

Economic and Fiscal Impact of NEWPCC Upgrades

The importance and financial impact of upgrading Winnipeg's North End Sewage Treatment Plant (NEWPCC) Treatment Capacity



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Executive Summary

The North End Sewage Treatment Plant (NEWPCC) is Winnipeg's largest and oldest wastewater treatment facility, responsible for treating 70% of the city's wastewater and all sludge from its three treatment plants. To meet provincial regulatory requirements and support future growth, NEWPCC is undergoing a three-project upgrade.

- Projects 1 and 2 (Power Supply/Headworks and Biosolids facilities) are funded with Project 1 under construction and Project 2 undergoing design. These two projects have a combined cost of \$1.6 billion, with 57% funded by the federal and provincial governments and 43% by municipal debt and sewer rates as of November 3, 2025.
- Project 3 (Nutrient Removal facility) is critical to expand treatment capacity to 2050, with an estimated cost of \$1.5 billion. Fully funding it through sewer rates would raise average annual bills by over \$1,000 by 2027, posing risks to Winnipeg's affordability. As of November 2025, the city's proposed 2026 and 2027 water and sewer volume rates assumes two-thirds funding from other levels of government, though this support is not yet secured. Once funded and completed, both levels of government are expected to recoup the cost of their investment by 2035.

The costs of not completing Project 3 are severe:

- Winnipeg is estimated to reach its wastewater treatment capacity by the end of 2032, effectively halting all population and employment growth.
- Over the long term, the surrounding municipalities within the metropolitan area cannot absorb Winnipeg's
 growth due to their own wastewater capacity limits. It is estimated that these areas could only handle
 three to four years' worth of Winnipeg's population increase, reaching their own limits by 2037.

The benefits of completing Project 3 are significant:

- Economic growth: \$186 billion in additional GDP would be generated between 2033 and 2050, with Winnipeg's economy 16.4% larger in 2050 than it otherwise would be under a no-build scenario. The no-build scenario would result in Winnipeg's economy being the slowest growing out of major cities in Canada. The majority of Manitoba's economy is centered in Winnipeg, with 60% of Manitoba's GDP generated in the Winnipeg Economic Region (ER) in 2021. As such, Winnipeg's growth plays a significant role in Manitoba's economy, and ensuring Winnipeg's continued growth benefits the entire province.
- Government revenue: An additional \$27 billion in federal and \$19.9 billion in provincial corporate income, personal income, and consumption taxes would be raised between 2033 and 2050.
- **Population:** the population is expected to increase by 124,500 people, with Winnipeg's population totaling 1,009,300 by the end of 2050. However, if it is capped at the end of 2032, it will remain at a projected 885,000 people. Project 3 is necessary if Winnipeg's population is to eventually exceed one million people in the future.
- Labour force: the labour force would increase by 91,000 people by 2050.
- Other effects: a growing population via immigration counteracts an aging population and lowers the demographic dependency ratio. This would ease the financial strain on public services like healthcare and education. Additionally, it enables the full realization of government investments, such as CentrePort, through future population and employment growth in the region.

A one-third each cost-sharing model with other levels of government would see **both the provincial and federal governments recoup their investment by 2035** when measured through the net increase in tax revenues in a continued baseline growth scenario. Moreover, provincial and federal governments stand more to gain from economic growth due to the revenue tools available to them (i.e., income and consumption taxes), and as such, will benefit the most from the completion of Project 3 when compared to the municipal government.

Completing Project 3 is critical to sustaining Winnipeg and Manitoba's growth, competitiveness, and environmental stewardship.

Introduction

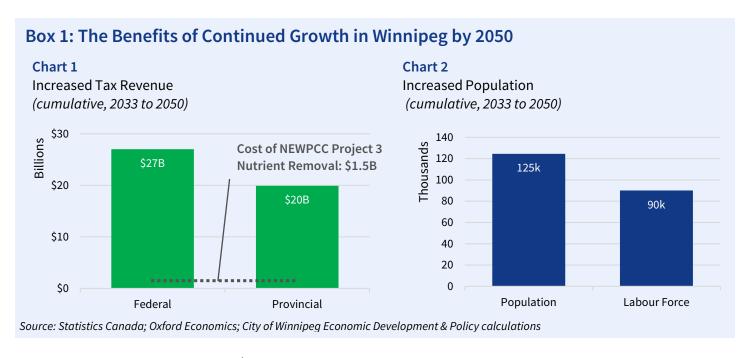
The City of Winnipeg is running out of wastewater treatment capacity at the North End Sewage Treatment Plant (NEWPCC). A multi-project upgrade to NEWPCC is underway, with Project 1 under construction and Project 2 in the design phase. However, the city is seeking two-thirds funding from other levels of government for the third and final project at an estimated cost of \$1.5 billion (current dollars).

The third project involves constructing nutrient removal facilities that will enhance the city's ability to treat wastewater biologically and expand wastewater treatment capacity to accommodate growth up to 2050. Without the completion of Project 3 Nutrient Removal Facilities (hereinafter referred to as Project 3), it is estimated that the City of Winnipeg will run out of wastewater treatment capacity by the end of 2032 effectively halting population and employment growth indefinitely.

There are significant financial and economic benefits to building Project 3:

 Economic growth: the regional economy will gain \$186 billion in nominal Gross Domestic Product (GDP) growth between 2033 and 2050.

- Federal taxes: the federal government will gain \$27 billion in tax revenue between 2033 and 2050.
- Provincial taxes: the provincial government will gain \$20 billion in tax revenue between 2033 and 2050.
- **Population:** the population will grow by 124,500 persons by 2050.
- **Labour force:** the labour force will grow by 91,000 persons by 2050.
- Dependency Ratio: By 2050, the demographic dependency ratio would decline to 47.2 per cent as opposed to increasing to 50.8 per cent, a net decrease of 3.6 per cent. This reduces strain on public services such as healthcare and education.
- Aging Population: By 2050, the population aged 65 and over will rise to only 18.7 per cent of the population in the build scenario as opposed to increasing 21.2 per cent in a no-build scenario. This will also reduce the strain on healthcare resources with an increase in the labour force and tax revenue required to work or pay for healthcare.



Box 2: The Effects of Investing in NEWPCC Nutrient Removal Facilities **NEWPCC** sewage treatment capacity extended to 2050 **City of Winnipeg meets Population continues Employment continues Environmental Act Licence** growing growing requirements More nitrogen and phosphorous will be removed from wastewater, helping reduce algal blooms in Lake Winnipeg **Demographic Impacts Environmental Impacts Fiscal Impacts** Population does not **Inceased Consumption** No longer reliant on age as fast relative to a chemical phosphorus no-build scenario. removal, which generates excess **Increased Corporate** chemical sludge that Income Tax Share of population requires management aged 65+ remains and limits beneficial relatively stable reuse of biosolids Increased Personal Income Tax Lower ongoing Labour force can wastewater treatment continue to grow Increased Property Tax operating costs Decrease in Decreased pressure on Increased water quality dependency ratio healthcare system for treated wastewater

The Need to Upgrade NEWPCC

Project History

The North End Water Sewage Treatment Plant (NEWPCC), Winnipeg's oldest and largest wastewater facility, treats 70 per cent of the city's liquid wastewater and 100 per cent of the city's wastewater solids stream. Built in 1937, it is undergoing major upgrades to meet environmental regulations for nitrogen and phosphorus removal. These improvements aim to protect waterways such as Lake Winnipeg by reducing nutrient discharge. Due to the project's scale and complexity, it is divided into three projects:

- Project 1 Power Supply and Headworks
 (\$566M): this includes a new power substation and
 wastewater pumping and screening systems. It is
 cost-shared with other levels of government and
 fully funded.
- Project 2 Biosolids Facilities (\$1.04B): this
 includes systems that will process wastewater
 sludge. It is cost-shared with other levels of
 government and is fully funded.
- Project 3 Nutrient Removal Facilities (\$1.49B):
 this includes new technology and equipment to remove nitrogen and phosphorus from treated wastewater using biological methods. The city is seeking two-thirds of funding from other levels of government.

All three upgrade projects are interdependent, and full licence compliance and efficiency is only achieved if all are completed. Project 1 is funded and under construction, Project 2 is funded and in the design phase, but provincial and federal funding for Project 3 is still being sought.

Without Project 3 the benefits of Project 1 and 2 are limited, as all are designed to function together. Without biological phosphorous removal, the city must continue using chemical phosphorus removal which produces sludge that takes up capacity in the digesters and limits its beneficial reuse. The Water Protection Act legislated by the Government of Manitoba requires the city to maximize the recovery of nutrients, such as phosphorus, and beneficially reuse biosolids, which is difficult when phosphorus is bound in chemical. The current process fails to meet the nutrient reduction requirements for nitrogen and phosphorus, and the licence requirement to minimize chemical consumption. Further, with the chemicalbased sludge, the new biosolids facility being built by Project 2 is estimated to reach capacity in 2032, effectively halting population and employment growth. Project 3 will extend capacity to 2050. Further growth would likely require additional expansions to the facility, which is expected to cost significantly less than Project 3. Table 1 outlines the costs and funding shares. Projects 1 and 2 received 38 and 68 per cent of funding from federal and provincial governments, respectively.

Without external support, the city would need to fully fund Project 3 through higher sewer rates, raising the average residential utility bill by \$1,000 annually by 2027, threatening Winnipeg's affordability and competitiveness. Further, lack of funding at the time of tendering could deter competitive bids. This report urges federal and provincial governments to come to an agreement and contribute to Project 3 to support economic growth, affordability, and long-term tax revenue.

Table 1: NEWPCC Upgrade Financing Details (as of November 3, 2025)

NEWPCC Project	Total Cost (millions, External Funding		unding	City of Winnipeg Funding		Project Cost Shares	
	\$ current)	Provincial	Federal	Debt	Sewer Rates	Municipal	Fed/Prov
1: Headworks/Power Supply	\$566	\$97	\$116	\$148	\$205	62%	38%
2: Biosolids	\$1,035	\$335	\$367	\$157	\$176	32%	68%
3: Nutrient Removal	\$1,491	\$497*	\$497*	\$468	\$29	33%	67%
Total	\$3,092	\$929	\$980	\$773	\$410	38%	62%

^{*} Provincial and federal funding for nutrient removal has not been confirmed; values represent funding sought as of Nov. 3, 2025.

Maintaining Growth

This report considers the scenario where Project 3 does not obtain timely funding. As noted earlier, if local ratepayers fully fund the project, the average residential utility bill would rise by \$1,000 in 2027 which would be a significant shock to household affordability. Instead, the city is seeking support from federal and provincial government, which are better positioned to fund infrastructure projects of this scope.

The report indicates that both levels of government benefit from investing in Project 3, as failure to proceed would result in lost tax revenue from unrealized population, employment, and economic growth. In this report, two future scenarios are compared:

- Build scenario: assumes status-quo growth based on spring 2025 economic and demographic data. Economic projections for the Winnipeg Census Metropolitan Area (CMA) are sourced from Oxford Economics and adjusted to fit the smaller Winnipeg Economic Region (ER). Population projections are sourced from the city's 2025 population projections which account for short-term declines in immigration as outlined in the federal 2025-2027 Immigration Levels Plan.
- No-build scenario: assumes baseline growth up until the end of 2032, after which Project 3 is not funded or built. As a result, population, labour

force, and employment growth in Winnipeg effectively halts indefinitely due to wastewater capacity limits. Immigration may continue, but only enough to maintain a stable population, falling well below baseline projections. Nominal economic growth would occur only through inflation and productivity gains, with no contribution from population or labour force expansion. Growth would also stall in communities that have a sewer servicing agreement in place with the City of Winnipeg, which are the R.M. of Rosser, R.M. of St. Andrews, and West St. Paul.

A macroeconomic model is run on both scenarios, and the difference in GDP and tax revenue is compared with that difference being the cost of a no growth scenario. Greater detail on the methodology and assumptions used to generate these projections is provided in Appendix A.

Alternatives to a no-growth scenario exist if NEWPCC reaches capacity without Project 3. These options involve adding additional holding tanks to NEWPCC at additional cost and/or reducing chemical phosphorus application thereby violating environmental regulations. These options are not considered feasible for the purposes of this report as the NEWPCC upgrades were designed with the assumption that Project 3 would be completed.

Maintaining Stability and Competitiveness

Potential residents and businesses looking to locate to one of Canada's major cities have several options to choose from. If one of those options becomes unavailable due to infrastructure constraints, such as not having sufficient wastewater capacity, it could have a negative impact on the perception of that city and decrease desirability to locate or invest. Further, businesses that already exist in that city may now see that their local market has become artificially limited in size, decreasing their desire to invest or expand locally, and perhaps even move away to expanding markets.

A city facing infrastructure constraints that limit growth gives them a competitive disadvantage against other cities that already have the infrastructure in place and are ready to absorb potential residents and businesses.

For example, since the drinking water crisis in Jackson, Mississippi in 2022, U.S. Census Bureau statistics show that as of 2024, the city's population has declined by over 4,000 residents since 2022. Failure to invest and maintain critical water and wastewater assets can not only cause severe public health crisis but lead to long term declines in population and business confidence.

Implications for the Winnipeg Capital Region

Naturally, it could be suggested that if the City of Winnipeg were to run out of wastewater treatment capacity, the growth projected to occur in Winnipeg could simply choose to locate in a municipality that does have wastewater capacity and is close to Winnipeg. That way the region can still grow and expand without the need to invest in Project 3.

However, there are two important considerations when assessing whether the other municipalities near Winnipeg can absorb the same level of growth that Winnipeg is anticipated to have:

- 1) Winnipeg is the only municipality in the region with the capacity and experience to support large-scale population growth. With 843,640 residents in 2024, it far exceeds nearby municipalities like the City of Selkirk (pop. 10,976) and Town of Niverville (pop. 6,964) in size and infrastructure readiness.
- 2) The municipalities in the capital region also have existing wastewater servicing constraints. As of 2025, it is estimated that the surrounding region outside Winnipeg could only support about 65,000 additional residents, including future capacity added by the Red-Seine-Rat Wastewater Cooperative treatment facility, limiting its ability to absorb Winnipeg-level growth beyond a few years. 1,2

Taken together, these two points suggest that the municipalities surrounding Winnipeg would not be able to absorb the level of growth Winnipeg is accustomed to for a sustained period.

Chart 3 below shows the significant contrast in population growth absorbed in Winnipeg versus the surrounding area.

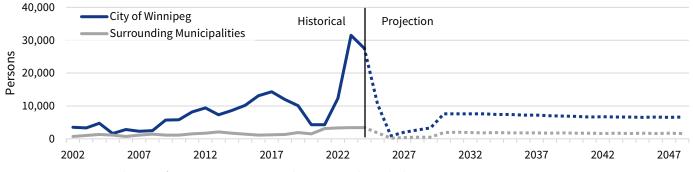
On average, between 2010 and 2019, Winnipeg grew by 9,900 persons per year whereas the surrounding areas grew by 1,500 persons per year. Baseline projections suggest Winnipeg will continue to absorb an average of 6,200 persons per year between 2026 and 2050 whereas the surrounding areas will continue to absorb 1,500 persons per year over the same period.

More-than-quadrupling the growth of the surrounding areas if Winnipeg can no longer grow would likely be a challenging exercise in infrastructure planning for the surrounding towns and rural municipalities.

Finally, the existing wastewater treatment capacity of surrounding municipalities suggests that even if they were able to accommodate Winnipeg's population growth starting in 2033, they too would run out of capacity by the end of 2037 without significantly investing more in expanding their existing capacity.

Ultimately, Project 3 is crucial to continue enabling growth in Winnipeg as it is not realistic to expect the same level of growth to be able to spill over to the smaller communities that neighbor Winnipeg.

Chart 3Population Growth in the Winnipeg Census Metropolitan Area (CMA) (basline growth projection)



Source: Statistics Canada; City of Winnipeg Economic Development & Policy calculations

¹ Source: WSP. (2024). "Capital Region Servicing Strategy Final Report" *(unpublished)*

² CBC Manitoba. (2025). "\$235M wastewater plant gives 13 Manitoba towns ability to double their populations"

Economic Impacts

If Project 3 is not completed, Winnipeg is currently projected to reach its wastewater capacity by the end of 2032, freezing population and labour force growth. Nominal economic growth would then rely on inflation and productivity gains (enhancing worker output via capital and technology) as no additional people or workers could be accommodated.

Further, increased demand for future goods and services would be extremely limited in a no growth scenario, reducing business attraction and investment as firms choose not to locate or expand in a stagnant market.

Chart 4 below illustrates the magnitude of the benefits of building Project 3. It shows under a no-build scenario that while nominal GDP in Winnipeg's economic region would continue to grow past 2032 due to increasing worker productivity, the lack of population and labour force growth shifts the trajectory downwards by a significant margin.

Overall, it is estimated that a build scenario would:

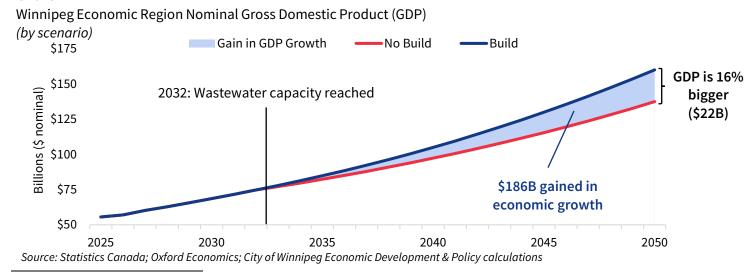
• Increase growth: Winnipeg's economy would grow faster, at 4.3% per year compared to a no-build scenario of 3.5% per year (in nominal terms). A nominal growth rate of 3.5% per year would make Winnipeg's economy among the slowest growing in

- Canada from 2033 to 2050 based on current projections from Oxford Economics
- Gain economic activity: there would be a gain of over \$186 billion in nominal GDP between 2033 and 2050 compared to a no-build scenario.
- Larger economy in the future: by 2050, Winnipeg's GDP would be \$22.5 billion, or 16.4 per cent larger than it otherwise would be in a no-build scenario.

In addition, several growth-related infrastructure projects already built or funded by the provincial and/or federal government (e.g., CentrePort servicing), would be able to realize their full returns with no restriction on growth. Winnipeg would also be limited in supporting wet industries that are significant users of wastewater treatment capacity which could impact the local agricultural and food manufacturing sectors.

Expanding Winnipeg's wastewater treatment capacity by funding and completing all three projects at NEWPCC are essential to secure Winnipeg's population, employment, and economic growth and to make Winnipeg attractive to future residents, businesses, and investment. This is also critical to support Manitoba's economic growth as 60% of Manitoba's GDP comes from the Winnipeg Economic Region, which is comprised of the City of Winnipeg and the rural municipality of Headlingley.³

Chart 4



³ City of Winnipeg. (2025). "Winnipeg Economic Region GDP – Winter 2025 Update".

Fiscal Impacts

If Winnipeg's economy is unconstrained by expanding wastewater treatment capacity starting in 2033, there are implications for other levels of government and their ability to levy revenue to provide public goods and services to citizens.

Presuming continued population and employment growth, between 2033 and 2050:

- Provincial government: The Province of Manitoba would gain a total of \$19.9 billion in tax revenue
- Federal government: The Government of Canada would gain a total of \$27.0 billion in tax revenue

Additional government revenue would total be \$46.9 billion over the 18-year period. The cumulative total revenue gain is presented in chart 5 below.

Increased tax revenue is measured using Statistics Canada's input-output multipliers with other Provincial Economic Accounts data and is comparing a build economy scenario to a no-build, where population and employment growth are limited.

Chart 5 Cumulative Gained Tax Revenue (2033 to 2050)

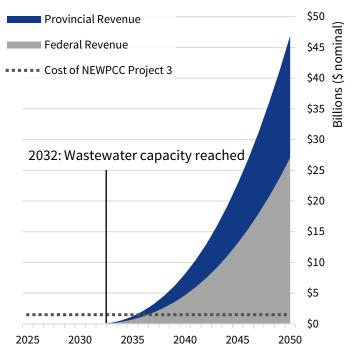


Table 2 below provides additional detail on the exact sources of gained revenue to the provincial and federal governments between 2033 and 2050. This is also illustrated in charts 6 below.

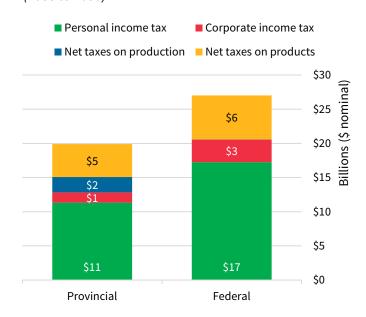
Table 2: Gained Government Revenue (2033 to 2050, billions, nominal dollars)

Category	Federal	Provincial	
Personal income tax	\$17.2	\$11.3	
Corporate income tax	\$3.3	\$1.5	
Net taxes on production*	\$0.0	\$2.2	
Net taxes on products	\$6.5	\$4.8	
Total	\$27.0	\$19.9	

^{*} Note: net taxes on production includes residential and non-residential property taxes.

While it is generally understood that there are more costs to growth than just new wastewater treatment facilities, under a one-third each funding agreement for NEWPCC Project 3, it is estimated that principal costs would be recouped by both provincial and federal governments by the end of 2035 when measured through the net increase in tax revenues in a continued baseline growth scenario.

Chart 6 Sources of Gained Tax Revenue (2033 to 2050)



Source: Statistics Canada; Oxford Economics; City of Winnipeg Economic Development & Policy calculations

Demographic Impacts

Supporting Winnipeg's population growth from 2033 to 2050 through expanded wastewater treatment capacity will have several impacts to Winnipeg's demographics. In general, like many places in Canada, Winnipeg relies on welcoming relatively young immigrants from abroad to supplement the labour force while the existing population ages. This helps alleviate a degree of human resource constraints for many sectors, including healthcare, while also providing a source of revenue growth for all levels of government via growing personal income and consumption taxes which in turn helps pay for public services.

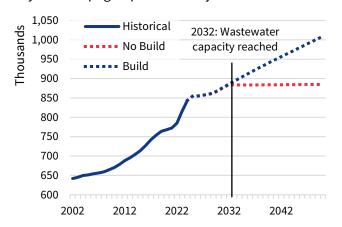
Sustaining Winnipeg's population growth has several impacts:

- Population: the population will grow by approximately 124,500 persons, reaching a population of 1,009,300 by 2050.
- Labour force: the labour force will grow by approximately 91,000 persons, reaching 592,900 by 2050.
- Dependency Ratio: By 2050, the demographic dependency ratio will fall to 47.2 per cent as opposed to rising to 50.8 per cent in a no-build scenario.

Aging Population: By 2050, the population aged 65 and over will be 18.7 per cent of the total population, as opposed to rising to 21.2 per cent of the total population in a no-build scenario. The build scenario will reduce the strain on healthcare resources due to an increase in the labour force and tax revenue required to pay for healthcare.

The trajectory of Winnipeg's population in build and no-build scenarios are shown in chart 7 below.

Chart 7City of Winnipeg Population Projections



Box 3: Dependency Ratio

- The dependency ratio is a measure of the share of nonworking age population (people aged 0 to 14 plus people aged 65+) to working age population.
- A higher dependency ratio means there are fewer working-aged people to support those who are too young to work or those who are retired, putting increased labour and fiscal pressure on a smaller proportion of the population.
- In the build scenario, Winnipeg's dependency ratio is expected to fall due to continued inflow of younger immigrants from abroad.
- In the no-build scenario, the dependency ratio is expected to rise to over 50 per cent of the population by 2050.

Chart 8 Winnipeg CMA Dependency Ratio 52% Historical 2032: Wastewater ••• No Build capacity reached 50% --- Build 48% 46% 44% 42% 40% 2002 2012 2022 2032 2042

Source: Statistics Canada; City of Winnipeg Economic Development & Policy calculations

Environmental Impacts

According to data from the *State of Lake Winnipeg* report, the City of Winnipeg's sewage treatment plants currently account for four per cent of the phosphorus loading to Lake Winnipeg each year, and excessive concentrations of nitrogen and phosphorus contribute to an increase in the frequency and severity of algal blooms in Lake Winnipeg.⁴

Ongoing upgrades to Winnipeg's three sewage treatment plants, including NEWPCC, are reducing phosphorus loading. However, completing Project 3 nutrient removal at NEWPCC is essential to fully leverage recent improvements. NEWPCC also processes solid waste from the city's other two plants and Project 3 is essential to achieving nitrogen and phosphorus reduction at this facility. This will help

reduce environmental harm to local waterways including Lake Winnipeg.

Cleaner rivers and lakes also offer non-financial public benefits. For instance, a 2005 U.K. study found London households were willing to pay £76 (2005 pounds) annually for maximum sewage overflow reduction in the River Thames, highlighting the public's value for cleaner waterways.⁵

Given this, there are benefits associated with cleaner water that are not captured in the financial and economic impacts, as people place value on the wellbeing of humans and wildlife, and enhanced recreational activities (e.g., swimming, boating, or fishing) on cleaner bodies of water.

Concluding Discussion

The City of Winnipeg's NEWPCC upgrades projects are crucial to improving the quality of treated wastewater that is discharged into waterways and is necessary for continued growth in the Winnipeg region. Project 1 is funded and under construction, Project 2 is funded and in the design phase, but the city is seeking funding for Project 3 while it is in the pre-procurement phase with a current price of \$1.5 billion. Undertaking this project would complete all upgrades, provide advanced wastewater treatment capabilities, and have capacity to treat all future wastewater up to 2050.

Completing Project 3 will allow Winnipeg's population and economy to grow uninhibited by wastewater treatment capacity out to 2050 while maximizing our phosphorous reduction and complying with regulatory requirements.

Completing Project 3 would allow Winnipeg's economy to gain \$186 billion in GDP, being 16.4 per cent larger than it otherwise would be in 2050. The provincial and federal governments would gain a cumulative \$46.9 billion in tax revenue, and the population would grow by 124,500 persons. The demographic dependency ratio would decline rather than increase, reducing the pressure on existing labour and tax revenue as the population ages.

It is crucial that NEWPCC Project 3 Nutrient Removal Facilities obtain the funding necessary to ensure it is built on time. Economic analysis shows that the provincial and federal government stand to benefit from this project by gaining significant tax revenue, and City of Winnipeg ratepayers will not be able to shoulder the cost alone without significantly raising utility rates and jeopardizing the city's affordability and competitiveness.

⁴ Environment and Climate Change Canada, Manitoba Agriculture and Resource Development (2020). "State of Lake Winnipeg, 2nd Edition".

⁵ Mourato, S. et al. (2005). "Does a Cleaner Thames Pass an Economic Appraisal?". *Water International*, *30*(2), pg. 174-183.

Report Appendices

Appendix A

Methodology and Data Sources

This report relies on a variety of data sources and models to project future outcomes in both a build and no build scenario. The following provides additional details on the methodology used.

Economic Scenarios:

- To conduct an economic analysis of the implications of building or not building the Nutrient Removal Facilities, two growth scenarios are developed:
 - The build scenario uses Oxford Economics Spring 2025 economic forecast for the Winnipeg CMA out to 2050, assuming population and economic growth are unencumbered by wastewater treatment capacity limitations.
 - The no-build scenario assumes the Nutrient Removal Facilities is not built and no other investments are made to expand our wastewater treatment capacity. The no-build scenario assumes population growth effectively halts at the end of 2032 and inflation adjusted economic growth (real GDP by industry) grows only due to productivity, while current dollar GDP grows by real GDP and GDP inflation (measured by industry).
- Both scenarios are applied to the Winnipeg Economic Region GDP estimates for 2023 to obtain estimates that
 more accurately reflect the economic and fiscal implications confined to the City of Winnipeg. For further
 details on the methodology used to derive GDP for the Winnipeg Economic Region, please visit the
 methodology paper at this link.
- The nominal GDP by industry forecasts can be broken down into labour income, profits and net taxes on production. Labour income and profits are used to estimate personal income tax corporate income. The ratio in labour income between the two scenarios is used to adjust the baseline Oxford Economics household expenditures forecast to estimate household expenditures in the no-build scenario. Household expenditure estimates are used to estimate sales tax impacts.
- Both scenarios estimate sales taxes from household expenditures, net taxes on products from industries, net taxes on production, personal income tax and corporate income tax, which are driven by the GDP forecasts.

Comparison of Economic Growth Scenarios for the Winnipeg Economic Region (ER)

Category	Build Scenario	No Build Scenario			
Average Annual Nominal GDP Growth Rate (2033 to 2050)	4.3%	3.5%			
Average Annual Real GDP Growth Rate (2033 to 2050)*	2.3%	1.5%			
Nominal GDP in 2032	\$74.9B	\$74.93B			
Nominal GDP in 2050	\$160.01B	\$137.48B			
Labour Force in 2032	508,300	508,300			
Labour Force in 2050	592,900	501,900			

^{*} Note: assumes 2% annual inflation

Source: Statistics Canada; Oxford Economics; City of Winnipeq Economic Development & Policy calculations

- It should be noted that the economic and fiscal impact calculations used in this report do not include the temporary and short-term economic impacts accruing to governments from the construction activities associated with this asset. Rather, these Economic Impact Assessments (EIAs) are completed in pertinent reports to standing policy committees and council.
- Both scenarios extend to 2050 as this is the anticipated point when the proposed Project 3 project will be at capacity.

Demographic Scenarios:

- The City of Winnipeg's 2025 baseline population projections, which factor in the latest changes to federal
 immigration policy (2025 to 2027 federal immigration levels plan), are used to build the baseline population
 growth scenario for the region.
- Following the same parameters as the economic scenarios, it is assumed that if Project 3 is not built, population and labour force growth will cease at the end of 2032 and remain approximately frozen at that level until 2050. It is assumed that births, deaths, interprovincial, and intraprovincial migration will continue at their typical baseline rates, but net international migration will be reduced to replacement levels only. This ensures that the regional population remains constant so as to not produce any excess wastewater.
- Based on these parameters, the age and labour force characteristics of the population can be modelled to 2050.

Appendix B: Analysis Risks and Limitations

There are several limitations to the current report, including the following:

- Shift in Timing: It is difficult to know exactly when the wastewater treatment capacity of NEWPCC (including capacity added from the completed Project 2 Biosolids Facilities) will be reached as population growth and industrial demand can deviate from current forecasts. Even if the capacity limit is reached a few years beyond what is currently anticipated, the economic consequences to residents and businesses, and the fiscal consequences for the federal, provincial, and municipal governments remain with only a shift in the timing of the impact occurring.
- Projection Accuracy: Like many projections, economic and fiscal impact analysis faces limitations as it tries to predict how future revenues will evolve based only on information available today. The objective of this analysis is to translate current economic and fiscal conditions forward into the future and understand the difference between a build and no build scenario. Every economic and fiscal analysis is subject to making assumptions about the future that may change at any point in time. Assumptions about economic and population growth may deviate from current projections if there are significant shocks brought about by foreign or domestic government policy, global events or crisis, or substantial technological change. While every effort is made to develop reasonable assumptions based on current knowledge, a change in assumptions may alter the projections provided in this report. This analysis attempts to project economic and population growth under two different scenarios, however, the actual outcomes unknown until they are realized. Readers should familiarize themselves with the assumptions used in the modelling and calculations for this report as any deviation from these assumptions could result in outcomes different from those projected.

