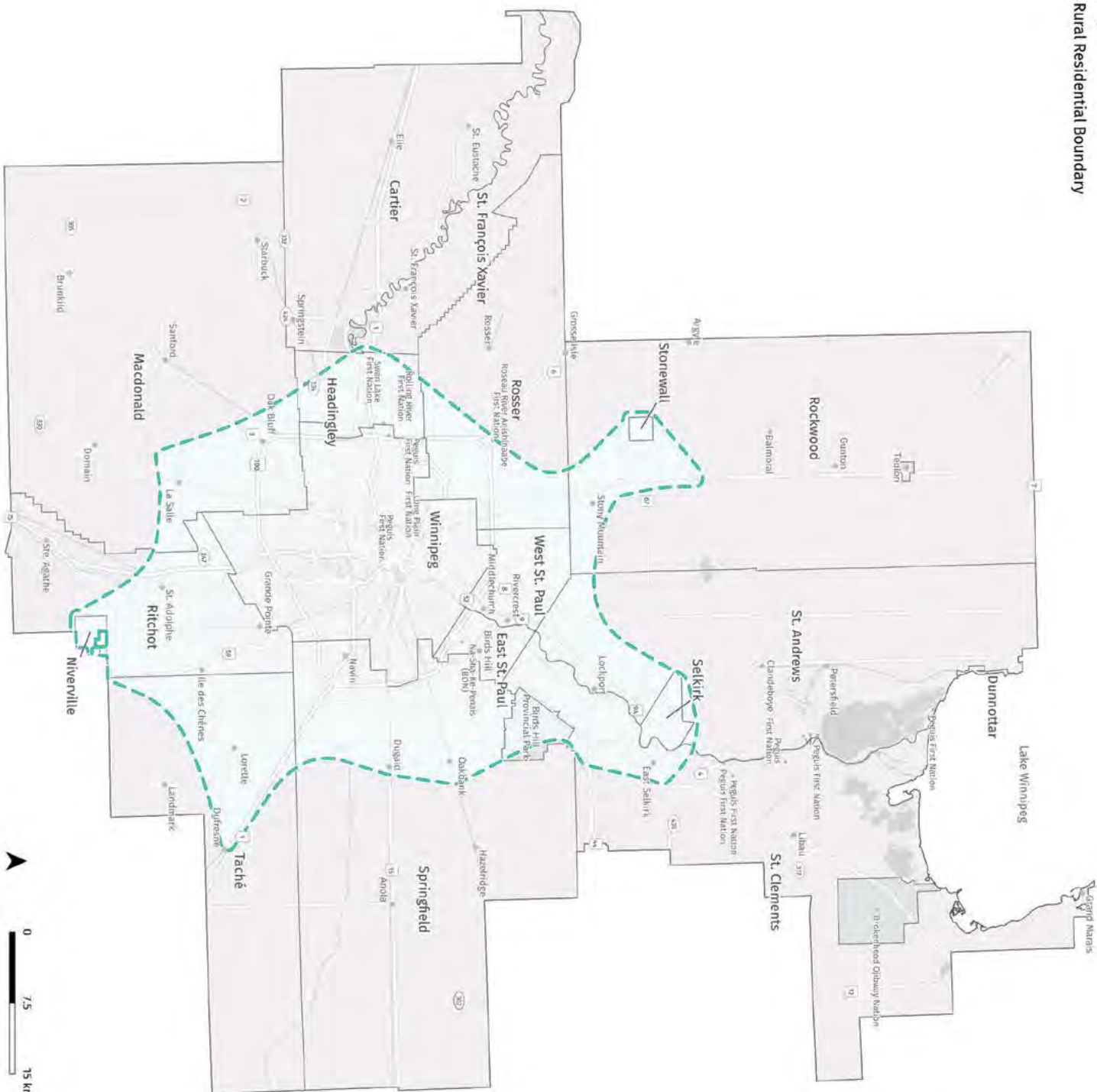
Notes
Identified lands are located on Treaty 1 Territory.
Map Projection
NAD83 / UTM zone 14N (EPSG:26914)

Feature Layer Sources

Regional Recreation Facility: HTFC Planning and Design, 2020.
Report on Regional Recreation for the Winnipeg Metropolitan Region; Google Maps, 2020.
Regional Trails: HTFC Planning and Design, 2020, Report on Regional Recreation for the Winnipeg Metropolitan Region; ATWB Trails, n.d., Interlake Port of Call, ATWB Trails, n.d., Belair ATV Club Trails, All Trails, n.d., The Great Trails, The Great Trails of Canada, n.d., The Great Trails Snowmobile Trails; Snowman, n.d.
Regional Natural Assets: Green Analytics, 2022.
Parks, Protected Area, Park Asset Inventory: City of Winnipeg, 2022.
HTFC Planning and Design, 2020, Report on Regional Recreation for the Winnipeg Metropolitan Region; Province of Manitoba, n.d., Manitoba Land Initiative
Watershed District: Province of Manitoba, n.d., Manitoba Land Initiative
Base Layer Sources
Municipal Boundaries: Province of Manitoba, 2020, Manitoba Municipal Boundaries
First Nations Territory: Government of Canada, 2020, Aboriginal Lands of Canada Legislative Boundaries
Rail Lines: Government of Canada, 2020, National Railway Network
Roads: Government of Canada, 2020, National Road Network; Province of Manitoba, 2020, Manitoba Road Network; City of Winnipeg, Road Network, 2021
Places: Manitoba Geographical Names Program, Manitoba Geographical Names Toponymic Data, 2018, Natural Resources Canada, Canadian Geographical Names, 2021
Waterways: Government of Canada, 2020, National Hydro Network
Provincial Parks: Manitoba Land Initiative, 2020, Parks and Park Reserves

- Legend**
- Regional Recreation Assets
 - Major Indoor Recreation Facility
 - Specialty Asset
 - Tournament-Scale Sports Field
 - Historic Site
 - Regional Active Transportation (AT) Trails
 - Duff Roblin Parkway Trail
 - The Great Trail
 - Other Regional Trails
 - Belair ATV Club Trails
 - Snowmobile Trail
 - Regional Natural Assets
 - Forest
 - Grassland
 - Scrub / Shrub
 - Water
 - Wetland
 - Park, Protected Area
 - Watershed District





SCHEDULE 4—RURAL RESIDENTIAL BOUNDARY



Notes

Identified lands are located on Treaty 1 Territory.

Map Projection

MD83 / UTM zone 14N (EPSG:26914)

Feature Layer Sources

Rural Residential Boundary: Manitoba Highway Traffic Information System, Traffic Flow, 2018; Province of Manitoba, 2020; Manitoba Land Use and Development

Base Layer Sources

Municipal Boundaries: Province of Manitoba, 2020; Manitoba First Nations Territory: Government of Canada, 2020; Aboriginal Lands of Canada: Legislative Boundaries
 Rail Lines: Government of Canada, 2020; National Railway Network
 Roads: Government of Canada, 2020; National Road Network; Province of Manitoba, 2020; Manitoba Road Network; City of Winnipeg, Road Network, 2021

Places: Manitoba Geographical Names Program, Manitoba
 Geographical Names Toponymic Data, 2018; Natural Resources Canada, Canadian Geographical Names, 2021
 Waterways: Government of Canada, 2020; National Hydro Network
 Provincial Parks: Manitoba Land Initiative, 2020; Parks and Park Reserves



Notes
Identified lands are located on Treaty 1 Territory.
Map Projection
NAD83 / UTM zone 14N (EPSG:26914)

Feeder Layer Sources

- Rapid Transit: Winnipeg Transit, Winnipeg Transit System Map, 2020.
- Open Mobility Data, 2020, Winnipeg Transit GIS.
- Regional Road: MQR Transportation Consulting, 2022, government of Manitoba, 2020, National Road Network: Province of Manitoba, 2020.
- Manitoba Road Network
- Railway: government of Canada, 2020, National Railway Network
- Railroad: government of Canada, 2020, National Railway Network
- Map Layer Sources
- Leaflet: Google Maps, 2020
- Municipal boundaries: Province of Manitoba, 2020, Manitoba Municipal Boundaries
- First Nations Territory: Government of Canada, 2020, Aboriginal Lands of Canada, Legislative Boundaries
- Rail Lines: government of Canada, 2020, National Railway Network
- Roads: government of Canada, 2020, National Road Network: Province of Manitoba, 2020, Manitoba Road Network: City of Winnipeg, Road Network, 2021
- Places: Manitoba Geographic Names Program, Manitoba
- Geographical Names Toponymic Data, 2018, Natural Resources Canada, Canadian Geographical Names, 2021
- Waterways: Government of Canada, 2020, National Hydro Network
- Private Parks: Manitoba Land Initiative, 2020, Parks and Park Reserves

POLICY AREA 2

INVESTMENT AND EMPLOYMENT



OUR GOAL

Support economic development as the foundation to grow a transformative, leading, regional economy.

ACTIONS:

- Expand economic opportunities
- Focus regional employment development in areas with serviced land supply and good access for employees
- Promote a high quality of life in support of a strong and diverse workforce
- Facilitate investment and regional transportation networks and trade *infrastructure*
- Provide direction on the establishment of shared revenue agreements

Investment and Employment provide the base to advance a collaborative regional economy that presents a value proposition on the region's competitiveness. Regional economic development supports servicing and site availability, attracting jobs and investment.

Supporting effective and efficient *infrastructure* investment and fostering a skilled workforce support business retention and expansion and contributes to continued prosperity.

Moving toward 2050, attracting new investment remains a critical element for the regional economy. New investment brings state-of-the-art technologies and innovation. *Circular economy* opportunities can transform existing sectors, implement new production value chains, and create new industries, bringing new investment into the region.

The economy is also leveraged by developing *complete communities*. *Complete communities* maximize the value of *infrastructure* investment and offer an array of housing options in proximity to jobs.

Capitalizing on the strengths of our regional character also means taking advantage of our unique seasonality. With the world's longest skating trail and renowned warming huts, the world's largest snow maze, Western Canada's longest running winter festival and winter activities of all types, focusing on this unique regional attribute can foster many economic opportunities. The region's summer season offers numerous opportunities to access Lake Winnipeg, the many rivers and waterways, parks and natural areas that support a robust tourism and recreation industry. Cabins dot these areas and support local economies.

2.1 DIVERSIFIED ECONOMY

- 2.1.1 To coordinate and promote regional economic viability, diversity, and growth, the *Winnipeg Metropolitan Region (WMR)* will prepare a Regional Economic Development Framework for the region to:
- a) Develop a coordinated regional approach to economic development with clear objectives that serve to identify the regional competitive advantage and pathway to guide investments;
 - b) Support the alignment of stakeholder activities to build mutually beneficial relationships and collectively support a prosperous regional economy; and,
 - c) Guide economic development to respond to the future regional economy and support a transition to a *low carbon, circular economy*.
- 2.1.2 To align local efforts with a Regional Economic Development Framework, municipal development plans and economic strategies should:
- a) Promote existing and emerging sectors of economic growth to foster job creation and optimize global economic competitiveness; and,
 - b) Support the economic development role of *Regional Employment Areas*, where applicable, and local employment areas through land use and transportation policies.
- 2.1.3 In support of regional tourism, the *Winnipeg Metropolitan Region (WMR)* will:
- a) Support *infrastructure* investment that fosters the development and enhancement of regional tourism and recreation assets that improve destination development and draw local, national, and international visitors;
 - b) Plan and develop corridors to facilitate opportunities for linkages within and beyond the region; and,
 - c) Support investment in cultural, heritage, natural, *agri-tourism operations* destinations and events, and leverage the region's unique seasonality.
- 2.1.4 To support a *circular economy*, the *Winnipeg Metropolitan Region (WMR)* will undertake a material flow analysis to establish a roadmap to identify and advance circular economic development opportunities.

2.2 EMPLOYMENT LANDS

- 2.2.1 An adequate supply of land will be protected by municipalities to accommodate employment projections to provide a variety of employment types and support economic diversification. Priority local employment areas (lands) will be defined to prioritize investments.



- 2.2.2 To protect the viability of local employment areas and support *complete communities*, the majority of employment uses will be directed to:
- a) *Regional Employment Areas* as identified in Schedule 6 applicable, and existing local employment areas;
 - b) The **Metropolitan Core, Inner Metropolitan Area, Urban Centres, and Rural Centres** identified in Schedule 1.
- 2.2.3 To protect the viability of existing designated local employment lands and to encourage their development for economic purposes, new local employment lands will only be designated:
- a) Where such lands:
 - i. Contribute to the provincial and/or national interest; or,
 - ii. If serviced, are *contiguous* with existing land use designations; or,
 - iii. If un-serviced, local employment lands will be clustered;
 - b) Where supported through studies identifying potential impacts of the expansion including, but not limited to:
 - i. Demographic, population, and employment projections;
 - ii. Regional supply and demand or market analysis for employment land, which may include consideration for development constraints;
 - iii. Traffic and transportation needs;
 - iv. Existing and future municipal servicing *infrastructure*; and,
 - v. A *natural asset* assessment.
- 2.2.4 The conversion of employment uses to non-employment uses, with the exception of *Downtown Winnipeg*, will be evaluated as part of a comprehensive review through a municipal development plan update or amendment.
- 2.2.5 To support viability of local employment lands, the *Winnipeg Metropolitan Region (WMR)* will work to ensure employment uses of regional significance are directed to appropriate locations with full municipal servicing.
- 2.2.6 To support existing local employment growth, municipalities will coordinate land use planning by:
- a) Promoting *intensification* of underutilized existing designated local employment areas;
 - b) Promoting clusters to link economic activity, innovative technologies, human resources, and optimize servicing *infrastructure*;
 - c) Promoting *multi-modal transportation* to existing local employment areas; and,
 - d) Supporting *mixed-use development*, office use, and *institutional clusters* within the downtown, central business district, or local main street in the **Metropolitan Core, Inner Metropolitan Area, Urban Centres, Rural Centres, and Settlements**.

2.3 JOB CREATION AND RETENTION

- 2.3.1 To support a high quality of life and *complete communities*, regional economic development and investment should focus to:
- a) Attract and retain a diverse workforce for a mix of employment;
 - b) Provide services, recreation, amenities, housing, and transportation options developed in accordance with policies of this plan; and,
 - c) Promote the region's unique seasonality and encourage creative placemaking.
- 2.3.2 To foster economic competitiveness and support the future regional economy, job creation should be supported by collaboration in skills development to:
- a) Identify regional labour force readiness to support current and future workforce needs, including workforce needs to support the transition to a *low carbon, circular economy* and *green infrastructure*;
 - b) Promote programs that incentivize training and development to support regional workforce capacity needs and encourage entrepreneurial development; and,
 - c) Work with other governments and agencies.

2.4 INFRASTRUCTURE AND GOODS MOVEMENT

- 2.4.1 To support economic competitiveness, quality of life and access to goods, municipalities will plan for the efficient movement of people, goods and services to, from and within the *Winnipeg Metropolitan Region* with a focus on:
- a) Capitalizing on the Mid-Continent Trade and Transportation Corridor for road, rail, and air connectivity;
 - b) Collaborating with the province and other stakeholders to coordinate the planning and development of regional transportation *infrastructure* to optimize mobility and connectivity of *Regional Roads* as per Schedule 5 to *Regional Employment Areas*, *local employment areas*, and, rail, and air transportation *infrastructure*, including the identification of priority routing.
- 2.4.2 To protect *Regional Roads* for priority access, municipal development plans will limit direct access to *Regional Roads* and support appropriate intersection upgrades and public transit connections where applicable.



2.4.3 To protect for the movement of goods and economic development, land use planning and development will be coordinated to recognize the existing rail network and enhance its integration with existing and future *Regional Roads*, *Regional Employment Areas*, *local employment areas*, and other industrial land uses to:

- a) Minimize new at-grade rail crossings;
- b) Encourage municipalities to adopt Federation Canadian Municipalities (FCM) guidelines for land use in the vicinity of rail lines, as identified in Section 6 Implementation; and,
- c) Foster collaboration in pursuit of rail rationalization and repurposing within the region.

2.4.4 To ensure land use compatibility, the Winnipeg James Armstrong Richardson International Airport and other airport lands in the region:

- a) Will be protected from land use and development that may adversely impact their operations and potential for future expansion, as per Transport Canada and Province of Manitoba regulations;
- b) Should include clustering of commercial and industrial lands in adjacent areas as supported through municipal development plans; and,
- c) Should be considered in municipal servicing and transportation *infrastructure* plans to ensure future airport expansion requirements are considered in municipal development plans.

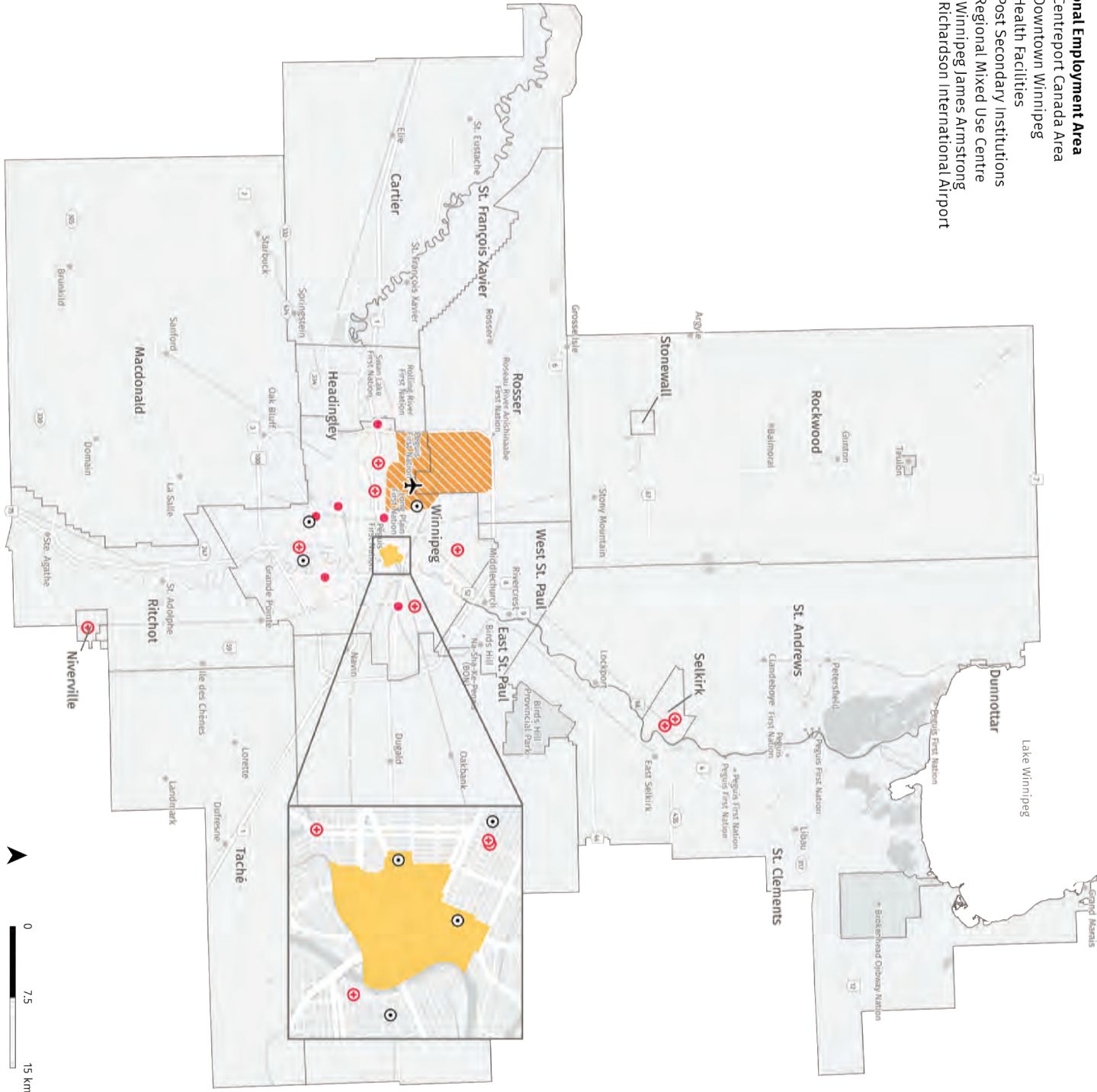
2.5 SHARED BENEFIT

2.5.1 To support mutually beneficial efficiencies and innovation, the *Winnipeg Metropolitan Region (WMR)* will investigate and establish a framework mechanism to share benefits regionally for:

- a) *Regional Employment Areas*;
- b) *Regional Infrastructure*; and,
- c) *Regional Assets*.

Legend

- Regional Employment Area
- Centreport Canada Area
- Downtown Winnipeg
- Health Facilities
- Post Secondary Institutions
- Regional Mixed Use Centre
- Winnipeg James Armstrong Richardson International Airport



SCHEDULE 6—REGIONAL
EMPLOYMENT AREAS

Notes

Identified lands are located on Treaty 1 Territory.

Map Projection

NAD83 / UTM zone 14N (EPSG:26914)

Feature Layer Sources

Health Facilities: Google Maps, 2020
Post Secondary Institutions: Google Maps, 2020
Regional Mixed Use Centres: City of Winnipeg, 2011, Complete Communities
Downtown Winnipeg: City of Winnipeg, 2011, Complete Communities
Centreport Canada Area: Province of Manitoba, 2021, The Centreport Canada Act C.C.S.M. c. C44, "Inland Port Area"
Winnipeg James Armstrong Richardson International Airport: Google Maps, 2020

Base Layer Sources

Municipal Boundaries: Province of Manitoba, 2020, Manitoba
First Nations Territory: Government of Canada, 2020, Aboriginal Lands of Canada Legislative Boundaries
Rail Lines: Government of Canada, 2020, National Railway Network
Roads: Government of Canada, 2020, National Road Network, Province of Manitoba, 2020, Manitoba Road Network; City of Winnipeg, Road Network, 2021
Places: Manitoba Geographical Names Program, Manitoba
Geographical Names Toponymic Data, 2018, Natural Resources Canada, Canadian Geographical Names, 2021
Waterways: Government of Canada, 2020, National Hydro Network
Provincial Parks: Manitoba Land Initiative, 2020, Parks and Park Reserves



POLICY AREA 3

ONE ENVIRONMENT



OUR GOAL

Build a sustainable, climate-resilient region that can meet the challenges of the future and thrive.

ACTIONS:

- Protect ecological health
- Develop a *natural assets* network to support ecosystem health, climate resilience, species habitat and recreation
- Plan for and build resilience to flood and drought within the region
- Ensure a sustainable fresh water supply
- Reduce greenhouse gases and improve climate resiliency

A healthy environment is an imperative of ecological well-being as well as a necessity to a high quality of life. To provide for healthy water quality and quantity, wildlife habitat, and to mitigate, adapt, and add *resilience* to *climate change*, regional planning is critical.

The *Winnipeg Metropolitan Region* is rich in *natural assets*. The region encompasses a vast landscape located in the Lake Winnipeg Watershed. Lake Winnipeg is the 11th largest fresh water lake in the world. The region is also located at the confluence of the Boreal Shield and Prairie Ecozones, supporting various *ecosystems* such as *wetlands*, grasslands, and riparian and upland forests. *Natural assets* and systems intersect the region's many communities providing significant social and economic value.

An interconnected *natural asset* network that supports biodiversity and ecological processes is essential.

Climate change is one of the most pressing issues of the 21st century. A regional approach to withstand, respond, and recover from the impacts of a changing climate and ensure continued growth and prosperity is imperative. Extreme weather has increased the risk of flooding and drought, and has already taken an incalculable emotional and social toll on communities and a significant monetary toll. *Climate change* is creating hydrologic shifts, especially between snowmelt- and rainfall-driven streams and rivers and subsequent changes in peak water flows.

Weather events are becoming more extreme, traditional animal territories and vegetative ranges are changing, and invasive species ranges are expanding. Bold action is needed to secure our future.

3.1 INTEGRATED WATERSHED MANAGEMENT PLANNING

- 3.1.1 To protect regional *watershed* health, notably of the sub-*watersheds* flowing into Lake Winnipeg and the Red River, Assiniboine River, and Seine River, municipalities—partnering with Watershed Districts when applicable, will ensure that *watershed* planning is undertaken to support a comprehensive, integrated, and long-term approach to the protection, enhancement, or restoration of water quality and quantity within a *watershed*.
- 3.1.2 To support *watershed* health, municipal development plans will be based on *watershed* planning to inform:
 - a) The identification of *water resource systems* to provide for the long-term protection of key hydrologic features, key hydrologic areas, and their functions;
 - b) The protection, enhancement, or restoration of the quality and quantity of water and establish development controls that protect aquatic life and *ecosystems*; and,
 - c) Planning for water, wastewater, and stormwater green and *grey infrastructure*.
- 3.1.3 To prioritize *drainage infrastructure* in relation to growth and development and protect the ecological function of *watersheds*, the *Winnipeg Metropolitan Region (WMR)* will in collaboration with municipalities, *Watershed* Districts, and the province identify, classify, and map the region's *drainage* network and other water control works as deemed appropriate to assess the ability of the *drainage* network to accommodate current and future land use across the region.
- 3.1.4 To support best practice, the planning, design, and construction of new development and *infrastructure* in *greenfield areas* and *built-up areas*:
 - a) Should incorporate innovation and *green infrastructure* stormwater management practices; and,
 - b) Should use Canadian Standards Association (CSA) tools, as identified in Section 6 Implementation.



3.2 NATURAL ASSETS NETWORK: STEWARDSHIP OF LAND, WATER AND NATURAL RESOURCES

- 3.2.1 To identify regional *natural assets* to protect, restore, and enhance linkages and support *climate change resilience*, the *Winnipeg Metropolitan Region (WMR)* in collaboration with municipalities and Indigenous Nations will prepare a *Natural Assets Network Plan*. The plan will at a minimum:
- a) Identify, map, and assess the *natural assets*, systems, and corridors, critical and significant habitats, species- and *ecosystems-at-risk*, and *water resource systems* to support biodiversity and the protection, restoration, and enhancement of connectivity between natural areas and limit *fragmentation*;
 - b) Incorporate recognition of traditional Indigenous knowledge; and,
 - c) Support passive recreation and *active transportation* trail connections, with a focus on *Regional Recreation Assets*, *Regional Active Transportation Trails*, and regional *natural assets* as per Schedule 3.
- 3.2.2 To create *resilience* to *climate change*, an adaptive *ecosystem-based* approach with an emphasis on *natural assets* will be pursued. Municipalities should reflect regional priorities by:
- a) Ensuring a land use designation is established in municipal development plans and/or secondary plans to preserve, restore, and enhance the connectivity of *natural assets*. This should include at minimum native vegetative communities, tree canopy, and *natural assets* with significant biodiversity value;
 - b) Promoting programs that incentivize environmental stewardship on private and public lands meant to protect, restore, and enhance *natural assets* and *ecosystem* goods and services especially as it relates to flood and drought mitigation, source water protection, and carbon sequestration;
 - c) Restricting development in wetland and riparian zones as per provincial regulation. Where development may be considered, municipalities should consider the acquisition of the wetland and/or riparian zones, as public reserve and as an investment into *green infrastructure*; and,
 - d) Developing and maintaining a land acquisition program to protect and support *natural assets* and their ecological functions and to support *green infrastructure* investment.

3.3 FLOOD AND DROUGHT RESILIENCY

- 3.3.1 To protect communities from significant flooding, protect water recharge and retention areas, reduce risk, and build regional *resilience*, municipalities will:
- a) Identify lands subject to significant flooding, erosion, or bank instability not already identified as *Designated Flood Area* under provincial regulation;
 - b) Identify lands located in potential water recharge/retention areas; and,
 - c) Establish development restrictions for lands subject to significant flooding, erosion, bank instability, or located in potential water recharge/retention areas to encourage that they be left in a natural state or developed only for low intensity use such as passive recreation, grazing, cropping, forestry, and wildlife habitat.

3.4 SUSTAINABLE WATER SUPPLY

- 3.4.1 To protect source water from intensive and high-risk impacts, development will be restricted in identified Source Water Protection Zones as delineated by *Integrated Watershed Management Plans*. The following considerations should be met where restriction is not possible:
- a) The proponent provides adequate engineering or hydro-geological investigation that the proposed activity will not cause pollution of the public drinking water supply; or
 - b) Ensure appropriate precautionary measures for mitigation.
- 3.4.2 To ensure long-term groundwater supply across the region, the *Winnipeg Metropolitan Region (WMR)* will collaborate with *Watershed Districts* to:
- a) Pursue strategies and actions to identify current use, future demands, and risks to regional groundwater aquifers, including those posed by *climate change*;
 - b) Prioritize the decommission and sealing of unused and abandoned wells that do not meet provincial standards within a Source Water Protection Zone where growth is prioritized; and,
 - c) Determine areas to limit development where risk to groundwater aquifers has been identified.



- 3.4.3 To protect surface and ground water, notably Lake Winnipeg, from sources of contamination, land uses should minimize nutrient and sediment loading. Municipalities will:
- a) Promote the use of Environmental Farms Plans to agricultural producers to address risks associated with nutrient run-off and livestock access to riparian zones, in collaboration with the province;
 - b) Where applicable, prepare combined sewer overflow action plans aimed at mitigating combined sewer overflows and ensure emergency discharge plans are in place to prevent the unscheduled or emergency release of wastewater due to an extreme event, unplanned capacity, or system breaches;
 - c) Consider innovative strategies and solutions to wastewater and/or biosolids management that minimize peak wastewater flows and reduce nutrient loading to waterbodies, including the use of short-term storage tanks, *wetlands*, and *green infrastructure*; and,
 - d) Promote in local land use and *infrastructure* planning and development stormwater management practices that enhance water infiltration and limit run-off and development controls that minimize vegetation disturbance to reduce erosion, silt, and sediment run-off into water bodies including the use of Canadian Standards Association (CSA) tools, as identified in Section 6 Implementation.
- 3.4.4 To foster a *circular economy*, the *Winnipeg Metropolitan Region (WMR)* and municipalities will move away from the “Take-Use-Discharge” water management practice and promote the reduction of water consumption, reuse and recycling of water and wastewater, and recovery of materials including heat and minerals from water and wastewater to enhance *resilience* to *climate change* and mitigate *greenhouse gas* emissions.

3.5 LOW CARBON, GREENHOUSE GAS REDUCTION, AND CLIMATE RESILIENCE

- 3.5.1 To build regional *resilience* and reduce *climate change* risk, hazard prevention and management will be pursued by the *Winnipeg Metropolitan Region (WMR)* and municipalities to:
- a) Ensure solutions to mitigate *climate change*, are incorporated into local emergency preparedness programs and plans, specifically updating risk and hazard vulnerabilities mapping;
 - b) Support enhanced public awareness in identifying risks and hazards;
 - c) Protect, restore, and enhance linkages of *natural assets*, systems, and corridors to maximize *ecosystem* function; and,
 - d) Invest in and incorporate risk-based planning tools, incentives, and green technologies into the planning of land use and *infrastructure* assets.

3.5.2 To mitigate *greenhouse gas* emissions and support *climate change* adaptation, the *Winnipeg Metropolitan Region (WMR)* in collaboration with municipalities will prepare a Regional Climate Action Plan reflecting the provincial direction and reduction targets. The plan will, at minimum:

- a) Include an inventory that identifies *greenhouse gas* emission sources and intensities regionally, establishes a regional *greenhouse gas* emissions baseline, identifies regional *greenhouse gas* emissions reduction priorities, and establishes regional *greenhouse gas* emissions reduction targets;
- b) Supports *low carbon* opportunities through electrification, alternative energy systems, and bioenergy;
- c) Supports enhancing the ability of *natural assets* to mitigate climate-exacerbated effects and their capacity to serve as carbon stores; and,
- d) Supports strategies for existing building retrofits and construction of new buildings to green performance guidelines and standards.

3.5.3 To support climate action, municipalities should:

- a) Establish and adopt local *greenhouse gas* emissions reduction strategies that contribute to meeting regional reduction targets;
- b) Identify land use, transportation, and *infrastructure* planning and development policies, plans, and/or development control programs to meet their *greenhouse gas* reduction strategies; and,
- c) Consider supporting the development of Community Energy Plans, community design and facility provisions that encourage mode shift to public transit and *active transportation*, the planting of trees, and the promotion of agricultural best practices that enhance carbon sequestration.





POLICY AREA 4

RESOURCE MANAGEMENT



OUR GOAL

Manage regional resources to support our communities, our environment and our economy.

ACTIONS:

- Protection and preservation of agricultural land
- Recognize the economic value of mineral aggregate resources through sustainable management

Agriculture and mineral aggregate resources are important economic assets and contribute to the regions prosperity as they generate substantial income, employment, and export opportunities.

Agricultural lands are key to supporting the regions food production, supply, and security. Resources must be sustainably managed and protected from conversion, fragmentation and degradation.

The Region's prime agricultural land consists of high-class soil types that provide a high-quality resource to support viable agricultural production. Lower class soils are also found in the region and, among other agricultural uses, support forage production important to livestock grazing. Mineral and aggregate deposits are located in the region, supporting local economies and providing unique opportunities for communities with the rehabilitation of spent pits and quarries.

To maintain viable industries, protection of resource bases from incompatible land uses is critical to ensuring their ongoing access. Not only do resource lands support economic prosperity, but they are also vital to environmental stewardship and can be an important component to building a climate resilient region. The added importance of meeting health and food security needs reinforces the need to protect the regions agricultural lands and consider best practices for soil conservation to continue to support the export market as well as foster the local food system. Thinking regionally facilitates the development of an agricultural system that provides regenerative ecological benefits as well as economic and social.

4.1 AGRICULTURE

- 4.1.1 To protect and preserve *agricultural land* use within the Outer Metropolitan Area, as identified on Schedule 7, growth will primarily be directed to the **Metropolitan Core, Inner Metropolitan Area, Urban Centres, Rural Centres, and Settlements**.
- 4.1.2 To limit *agricultural land fragmentation* and facilitate agricultural uses within the region, a minimum 80-acre agricultural parcel size will be established, except for specialized crops and/or urban agriculture.
- 4.1.3 To limit *agricultural land fragmentation* and facilitate agricultural uses, subdivision of land designated for agricultural uses will be restricted as per provincial regulation. Where subdivision is permitted by the approving authority, new residential development on residual agricultural land parcels should be restricted.
- 4.1.4 To ensure the protection and preservation of *agricultural lands* and support the growth of the agricultural sector, the *Winnipeg Metropolitan Region (WMR)* will prepare a *Regional Agricultural Master Plan* in collaboration with member municipalities, Indigenous Nations, the Province of Manitoba, and other stakeholders. The *Regional Agricultural Master Plan* will:
 - a) Support the monitoring of agricultural land status;
 - b) Identify and pursue strategies and actions related to regional food security, specialized agricultural opportunities, *circular economy*, and agricultural *infrastructure* investment;
 - c) Encourage working with Indigenous Nations to support agricultural production on Indigenous-owned lands; and,
 - d) Define the requirements of an *agricultural impact assessment* tool, such as identifying impacts on agricultural land and active *agricultural operations* and recommending measures to avoid, minimize, or mitigate impacts.
- 4.1.5 To support economic agricultural diversity, small-scale, specialized crop, and tourism-related *agriculture operations*:
 - a) Should be located on lands that have been fragmented and are otherwise not viable for large-scale agricultural activities including but not limited to locations identified as river lot areas with potential for *agri-tourism* as per Schedule 7;
 - b) Should not be the purpose of *agricultural land subdivision* unless otherwise allowed under provincial regulation; and,
 - c) Will be defined in further requirements as part of the *Regional Agricultural Master Plan*.
- 4.1.6 To foster a *circular economy*, the *Winnipeg Metropolitan Region (WMR)* and municipalities will work toward developing strategies and actions that foster healthy soil, increase efficiencies that minimize food waste, enhance access to affordable and sustainable food, create new collaborative partnerships, and optimize circular economic opportunities.

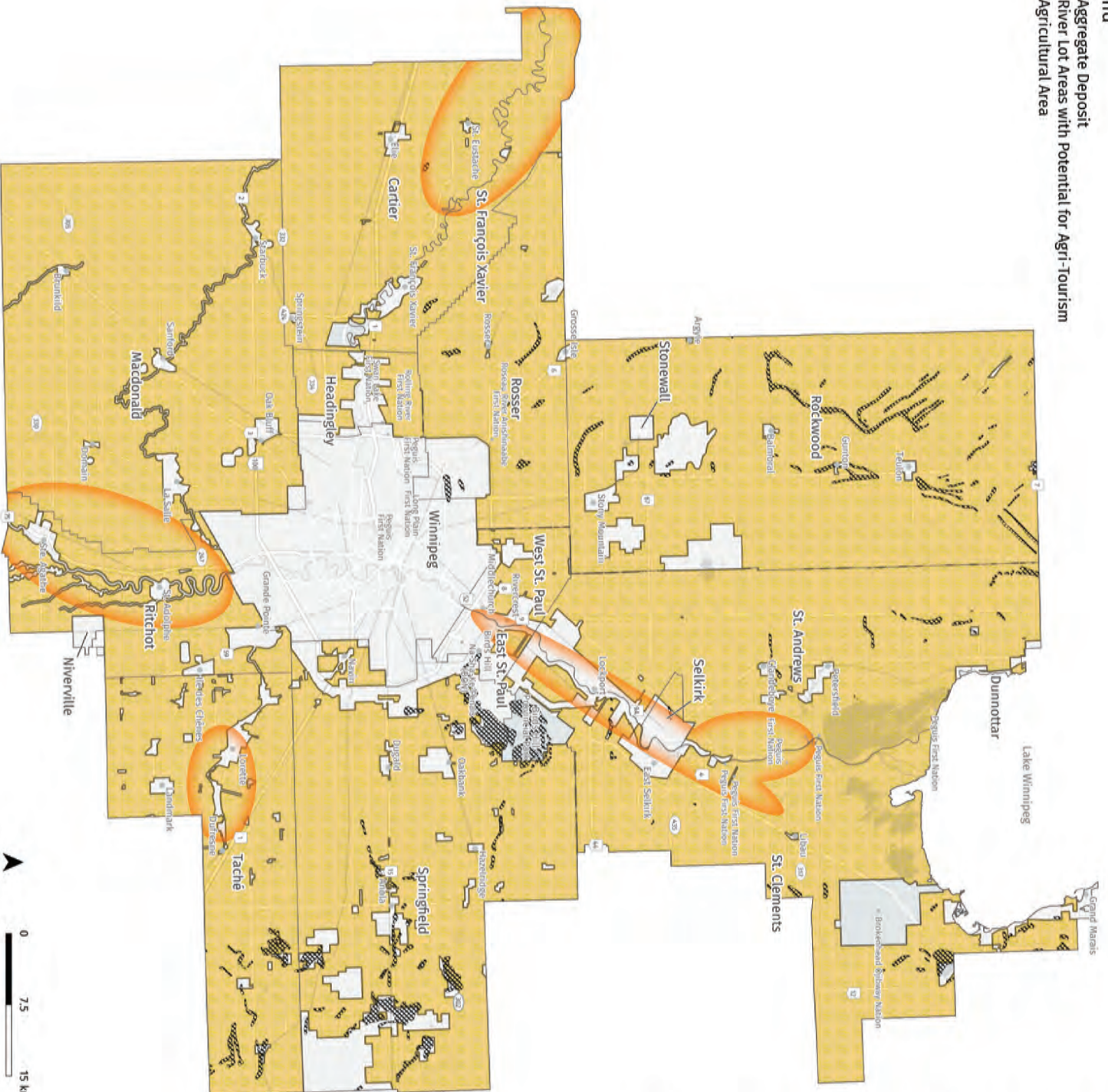


4.2 MINERAL RESOURCES

- 4.2.1 To recognize mineral and aggregate potential, development plans will include policies to protect and preserve areas for extraction and identify lands designated for mineral and aggregate extraction including areas identified on Schedule 7, if mineral and aggregate deposits are located within the planning area.
- 4.2.2 To protect lands designated for mineral and aggregate resources and existing operations, incompatible land uses will:
 - a) Be minimized and directed away from mineral and aggregate lands; and,
 - b) Incorporate mitigation measures where existing land uses present limitations, as appropriate, within the area being developed, including but not limited to buffers and setbacks to minimize land use conflict.
- 4.2.3 To provide for consistency and land use compatibility regarding resource activity, the *Winnipeg Metropolitan Region (WMR)*, in collaboration with municipalities, the province, and other stakeholders, will work to establish a regional direction to:
 - a) Set consistent mineral and aggregate resource extraction buffers and setbacks for development to minimize land use conflict and support the long-term viability of extraction operations;
 - b) Set consistent mineral and aggregate resource extraction licensing and permitting; and,
 - c) Prioritize rehabilitation of depleted extraction sites to new uses with a view to support ecological integrity and opportunities for open space and recreation land uses supported by this plan.

Legend

- Aggregate Deposit
- River Lot Areas with Potential for Agri-Tourism
- Agricultural Area



SCHEDULE 7—RESOURCE-BASED ECONOMIC ASSETS

Notes

Identified lands are located on Treaty 1 Territory.

Map Projection

NAD83 / UTM zone 14N (EPSG:26914)

Feature Layer Sources

Aggregate Deposit: Province of Manitoba, 2019, Mineral Dispositions
 River Lot Areas with Potential for Agri-Tourism: Province of Manitoba, 2020, Development Plan Designations
 Agricultural Area: Province of Manitoba, 2020, Development Plan Designations

Base Layer Sources

Municipal Boundaries: Province of Manitoba, 2020, Manitoba
 Municipal Boundaries
 First Nations Territory: Government of Canada, 2020, Aboriginal Lands
 of Canada Legislative Boundaries
 Rail Lines: Government of Canada, 2020, National Railway Network
 Roads: Government of Canada, 2020, National Road Network, Province
 of Manitoba, 2020, Manitoba Road Network, City of Winnipeg, Road
 Network, 2021
 Places: Manitoba Geographical Names Program, Manitoba
 Geographical Names Toponymic Data, 2018, Natural Resources
 Canada, Canadian Geographical Names, 2021
 Waterways: Government of Canada, 2020, National Hydro Network
 Provincial Parks: Manitoba Land Initiative, 2020, Parks and Puk
 Reserves



POLICY AREA 5

COLLABORATIVE GOVERNANCE



OUR GOAL

Build partnerships through a collaborative governance approach that supports coordinated planning and investment across the region.

ACTIONS:

- Coordinate land use planning and development across the region
- Promote asset management as a planning tool to support regional priorities
- Coordinate regional data collection, storage, delivery, and analysis
- Collaborate with partners for strategic benefit
- Restore and honour our Treaty Relationship

Regional planning and development is supported by working relationships between all levels of government, including municipal, provincial, federal, and Indigenous, as these relationships provide the foundation to incorporate the needs of communities and build a prosperous *Winnipeg Metropolitan Region*. Collaborative Governance supports an environment of trust and collaboration across all levels of government.

Collaborative Governance and partnerships support *infrastructure* investment, community planning, and economic development. Regional land use consistency simplifies planning and development

across the region, adopting common data management practices, procedures, and templates enables regionally consistent data.

Partnerships offer an opportunity to share knowledge, skills, and expertise. Inter-jurisdictional collaboration in service delivery can maximize the value of tax dollars, while ensuring services are relevant to each community.

Partnerships offer opportunities to advance reconciliation by supporting relationships between municipalities and Indigenous Nations, enhancing access to services, *infrastructure*, and the economy for all residents of the region.

5.1 REGIONAL COORDINATION OF LAND USE PLANNING AND DEVELOPMENT

- 5.1.1 To support regional coordination of land use, the *Winnipeg Metropolitan Region (WMR)* will develop a land use designation and zoning guide applicable to various place types across the region, which may be used by municipalities to support development of complete communities.

5.2 ASSET MANAGEMENT

- 5.2.1 To support *infrastructure* investment and efficiencies, the *Winnipeg Metropolitan Region (WMR)* will establish a Regional Asset Management Program which will assess *infrastructure* risk and hazard vulnerabilities for *regional assets* and identify and prioritize regional actions and investment.
- 5.2.2 To enhance *infrastructure resilience*, municipalities will assess *infrastructure* risks and vulnerabilities over their full lifecycle, including those caused by the impacts of a changing climate, and identify actions and investments to address these challenges.
- 5.2.3 To enhance collaboration for supporting *infrastructure* and investment efficiencies, municipalities will assess *infrastructure* risks and vulnerabilities as they relate to available fire protection based on guidelines identified by the Manitoba Water Services Board and the Manitoba Office of the Fire Commissioner. Municipalities will review and update firefighting protection plans to identify actions and investments to address these challenges, including where service agreements are in place or could be identified with Indigenous Nations.

5.3 DATA COLLECTION AND SHARING

- 5.3.1 The *Winnipeg Metropolitan Region (WMR)* will collaboratively develop and establish a data sharing program for municipalities to encourage the availability and accessibility of information to enable more effective regional coordination and analysis. The program will:
- a) Establish standards, methods, and protocols for data collection, storage, and delivery using internationally-recognized ISO developed tools as a model;
 - b) Ensure interoperable, consistent, and accurate information is produced and shared across the region while respecting the requirements for data protection and privacy as per regulations; and,
 - c) Establish a template for data sharing agreements.
- 5.3.2 To support efficiencies and accessibility to data, in collaboration with municipalities, the *Winnipeg Metropolitan Region (WMR)* will pursue the development of a tool to organize and disseminate data while adhering to applicable legislation including privacy, security, and confidentiality provisions.



5.4 SERVICE SHARING, PARTNERSHIP, AND COLLABORATION

- 5.4.1 To advance regional service sharing, partnerships, and collaboration between municipalities and with Indigenous Nations where it is logical and beneficial, the *Winnipeg Metropolitan Region (WMR)* will work to support:
- a) Collaboration and partnership between all levels of government, the private sector, and Indigenous Nations in the planning and development of land, *infrastructure* and the delivery of services; and,
 - b) When significant *infrastructure* investment or services are required, service sharing and partnership opportunities will be prioritized.
- 5.4.2 To support service sharing, the *Winnipeg Metropolitan Region (WMR)* will establish a Service Sharing Framework to simplify and expedite agreements. The *Winnipeg Metropolitan Region (WMR)* will:
- a) Coordinate with municipalities on the framework, including the establishment of common templates for service sharing between municipalities;
- 5.4.3 To support Reconciliation, the *Winnipeg Metropolitan Region (WMR)* will:
- a) Collaborate and engage in ongoing dialogue with Indigenous Nations to examine appropriate regional governance models to advance reconciliation and facilitate service sharing; and,
 - b) Work with Indigenous Nations to facilitate the compatibility of the Regional Growth Plan and Indigenous Nation's planning and development initiatives.

IMPLEMENTATION

If everyone is moving
forward together, then
success takes care of itself.

A KEY COMPONENT TO SUCCESS

Successful implementation requires continued collaboration between Winnipeg Metropolitan Region (WMR), municipalities, the Province of Manitoba, Indigenous Nations, and other regional stakeholders to implement the policies of the plan and realize its goals. Implementation of the plan coordinates planning and development by member municipalities and ensures consistency with provincial land use policies.

This chapter provides direction for the implementation of Plan20-50, and outlines how all development plan by-laws, secondary plan by-laws, zoning by-laws and drinking water and wastewater plans will conform to this plan. It describes, at a high level, how the policies and schedules will be implemented and interpreted, lists tools for implementation, the key performance indicators used to measure success, and the future work that needs to be undertaken to further the Plan20-50 vision.

Plan20-50 implementation will be determined and guided through provincial legislation and regulation. The following are primary components of implementation.

6.1 SUMMARY OF ROLES AND RESPONSIBILITIES

The Province of Manitoba, the *Winnipeg Metropolitan Region (WMR)*, and member municipalities have specific roles in the implementation of Plan20-50. These roles are defined through provincial legislation and regulation.

6.2 CONFORMITY FOR MUNICIPAL DEVELOPMENT PLANS

6.2.1 Regional Context Statement

A Regional Context Statement will describe how existing development plans will be brought into conformance with Plan20-50. This process will include consideration of:

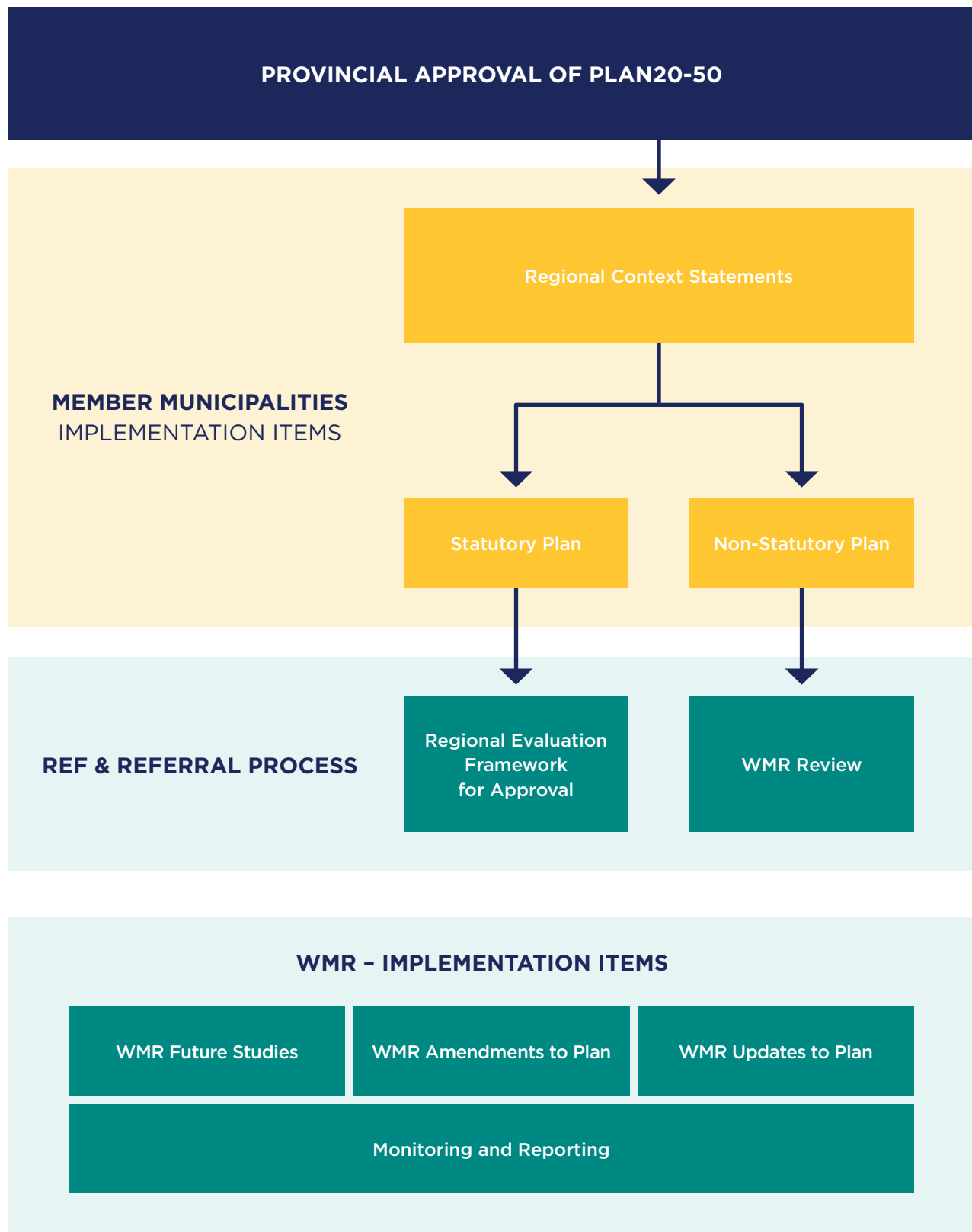
- a) Description of how the Winnipeg Metropolitan Regional Structure to 2050 applies;
- b) The intent of the Integrated Communities and *Infrastructure* policy area, including the expectations for *density* and serviced development;
- c) The intent of the Investment and Employment policy area, including recognition of the regional transportation *infrastructure* and modal shift policies, support of regional and local employment areas, and the depiction of *Regional Employment Areas* in municipal mapping;
- d) The intent of the One Environment policy area, including of protection of *natural assets* and integration of local environment and recreation connections;
- e) The intent of the Resource Management policy area, including the recognition of *agricultural lands* and mineral and aggregate resources; and,
- f) The intent of the Collaborative Governance policy area, including opportunity for partnerships.

6.2.2 Conformity

Plan20-50 introduces various transition mechanisms to implement the plan. The Planning Amendment and City of Winnipeg Charter Amendment Act has provided some direction in this regard.

- a) Municipalities will update existing development plans, secondary plan by-laws, zoning by-law, and drinking water and wastewater plans to conform to Plan20-50 within three years of the date when Plan20-50 comes into force.
- b) The *Winnipeg Metropolitan Region (WMR)* will establish a process for completing a Regional Context Statement (RCS). During the transition period between the coming into force of Plan20-50 and the updating of municipal development plans, secondary plan by-laws, and zoning by-law for conformance with Plan20-50, as a first step, RCS will be prepared by municipalities. The RCS will outline how an existing development plan conforms with, or diverges from Plan20-50, and how municipalities will bring their development plan into compliance.
- c) Any application approved prior to Plan20-50 coming into force for a conditional use, a variance, or a subdivision are to be completed in accordance with the provisions of the development plan, sub-area or lower level plan (secondary plan, area structure plan), and zoning by-law of the *municipality* or planning district, as those by-laws read immediately before the coming into force of Plan20-50.
- d) Amendments to an existing development plan, secondary plan by-laws, zoning by-law and drinking water and wastewater plans will be subject to the requirements of Plan20-50. The Regional Context Statement will be used in determining if an application to amend a development plan, secondary plan by-law, or zoning by-law conforms with or diverges from Plan20-50. The final decision regarding if an amendment diverges from Plan20-50 will be determined by the Minister or by delegated authority.

Implementation Process



IMPLEMENTATION MATRICES

6.2.3 Schedule 8 indicates which Plan20-50 Regional Structure components apply in each *municipality*.

Schedule 8—Regional Structure Implementation Matrix

Municipality	Metropolitan Core Area	Inner Metropolitan Area	Outer Metropolitan Area			
			Urban Centres	Rural Centres	Settlements	Remainder
Cartier					●	●
Dunnottar						●
East St. Paul		●				●
Headingley		●				●
Macdonald		●		●	●	●
Niverville			●			
Ritchot				●	●	●
Rockwood					●	●
Rosser		●				●
Selkirk			●			
Springfield				●	●	●
St. Andrews					●	●
St. Clements					●	●
St. François Xavier					●	●
Stonewall			●			
Taché				●	●	●
West St. Paul		●				●
Winnipeg	●	●				

6.3 IMPLEMENTATION AND INTERPRETATION OF DENSITY MINIMUMS AND TARGETS

6.3.1 Application of Density

Density should be applied to the Metropolitan Core and *greenfield areas* and planned for either residential or *mixed-use development*. In these cases, minimum *density* should be calculated on a variety of residential housing typologies and scales such as single-unit, townhouse, and apartment, as well as on non-residential units where applicable. Densities across these sites may vary and may be phased, however, densities should be calculated over the entire site. As part of the municipal planning tool kit, a *density* guide will be developed by the *Winnipeg Metropolitan Region (WMR)* to provide additional guidance for *density*.

6.3.2 Minimum Density

Minimum *density* requirements have been established through the regional plan to support optimal servicing and to maximize investments in *infrastructure*. These minimum requirements apply to all developments approved under this plan. Development plans, secondary plan by-laws, and zoning by-laws will apply and establish how minimum *density* will be met. This may include a variety of built forms as determined through local planning processes.

Minimum densities are in consideration for *infrastructure* investment decisions. Municipalities that meet and exceed minimum *density* requirements may be given higher consideration as servicing and *infrastructure* investments are prioritized.

6.3.3 Density Target

Density targets have been established by this plan to identify higher target *density* expectations that municipalities may consider and apply through development plans, secondary plan by-laws, and zoning by-laws. These are aspirational targets that over time and through strategic locations may be accommodated. Municipalities that meet *density targets* may be given higher consideration as servicing and *infrastructure* investments are prioritized.

6.3.4 Density Review

Densities for the region will be reviewed to track the implementation of *density* requirements across municipalities in the region. Consideration of reviews will be factored into servicing and *infrastructure* investment decisions. *Density* reviews should be reported to the *Winnipeg Metropolitan Region (WMR)* Board as part of overall Key Performance Indicator (KPI) reporting.

6.4 REGIONAL GROWTH PLAN AMENDMENTS AND UPDATES

Future studies and analysis identified in Section 6.6 are necessary to implement the policies of this plan. This will support amendments and updates to Plan20-50 to include data driven insight from priority future studies and analysis. The outcomes of these studies will be approved by the *Winnipeg Metropolitan Region (WMR)* Board and the Province of Manitoba and incorporated into the regional plan.

6.4.1 Amendment to the Regional Plan

The *Winnipeg Metropolitan Region (WMR)* may consider amendments to the Regional Growth and Servicing Plan as per the process established in the Capital Planning Region Regulation. Proposed amendments may be submitted by the Minister, *Winnipeg Metropolitan Region (WMR)* Board, member *municipality*, or a member planning district in writing. All amendments to the Regional Growth Plan require approval by the *Winnipeg Metropolitan Region (WMR)* Board and the Province of Manitoba.

6.4.2 Updates to the Regional Plan

To continue guiding the planning and development of growth in the *Winnipeg Metropolitan Region*, the goals and policies of the Regional Growth Plan will be subject to periodic review and update to ensure they are current and relevant over time. The *Winnipeg Metropolitan Region (WMR)* will commence a comprehensive review of the Regional Growth Plan after the eighth year of the Plan coming into effect. A comprehensive review and any amendments will take no longer than two years to complete, including ministerial approval. The Plan will be reviewed as per the process established in the Capital Planning Region Regulation.

6.5 IMPLEMENTATION MECHANISMS

6.5.1 Regional Evaluation Framework for Statutory Plan Review

The *Winnipeg Metropolitan Region (WMR)*, in collaboration with the province, will develop as part of Plan20-50 a Regional Evaluation Framework (REF). The REF is the mechanism that will be used to evaluate the conformance of statutory plans with the Regional Growth Plan. Criteria for evaluation will be established to measure how the intent of Plan20-50 is met.

To support conformance by member municipalities with Plan20-50, the *Winnipeg Metropolitan Region (WMR)* will work with the Province of Manitoba to ensure that the REF is updated and aligns with this plan based on criteria review. The REF will be amended and periodically updated as required.

6.5.2 Referral of Non-Statutory Plans

When the *Winnipeg Metropolitan Region (WMR)* or member municipalities undertake major non-statutory planning exercises (e.g. concept plan), they must not be inconsistent or in conflict with Plan20-50. To enable conformity to Plan20-50, the *Winnipeg Metropolitan Region (WMR)* will be included as a stakeholder and provide formal comment on the alignment of the non-statutory plans with guiding principles, objectives, and policies of Plan20-50.

6.6 IMPLEMENTATION TOOLS

The implementation tools as outlined in the plan are intended to provide consistency and efficiency of processes and to support the municipal alignment with Plan20-50.

6.6.1 Supporting Timing of Development

The policies of this plan provide for the completion of *infrastructure* master plans to support growth and servicing. Municipalities should anticipate and plan for needed wastewater and water treatment capacity to accommodate municipal growth and development objectives through the adoption of conservation measures to extend existing capacity and/or the expansion of capacity.

Accordingly, an integral part of planning for services is determining the status of uncommitted reserve capacity at water and wastewater treatment facilities and monitoring this capacity on an on-going basis. Municipalities responsible for wastewater and water servicing should assume responsibility for tracking, reporting, and allocating uncommitted reserve capacity, in conjunction with water conservation measures to optimize the use of this capacity.

Development delays should be avoided through understanding of issues, sharing of data, and addressing requirements that can impact timing and scheduling through the development application process. Process requirements will be further refined for implementation.

Required studies for supporting development applications may include:

- Water and wastewater *infrastructure* capacity;
- Transportation capacity and demand;
- *Agricultural impact assessment*;
- Land conveyance and environmental issues; and,
- Transit related construction.

6.6.2 Density Evaluation of Persons and/or Jobs Per Hectare




The calculation of persons/jobs per hectare presents a more common national measure for *density*. To support improved positioning in the global marketplace, the *Winnipeg Metropolitan Region (WMR)* will work with the municipalities to update data and move towards this measure of *density* to support broader interpretation and consistency for *density* interpretation.






6.6.3 Use of Standards and Guidelines

To guide the implementation of policies included in this plan, standards and guidelines have been included. Standards and guidelines represent global industry best practice and are used to provide a consistent, common approach to the implementation of policy. They also provide a way to measure and evaluate performance. Schedule 9 provides a description of standards and guidelines that reflect policy direction and are referred to in the policies of this plan.

Schedule 9—Standards and Guidelines for Implementing Plan20-50

Standard	Policy area	Name of standard	Description
Canadian Standards Association (CSA)		CSA W204 Flood Resilient Design for new Residential Communities	This standard provides criteria and guidance on the design of flood-resilient new residential communities as it relates to greenfield development.
		CSA W200 Design of Bioretention Systems	This standard provides requirements and recommendations for the design of bioretention systems intended for the management of urban stormwater runoff.
		CSA W201 Construction of Bioretention Systems	This standard provides requirements and recommendations for construction activities specific to bioretention systems.
		CSA W211 Management Standard for Stormwater Systems	This standard provides a consistent process for decision makers responsible for the design, construction, operation, maintenance, and management of stormwater systems.
		CSA W210 Prioritizing Flood Resiliency in Existing Residential Communities	This standard provides requirements and recommendations for screening flood hazards and vulnerabilities within existing residential communities.
		CSA W202 Erosion and Sediment Control, Inspection and Monitoring	This standard specifies minimum requirements for the inspection of erosion and sediment control measures throughout the duration of a construction project, as well as requirements and recommendations for monitoring certain water quality parameters.
		CSA W208 Erosion and Sediment Control, Installation and Maintenance	This standard provides requirements and recommendations for the installation and maintenance of commonly applied erosion and sediment control measures.
		CSA PLUS 4013 Technical Guide: Development, Interpretation and use of Rainfall IDF Information: Guideline for Water Resources Practitioners	A resource for understanding water system planning and design as it relates to rainfall intensity-duration-frequency (IDF).


Standard	Policy area	Name of standard	Description
International Organization for Standardization (ISO)		ISO 37120 Sustainable Cities and Communities	This standard provides indicators for city services and quality of life as a contribution to the sustainability of the city.
National Fire Protection Association (NFPA)		NFPA 1201 Providing Fire and Emergency Services to the Public	This standard contains requirements on the structure and operations of fire emergency service organizations (FESOs) to help protect lives, property, critical infrastructure, and the environment from the effects of hazards.
		NFPA 1300 Community Risk Assessment and Community Risk Reduction Plan Development	This standard contains requirements on the process to conduct a community risk assessment (CRA) and to develop, implement, and evaluate a community risk reduction (CRR) plan.
		NFPA 1730 Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations	This standard contains minimum requirements relating to the organization and deployment of code enforcement, plan review, fire investigation, and public education operations to the public.
		NFPA 1143 Wildlife Fire Management	This standard specifies management practices and policies necessary for a fire protection organization to develop a wildland fire management program.
		NFPA 1142 Water Supplies for Suburban and Rural Fire Fighting	This standard identifies a method of determining the minimum water supply necessary for structural fire-fighting purposes in areas where it has been determined that there is no water or inadequate water for fire fighting.
Federation of Canadian Municipalities (FCM) and Railway Association of Canada (RAC)		Guidelines for New Development in Proximity to Railway Operations	These guidelines are intended for use when developing and reviewing planning policies and developing lands in proximity to railway operations and facilities. As well, they support establishing a process for making site specific recommendations and decisions to reduce land-use incompatibilities and conflict.


6.6.4 Monitoring and Reporting




Key Performance Indicators (KPI) are quantifiable measures that support interpretation and effective evaluation of regional policy against the intended outcomes. They also reflect and evaluate the progress of Plan20-50 to meet global best practice including the United Nations Sustainable Development Goals.

Measuring KPIs supports updates of the Regional Growth Plan to respond to changes observed. The *Winnipeg Metropolitan Region (WMR)* will report on the implementation of Plan20-50 and its progress towards meeting goals using the identified KPIs. To accurately report on KPIs that reflect a planning tier, *municipality*, and/or centre, the *Winnipeg Metropolitan Region (WMR)* will work with municipalities to provide information and data.

Schedule 10—Key Performance Indicators for Implementation

Policy area	Metric	Geography	Source	Frequency
Integrated Communities & Infrastructure 	Residential solid waste going to landfill (tonnes/annually), absolute and % change	Region, municipality	Municipality	Annual
	Residential solid waste going to recycling (tonnes/annually), absolute and % change	Region, municipality	Municipality	Annual
	Number of new construction permits, absolute and % change	Region, planning tier, municipality, Urban Centres, Rural Centres, Settlements	Municipality	Annual
	Area of land designated for development, absolute and % change	Region, planning tier, municipality, Urban Centres, Rural Centres, Settlements	Province of Manitoba	Annual
	Total population and dwellings, absolute and % change	Region, municipality	Statistics Canada Census	Every 5-years
	Dwelling unit growth directed to existing centres, absolute and % change	Region, planning tier, municipality, Urban Centres, Rural Centres, Settlements	Province of Manitoba	Annual
	4-way intersection density, absolute and % change	Region, planning tier, municipality, Urban Centres, Rural Centres, Settlements	Statistics Canada, WMR	Every 2- years
	Unabsorbed land supply (residential, employment), absolute and % change	Region, municipality	Province of Manitoba, Municipality	Every 2-years
	Housing starts, completions, and absorptions, absolute and % change	Region, municipality	Canada Mortgage Housing Corporation (CMHC)	Annual
	Residential unit density, absolute and % change	Region, planning tier, municipality, Urban Centres, Rural Centres, Settlements	Province of Manitoba, Municipality	Annual

Policy area	Metric	Geography	Source	Frequency
Integrated Communities & Infrastructure (cont'd)	Number of individuals by shelter-cost-to-income ratio, absolute and % change	Region, municipality	Statistics Canada Census	Every 5-years
	Housing mix, housing distribution per structure type, absolute and % change	Region, municipality	Statistics Canada Census	Every 5-years
	Number of kilometers of active transportation infrastructure, absolute % change	Region, municipality	Municipality	Annual
	Number of commuters by commute mode share, absolute and % change	Region, municipality	Statistics Canada Census	Every 5-years
	Number of commuters by commute duration, absolute and % change	Region, municipality	Statistics Canada Census	Every 5-years
	Area of public indoor and outdoor recreation space, per capita	Region, municipality	Municipality	Every 5-years
	Number of buildings built to green standards (e.g., LEED)	Region, municipality	Municipality (development permit approvals)	Annual
	Average water consumption (litres/day), per capita	Municipality	Municipality	Annual
 Investment & Employment	Employment growth, absolute and % change	Region, by planning tier, municipality	Statistics Canada Census	Every 5-years
	Employment diversity, job classification (NAICS)	Region, municipality, employment area	Statistics Canada Census and other Statistics Canada sources	Every 5-years
	Investment of regional road infrastructure by level of government	Region, by planning tier	Government of Canada, Province of Manitoba, Municipality	Every 5-years
	Area of designated employment land, absolute and % change	Region, municipality	Province, Municipality	Annual
	Number of permits issued in designated employment areas, absolute and % change	Region, planning tier, municipality, Urban Centres, Rural Centres, Settlements	Municipality (development permit approvals)	Annual
	% of assessed value per unit area of employment-related properties compared to all properties, absolute change	Municipality	Province of Manitoba, Municipality	Annual

Policy area	Metric	Geography	Source	Frequency
One Environment 	Amount of total wetland area, absolute and % change	Region, by planning tier, municipality	Province of Manitoba, Ducks Unlimited Canada and Manitoba Habitat Heritage Corporation, Municipality	Annual
	% area designated for natural asset protection, absolute change	Region, by planning tier, municipality	Province of Manitoba, Municipality	Annual
	Number of private wastewater disposal systems, absolute and % change	Region, municipality	Municipality	Annual
Resource Management 	Total area of agricultural land designations converted, absolute and % change	Region, municipality	Province of Manitoba, Municipality	Annual
	Area of mineral and aggregate land designated, absolute and % change	Region, municipality	Municipality	Annual
Collaborative Governance 	Number of datasets made consistent and compatible, absolute and % change	Region	Province of Manitoba, Municipality	Annual
	Number of datasets entered into data sharing agreements, absolute and % change	Region	Province of Manitoba Municipality	Annual
	Number of service sharing agreements adopted by type, absolute and % change	Region	Municipality	Annual

6.6.5 Future Winnipeg Metropolitan Region Studies and Initiatives

Best practice in regional planning provides an opportunity for ongoing research and evaluation to support long-term planning objectives and the continued development of robust KPIs.

Through the development of Plan20-50, including comprehensive stakeholder engagement, a number of additional studies and analysis have been identified and will be required for incorporation into the Regional Growth Plan at scheduled intervals as detailed in Schedule 11. The future work items are subject to funding approval.



Schedule 11—Future Work Items for Plan20-50

Policy area	Future works	Description
Integrated Communities and Infrastructure 	Demographic, Population, Employment and Housing Projections	Develop projections to understand land use and housing needs a planning area may require over time.
	Traffic/Transportation Study	Identify traffic impacts of development and the options to address future transportation needs.
	Supply and Demand or Market Analysis	Identify the supply and demand for residential and other land uses.
	Natural Asset Assessment	Identify locations of <i>natural assets</i> within the planning area and identify opportunities for and limits to development.
	Regional Servicing Strategy	Develop a regional strategy for providing safe, cost-efficient, and reliable <i>infrastructure</i> and services to meet community needs now and into the future.
	Drinking Water and Wastewater Management Plan	Develop a plan that addresses the capacity and use of <i>infrastructure</i> and <i>water resource systems</i> , and the provision of services that ensure health, safety, and environmental protection.
	Regional Transportation Master Plan	Update the existing plan and ensure alignment with Plan20-50 policies.
	Regional Housing Strategy	Develop a regional strategy to address the market and <i>affordable housing</i> needs of the region.
Investment & Employment 	Regional Economic Development Framework	Develop a framework to align regional strengths and plan for future investment.
	Goods Movement Study	Identify priority goods movement routing to support system performance and enhance freight transportation opportunities.
	Circular Economy Roadmap	Identify the circular roadmap to turn waste into resources and optimize economic opportunities.
	Shared Benefit Framework	Develop a framework that identifies the mechanism and approach to share benefits between municipalities.
One Environment 	Natural Asset Inventory and Green Infrastructure Analysis	Identify and inventory <i>natural assets</i> and evaluate their contribution to conservation priorities and <i>climate change</i> resilience across the region.
	Natural Assets Network Priorities Plan	Develop a holistic approach to foster a multi-functional, integrated network of open space and <i>natural assets</i> .
	Flood and Drought Hazard Mapping	Identify flood and drought risk and hazards across the region.
	Combined Sewer Overflow Action Plan	Develop a long-term plan to mitigate combined sewer overflows and ensure emergency discharge plans are in place.
	Regional Climate Action Plan	Develop a plan to align efforts regionally to reduce <i>greenhouse gas emission</i> , enhance energy efficiency, and support adaption.

* Expected Timeline: • means in the short term by 2030, •• means in the medium term by 2040, and ••• means as required.

Responsibility to complete	Responsibility via existing legislation, regulation, by-law or Identified in Plan20-50	*Expected timeline	**Anticipated funding source
WMR / Municipalities	Existing	• • •	Internal / Municipalities
Municipalities	Existing	• • •	Municipalities
Municipalities	Existing	• • •	Municipalities
Municipalities	Existing	• • •	Municipalities
Province / WMR	New	•	External
Municipalities	Existing	•	Municipalities
WMR	Existing	•	Internal / External
WMR	New	• •	Internal / External
WMR	New	•	Internal / External
WMR	New	•	Internal
WMR	New	•	Internal / External
WMR	New	•	Internal
WMR	New	•	Internal
WMR	New	• •	Internal / External
WMR / Municipalities	Existing / New	•	External / Municipalities
Municipalities	New	•	Municipalities
WMR	New	•	Internal / External

** Funding Source: Internal means within the *Winnipeg Metropolitan Region (WMR)* core funding operating budget, External means outside of the *Winnipeg Metropolitan Region (WMR)* Core funding, and Municipalities means municipalities are responsible to fund this work.

Policy area	Future works	Description
Resource Management 	Regional Agricultural Master Plan	Develop an overarching framework to support the regional food system, diversify the agriculture sector, contribute to the value-added growth of the agri-economy, and guide agricultural supportive infrastructure investment.
Collaborative Governance 	Land Use Designation, Zoning and Application Guide	Develop an example for walkable mixed-use, drivable single-use, and rural place types to support the development of complete communities.
	Regional Asset Management Program	From the Regional Servicing Strategy, establish a program to support infrastructure prioritization and investment.
	Data Sharing Program	Establish a program that enables regional consistency in data management practices, procedures, and sharing to foster digital literacy.
	Service Sharing Framework	Establish a framework to support collaboration and simplify and expedite agreements.
Implementation	Regional Context Statement	Complete a Regional Context Statement to demonstrate how a municipal development plan will be brought in conformity with Plan20-50.
	Development Plan By-law Update	Update the existing by-law to align with Plan20-50 policies.
	Secondary Plan By-law Update	Update the existing by-law to align with Plan20-50 policies.
	Zoning By-law Update	Update the existing by-law to align with Plan20-50 policies.
	Regional Context Statement	Develop a Regional Context Statement template for municipalities to use to demonstrate how a municipal development plan will be brought in conformity with Plan20-50.
	Regional Evaluation Framework	Develop a guiding framework for the WMR to evaluate municipal development plans to ensure alignment with Plan20-50.
	Planning Tool Kit	Develop planning guides and supports for municipalities to support the implementation of Plan20-50. Planning Tool Kits, which may include: <ul style="list-style-type: none"> • Completing our Communities • Including First Nations Perspectives in Municipal and Regional Planning • Stormwater Planning • Planning for the Prioritization of Employment Lands • Implementing CSA Standards
	KPI Dashboard	Develop a dashboard to communicate progress towards meeting goals

Responsibility to complete	Responsibility via existing legislation, regulation, by-law or Identified in Plan20-50	*Expected timeline	**Anticipated funding source
WMR	New	•	Internal / External
WMR	New	•	Internal/ External
WMR	New	••	Internal / External
WMR	New	•	Internal/External
WMR	New	•	Internal
Municipalities	New	• • •	Municipalities
Municipalities	Existing	• • •	Municipalities
Municipalities	Existing	• • •	Municipalities
Municipalities	Existing	• • •	Municipalities
WMR	New	•	Internal
WMR	New	•	Internal
WMR	New	•	Internal
WMR	New	••	Internal/External

PLAN INTERPRETATION

All meanings, we
know, depend on the
key of interpretation.

LEGAL CONTENT

The Regional Structure, the Schedules, the Policy Areas, and the Implementation Section represent the legal content of Plan20-50. They are to be read and interpreted together as an integrated policy framework. The policies apply to all the lands within the Winnipeg Metropolitan Region with the exception of First Nation lands and Reserves, federal lands, such as airports or military bases, and lands designated as provincial parks under The Provincial Parks Act.

The schedule maps are conceptual and are instruments for illustrating long-term land use and servicing planning and development. The plan appendices are tools to provide direction to implement the plan but are not policy. The appendices may be subject to further elaboration and refinement following the approval of this plan.

The implementation of the plan is outlined in the implementation section and directed through legislation and regulation.

Policy definitions are indicated in italics and defined in the glossary located in Appendix A. The preamble for each policy area is intended to be introductory for context and background to support interpretation of the policies and is not considered policy. Policies apply to the three policy tiers, Outer Metropolitan Area, Inner Metropolitan Area, and Metropolitan Core as well as identified centres. Policies apply to the entire region unless a specific policy tier or centre is indicated.

PREVAILING LAW

Where the policies contain a list of sub-policies or criteria, they are required to be met, unless otherwise noted. All provincial and federal policies and regulations in effect apply.

PROJECTIONS

Population and employment projections are planning tools that estimate the amount of growth projected and its anticipated distribution across the region over the next 30 years based on current modeling and analysis. This does not constitute market demand or market performance, which continues to evolve and can be accommodated by periodic updates of the plan as outlined in the Implementation section. The projections do not constitute a limit on the amount of growth of any individual municipality or what type, pace, or location of development will occur.

Where the population and employment projections are referenced in the policies, the projections should be considered to ensure the region is planning to accommodate projected growth in a way that is consistent with the goals and policies of this plan. This should not be interpreted as a way to direct the pace and sequencing of development. The regional forecasts will not be used to restrict or prevent land development interests from advancing projects which have already been approved by local Councils, or those which maintain as-of-right planning and development permission.

CONFORMITY

The policies contained within this plan require various degrees of conformity:

ENCOURAGE / CONSIDER

When used in a policy, it is provided as a guideline or suggestion toward implementing the original intent of the policy.

SHOULD

When used in policy, the intent is that the policy is to be complied with. However, the policy may be deviated from to address unique circumstances that will otherwise render compliance impractical or to introduce an acceptable alternate means to achieve the general intent of the policy.

WILL

When used in policy, the policy is considered mandatory.


The Winnipeg Metropolitan region (WMR) references are made in lieu of regulatory role confirmation.

APPENDICES

No matter how brilliant
your mind or strategy,
if you're playing a solo
game, you'll always lose
out to a team.

APPENDIX A

OUR GROWING REGION

A woman with curly hair, wearing a quilted vest over a long-sleeved shirt and dark pants, is smiling and helping a young child learn to ride a bicycle. The child is wearing a helmet and a backpack, and is smiling while holding the handlebars. They are on a paved path with trees in the background. The entire image is overlaid with a semi-transparent orange filter.

Leadership is less about
what we know and more
about what we're willing
to discover.

POPULATION FORECASTS

Over the past 30 years, the Winnipeg Metropolitan Region has grown from approximately 618,000 people to over 890,000 people. The City of Winnipeg forms the core of the region and is surrounded by sub-urban communities, urbanizing rural areas, and growing centres in many different forms. A significant rural landscape surrounds the region, comprising agricultural lands, aggregate resources, natural and recreational areas, rural residential, and many smaller communities providing local amenities.

Today, the region is experiencing growth. As we move toward 2050 under a high-growth scenario, our region is expected to reach a population of approximately 1.1 million people, with the City of Winnipeg projected to have a population of between 861,000 and 930,000, representing over 80% of the region's forecasted growth. Collectively, the remaining municipalities of the region are forecast to grow to between 150,000 and 161,000 residents.

DEVELOPING OUR FORECAST

Using the 2016 census data, an age-cohort survival and economic growth model was developed to provide a baseline of the region's projected population, employment, and housing. As a best practice model, it combines the demographic make-up of the region and economic growth expectations based on national, provincial and regional economic outlooks over a 30-year period. An age-cohort survival and economic model anticipates how populations in the region will change over time and considers annual birth and death rates as well as net migration patterns. This model has provided the region with a benchmark to evaluate population and employment growth.

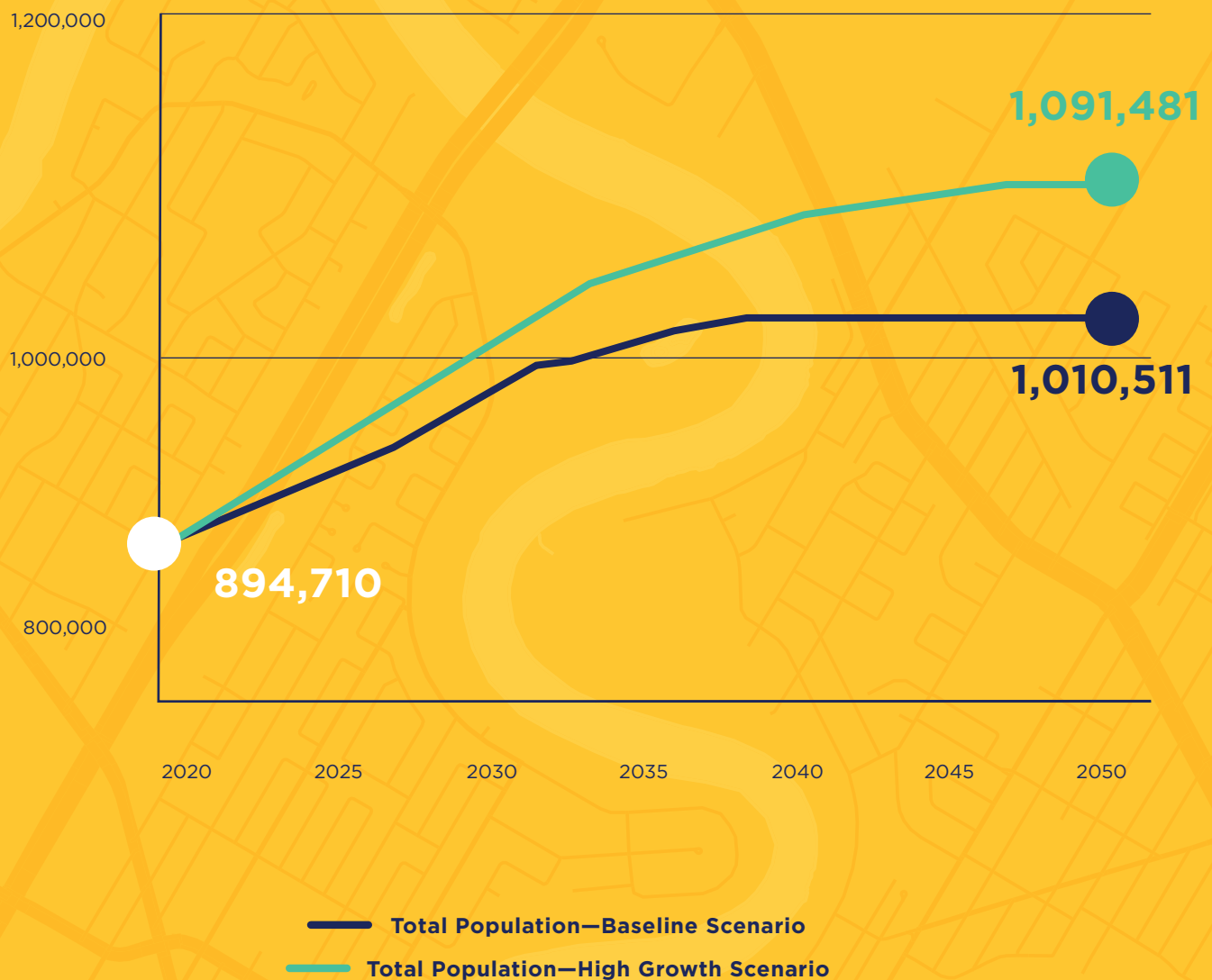
Using 2016 as a baseline, the model will be updated with 2021 census data as it becomes available and an updated forecast will be developed.

The growth model and forecast for Plan20-50 was used to determine the available supply of residential and employment lands to accommodate future growth projections and will be reviewed and updated as the new census data becomes available. Plan20-50 sets policies that aim to support the conditions necessary to meet the needs of changing demographics, promote growth and opportunity and change the identified trends.

Moving toward 2050, the region's demographic profile is expected to substantially change. This will be largely driven by community lifecycle patterns, namely: small households (i.e., singles and couples) transitioning into larger households (i.e., families

with children), and then returning to smaller households (i.e., empty nesters, single person households). Additionally, the forecasts indicate changing family sizes and an aging population as predominant trends.

WINNIPEG METROPOLITAN REGION POPULATION FORECAST



Population Forecast for the Winnipeg Metropolitan Region. Source: Metro Economics, urbanMetrics, 2020.

EMPLOYMENT FORECASTS

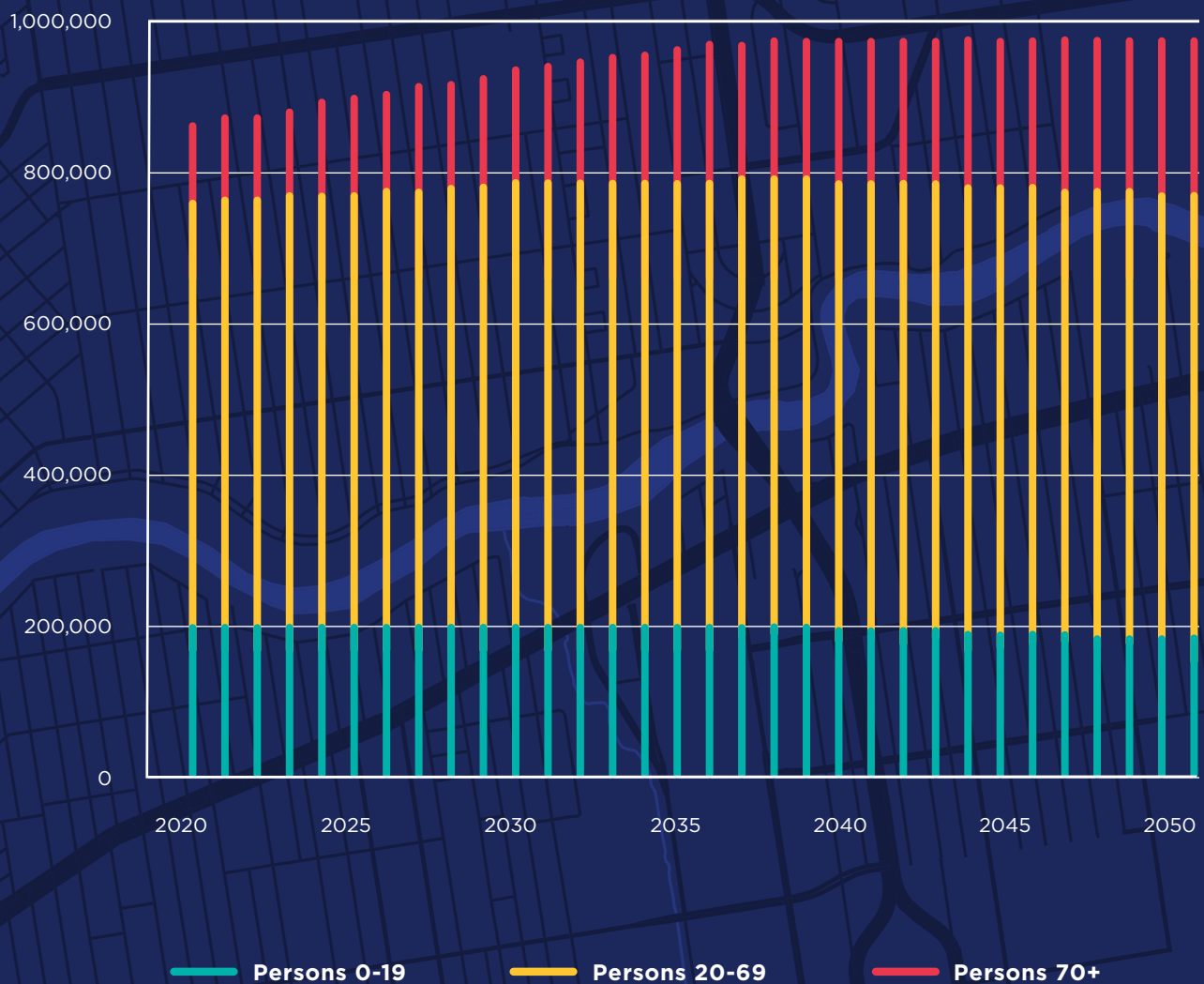
An aging population will be driven by the baby boomer cohort (people born in years 1946–1965) where these individuals will be transitioning into the oldest of age cohorts over the next several years. These changes will provide both challenges and opportunities for communities that may be addressed through strategic planning and investments in infrastructure.

With 65% of the total population of Manitoba and approximately 66% of its Gross Domestic Product (GDP), the region represents a significant economic centre linking eastern and western Canada. The region provided approximately 372,000 jobs in 2020 and is forecasted to increase to approximately 510,000 jobs, adding up to an additional 138,000 jobs as 2050 approaches.

With changing demographics, the region will increasingly rely on in-migration growth to supplement the labour force as can be seen from graphs on the next page that show a declining “net natural” population, defined as the difference between the numbers of births and deaths. This decline is balanced by “net migration,” with immigrants outnumbering emigrants in the near

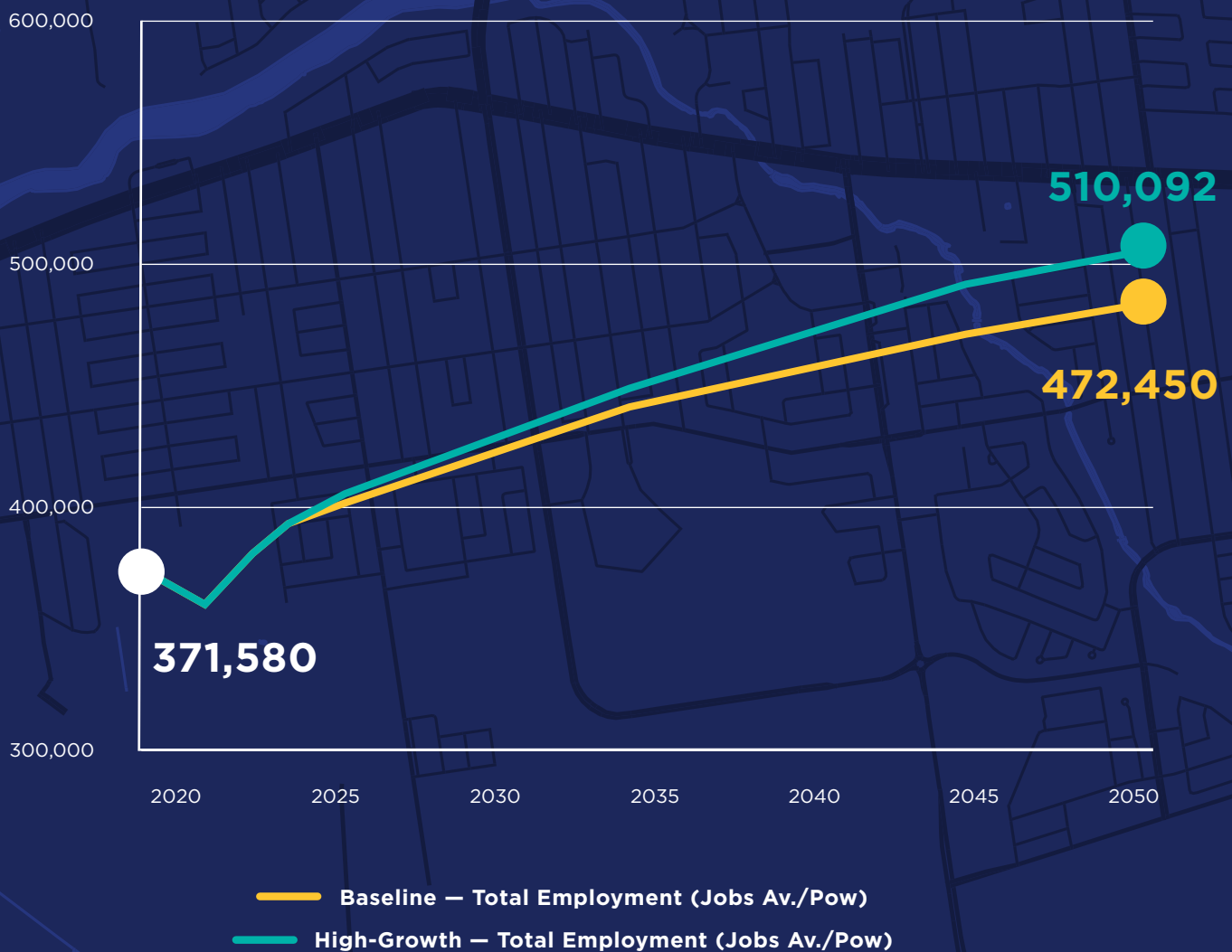
WINNIPEG METROPOLITAN REGION POPULATION FORECAST BY MAJOR AGE GROUP

BASELINE SCENARIO



Baseline Population Forecast for the Winnipeg Metropolitan Region, by Major Age Group. Source: Metro Economics, urbanMetrics, 2020.

WINNIPEG METROPOLITAN REGION FORECAST — TOTAL JOBS

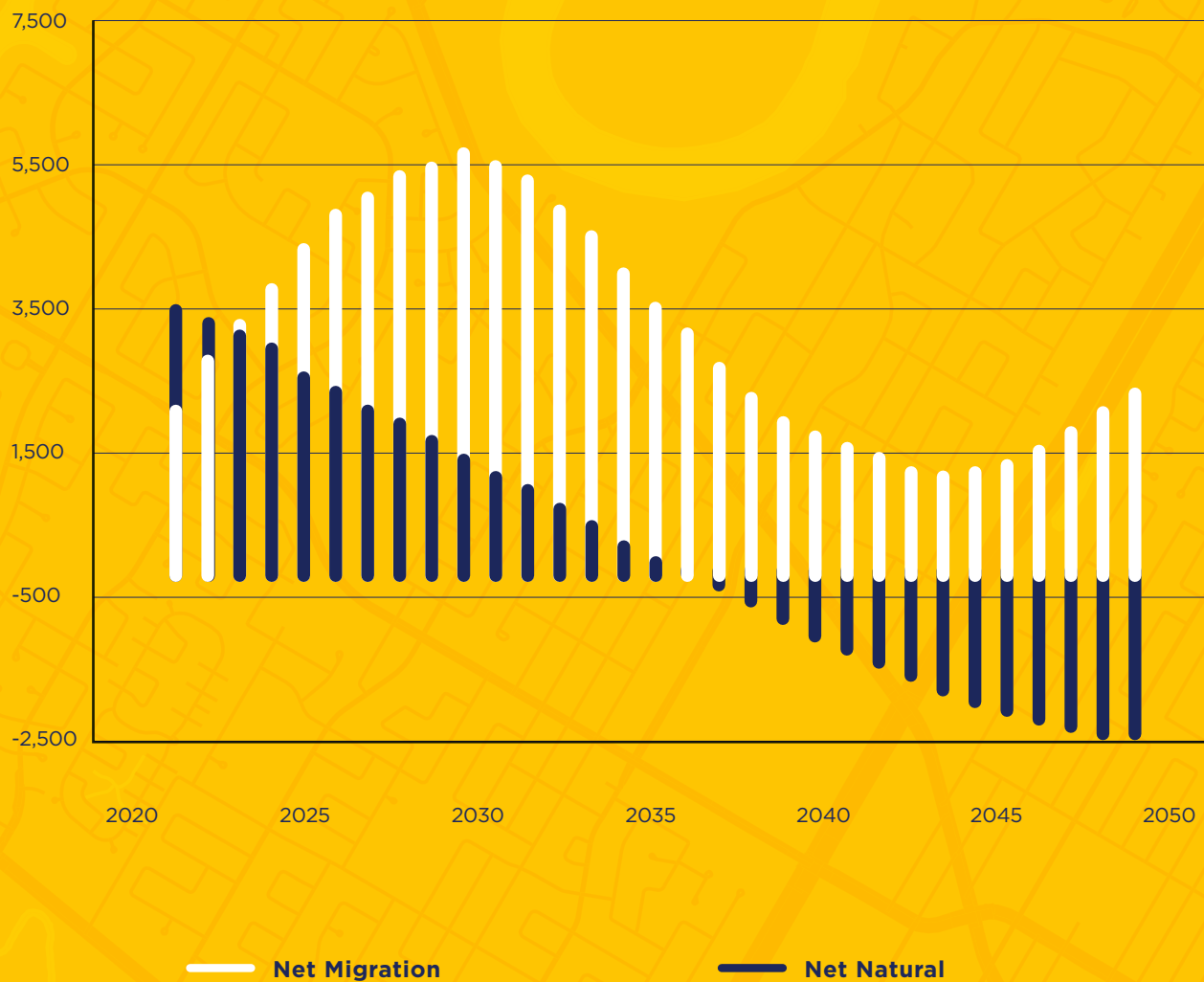


Total Jobs Forecast for the Winnipeg Metropolitan Region (2020-2051), Baseline and High-Growth Scenarios. Source: Metro Economics, urbanMetrics, 2020.

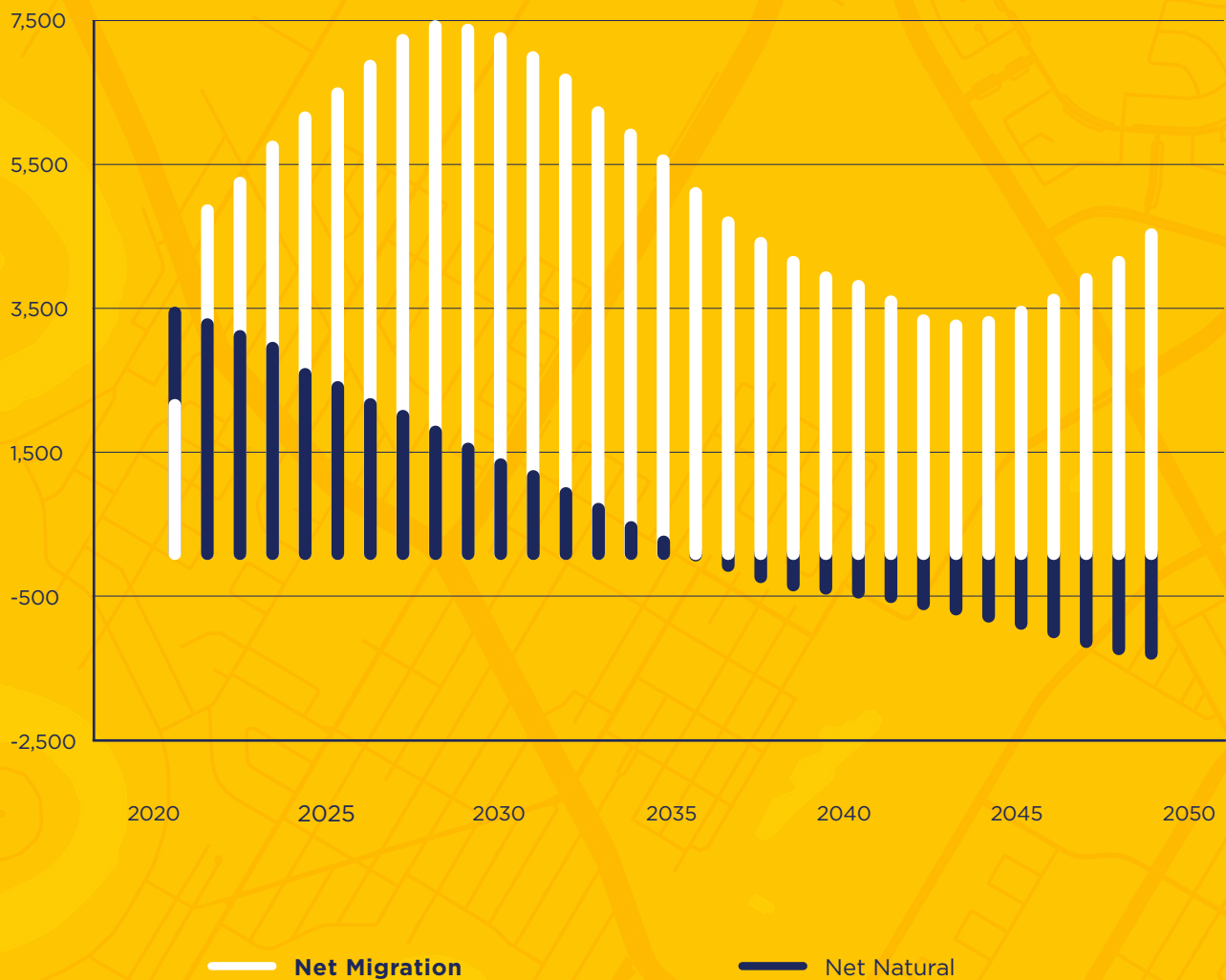
WINNIPEG METROPOLITAN REGION

POPULATION FORECAST BY SOURCE OF CHANGE

BASELINE SCENARIO



HIGH-GROWTH SCENARIO



Source of Population Change in the Winnipeg Metropolitan Region. Source: Metro Economics, urbanMetrics, 2020.

APPENDIX B

OUR UNIQUE ADVANTAGE



Small opportunities are
often the beginning of
great enterprises.

CREATING OUR UNIQUE COMPETITIVE ADVANTAGE

The Winnipeg Metropolitan Region is forecasted to grow to approximately 1.1 million people by 2050. As we accommodate this growth, we can advance complete communities, strategically plan and develop infrastructure, and capitalize on opportunities that enhance economic development. This is our opportunity to establish a new policy framework to grow a strategic, sustainable, climate-resilient region that fosters economic competitiveness and secures our future.

SUPPORTING GLOBAL ECONOMIC COMPETITIVENESS

A significant factor to increasing our competitiveness is coordinating our planning and investments in infrastructure. Well-planned regions are gaining global influence as they offer greater value propositions to potential investors. In the Winnipeg Metropolitan Region, we have a diversified economic base including agri-business, advanced manufacturing, and transportation and logistics. We are a strategic connection and strong link to various trade and transportation corridors providing access to markets across North America. Our challenge is to increase our economic enterprise and drive economic development through competitiveness in the global marketplace.

To improve the region's investment readiness, we must capitalize and harness our unique advantage for low-carbon, circular approaches to economic development, attracting investment, and jobs to ensure business and industry have what they need.

In an increasingly competitive and globalized world, attracting the right economic investment to grow our region is key. Identifying and understanding our

economic strengths are important to guide decision making for investments in infrastructure, servicing, and land use planning. A regional approach to planning and investment will allow us to do this.

JOBS ARE KEY

Employment in our region has focused on agriculture, manufacturing and transportation and logistics. The agricultural industry is a stable source of employment, an economic anchor that also supports service, innovation, and technology-based employment. Manufacturing continues to support employment and presents opportunities to drive the economy forward.

Our region has emerged as an important centre for strategic transportation, logistics, and storage, serving as a hub for Manitoba, as well as portions of Saskatchewan, Ontario, and the northern United States. The Winnipeg Metropolitan Region's geographic position supports strategic transportation logistics and trade infrastructure.

Our economic strength is also supported by our leading institutions such as universities, colleges, trade schools, and hospitals. These institutions draw students and patrons from across Manitoba, Canada, and the world. These crucial institutions support growth of Manitoba-based businesses and employers.

Net migration is expected to play an important role in increasing our population.

RELATIONSHIP OF ECONOMIC PERFORMANCE TO POPULATION GROWTH AND LAND REQUIREMENTS

ECONOMIC GROWTH

LABOUR



Economic growth drives labour requirements. Labour requirements drive population growth. Population growth drives land and housing requirements. Then, economic and population growth drive the need for residential and employment lands.

Moving toward 2050, we must strategically plan and make investments for economic development to enhance the region's competitive position to attract investment and opportunities. Priorities identified at the December 2021 workshop are:

- 1** Stronger Together: Common regional understanding and approach to securing outside investment;
- 2** Alignment and Collaboration: Regional economic development decision making around a common regional plan;
- 3** A “business-friendly” environment: Understanding what constitutes business friendly within the region;
- 4** Continuous skilling and re-skilling strategies: Skilled labour underpins the region's competitiveness;
- 5** Quality of Place, Environment, Social and Governance (ESG) priorities and Stakeholder Values: Regional Elements taken into consideration by external investors are becoming increasingly diverse;
- 6** Employment Lands and Infrastructure: Ensuring developable land is strategically located and available;
- 7** One Window Approach: One consolidated communication and marketing narrative for the WMR; and
- 8** Strategy + Planning + bias toward Action and Speed: The regional growth and servicing plan needs implementable tactics.

Addressing these priorities impacts how we plan, invest, and service our communities.

Plan20-50's integrated regional planning process enables an adequate supply of serviced employment lands with the infrastructure required to attract investment and create complete communities with a high quality of life for residents.

Planning for services and infrastructure investments enhances the region's value, drawing more opportunities for investment that will attract new industries and emerging sectors, bringing further employment opportunities, and enhancing economic competitiveness. Together, this supports driving the Manitoba economy forward and ensuring economic prosperity and growth for the benefit of all.

BUILDING COMPLETE COMMUNITIES

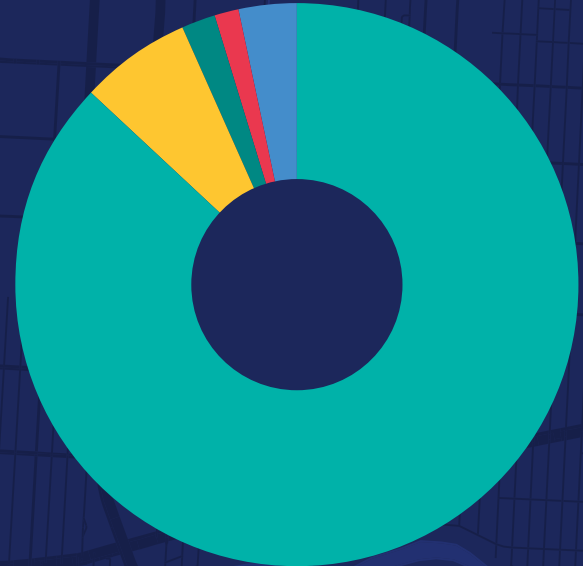
The Winnipeg Metropolitan Region is made up of diverse communities that differ in size, growth dynamics, and development patterns. Completing these communities with uses and amenities that are currently missing helps meet market demand. As the region grows, changing household sizes and an aging population require that communities provide a variety of housing options and enhanced mobility through transit and active transportation modes. Current housing choice across the region is somewhat limited, with a large proportion of single-family housing. Limited transportation options exist outside of the City of Winnipeg.

The predominance of single-family homes in the region limits affordable choices, job access, aging in place, compact development, transit, and active transportation. Gentle density provided a variety of housing types such as row houses, duplexes, semi-detached homes, and small apartment blocks increases livability and allows individuals to have more options to live closer to job centers as well as to downsize without leaving a neighbourhood.

As climate change accelerates, how we live and move in the region will need to be addressed. Communities will need to mitigate the risk of a changing climate, plan for extreme weather, and adapt to increased flooding and drought. Planning for a multi-modal transportation network that includes public transit will support growing and aging communities as well as climate change mitigation. Limited transportation options not only hinder our economic competitiveness but contribute to congestion and encourage single-occupant vehicle use, increasing our commuting times and our greenhouse gas emissions.

WINNIPEG METROPOLITAN REGION LESS WINNIPEG

HOUSING MIX, 2020



SINGLE

87.1%



APARTMENT

6.5%



ROW

1.9%



SEMI

1.3%



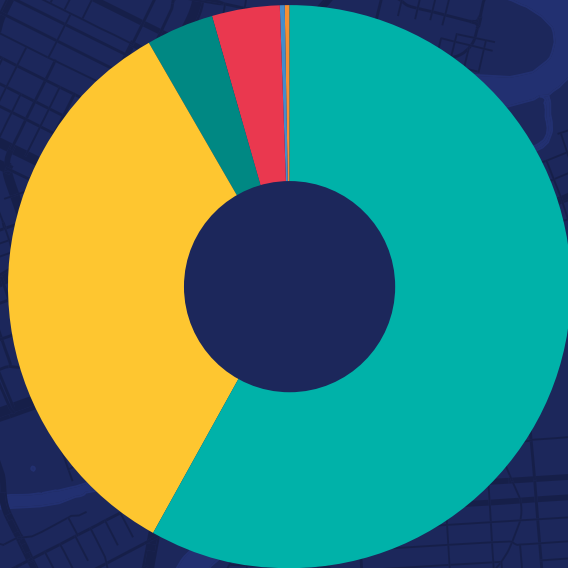
MOBILE

3.2%



OTHER

CITY OF WINNIPEG HOUSING MIX, 2020



SINGLE 58.2%

APARTMENT 33.7%

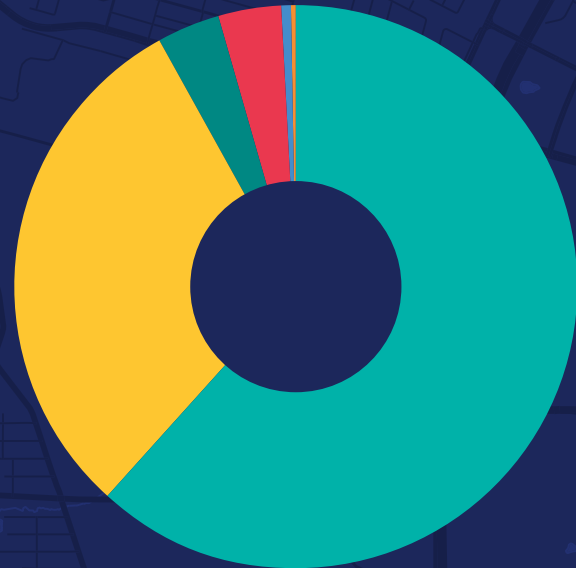
ROW 3.9%

SEMI 3.9%

MOBILE 0.2%

OTHER 0.1%

WINNIPEG METROPOLITAN REGION HOUSING MIX, 2020



SINGLE 61.9%

APARTMENT 30.2%

ROW 3.6%

SEMI 3.6%

MOBILE 0.6%

OTHER 0.1%

The challenge for the region is to accommodate growth in such a way that advances the development of complete communities in a sustainable and climate-resilient way. This requires strategic and careful planning of land use and transportation patterns to create complete communities with diverse and attractive environments that foster a shift to a low-carbon economy.

Plan20-50's focus on building complete communities is to support the needs of changing communities. Regular population and employment projection updates will continue to inform the growth forecasts over the long-term. Planning and developing complete communities will allow the region to retain and increase its population, maintain rural character, conserve natural assets, and protect agricultural lands.

INFRASTRUCTURE DEVELOPMENT AND INVESTMENT

We need to strategically plan for new infrastructure investment and upgrades to support existing infrastructure. This includes water and wastewater systems, transportation, emergency services, solid waste and community facilities that will service growing and aging communities as well as support the needs of the economy. Strategic infrastructure and servicing can allow for alignment of investment in schools, daycares, medical facilities, and utility infrastructure. Plan20-50 provides policy direction that supports planned and strategic investment in infrastructure to ensure the region can meet the needs of a changing and growing population while creating the conditions to attract and retain industries and a skilled workforce.

Complete communities will allow our region to be competitive, sustainable and resilient, ensuring our region is a place people want to live in and not leave.

A strategic and coordinated regional approach to planning and infrastructure investment that considers development intensity, improves the economics of infrastructure investment and increases the ability to deliver municipal services.

KEEPING UP WITH THE FUTURE...

Policy lenses in Plan20-50 direct policy to consider future climate conditions, protect our precious land, water, and natural resources, ensure we are ready for technological transformations, and set the direction to honour our Treaty Relationship.

POLICY LENSES

1

BUILD AND PLAN FOR CLIMATE RESILIENCE

Planning, infrastructure, services and investment that allows us to withstand, adapt, and emerge rapidly from disruptions and extremes – build back better.

2

PROTECT, RESTORE, AND ENHANCE WATER, LAND AND NATURAL RESOURCES

Actions to protect, restore, and enhance water, land and natural resources in ways that conserve the environment, the economy and our way of life.

3

RECONCILIATION

The process of “establishing and maintaining a mutually respectful relationship between Aboriginal (i.e. Indigenous) and non-Aboriginal (non-Indigenous) peoples in this country.” (TRC, 2015)

4

ECONOMIC AND TECHNOLOGICAL TRANSFORMATION

Global forces and technology that are driving changes and reshaping our infrastructure, services and systems.

APPENDIX C

GLOSSARY

Active Transportation: Human powered travel, including but not limited to: walking, cycling, inline skating, scooting, skiing, sledding, canoeing, kayaking, paddling and travel with the use of mobility aids, including motorized wheelchairs and other power assisted devices moving at a comparable speed.

Accessible Housing: Housing that is user-friendly to people of all ages and abilities.

Affordable Housing: Rental or owned housing that is affordable and targeted for long term occupancy costing less than 30% of before tax household income. Shelter costs include the following: for renters (rent and any payments for electricity, fuel, water, and other municipal services); and for owners (mortgage payments for principal and interest, property taxes, and any condominium fees, along with payments for electricity, fuel, water, and other municipal services).

Agricultural Impact Assessment: An assessment to determine if a development proposal will adversely affect existing and future agricultural activities on-site and in the surrounding area. The assessment recommends ways to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts. The *Agricultural Impact Assessment* tool will define the level of assessment and mitigation measures required. The *Regional Agricultural Master Plan* will further clarify requirements. An *Agricultural Impact Assessment* will be completed by a qualified professional which may include an agrologist and/or land use planner.

Agricultural Lands: Land with existing *agricultural operations*, *prime agricultural land*, and viable lower class land that is suitable for different types of mixed farming enterprises, including crop production, forage production, and livestock grazing, provided that agricultural use of the land is consistent with its natural limitations and does not contribute to negative environmental impacts, such as soil degradation. Shown conceptually in Schedule 7.

Agricultural Operation: An agricultural, horticultural, or silvicultural operation that is conducted in order to produce agricultural products on a commercial basis.

Agri-tourism Operation: An establishment that provides a service to promote and educate the public about farming and agricultural activities. Typical accessory uses to the farming operation include bed and breakfast, farm produce retail outlets, corn and hay mazes, petting zoos, hay rides, sleigh rides, buggy or carriage rides, seasonal activities, and events related to the farm such as tours and event facilities.

Brownfield: Undeveloped or previously developed properties that are contaminated. *Brownfield* sites are usually former industrial or commercial properties that may be underutilized, vacant, or abandoned. The expansion and *redevelopment* of *brownfield* sites may involve the remediation of hazardous or contaminated substances or pollutants. *Brownfield* could be considered *infill* or *greenfield area* depending on size and scale.

Built-up Area: A meaningful cluster of uses and buildings.

Circular Economy: A new economic model for addressing human needs and fairly distributing resources without undermining the functioning of the biosphere or crossing any planetary boundaries, shifting from “take-make-dispose” processes to conserving and regenerative processes.

Climate Change: A long term change in the statistical distribution of weather patterns over periods of time that range from decades to millions of years. It may be a change in the average weather conditions or a change in the distribution of weather events with respect to an average, for example, greater or fewer extreme weather events.

Commuter Transit Service: Regional transit service from larger urban communities to key destinations in the **Metropolitan Core** and **Inner Metropolitan Area**.

Compact (Development or Form): A land use pattern that reflects efficient use of land, walkable neighbourhoods, mixed land uses (residential, retail, employment, and institutional), *multi-modal transportation* access, and the efficient use of *infrastructure*. *Compact* development may include detached and semi-detached houses on small lots as well as townhouses and walk-up apartments, multi-story commercial developments, and apartments or offices above retail.

Complete Communities: Places that both offer and support a variety of lifestyle choices, providing opportunities for people of all ages and abilities to live, work, shop, learn, and play in close proximity to one another.

Conservation Design (Conservation Subdivision Design): An approach to rural subdivision layout that aims to maximize the amount of open space preservation while creating a similar number of lots as would be produced in a conventional layout.

Contiguous: Land abutting or adjacent to developable land where it is logical to extend *infrastructure*.

Density: Will be calculated by establishing the “total number of units” and dividing it by the Developable Land area.

Density Target: An aspirational target for the amount of growth to be achieved within a *built-up area* where considered appropriate.

Designated Flood Area (DFA): specific flood area formally designated under The Water Resources Administration Act. There are two DFAs in Manitoba: the Red River Valley DFA south of Winnipeg, and the Lower Red River DFA north of Winnipeg.

Developable Land: Total area of land that can be developed including lots, streets, civic spaces and green infrastructure.

Drainage: The natural or constructed method of moving surface and subsurface water from one area to another. *Drainage* works may be constructed to enhance agricultural production, to support urban and rural development, or to protect *infrastructure* such as roads or railways.

Drivable single-use: development patterns that separate uses from differing uses, and require an automobile to get between each use because the streets discourage walking, cycling, or transit use.

Ecosystem: A biological environment consisting of all the organisms living in a particular area, as well as all the non-living, physical components of the environment with which the organisms interact, such as air, soil, water, and sunlight.

Environmental Farm Plan: A voluntary, confidential, self-assessment of a producer’s own farm or ranch delivered in partnership with Keystone Agricultural Producers (KAP). Environmental Farm Plans assists farm managers in identifying agri-environmental assets and risks in order to develop an action plan to address the identified risks.

Flood Risk Area: The land adjacent to a lake, river, or stream that is at risk of flooding, erosion, or bank instability. Within *flood risk areas*, development should be restricted or require adequate flood protection.

Fragmentation: The process of reducing the size and connectivity of an area. In the context of natural living systems, *fragmentation* of an *ecosystem* or habitat results in reduction in the total habitat area, the isolation of patches of habitat from each other, the increase in edge effects, and can affect the ability of organisms to maintain healthy populations and to survive. In agricultural lands, *fragmentation* occurs when a *contiguous* agricultural area is divided into isolated parcels separated by non-agricultural land uses and can impact the productivity of the land. *Fragmentation* can also occur within a given agricultural parcel of land by access roads, utility developments and/or linear *infrastructure*.

Full Range of Municipal Services: Piped water, piped wastewater, land *drainage*, and an urban standard roadway.

Greenhouse Gas (GHG): Gases (e.g., carbon dioxide, methane, nitrous oxide) that are emitted into the atmosphere from man-made and natural sources. These gasses trap heat from the sun within the atmosphere, causing a greenhouse effect.

Green Infrastructure: Natural and engineered elements that provide ecological and hydrologic functions and processes. *Green infrastructure* can include natural assets and features such as parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, bioswales, rain gardens, and green roofs.

Greenfield Areas: An area designated for future growth located in an existing built-up area that was not previously developed or serviced, which may be further identified by municipalities.

Grey infrastructure: Conventional engineered infrastructure systems.

Infill: Parcels of land within existing built-up areas suited for redevelopment that may include vacant or underutilized lots, which may be further identified by municipalities.

Infrastructure: Physical structures (facilities and corridors) that form the foundation for development. *Infrastructure* includes: wastewater and water systems, septage treatment systems, stormwater management systems, solid waste management systems, electricity generation facilities, electricity transmission and distribution systems, communications/telecommunications, transit and transportation corridors and facilities, recreation assets, oil and gas pipelines and associated facilities, and green infrastructure.

Institutional Cluster: A concentration of interconnected institutions that can include post-secondary, health, and government uses and surrounding lands.

Intensification: Development in *built-up areas* and *employment areas* through: *redevelopment*; *infill* development; or the expansion or conversion of existing buildings.

Integrated Watershed Management Plans: A cooperative effort by *watershed* residents, government, and other stakeholders to create a long term plan to manage land, water and related resources on a *watershed* basis. The purpose of *Integrated Watershed Management Plans* is to identify and document current *watershed* health, create a drinking source water protection plan, and provide a management plan for other local water-related issues. All *watershed* management plans are unique and are a reflection of the landscape and concerns of the community within each *watershed*.

Local Employment Area (lands): Areas with industrial, commercial, and/or institutional land uses that have locally significant business and economic activities and generate a small concentration of employment for the local area; or in rural areas, land with existing resource based economic assets resulting in dispersed employment through agricultural activities, mineral aggregate operations, etc.

Local Level of Service: A range of services that meet the daily needs of the local community and may include: local employment and convenience retail; smaller scale arts, entertainment, cultural, leisure, and sports amenities; some or all levels of primary and secondary education; services with potential for local or *commuter transit service*; limited government services; some community health and small medical facilities; and potential for social and supportive services.

Low Carbon: An approach to growth, development, and economy that proposes structural solutions with lower carbon emission trajectories while addressing and integrating considerations for climate change with development and economic objectives. Important components of transitioning to low carbon includes decarbonization via alternative options for infrastructure, transportation, built form, and land use.

Mixed-Use Development: Development that mixes compatible residential, commercial, institutional, light industrial, civic, and/or recreational land uses within buildings or in close proximity in order to increase density, reduce development footprint through land use, and improve public accessibility to amenities. Mixed-use may be vertical mixed use, mixing compatible uses within the building, or horizontal mixed use, mixing uses within the block or neighbourhood.

Multi-modal Transportation: The availability or use of more than one form of transportation, such as active transportation, automobiles, transit, rail (commuter/freight), trucks, and air.

Municipality: A city, town, village, rural *municipality*, local government district, or other municipal organization formed or continued under The Municipal Act.

Natural Asset: The stocks of natural resources and/or *ecosystems* that contribute to the provision of one or more services required for the health, well-being, and long-term sustainability of the environment, a community, and its residents. Shown conceptually in Schedule 3.

Natural Asset Network: A coherent system, or network, of natural and semi-natural landscape elements.

Park and Ride Facility: A multi-modal exchange facility where commuters enter the facility by one mode of access (e.g., by car, bicycle, bus, etc.) and leave by another. Encourages a shift from single-occupancy vehicle trips toward multi-modal trips where bus transit can make up a significant portion of each trip.

Phasing: Directs growth by staging the development and build-out of larger *greenfield areas* to align growth with existing and planned *infrastructure*.

Prime Agricultural Lands: Land having Classes 1, 2, and 3 soils as classified by the agricultural land capability system of the Canada Land Inventory and interpreted as such by the Manitoba Soil Survey and by the Province of Manitoba.

Redevelopment: The creation of new units, uses, or lots on previously developed land in existing urban communities, including *brownfield* sites.

Red River Corridor: An area along the Red River between north of the City of Winnipeg and south of the City of Selkirk crossing the most eastern areas of the rural municipalities of West St. Paul and St. Andrews and the most western areas of the rural municipalities of East St. Paul and St. Clements, as defined by provincial regulation.

Regional Active Transportation Trails: Trails that are primarily used for *active transportation* that connect different parts of the *Winnipeg Metropolitan Region*. In general, these trails are greater than 40 kilometres in length. Existing examples include The Great Trail (includes the Crow Wing Trail, Red River North Trail, and the City of Winnipeg section), Interlake Pioneer Trail, and Duff Roblin Parkway Trail. Shown conceptually in Schedule 3.

Regional Agricultural Master Plan: An overarching framework and rationale for the region's agricultural policies to conserve and maintain a secure supply of *prime agricultural lands* with the aim to: support the regional food system, diversify the agri-food production base, contribute to the value-added growth of the agri-economy, and guide agricultural supportive *infrastructure* investment.

Regional Assets: Economic drivers and wealth generators including *Regional Employment Areas*, resource-based assets, and infrastructure.

Regional Employment Areas: An area with a concentration of industrial, commercial, and/or institutional clusters that have regionally significant business and economic activities, specialized institutional, high levels of employment, and strategic access to the transportation network. Shown conceptually on Schedule 6.

Regional Infrastructure: *Infrastructure* developed by one or more levels of government and/or regional service commissions to provide services to citizens, businesses, and agriculture and to support the function of a regional economy. This includes transportation, energy corridors, drainage, green infrastructure, and broadband.

Regional Level of Service: Services that meet the needs of a substantial portion of the *Winnipeg Metropolitan Region*. This includes, but not limited to: a broad base of employment; bus and *commuter transit services*; all types of convenience, major, and specialized retail; all levels of education including primary, secondary, and post-secondary; regional hospitals and specialized health care facilities; regional arts, entertainment cultural, recreation, and sports amenities, shown conceptually on Schedule 3; and all government services – federal, provincial, and municipal.

Regional Recreation Asset: Major recreation facilities, outdoor recreation spaces, specialty assets, and parks and protected areas that serve a wide geographic area. Major recreation facilities and outdoor recreation spaces have the ability to host regional and national competitions and exhibitions as well as meet local uses. Specialty assets include underrepresented or emergent sports facilities that, due to their limited availability in the province, can draw visitors from across the region and beyond due to their specialized nature. Shown conceptually in Schedule 3.

Regional Roads: Provincial Trunk Highways and Provincial Roads intended to enhance the mobility and connectivity of people and goods to, from, and within the region in a safe, reliable, and efficient way. Criteria for selection includes: functional classification, National Highway System designation, connectivity, traffic volume, division, number of lanes, volume/capacity ratio, and network density. Shown conceptually in Schedule 5.

Resilience: The capacity of a system to withstand and bounce back intact from environmental or human disturbances.

Rural: Lands predominantly agricultural and/or natural, with development limited to farmsteads, specialized agriculture operations and/or 80-acre minimum agricultural operations.

Rural Residential: Non-farm residential development, including cottage development, located only in the **Outer Metropolitan Area**. Typically, single-family residential development with a larger lot size and reliant on onsite water and wastewater *infrastructure* that is located outside of **Urban Centres, Rural Centres, and Settlements**.

Rural Residential Boundary: General boundary capturing **Urban Centres, Rural Centres, and Settlements** within commuter distance to the City of Winnipeg. Shown conceptually in Schedule 4.

Street: A local road or as defined in a municipal hierarchy.

Transit Oriented Development (TOD): Higher density, *compact*, mixed-use development located near transit stations with high quality urban design, supporting a diversity of uses, and designed to support walkable communities and *active transportation* options.

Treaty Land Entitlement (TLE): The process to restore land that was originally intended for First Nations that signed the numbered Treaties (1, 3, 4, 5, 6, and 10) in Manitoba. It refers to the lands that the First Nations were entitled to at the date of first survey that were not set apart as reserve for the use and benefit of the First Nations. Included within these TLE agreements is the right to select Crown land or with funds to buy private land. These agreements are modern legal commitments that recognize the government's failure to comply with its treaty obligations.

Walkable mixed-use: Development patterns that include traditional main street formats of vertical mixed-used development as well as horizontal mixed-use development such as corner stores in predominantly residential subdivisions that allow people to walk or bike to some of their daily needs, provided compact development patterns are encouraged along with sidewalks, bike lanes, and traffic calmed streets. Walkable mixed-use complete communities require a pedestrian priority street network where cars move more slowly along with a higher speed auto-priority road network.

Water Resource Systems: A system consisting of ground water features and areas, surface water features (including shoreline areas), and hydrologic functions, which provide the water resources necessary to sustain healthy aquatic and terrestrial *ecosystems* and human water consumption. The water resource system will comprise key hydrologic features and areas.

Watershed: An area of land, bounded by topographic features, that drains into a shared destination such as a river, stream, lake, pond, or ocean. The size of a *watershed* can be small or immense and its boundaries and velocity of flow are determined by land forms such as hills, slopes, and mountain ranges that direct water. Within each large *watershed*, there are many smaller *watersheds*.

Wetlands: Land saturated with water long enough to promote formation of water altered soils, growth of water tolerant vegetation, and various kinds of biological activity that are adapted to the wet environment. *Wetlands* are highly diverse, productive *ecosystems* that provide a host of ecological services and form an integral component of Manitoba's diverse landscapes.

Winnipeg Metropolitan Region (as a geography): The *Winnipeg Metropolitan Region* has been defined by the Province of Manitoba and consists of the territory within the boundaries of the following municipalities: City of Winnipeg, City of Selkirk, Town of Niverville, Town of Stonewall, Village of Dunnottar, and Rural Municipalities of Cartier, East St. Paul, Headingley, Macdonald, Ritchot, Rockwood, Rosser, Springfield, St. Andrews, St. Clements, St. François Xavier, Taché, and West St. Paul.

Winnipeg Metropolitan Region (WMR): The organization responsible for facilitating collaboration among the 18 municipalities of the *Winnipeg Metropolitan Region* geographic area.

Zero Emission Vehicles (ZEV): Various classes of electric vehicles of which the unifying feature is the ability to provide propulsion via an electric motor for at least a portion of total distance driven. Classes of vehicles may include battery electric, plug-in hybrid electric, and hydrogen fuel cell electric vehicles. Sometimes the term low emission vehicles (LEV) is used to refer to the same group of vehicles.

APPENDIX D

WMR POPULATION AND EMPLOYMENT FORECASTS



Population Forecast 2020 to 2050. Source: metro economics, urbanMetrics, 2020

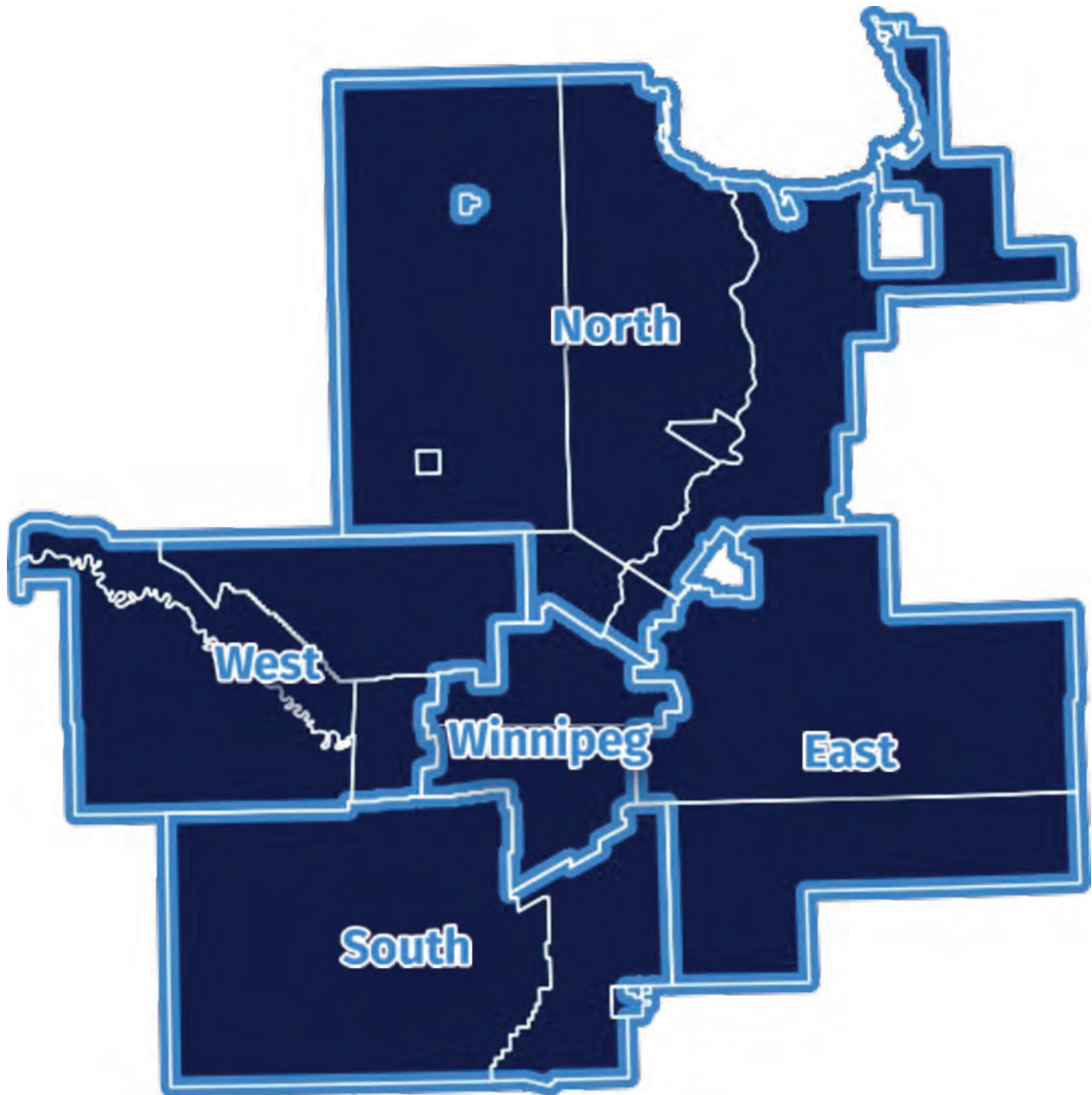
Municipality/Geography	2021 Census	Forecast scenario	2030	2040	2050
Cartier	3,344	Baseline	4,041	4,249	4,263
		High-growth	4,142	4,465	4,592
Dunnottar	989	Baseline	943	1,020	1,053
		High-growth	966	1,072	1,134
East St. Paul	9,725	Baseline	9,803	9,420	8,635
		High-growth	10,051	9,904	9,309
Headingley	4,331	Baseline	4,846	5,569	6,123
		High-growth	4,967	5,850	6,592
Macdonald	8,120	Baseline	10,476	12,692	14,668
		High-growth	10,735	13,328	15,787
Niverville	5,947	Baseline	6,786	8,361	9,823
		High-growth	6,953	8,779	10,571
Ritchot	7,469	Baseline	9,832	12,114	14,232
		High-growth	10,074	12,720	15,316
Rockwood	8,440	Baseline	7,343	6,462	5,412
		High-growth	7,530	6,796	5,839
Rosser	1,270	Baseline	1,380	1,276	1,123
		High-growth	1,415	1,342	1,211
Selkirk	10,504	Baseline	11,026	10,789	10,069
		High-growth	11,305	11,342	10,855
Springfield	16,142	Baseline	18,051	19,005	19,113
		High-growth	18,503	19,971	20,592

Municipality/Geography	2021 Census	Forecast scenario	2030	2040	2050
St. Andrews	11,723	Baseline	11,370	10,235	8,787
		High-growth	11,660	10,763	9,478
St. Clements	11,586	Baseline	11,354	10,895	9,971
		High-growth	11,641	11,454	10,751
St. François Xavier	1,449	Baseline	2,050	2,471	2,842
		High-growth	2,100	2,595	3,058
Stonewall	5,046	Baseline	5,489	5,554	5,349
		High-growth	5,627	5,837	5,765
Taché	11,916	Baseline	15,901	18,656	20,871
		High-growth	16,295	19,593	22,468
West St. Paul	6,682	Baseline	6,490	6,916	7,030
		High-growth	6,652	7,267	7,573
Winnipeg	749,607	Baseline	831,081	864,848	860,993
		High-growth	851,930	908,869	927,704
Winnipeg Metropolitan Region	874,290	Baseline	968,262	1,010,532	1,010,357
		High-growth	992,546	1,061,947	1,088,596

Notes:

The Population forecasts are generated using 2016 census data in an age-cohort survival and economic growth model. Forecasts will be updated as new census data is made available.

Employment Forecast 2020 to 2050. Source: metro economics, urbanMetrics, 2020.



Quadrants—Except for Winnipeg, municipalities are grouped according to quadrants for employment forecasts.

Quadrant/ Geography	Forecast scenario	2020	2030	2040	2050
East	Baseline	6,810	8,336	9,057	9,648
	High-growth	6,810	8,543	9,514	10,388
North	Baseline	15,712	17,717	17,684	17,264
	High-growth	15,712	18,161	18,583	18,602
South	Baseline	5,318	7,233	8,767	10,447
	High-growth	5,318	7,410	9,203	11,240
West	Baseline	6,101	7,162	7,498	7,739
	High-growth	6,101	7,340	7,878	8,335
Winnipeg	Baseline	324,896	388,151	410,874	425,918
	High-growth	324,896	397,789	431,653	458,717
Winnipeg Metropolitan Region	Baseline	358,837	428,599	453,879	471,016
	High-growth	358,837	439,241	476,832	507,282

Notes:

The employment forecasts are generated using 2016 census data in an age-cohort survival and economic growth model. Employment forecasts are grouped into quadrants (except for Winnipeg) as employment numbers for areas of lower population are more representative when aggregated. Forecasts will be updated as new census data is made available.

APPENDIX E

A RICH HISTORY OF PLANNING

The Winnipeg Metropolitan Region has a long and rich history of multi-municipal planning. The first known planning initiative involving multiple municipalities in the region was the Winnipeg Planning Commission in 1911¹. This planning commission was replaced in 1913 by the Greater Winnipeg Plan Commission, and upon its recommendations, the Province adopted The Town Planning Act in 1916, the first such planning act in Canada². Also, in 1913, provincial legislation formed the Greater Winnipeg Water District to assist in distributing drinking water to municipalities in the greater Winnipeg area, resulting in the planning and construction of the Greater Winnipeg Aqueduct, which is still in use today.

Since 1944, the Province has engaged in long term planning for land use planning and municipal works, including collaborative planning. Earlier versions of the Winnipeg Metropolitan Region drafted a development plan for the Metropolitan Corporation of Greater Winnipeg, or what was known as the Metro, which was adopted in 1968. This metro plan remained as Winnipeg's development plan long after Metro was dissolved in 1972, until the 1986 adoption of the first *Plan Winnipeg*.

More recently, in 1971, the Province's planning branch undertook a major regional planning study for the Winnipeg area. The *Winnipeg Region Study (WRS)* researched baseline information across the 30-municipality area with the intent of establishing some overall guiding land use policies.

In 1976, a new *Planning Act* came into effect, which, among other things, allowed for the creation of formal inter-municipal planning districts. Planning Districts (PD) are still in operation today. PD are corporate entities, formed when two or more

municipalities formally convene for planning purposes. They adopt and administer an overall development plan for the municipalities in their district and typically administer the zoning by-law and building permit systems. Currently, there are four PD in the Winnipeg Metropolitan Region that comprise of 13 of the 18 municipalities: Red River Planning District; South Interlake Planning District; Macdonald-Ritchot Planning District; and Whitehorse Plains Planning District.

In the early-mid 1990s, the Province undertook a major program called the Sustainable Development Initiative (SDI). One of the several strategies released under this program was the *Capital Region Strategy*. Developed in partnership with the public, the region's 16 municipalities (at that time), and the Manitoba Round Table on the Environment and Economy, this report identified five policy areas: Partnerships; Settlement; Economy; Environment and Resources; and Human Resources. Each area was accompanied by policy statements and actions meant to assist in guiding regional decision-making.

²Alan F. J. Artibise, *Gateway City: Documents on the City of Winnipeg 1873-1913*, University of Manitoba Press, 1979, <http://www.mhs.mb.ca/docs/books/mrs05.pdf>.

³Province of Manitoba, "The Planning Act" (2016).

In 1999, the *Capital Region Review Panel* was released which identified several shortcomings in the effectiveness of the existing legislative, policy, and procedural framework guiding land use planning and development, and the provision of services among Winnipeg Metropolitan Region municipalities. It made four recommendations related to statutory consistency, provincial departmental organization and administration, service-based budgeting and full cost accounting, and municipal costs and revenues.

In 2001, the government appointed the Regional Planning Advisory Committee (RPAC), whose final report to the Province in 2003, entitled *A Partnership for the Future*³. Recommendations included creation of a new regional body called the Mayors and Reeves of the Capital Region (MRCR) to advise government & municipalities on Winnipeg Metropolitan Region issues.

In 2006, at the same time changes to *The Planning Act* were being adopted, *The Capital Region Partnership Act*⁴ was passed by the Province which established an organization to discuss and develop regional solutions to common issues facing municipalities of the Winnipeg Metropolitan Region. In 2009, *A Vision Framework for Manitoba's Capital Region* was adopted by the MRCR establishing four regional priorities: collaborative regional development; transportation and shared services; environment and water quality; and economic development and tourism. In 2011, an amendment to *The Planning Act* required that drinking water and wastewater management plans be adopted as a part of the development plan process in Winnipeg Metropolitan Region communities.

In 2013, the MRCR changed their name to The Partnership of the Manitoba Capital Region (PMCR), and in 2018, again to the Winnipeg Metropolitan Region (WMR). Since then, key initiatives that the WMR has undertaken, include:

- Building Something Big (2014);
- Capital Region Transportation Master Plan (2014);
- Regional Growth Strategy (2016);
- Regional Tourism Planning (2016);
- Transportation Driving Growth (2016);
- Emergency Services Review (2016);
- Multi-Modal Feasibility Study (2016);
- Regional Economic Development (2018);
- A guide to Recreation Planning in the *Winnipeg Metropolitan Region* (2018);
- Waste Rationalization Feasibility Study (2018);
- West Winnipeg Park and Ride Transit Hub Feasibility Study and Plan: Development of a Regional *Park and Ride Facility* West Winnipeg (2019); and
- Fibre Optics: Connecting to opportunity (2019).

Notably, a regional growth strategy was established in 2016, *Securing our Future*, which defined regional objectives and the pathway to achieve them.

In 2019, the Province of Manitoba mandated the WMR with the unique and important responsibility to coordinate the first draft of Plan20-50. To deliver on this mandate, the WMR engaged a team of independent experts to lead the draft plan development process with the continuous engagement of the WMR Board to ensure transparency.

³Regional Planning Advisory Committee, "A Partnership for the Future: Putting the Pieces Together in the Manitoba Capital Region" (Regional Planning Advisory Committee, October 23, 2003), <https://www.gov.mb.ca/mr/capreg/pubs/fulldoc.pdf>.

⁴Province of Manitoba, "The Capital Region Partnership Act" (2006), <https://web2.gov.mb.ca/laws/statutes/ccsm/c023e.php>.



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APPENDIX F

BACKGROUND REFERENCES

- Alberta Association of Municipal Districts & Counties. (2010). Cost Sharing Works: An Examination of Cooperative Inter-Municipal Financing. <https://rmalberta.com/wp-content/uploads/2019/05/Cost-Sharing-Works-Final-Version-Formatted.pdf>
- Alberta Government. (2015). Building Community Resilience Through Asset Management. <https://open.alberta.ca/dataset/73da9233-3646-43ec-8bbe-7ce56828d612/resource/be3ec461-a83e-4ed6-afd7-9f0b9948b1a8/download/2015-11-17-handbook-asset-management-final.pdf>
- America Society of Civil Engineers. (2009). Guiding Principles for the Nation's Critical Infrastructure. https://www.asce.org/uploadedFiles/Issues_and_Advocacy/Our_Initiatives/Infrastructure/Content_Pieces/critical-infrastructure-guiding-principles-report.pdf
- Ansell, C., & Gash, A. (2007). Collaborative Governance in Theory and Practice. Oxford University Press. <https://sites.duke.edu/niou/files/2011/05/Ansell-and-Gash-Collaborative-Governance-in-Theory-and-Practice.pdf>
- Arendt, R. (2014). Managing Change in Rural Manitoba: A Manual for Conservation Subdivision Design. https://www.gov.mb.ca/mr/land_use_dev/pubs/conservationsubdivisiondesignmanual.pdf#page=38
- Auditor General Manitoba. (2020). Report to the Legislative Assembly: Quarry Rehabilitation Program Investigation, Independent Investigation Report. <https://www.oag.mb.ca/audit-reports/report/quarry-rehabilitation-program-investigation/>
- Bartman, J. (2016). Regional Tourism Planning: Final Report. Winnipeg Metropolitan Region.
- Battisti, C. (2013). Ecological network planning – from paradigms to design and back: A cautionary note. *Journal of Land Use Science*, 8(2), 215–223.
- Bellis, R., Davis, S., McCahill, C., & Sundquist, E. (2018). The Congestion Con: How more lanes and more money equals more traffic. Transportation for America. <https://t4america.org/wp-content/uploads/2020/03/Congestion-Report-2020-FINAL.pdf>
- Benedict, M., & McMahon, E. (2002). Green Infrastructure: Smart Conservation for the 21st Century. *Renewable Resources Journal*, 20(3), 12–17.
- Bernal, W. (2018). 'We're Just a Little behind Here': Manitoba Electric Vehicle Owners Call for More Charging Stations. CBC News. <https://www.cbc.ca/news/canada/manitoba/electric-vehicles-manitoba-association-1.4816270>
- Biodivcanada. (n.d.). Provinces and Territories: Sub-National Biodiversity Strategies and Action Plans. <https://biodivcanada.chm-cbd.net/provinces-and-territories>
- Canadian Mortgage and Housing Corporation. (n.d.) Accessible and Adaptable Housing. <https://www.cmhc-schl.gc.ca/en/developing-and-renovating/accessible-adaptable-housing>
- Canadian Mortgage and Housing Corporation. (2018). About Affordable Housing in Canada. <https://www.cmhc-schl.gc.ca/en/developing-and-renovating/develop-new-affordable-housing/programs-and-information/about-affordable-housing-in-canada>
- CentrePort Canada. (2020). The Inland Port. <https://www.centreportcanada.ca/the-inland-port>.
- City of Winnipeg. (2011-a). Complete Communities.
- City of Winnipeg. (2011-b). OurWinnipeg.
- City of Winnipeg. (2015). Accommodating the Interests of Winnipeg's Agricultural Community. <http://clkapps.winnipeg.ca/DMIS/ViewPdf.asp?SectionId=401783>
- City of Winnipeg. (2018). Winnipeg Climate Action Plan: Report. <https://winnipeg.ca/sustainability/PublicEngagement/ClimateActionPlan/pdfs/WinnipegsClimateActionPlan.pdf>
- Conant, R. T. (2010). Challenges and opportunities for carbon sequestration in grassland systems: A technical report on grassland management and climate change mitigation. Food and Agriculture Organization of the United Nations (FAO). http://www.fao.org/fileadmin/templates/agphome/documents/climate/AGPC_grassland_webversion_19.pdf
- Cooks Creek Conservation District. (n.d.). Cooks-Devils Creek Integrated Watershed Management Plan. https://www.gov.mb.ca/sd/water/watershed/iwmp/cooks_devils_creek/cooks_devils_creek.html
- Deloitte. (2019). Canada's Competitiveness Scorecard. Business Council of Canada. <https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/finance/ca-bcc-deloitte-scorecard-interactive-pdf-aoda-en-updated-final.pdf>
- Deloitte. (2017). Framework for Economic Alignment and Growth: Ministry of Growth, Enterprise and Trade. https://www.gov.mb.ca/asset_library/en/proactive/economicframeworkreport.pdf
- Dhakal, K. P., & Chevalier, L. R. (2017). Managing urban stormwater for urban sustainability: Barriers and policy solutions for green infrastructure application. *Journal of Environmental Management*, 203, 171–181.
- Duranton, G., & Turner, M. (2009). The Fundamental Law of Road Congestion: Evidence from US Cities. National Bureau of Economic Research. <http://www.nber.org/papers/w15376>
- East Interlake Conservation District. (n.d.). Netley-Grassmere Integrated Watershed Management Plan. <https://www.gov.mb.ca/sd/water/watershed/iwmp/netley/netley.html>
- Edmonton Metropolitan Region Board. (2017). Edmonton Metropolitan Region Growth Plan.

- Ellen MacArthur Foundation. (2017). Concept: What Is a Circular Economy? A Framework for an Economy That Is Restorative and Regenerative by Design. <https://www.ellenmacarthurfoundation.org/circular-economy/concept>
- Emerson, K., Nabatchi, T., & Balogh, S. (2011). *An Integrative Framework for Collaborative Governance*. Oxford University Press.
- Environment and Climate Change Canada. (2020). *State of Lake Winnipeg: 2nd Edition Highlights*. Environment and Climate Change Canada.
- Environment Canada. (2013). *How much habitat is enough? Third Edition*. Canadian Wildlife Services.
- Expert Advisory Council to the Minister of Sustainable Development. (2019). *Report of the Expert Advisory Council to the Minister of Sustainable Development: A Carbon Savings Account for Manitoba*. https://manitoba.ca/asset_library/en/eac/eac_carbon_savings_report2019.pdf
- Federal/Provincial/Territorial Ministers Responsible for Seniors. (2019). *Report on Housing Needs of Seniors*. file:///C:/Users/Dan/Downloads/Report_on_Housing_Needs_of_Seniors-EN.pdf
- Federation of Canadian Municipalities. (2012). *How to Create a Local Action Plan to Manage Energy and Emissions*. <https://fcm.ca/sites/default/files/documents/resources/guide/reaching-milestone-3-how-to-create-a-local-action-plan-to-manage-energy-and-emissions-av-pcp.pdf>
- FI Staff. (2020). *The Future of Mobility Through Autonomous Vehicles and Technology*. <https://www.fi-magazine.com/361263/the-future-of-mobility-through-autonomous-vehicles-and-technology>
- Flanagan, T., & Harding, L. (2017). *Treaty Land Entitlement and Urban Reserves in Saskatchewan*. Frontier Centre for Public Policy. https://fcpp.org/wp-content/uploads/FC17005_TreatyLand_F1.pdf
- Food Matters Manitoba. (n.d.). *Growing for the future: Building a local sustainable food economy in Manitoba*. https://foodsecurecanada.org/sites/foodsecurecanada.org/files/mbfoodassessment_sm.pdf
- Froese, I. (2019). 1st Look at Plan for Kapyong Barracks Site Shos Sports Facility, Convention Centre, Museum. CBC News. <https://www.cbc.ca/news/canada/manitoba/kapyong-barracks-winnipeg-blueprint-1.4892587>
- Goertzen, S. (2019). *Local Climate Change Adaptation Planning in Manitoba*. IISD. <https://www.iisd.org/sites/default/files/publications/climate-change-adaptation-planning-manitoba.pdf>
- Gonzalez, A., Thompson, P., & Loreau, M. (n.d.). Spatial ecological networks: Planning for sustainability in the long-term. *Environmental Sustainability*, 29, 187–197.
- Government of Canada. (n.d.-a). *Canada's National Housing Strategy*. <https://assets.cmhc-schl.gc.ca/sf/project/placetocallhome/pdfs/canada-national-housing-strategy.pdf?rev=97491935-2a97-405f-bd38-decf72266ee9>
- Government of Canada. (n.d.-b). *Pan Canadian Framework on Climate Change and Clean Growth: First annual synthesis report on the status of implementation—December 2017*. https://www.canada.ca/content/dam/themes/environment/weather/climatechange/PCF-FirstSynthesis_ENG.pdf
- Government of Ontario. (2019). *A Place to Grow: Growth Plan for the Greater Golden Horseshoe*.
- Grosshans, R. Zubrycki, K., Roy, D., & Venema, H. D. (2011). *Netley-Libau Nutrient-Bioenergy Project*. International Institute for Sustainable Development. <https://www.iisd.org/publications/netley-libau-nutrient-bioenergy-project>
- Hanover School Division. (2019). *Grand Opening of Niverville High School*. <https://hsd.ca/2019/10/29/celebrating-the-grand-opening-of-niverville-high-school/>
- HDR. (2018). *Final Report: Waste Rationalization Feasibility Study*.
- HTFC Planning & Design. (2020). *Report on Regional Recreation for the Winnipeg Metropolitan Region*.
- Heigh, J. (2016). *Regional Economic Development: Final Report*. Winnipeg Metropolitan Region.
- Henderson, A. & Talbot, L. (2013). *Conservation Subdivisions: A Win-Win Form of Rural Residential Development*. University of Manitoba. https://umanitoba.ca/faculties/architecture/media/CIP_2013_Alex_Henderson.pdf
- ICF. (2018). *Best Practices and Resources on Climate Resilient Natural Infrastructure*. Canadian Council of Ministers of the Environment.
- Institution of Civil Engineers. (2019). *Enabling Better Infrastructure: 12 guiding principles for prioritising and planning infrastructure*. <https://www.greengrowthknowledge.org/resource/enabling-better-infrastructure-12-guiding-principles-prioritising-and-planning>
- Kavanagh, S., Schroeder, L., & Dacey, E. (2018). “Few Details in Kapyong Deal between Federal Government, Treaty 1 First Nations.” CBC News. <https://www.cbc.ca/news/canada/manitoba/kapyong-barracks-agreement-1.4614478>
- Khanna, P. (2016). *Connectography: Mapping the Future of Global Civilization*. IC Publications Ltd.
- La Salle River Watershed Planning Authority. (2010). *La Salle River Integrated Watershed Management Plan*. https://www.gov.mb.ca/sd/water/watershed/iwmp/la_salle_river/la_salle_river.html
- Lake Friendly Stewards Alliance. (n.d.). *Lake Friendly Certification Program: Actions for Local Governments*. https://ea1be37f-2893-4e00-b611-b2a884653db2.filesusr.com/ugd/8b6df6_e59b60efcd14e20b8258bbd31311df8.pdf

- Lake Friendly Stewards Alliance. (2015). Priorities for Action. https://ea1be37f-2893-4e00-b611-b2a884653db2.filesusr.com/ugd/8b6df6_363aea11617c4030ac1a4cb1a509199c.pdf
- Lake Winnipeg Stewardship Board. (2006). Reducing Nutrient Loading to Lake Winnipeg and its Watersheds: Our Collective Responsibility and Commitment to Action. <http://digitalcollection.gov.mb.ca/awweb/pdfopener?smd=1&did=16507&md=1>
- Lennon, R., & Leo, C. (n.d.). Stopping the Sprawl: How Winnipeg could benefit from Metropolitan Growth Management strategies for a slow-growth region. https://www.policyalternatives.ca/sites/default/files/uploads/publications/Manitoba_Pubs/sprawl.pdf
- Liquete, C., Udias, A., Conte, G., Grizzetti, B., & Masi, F. (2016). Integrated valuation of a nature-based solution for water pollution control. Highlighting hidden benefits. *Ecosystem Services*, 22, 392–401.
- Manitoba Keewatinowi Okimakanak (MKO), Southern Chiefs' Organization (SCO), & Rural Development Institute, Brandon University. (2019). Indigenous Contributions to the Manitoba Economy. <http://scoinc.mb.ca/wp-content/uploads/2019/01/Indigenous-Economy-Report.pdf>
- McCullough, S., Distasio, J., & Shirliffe, R. (2017). Winnipeg Downtown Profile: A Special Report on Demographic and Housing Market Factors in Winnipeg's Downtown. Institute of Urban Studies. http://winnspace.uwinnipeg.ca/bitstream/handle/10680/1563/2017_Winnipeg_Downtown_Profile.pdf?sequence=1&isAllowed=y
- Metabolic. (2017). The Seven Pillars of the Circular Economy. <https://www.metabolic.nl/news/the-seven-pillars-of-the-circular-economy/>
- MDB Insights. (2019). Business and Industry Final Report: Winnipeg Metropolitan Region. MDB Insights.
- MMM Group. (2014). Capital Region Transportation Master Plan. Winnipeg Metropolitan Region.
- Moudrak, N., Feltmate, B., Venema, H., & Osman, H. (2018). Combatting Canada's Rising Flood Costs: Natural infrastructure is an underutilized option. <http://assets.ibc.ca/Documents/Resources/IBC-Natural-Infrastructure-Report-2018.pdf>
- Municipal Natural Assets Initiative. (2017). Defining and Scoping Municipal Natural Assets. <https://mnai.ca/media/2018/02/finaldesignedsept18mnai.pdf>
- Murray, R. (2019). For the Benefit of All: Regional Competitiveness and Collaboration in the Winnipeg Metro Region. Dentons. https://winnipegmetroregion.ca/assets/docs/Murray-For_the_Benefit_of_All.pdf
- Partnership of the Manitoba Capital Region. (2016). Emergency Response Services Project: Phase One. https://winnipegmetroregion.ca/assets/docs/servicing/ERS_PhaseOne.pdf
- Pollution Probe and The Delphi Group. (2019). Framework for Municipal Zero Emission Vehicle Deployment. <https://www.pollutionprobe.org/wp-content/uploads/Probe-Delphi-Municipal-ZEV-Framework-Report.pdf>
- Province of Manitoba. (n.d.-a). Agriculture: Integrated Watershed Management Planning. <https://gov.mb.ca/water/watershed/iwmp/index.html>
- Province of Manitoba. (n.d.-b). Ambient (outdoor) Air Quality Monitoring in Manitoba. https://www.gov.mb.ca/sd/pubs/climate-air-quality/factsheet_airquality_monitoring.pdf
- Province of Manitoba. (n.d.-c). Drainage & Water Control. <https://www.gov.mb.ca/sd/water/water-rights/drainage-and-water-control/index.html>
- Province of Manitoba. (n.d.-d). Environmental Farm Plan. <https://www.gov.mb.ca/agriculture/environment/environmental-farm-plan/>
- Province of Manitoba. (n.d.-e). Manitoba Agricultural Profile, 2016 Census. <https://www.gov.mb.ca/agriculture/markets-and-statistics/statistics-tables/pubs/census-of-agriculture-mb-profile.pdf>
- Province of Manitoba. (n.d.-f). Manitoba Crop Highlights—2016 Census of Agriculture. <https://www.gov.mb.ca/agriculture/markets-and-statistics/crop-statistics/pubs/crop-highlights-census.pdf>
- Province of Manitoba. (n.d.-g). Manitoba Mineral Sector Profile. <https://gov.mb.ca/iem/industry/sector/index.html>
- Province of Manitoba. (1976). Aggregate Resource of the Winnipeg Region. <https://www.manitoba.ca/iem/info/libmin/OF77-4.pdf>
- Province of Manitoba. (2003). Onsite Wastewater Management Systems Regulation. https://web2.gov.mb.ca/laws/regs/current/_pdf-regs.php?reg=83/2003
- Province of Manitoba. (2011). Provincial Planning Regulation. <http://web2.gov.mb.ca/laws/regs/current/081.11.pdf>
- Province of Manitoba. (2017). A Made-in-Manitoba Climate and Green Plan. https://www.gov.mb.ca/asset_library/en/climatechange/climategreenplandiscussionpaper.pdf
- Province of Manitoba. (2019-a). Planning, Zoning and Permitting in Manitoba: Findings. https://www.gov.mb.ca/asset_library/en/proactive/planning-zoning-and-permitting-in-manitoba.pdf
- Province of Manitoba. (2019-b). TCE (Trichloroethylene) in Rockwood Sensitive Area groundwater. Government of Manitoba. https://www.gov.mb.ca/sd/pubs/water/drinking_water/final_factsheet_tce.pdf
- Province of Manitoba. (2020-a). The City of Winnipeg Charter, S.M. 2002, c. 39. <https://web2.gov.mb.ca/laws/statutes/municipal/c03902e.php>

- Province of Manitoba. (2020-b). The Municipal Act, C.C.S.M c. M225. https://web2.gov.mb.ca/laws/statutes/ccsm/m225_2e.php
- Province of Manitoba. (2020-c). The Planning Act, C.C.S.M c. P80. <https://web2.gov.mb.ca/laws/statute/ccsm/p080e.php>
- PwC. (2020). Electrification of transportation will change the utility business. <https://www.pwc.com/ca/en/industries/power-utilities/publications/electrification-of-transportation.html>
- Randall Arendt. (2014). Managing Change in Rural Manitoba: A Manual for Conservation Subdivision Design. https://www.gov.mb.ca/mr/land_use_dev/pubs/conservationsubdivisiondesignmanual.pdf#page=38
- Red River College. (2018). Construction Begins on New Innovation Centre Downtown. <https://www.rrc.ca/news/2018/07/20/construction-begins-on-new-innovation-centre-downtown/>
- Red River Planning District. (2019). The Red River Planning District Development Plan. <https://rrpd.civicweb.net/document/33567>
- Rural Municipality of Ritchot. (2019). Zoning By-Law. <https://www.ritchot.com/Home/DownloadDocument?docId=1246b222-b157-4be9-aa70-67db671eb281>
- Scarth, A. (1999). Capital Region Review: Final Report of the Capital Region Review Panel. Province of Manitoba.
- Seine-Rat River Conservation District. (n.d.). Rat-Marsh River Integrated Watershed Management Plan. https://www.gov.mb.ca/sd/water/watershed/iwmp/rat_marsh_river/rat_marsh_river.html
- Seine-Rat River Conservation District. (2009). Seine River Integrated Watershed Management Plan. https://www.gov.mb.ca/sd/water/watershed/iwmp/seine_river/seine_river.html
- Skills Canada Manitoba. (2018). Our History. Skills Competences Canada Manitoba. <https://skillsmanitoba.ca/about/>
- Small Scale Food Manitoba Working Group. (2015). Advancing the Small Scale Food Sector in Manitoba: A Path Forward. Government of Manitoba. <https://www.gov.mb.ca/agriculture/food-and-ag-processing/pubs/small-scale-food-report.pdf>
- Stantec Consulting Ltd. (n.d.). Transportation Driving Growth. Partnership of the Manitoba Capital Region.
- Stantec Consulting Ltd. (2016-a). Modal Shift Feasibility Study: A framework to reduce reliance on the single occupant automobile trip, decrease environmental emissions, and support positive economic outcomes. Winnipeg Metropolitan Region.
- Stantec Consulting Ltd. (2016-b). Partnership of the Manitoba Capital Region Assessment of Regional Wastewater Infrastructure.
- Stantec Consulting Ltd. (2016-c). Regional Growth Strategy for Manitoba's Capital Region: Water Infrastructure Context Report.
- Stantec Consulting Ltd. (2019). West Winnipeg Park and Ride Transit Hub Feasibility Study and Plan: Development of a Regional Park and Ride Facility West Winnipeg.
- Stantec Consulting Ltd. (2021). Winnipeg Metropolitan Region Water and Wastewater Treatment Systems Capacities Study.
- Statistics Canada. (2020). Preliminary estimate of the mineral production in Canada, 2019. <https://sead.nrcan-rncan.gc.ca/PDF/MIS2019TableG01b-en.pdf>
- Steadman, E. N., & Harju, J. A. (n.d.). Best Management Practices for Terrestrial Carbon Sequestration on Private Lands in the Prairies Pothole Region. Plains CO2 Reduction Partnership. <https://undeerc.org/pcor/newsandpubs/pdf/FS11-Best%20Practices%20Terrestrial%20Sequestration-Prairie-Pothole-Region.pdf>
- United Nations. (n.d.). Low Carbon Development. <https://sustainabledevelopment.un.org/index.php?menu=1448>
- University of Manitoba. (n.d.). Regional Resiliency: Planning for Sustainable Growth in the Winnipeg Metropolitan Region.
- Urban Edge Consulting Inc. (2013). Development Planning in Manitoba's Capital Region: A New Approach. Winnipeg Metropolitan Region.
- Urban Systems Ltd. (2015). Background Paper: Best Practices for Moving Toward Change in the Delivery of Local Government Services. https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/local-governments/governance-powers/best_practices_for_moving_toward_change.pdf
- Venema, H. D., Grosshans, R., & Zubrycki, K. (2011). Netley-Libau Marsh Google Earth Tour. International Institute of Sustainable Development. <https://www.iisd.org/articles/netley-libau-marsh-google-earth-tour>
- Voora, V., Gislason, R., Zubrycki, K., & Perlmutter, S. (2010). Establishing a Foundation for Ecological Infrastructure Investments in the Red River Basin. International Institute of Sustainable Development. https://www.iisd.org/system/files/publications/establishing_foundation.pdf
- Water Security for Canadians. (2020). Modernizing Federal Freshwater Leadership. https://gwf.usask.ca/documents/ffl_white-paper_may2020.pdf
- Winnipeg Metropolitan Region. (2016). Securing Our Future: An Action Plan for Winnipeg's Metropolitan Region. https://winnipegmetroregion.ca/assets/docs/regional_strategies_and_plans/WMR_Securing_Our_Future.pdf
- Winnipeg Metropolitan Region. (2018). Thinking Regionally: A guide to recreation planning in the Winnipeg Metropolitan Region.



