Region of Peel
working with you

2020
Enterprise Asset Management Plan

Investments in Peel's Infrastructure

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Executive Summary

Maintaining existing assets in a state of good repair and building new infrastructure which meets current and future needs is critical to the success of the Region of Peel. The Region's infrastructure is necessary to provide service levels that the public expects, achieve Term of Council Priorities, and realize the vision of the Region of Peel as a **Community for Life**.[1]

The Region's infrastructure has a replacement value of approximately **$29.6 Billion**. The Region is committed to being a strong steward of the public's infrastructure assets. These assets allow the Region to provide high quality and affordable municipal services to the Peel community.

The Region uses a risk-based approach to asset management. This approach is integrated with the Region's Strategic Plan and the Long Term Financial Planning Strategy and supports the desired service outcomes and the long term goal of a Community for Life.

Current State of the Infrastructure

The Region's goal is to achieve an overall infrastructure status of '**Good**'. The 2020 Rating is in line with this goal due to a number of factors:

- The Region's comprehensive asset management policy and strategy for long range, strategic planning of its infrastructure requirements.
- Steady and prudent levels of reinvestments to maintain state of good repair.
- Council's priority to maintain the Region's assets in a state of good repair without incurring long term debt.

Reinvestment Plan

Reinvestments of **$2,949.5 Million** are included in the 10-year Capital Plan. **$2,018.7 Million** of this will be required to be funded through Utility Rates and **$930.8 Million** will be required to be funded through Property Taxes unless alternate funding sources are identified or confirmed and validated for on-going availability.

These planned reinvestments are in line with the forecasted infrastructure reinvestment needs.
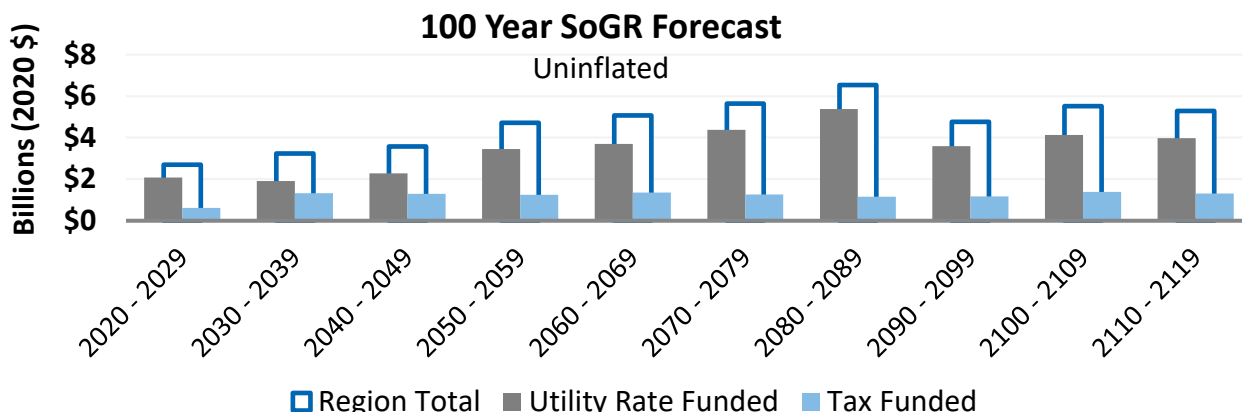
2020

Good[2]

This rating currently excludes Peel Regional Police

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[1] **Appendix I** *Line of Sight* shows the link between a single asset and the "**Community for Life**" vision of the Strategic Plan.

[2] **Descriptions of the Infrastructure Risk Management Scores** are included in **Appendix II** *Reading Guide*

Long Term Forecast

100 Year SoGR Forecast
Uninflated

Billions (2020 $) — $8, $6, $4, $2, $0

2020 - 2029, 2030 - 2039, 2040 - 2049, 2050 - 2059, 2060 - 2069, 2070 - 2079, 2080 - 2089, 2090 - 2099, 2100 - 2109, 2110 - 2119

☐ Region Total ▪ Utility Rate Funded ▪ Tax Funded

Infrastructure reinvestment needs at the Region of Peel are expected to increase steadily over the next 70 years. While the requirements for Tax funded infrastructure are expected to stabilize in 20 years, requirements for the Utility Rate funded infrastructure are expected to continue to grow and peak at nearly $5.5 Billion. This is primarily due to the fact that bulk of the water and wastewater systems are relatively new and account for over 80% of the infrastructure value. As these systems age, they will require greater and more frequent reinvestments.

Financing Plan

The Region of Peel's Long Term Financial Planning promotes a "Pay as You Go" philosophy for state of good repair financing and discourages the use of debt to fund such work.

Council approved increases in the dedicated capital reserve contributions of **5%** from the utility rates and **1%** from the tax rate as part of the 2020 Budget.

Utility Rate Supported 5% Infrastructure Levy		Tax Supported 1% Infrastructure Levy	
Utility Supported 2020 – 2039 Non–DC Capital Plan Portion to be Funded from Utility Rate	Unfunded Gap 5% ↑ in 2020 Total Available Funding (including interest)	Tax Supported 2020 – 2039 Non–DC Capital Plan Portion to be Funded from Tax	Unfunded Gap 1% ↑ in 2020 Total Available Funding (including interest)
$5.9B	**$4.5B**	**$5.2B**	**$3.4B**

Despite these increases in reserve contributions, infrastructure financing gaps remain. Options and opportunities to further reduce the Region's unfunded infrastructure investment gap will be considered with Council and incorporated into future plans.

Emerging Risks and Challenges

The Region of Peel is a growing, thriving community and a major economic hub, that is facing a changing and dynamic environment.

Notwithstanding the infrastructure financing gap, and despite the '**Good'** rating of the Region's infrastructure, there are a number of challenges and unknown conditions underlying the Region's immense asset portfolio that results in increased service pressures and creates infrastructure risks for which the organization must be prepared.

Major trends which are impacting services are:

Growing and Rapidly Aging Population

A rapidly growing and aging population increases service demands and places stress on existing infrastructure, creating more demand for new infrastructure investment.

Aging Infrastructure

Peel's infrastructure is aging requiring increased levels of investment to keep them in a state of good repair.

Climate Change

Climate change leading to extreme weather events presents risks for effective and long-lasting infrastructure.

Changing Economy

Changes to economic conditions including inflation, energy costs, grants and subsidies may adversely affect the Financing Plan.

Rapidly Changing Technology

Rapidly changing technology challenges how quickly we adapt in the way we connect with residents and deliver services.

Changing Legislative Environment

Constantly evolving legislation and regulation impact infrastructure decisions.

Climate Change

A More Resilient Region is a more Resilient Community for Life

The Region of Peel is experiencing the impacts of climate change. Anticipated future impacts, including severe heat waves, threats to the water supply, extreme storms, and adverse health effects, could disrupt society and the economy. Integrating climate into asset management means taking stock of the physical and financial impacts climate change will have on the condition, performance, and longevity of assets and service delivery, and using this information to identify and prioritize investment needs, both in the near and long term.

Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure, requires the Region to consider climate change in the development of its asset management policy and asset management plan, and will be supported by this approach.

Peel's Enterprise Asset Management Roadmap

The Region's Asset Management program is guided by industry best practices and regulatory requirements. As such, the program is continuously evolving in order to leverage opportunities and address challenges.

Anticipated improvements include:

- Staff are undertaking many **technical studies** and **condition assessments** to improve knowledge of the Region's infrastructure conditions.

- **Asset Management planning process improvements** are being made across several services to improve investment forecasting and to manage risks to Regional services.

- An **Enterprise Asset Management System** will be introduced to support asset management functions across the organization.

- The assets supporting **Peel Regional Police** will be added to the Enterprise Asset Management reporting.

- Engaging in **Continuous Improvement** of asset management practices and strategies that can significantly impact asset lifecycle costs, management of risk, and service delivery performance. Continuous Improvement is also an industry best practice and a requirement of Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure.

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List of Appendices

Introduction

Building new infrastructure and maintaining existing assets in a state of good repair is critical to the success of the Region of Peel. Good infrastructure enhances the Region's ability to provide high quality and affordable municipal services to Peel's residents and businesses.

The Enterprise Asset Management Plan outlines the Region's corporate strategy and plan to achieve the Region's long term infrastructure risk management goal of finding the balance between providing reliable, efficient services, and doing it at the lowest reasonable cost. [1]

Overview of Peel's Approach

Peel uses a risk-based approach to asset management. Council has approved Asset Level of Service (ALOS) targets to manage the risks that may affect the Region's services. ALOS targets are specific to each type of asset and where and how it is being used. While some assets need to be kept in top shape to ensure residents of Peel receive critical services, others can be allowed to degrade without anyone even noticing a decrease in the services delivered. [2]

The closer the assets are to meeting the ALOS targets, the less risk there is of not delivering the desired service outcomes. The Region measures its progress in managing the infrastructure to the ALOS targets using **Infrastructure Risk Management Ratings**. [3]

The Region's long term goal is to maintain Peel's infrastructure portfolios at a minimum overall rating of '**Good**'. A rating of '**Good**' maintains the balance between having assets in an adequate state to support the Region's desired service outcomes and investing in infrastructure at rates that are reasonable and affordable to the public.

The Enterprise Asset Management Plan uses lifecycle models to forecast infrastructure condition, reinvestment needs, and asset related risks to service. The models are specific to the Region's assets and use the most recently available asset information. [1]

- The Enterprise Asset Management Plan uses a **10-year** forecast to align with the Capital Budget.

- The Plan also uses a **20-year** forecast to coordinate with Master Plans, Development Charges horizons, and inform reserve contributions.

- A full **100-year** forecast is used to inform strategic decision making and ensure sustainability in the longer term in line with the full lifecycles of the longest-lived infrastructure.

Customer Level of Service

Asset Level of Service

Measure Risk and Identify Needs

Prioritize Needs

10-Year Capital Plan

[1] **Appendices III** provides detail of the Region's **Enterprise Asset Management Strategy**
[2] All current Council approved **Asset Level of Service** targets are included as **Appendix IV**
[3] Descriptions of the **Infrastructure Risk Management Ratings** are included in **Appendix II**

Strategic Connections to Asset Management

Enterprise Asset Management is an integrated part of the Region of Peel's annual, strategic, and long term planning practices. Asset Management supports the strategic objectives of Regional Council, the delivery of services to the public, and the sustainability of the Region of Peel.

Alignment with The Strategic Plan

Vision: *Community for Life*
Mission: *Working with you* to create a healthy, safe and connected community

Living	**Thriving**	**Leading**
People's lives are improved in their time of need	Communities are integrated, safe and complete	Government is future-oriented and accountable

Enterprise Asset Management is central to sustainable service delivery and as such, is key to the achievement of the Region's 2015-2035 Strategic Plan and the 2018-2022 Term of Council Priorities.

- The **Vision** describes what we are working towards over the long term.

- The **Mission** describes how we will deliver on our vision and the difference we want to make.

- **Living**, **Thriving** and **Leading** are the areas of focus we will improve through this plan.

The Region's *Strategic Plan* is available on the Region of Peel website under Strategic Plan. [1]

Enterprise Asset Management processes have a direct link to the Strategic Plan's long term outcome of being a government in which the community can trust that **"sustainability and long term benefits to future generations are considered"**.

Status of Regional Infrastructure Assets

Ongoing Asset Management Services at the Region of Peel fall under the **Leading** Area of Focus. Progress towards the 20-Year **Leading** outcomes is measured by tracking key indicators which include the **Status of Regional Infrastructure Assets.**

The **Status of Regional Infrastructure Assets** indicator is measured using the same Enterprise Asset Management processes described in this report.

The Region's progress across all key indicators can be found in the *Community for Life Annual Report* [2] and *dashboard* [3] on the Region of Peel website.

[1] http://peelregion.ca/strategicplan/
[2] http://peelregion.ca/regional-government/
[3] http://peelregion.ca/strategicplan/20-year-outcomes/

Contribution to Service Outcomes

The Region has a large portfolio of services from Water Supply to Income Support. Each service has a desired **Service Outcome** and is aligned with one of the three Areas of Focus: **Living, Thriving**, or **Leading**. Those services and Service Outcomes which are directly supported by infrastructure are included in this Enterprise Asset Management Plan. Enterprise Asset Management allows the Region to manage the asset related risk to meeting the desired Service Outcomes.

Asset Management Line of Sight

An important asset management principle is **Line of Sight**. Line of sight in asset management, achieves two important things:

1. People doing the physical work on the infrastructure can see how the work they do supports the strategic goals of the Region.

2. People setting the strategic goals of the Region can see how their decisions change how we manage our infrastructure.

Enterprise Asset Management at the Region enables this line of sight, connecting the Service Outcomes down to the assets that support them. [1]

Asset Management as a Service

On top of enabling the line of sight for other services, Asset Management is a service itself. The Region tracks the progress towards the outcomes for each service using different metrics. These are publicly available on the Regional Service Dashboard on the Region of Peel website under Strategic Plan. [2]

Asset Management
The Region of Peel builds, maintains and monitors infrastructure

Target: Good; most assets in the portfolio are achieving the desired targets. [3]

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[1] **Appendix I** provides an example of the **Line of Sight** between a single asset and the Strategic Plan

[2] http://peelregion.ca/regional-government/

[3] Descriptions of the Infrastructure **Risk Management Ratings** which are used as the metric towards tracking the service outcome of Asset Management are included in **Appendix II**

The Long Term Financial Planning Strategy

Long Term Financial Planning Strategy

Financial Sustainability	Financial Vulnerability	Financial Flexibility
Respect the taxpayer.

Maintain assets.

Ensure Capital Plan is sustainable.

Deliver value for money. | Users pay where appropriate.

Work with local municipalities to support economic viability of the community.

Prudently invest. | Mitigate significant fluctuations in tax and utility rates.

Borrow only for substantial long term assets at affordable rates. |

Foundation for Long Term Sustainability

The Long Term Financial Planning Strategy (LTFPS) provides a framework through which the Region endeavors to achieve the long term financial sustainability of Regional services and is available on the Region's website.[1] The LTFPS strives to maintain a balance between three pillars of sustainability: Financial Sustainability, Financial Vulnerability, and Financial Flexibility.

Asset Management supports all three pillars of the Strategy:

1. Financial Sustainability

The Region's ability to provide and maintain planned service levels and infrastructure assets without unplanned increases in rates or disruptive cuts to services.

2. Financial Vulnerability

The degree to which the Region is dependent on external funding sources that it cannot control; it is the level of risk that could impact the ability to meet existing financial obligations and commitments, including the delivery of Regional services.

3. Financial Flexibility

The Region's ability to change either debt levels or taxes and utility rates to meet financial obligations and ensure intergenerational equity.
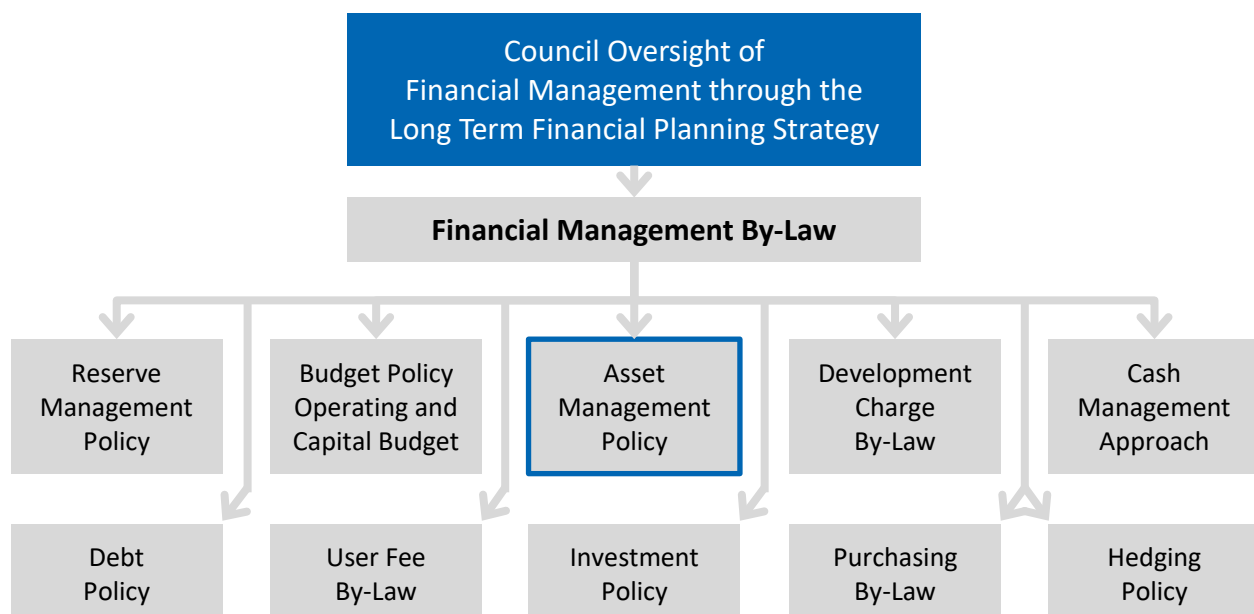
The **2020 Financial Scorecard** provides indicators of the strength of the three financial pillars.[1]

Financial Pillar	Indicator
Financial Sustainability	**Asset Health Score** **Target: Good**

*The **Asset Health Score** used as an indicator for **Financial Sustainability** is the same **Risk Management Rating** provided in this report.*[2]

To realize the objectives of the LTFPS, the Region of Peel takes an integrated financial management approach which combines the long term financial planning and sustainability policies under the Financial Management By-Law. This ensures that asset management needs are not looked at in isolation, but rather planned and balanced with other financial management activities such as reserve and debt management.

The Asset Management Policy specifically supports the objectives of the Long Term Financial Planning Strategy. This integrated approach ensures that long term capital projections which result from Enterprise Asset Management are directly input into other financial tools such as reserve management.

Council Oversight of
Financial Management through the
Long Term Financial Planning Strategy

Financial Management By-Law

Reserve Management Policy	Budget Policy Operating and Capital Budget	Asset Management Policy	Development Charge By-Law	Cash Management Approach
Debt Policy	User Fee By-Law	Investment Policy	Purchasing By-Law	Hedging Policy

[1] http://www.peelregion.ca/finance/
[2] Descriptions of the Infrastructure **Risk Management Ratings** which are used as the metric towards tracking the service outcome of Asset Management are included in **Appendix II**

Climate Change Master Plan

Region of Peel Council approved its first Climate Change Master Plan[1]. The Region will lead by example, influence best practice and transform to a climate resilient future.

The actions in the plan will reduce the Region's corporate greenhouse gas (GHG) emissions and ensure its services, operations, and infrastructure can adapt to the changing climate. In doing so, the Region will be a backbone of resilience for the community in the face of climate change.

The Region will apply an integrated and systematic approach to combat the impacts from climate change by:

- Increasing readiness to respond to extreme events

- Proactively protecting the Regions existing infrastructure assets to maintain service delivery

- Reducing the impacts of heat and flooding through green infrastructure

- Planning and building assets and service delivery for future climate projections

- Integrating climate change into the asset management planning process, by applying climate design and performance criteria to new and state of good repair infrastructure work

- Investing in innovative and sustainable approaches to finance action on climate change

- Monitoring, reporting and understanding the progress of addressing Regionally-funded climate change work

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[1] http://www.peelregion.ca/climate-energy/

The Asset Management Policy

Region of Peel Council has approved an Asset Management Policy. The Policy establishes formal management controls for the responsible stewardship of capital infrastructure.

The Asset Management Policy is implemented through the Enterprise Asset Management Strategy. [1]

The policy framework is divided into four key areas:

1. **Levels of Service** – Measures of quality or quantity of service which serves as a desired target for a particular activity, asset or service area as determined by Council;

2. **Risk Management** – Measures risks to assets and by extension to the services the assets provide is fundamental to the Enterprise Asset Management Strategy;

3. **Life Cycle Management** – Defines how assets are managed throughout the asset life cycle to maximize the assets' value to the organization and the service to clients; and

4. **Corporate Reporting on Asset Management** – Defines the requirements of Corporate level reporting which is undertaken annually to give an organization wide perspective on the Region of Peel's infrastructure needs and priorities to enable better, more informed strategic planning and decision making.

[1] **Appendices III** provides detail of the Region's **Enterprise Asset Management Strategy**

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Asset Management Reinvestment Plan
The Region of Peel

Peel's Infrastructure

What Infrastructure Does the Region Own?

The Region of Peel is the second largest municipality in the Province of Ontario.

The Region owns and operates infrastructure assets including:

- Roads
- Bridges
- Pipes
- Pumping stations
- Reservoirs
- Treatment plants
- Waste management facilities
- Buildings
- Fleet, and
- Equipment

These assets support the Region in providing a variety of services to the community.

This plan breaks the asset portfolio down according to the service that is responsible for managing the assets.

The replacement, rehabilitation, and enhancement of assets is primarily funded through either the property taxes or the utility rate.

The asset managing services supported by the **Utility Rate** are:

Wastewater	Water Supply

The asset managing services supported by the **Property Taxes** are:

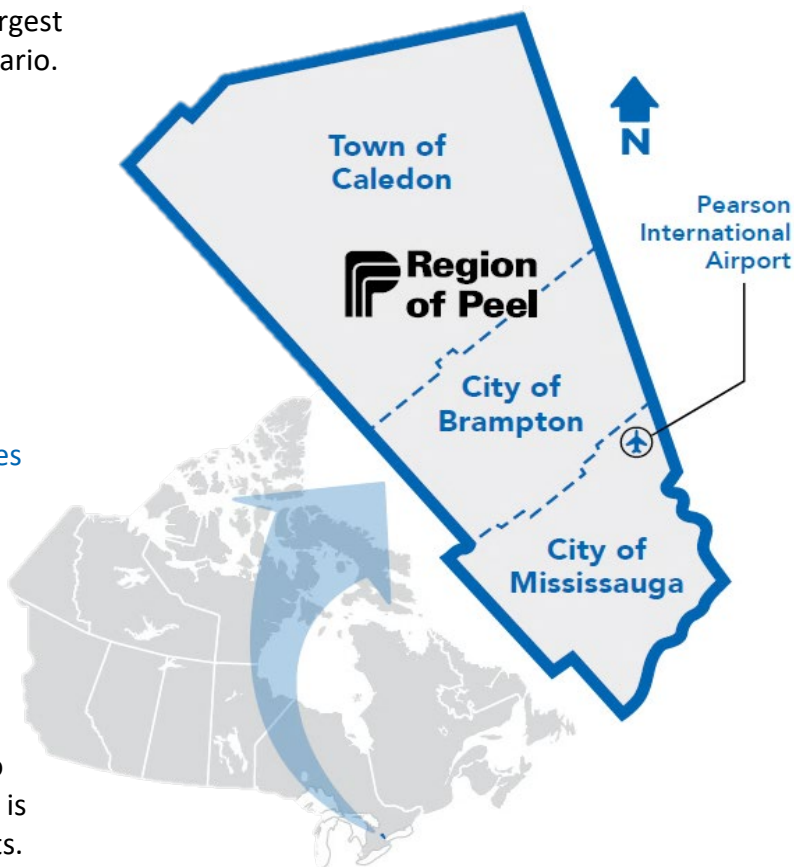| Waste	Roads and Transportation (includes Stormwater)
TransHelp	Paramedics
Long Term Care	Housing Support
Homelessness Support	Child Care
Heritage, Arts and Culture	

In addition to these services, this plan also includes two internal service providers which manage assets on behalf of many other services. They are:
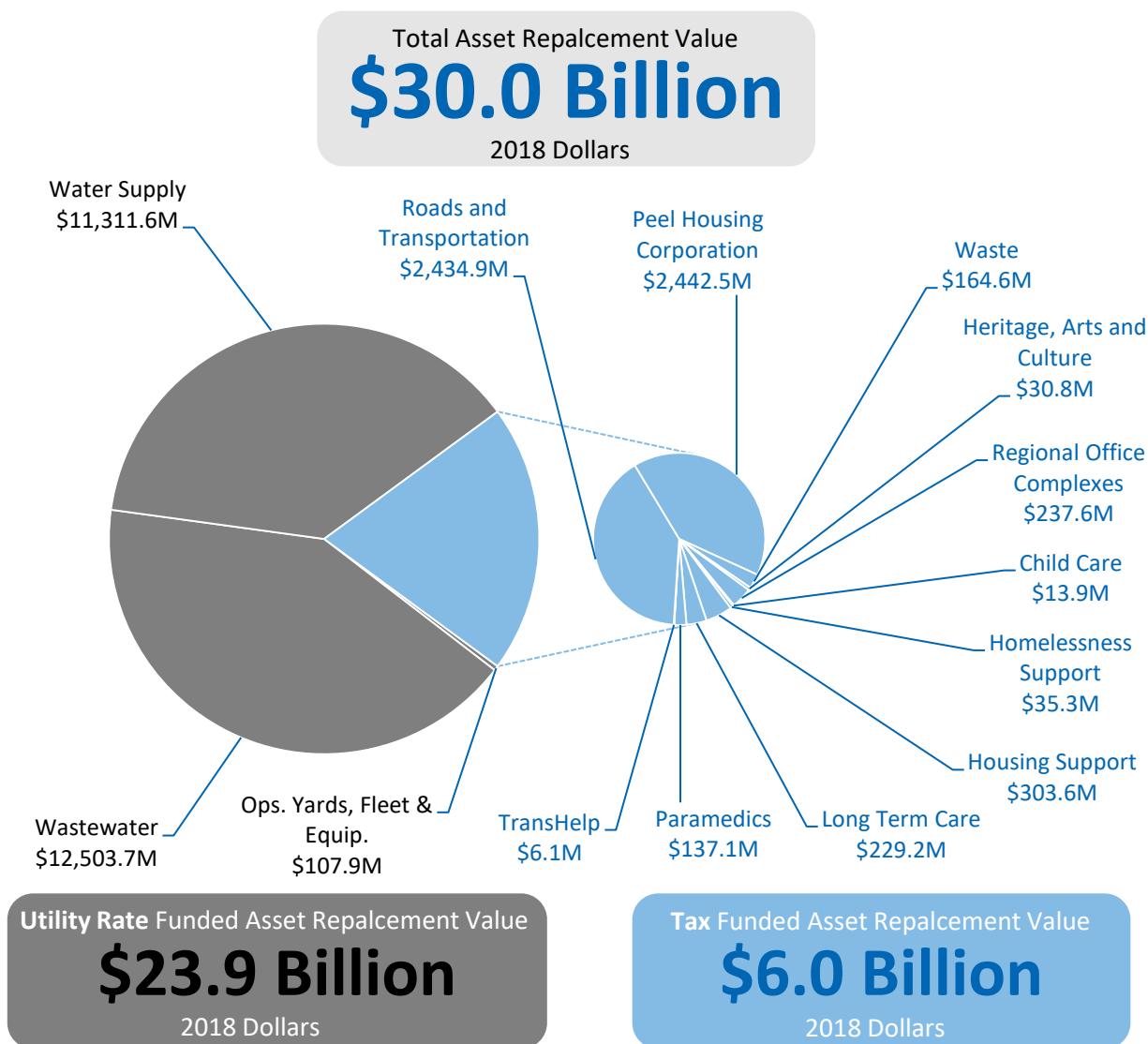
Operations Yards, Fleet and Equipment	Regional Office Complexes

Value of the Infrastructure

What Would the Infrastructure Cost to Replace?

The Region's portfolio of directly owned infrastructure has an estimated replacement value of **$30.0 Billion** (2018 values excluding land).

Total Asset Repalcement Value
$30.0 Billion
2018 Dollars

Water Supply $11,311.6M

Roads and Transportation $2,434.9M

Peel Housing Corporation $2,442.5M

Waste $164.6M

Heritage, Arts and Culture $30.8M

Regional Office Complexes $237.6M

Child Care $13.9M

Homelessness Support $35.3M

Housing Support $303.6M

Long Term Care $229.2M

Paramedics $137.1M

TransHelp $6.1M

Ops. Yards, Fleet & Equip. $107.9M

Wastewater $12,503.7M

Utility Rate Funded Asset Repalcement Value
$23.9 Billion
2018 Dollars

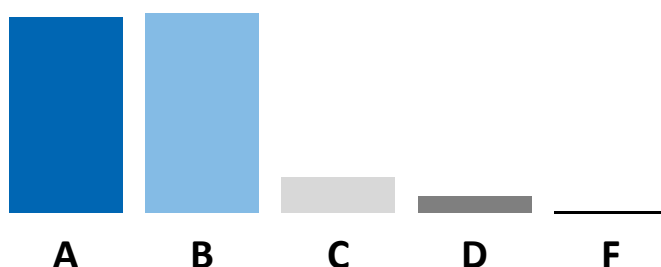**Tax** Funded Asset Repalcement Value
$6.0 Billion
2018 Dollars

The Region owned assets **covered under the Enterprise Asset Management Strategy** have an estimated replacement value of **$29.6 Billion** (2018 values excluding land).

Currently, the Enterprise Asset Management Strategy covers the majority of Peel's Infrastructure under the services mentioned above. As part of the ongoing continuous improvement of asset management and as more asset information becomes available, the Strategy will be expanded to cover more infrastructure. The Strategy currently excludes Peel Regional Police assets.

State of the Infrastructure

What is the Condition of the Infrastructure?

Generally, the Region tries to maintain its infrastructure in a State of Good Repair (B) or better. As infrastructure ages its condition grade will decrease. Reinvestments in the assets will improve the grade. There are cases where the condition for specific types of assets can degrade further because the risk to services does not increase significantly and the Region can realize cost savings for the taxpayer.

A   B   C   D   F

How is the Condition Graded?

When the condition of individual assets is assessed, a wide range of techniques are used as appropriate to the infrastructure. Peel's State of Good Repair (SoGR) Condition Grades provide a common way to look at the condition of all the diverse infrastructure that the Region owns.

A New or like new condition

B In a good state of repair

C Some non-critical defects; some critical repairs in the near term

D Some critical defects; many critical repairs in the near term

F Many critical defects; immediate repair or replacement required

How Well is the Infrastructure being Managed?

The goal for the Region of Peel is to have most of the assets financed to achieve their condition and performance targets in order to provide efficient and reliable services at rates affordable to the taxpayer. This will achieve a Risk Management Rating of **Good**.

The Region of Peel is currently achieving a rating of: **Good**

Asset Management Service Target[1]

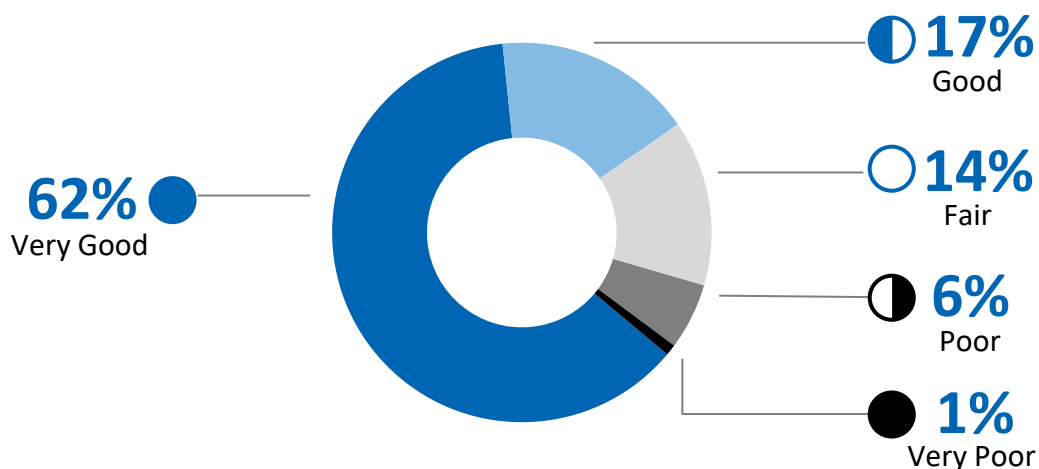**Status of Regional Infrastructure Assets[2]**

Asset Health Score[3]

Target: Good

*This indicator is used to measure and report the progress towards the **Asset Management Service** outcomes, the **Leading** outcomes in **the Strategic Plan**, the **Financial Sustainability** pillar of the **Long Term Financial Planning Strategy** and as the primary measure in the **Infrastructure Status and Outlook Report**.[4]*

What is the Breakdown of Ratings?

62%
Very Good

17%
Good

14%
Fair

6%
Poor

1%
Very Poor

[1] http://peelregion.ca/strategicplan/community-for-life/leading-government.asp#asset
[2] http://peelregion.ca/regional-government/
[3] http://www.peelregion.ca/finance/
[4] http://peelregion.ca/finance/financial-documents.asp#asset

How Do the Services Contribute to the Overall Rating?

Assets are in a **Good** State

Utility Rate Supported **Tax** Supported

Water Supply
Wastewater
Operations Yards, Fleet and Equipment
Heritage, Arts and Culture
Waste
Roads and Transportation
TransHelp
Paramedics
Long Term Care
Housing Support
Peel Housing Corporation
Homelessness Support
Child Care
Regional Office Complexes

What do the Risk Management Ratings mean?

Asset Management is about more than making sure the infrastructure is in good condition. The Region also needs to consider whether the right assets are in the right place to support the desired service outcomes. Do the assets provide enough capacity? Are there spares and backups? Are they meeting all required codes and regulations? Does the community want the infrastructure to look nice? The Region calls these types of requirements Performance Levels of Service. The Risk Management Rating considers the State of Good Repair (SoGR) Levels of Service, the Performance Levels of Service and funding that is dedicated or planned for the infrastructure.

Very Good — Almost all assets in the portfolio are achieving the desired targets

Good — Most assets in the portfolio are achieving the desired targets

Fair — Many assets in the portfolio are not achieving the desired targets

Poor — Most assets in the portfolio are not achieving the desired targets

Very Poor — Almost all assets in the portfolio are not achieving the desired targets

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10-Year Infrastructure Reinvestment Plan

What is the Plan?

	Condition (SoGR)	Performance Enhancements*	Total
Forecasted 10-Year Reinvestment Needs	**$2,986.3M**	**$26.3M**	**$3,012.7M**
Reinvestments in the 10-Year Capital Plan	$2,836.4M	$113.1M	$2,949.5M

Values are in 2020 dollars

Reinvestment requirements of **$3,012.7 Million** are forecasted for the next 10 years to maintain the infrastructure in a state of good repair. **$2,109.6 Million** of this will be required to be funded through Utility Rates and **$903.0 Million** will be required to be funded through Property Taxes unless alternate funding sources are identified or confirmed and validated for on-going availability.

Infrastructure enhancement opportunities valued at **$26.3 Million** have been identified which will improve the ability of the water and wastewater systems to meet the service outcome goals and will be funded through Utility Rates unless alternate funding sources are found.

The Region's 10-Year Capital Plan includes **$2,949.5 Million** in asset reinvestments. The difference between the Forecasted Needs and the Capital Plan is within the Region's accepted tolerances and meets the needs to ensure service delivery.

Why is there a difference between the forecasted needs and the plan?
There are many reasons why the 10-year plan does not match exactly with the 10-year reinvestment needs forecast. The reasons can be broken into two broad categories:

Strategic Planning
The Region is always trying to find efficiencies and make the best long-term decisions. Infrastructure reinvestments may need to be delayed or advanced to align the timing of projects, complete studies or be eligible for provincial or federal funding opportunities.

Updated Information
The Region is continually trying to improve the accuracy of the asset information. There can be significant updates and changes in the time between when the infrastructure needs forecasts are prepared and when the Capital Plan is developed. These changes can be due to updated condition assessments, asset replacement values and lifecycle strategies.

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*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where performance enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

What is the Plan for **Utility Rate** Supported Infrastructure?

	Condition (SoGR)	Performance Enhancements*	Total
Forecasted 10-Year Reinvestment Needs	$2,083.3M	$26.3M	**$2,109.6M**
Reinvestments in the 10-Year Capital Plan	$1,905.6M	$113.1M	**$2,018.7M**

Values are in 2020 dollars

What is the Plan for **Tax** Supported Infrastructure?

	Condition (SoGR)	Performance Enhancements*	Total
Forecasted 10-Year Reinvestment Needs	$903.0M	-	**$903.0M**
Reinvestments in the 10-Year Capital Plan	$930.8M	-	**$930.8M**

Values are in 2020 dollars

Maintenance and Non-Infrastructure Solutions

Maintenance activities are standard operating procedures across the Region's asset portfolio. They are required to meet legislated requirements, the endorsed levels of service, and to optimize asset lifecycles. Maintenance activities are reviewed and optimized within the operational and planning teams of the Region. As maintenance activities and operations procedures are refined, asset lifecycles are adjusted accordingly so that reinvestment requirements and risks are reflected accurately in this plan.

Non-infrastructure solutions are considered in all stages of the planning process, such as:

- Promoting water conservation and solid waste reduction through community education programs to accommodate the needs of a growing population within the existing infrastructure portfolio
- Enabling a mobile workforce to reduce office space requirements

These solutions help to optimize asset lifecycles and reduce asset related service delivery costs.

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*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where performance enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
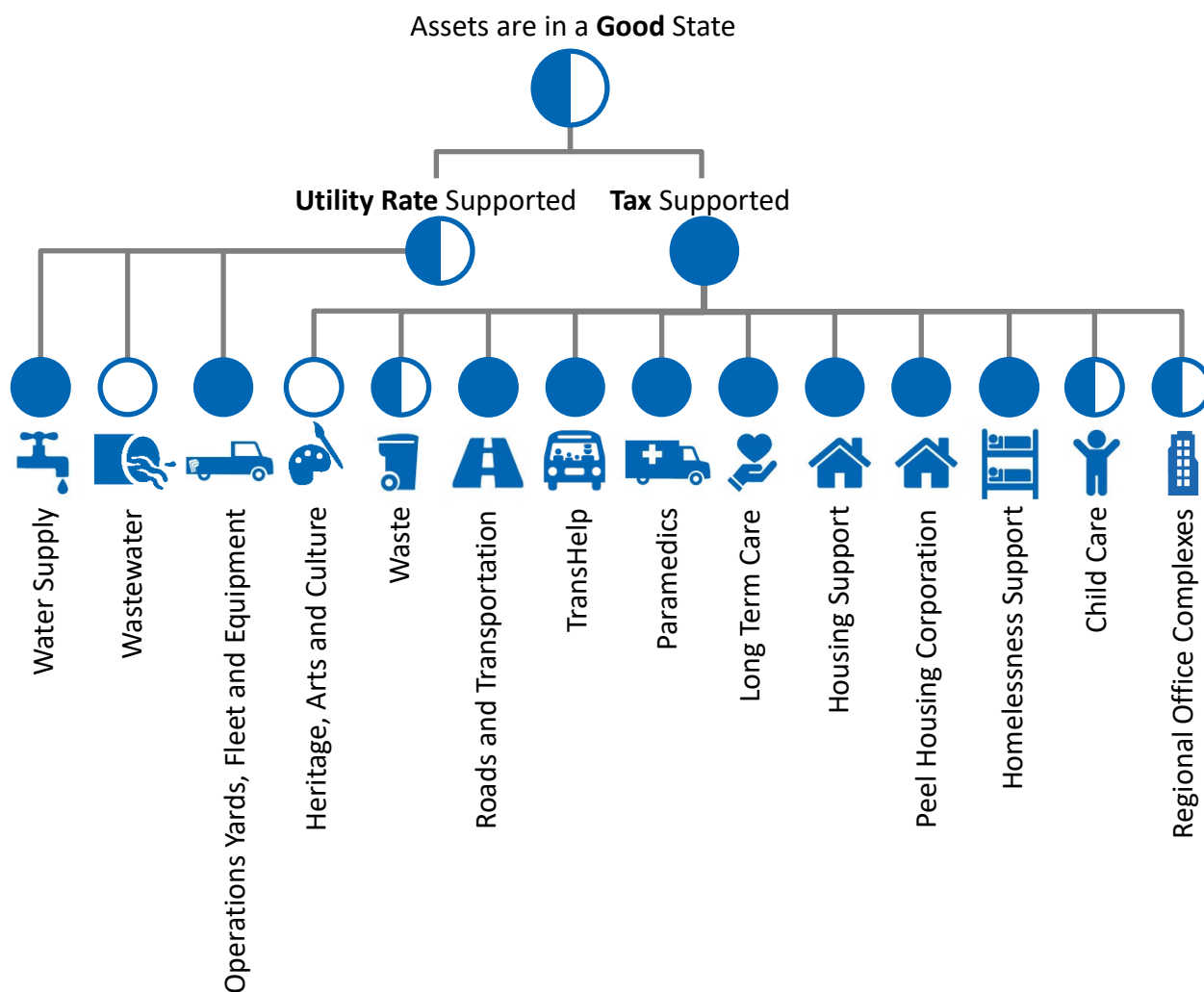
Forecasted State of the Infrastructure in 2029

With the Reinvestments in the 10-year Capital Plan…

The Region of Peel will achieve an overall rating of: ◐ **Good**

How will the Services Contribute to the Overall Rating?

Assets are in a **Good** State
◐

Utility Rate Supported ◐   **Tax** Supported ●

Services:
- Water Supply ●
- Wastewater ○
- Operations Yards, Fleet and Equipment ●
- Heritage, Arts and Culture ○
- Waste ◐
- Roads and Transportation ●
- TransHelp ●
- Paramedics ●
- Long Term Care ●
- Housing Support ●
- Peel Housing Corporation ●
- Homelessness Support ●
- Child Care ◐
- Regional Office Complexes ◐

	What do the Risk Management Ratings mean?
● **Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐ **Good**	Most assets in the portfolio are achieving the desired targets
○ **Fair**	Many assets in the portfolio are not achieving the desired targets
◑ **Poor**	Most assets in the portfolio are not achieving the desired targets
⊗ **Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Summary of the 10-Year Plan

Service	Current State		10 Year Reinvestment Plan		
	Current Rating (2019)	Replacement Value (2018 $ Millions)	Forecasted Reinvestment Needs (2020 $ Millions)	Reinvestments in the 10-Year Capital Plan (2020 $ Millions)	Forecasted Rating (2029)
Water Supply	Very Good	11,323.2	1141.8	1,051.5	Very Good
Wastewater	Fair	12,496.9	911.7	911.3	Fair
Ops. Yards, Fleet & Equipment	Very Good	98.4	56.1	55.9	Very Good
Utility Rate Supported Services - Total	Poor	**23,918.6**	**2,109.6**	**2,018.7**	Poor
Heritage, Arts and Culture	Poor	30.8	5.4	5.9	Fair
Waste	Very Good	158.6	32.4	28.2	Good
Roads and Transportation	Poor	2,088.8	231.2	231.6	Very Good
TransHelp	Very Good	6.1	8.7	8.5	Very Good
Paramedics	Very Good	138.1	52.1	52.1	Very Good
Long Term Care	Very Good	229.2	44.8	44.1	Very Good
Housing Support	Very Good	303.6	2.5	7.0	Very Good
Peel Housing Corporation	Very Good	2,442.5	486.2	506.7	Very Good
Homelessness Support	Very Good	35.3	6.6	7.5	Very Good
Child Care	Good	8.7	4.2	4.2	Good
Regional Office Complexes	Poor	237.6	28.9	35.1	Poor
Tax Supported Services - Total	Very Good	**5,679.3**	**903.0**	**930.8**	Very Good
Region of Peel - Total	Poor	**29,597.9**	**3,012.7**	**2,949.5**	Poor

What do the Risk Management Ratings mean?

	Rating	Description
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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20-Year State of Good Repair (SoGR) Forecast

The 20-year State of Good Repair forecast allows decision makers to take a wider view of the upcoming asset reinvestment needs. Many of the assets that the Region relies on to provide services have very long lifecycles. There will be times when many expensive assets need replacement within a short time span. It is important to see increases and decreases in needs coming, so that plans can be made, and sudden large changes in Tax and Utility rates can be avoided.

Utility Rate Supported Infrastructure 20-Year SoGR Forecast

SoGR in Capital Plan

▼ Yr 1-10 ($1905.6M)

Forecasted SoGR Needs
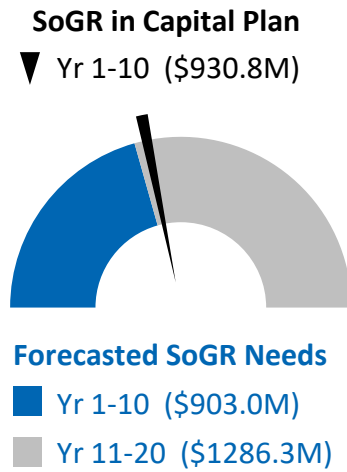
■ Yr 1-10 ($2083.3M)
■ Yr 11-20 ($1897.5M)

Uninflated SoGR reinvestment needs for the utility rate supported infrastructure portfolio are forecasted to remain relatively stable in the next 20 years.

The 10-year Capital Plan is in line with the forecasted 10-year State of Good Repair reinvestment needs.

Tax Supported Infrastructure 20-Year SoGR Forecast

SoGR in Capital Plan

▼ Yr 1-10 ($930.8M)

Forecasted SoGR Needs

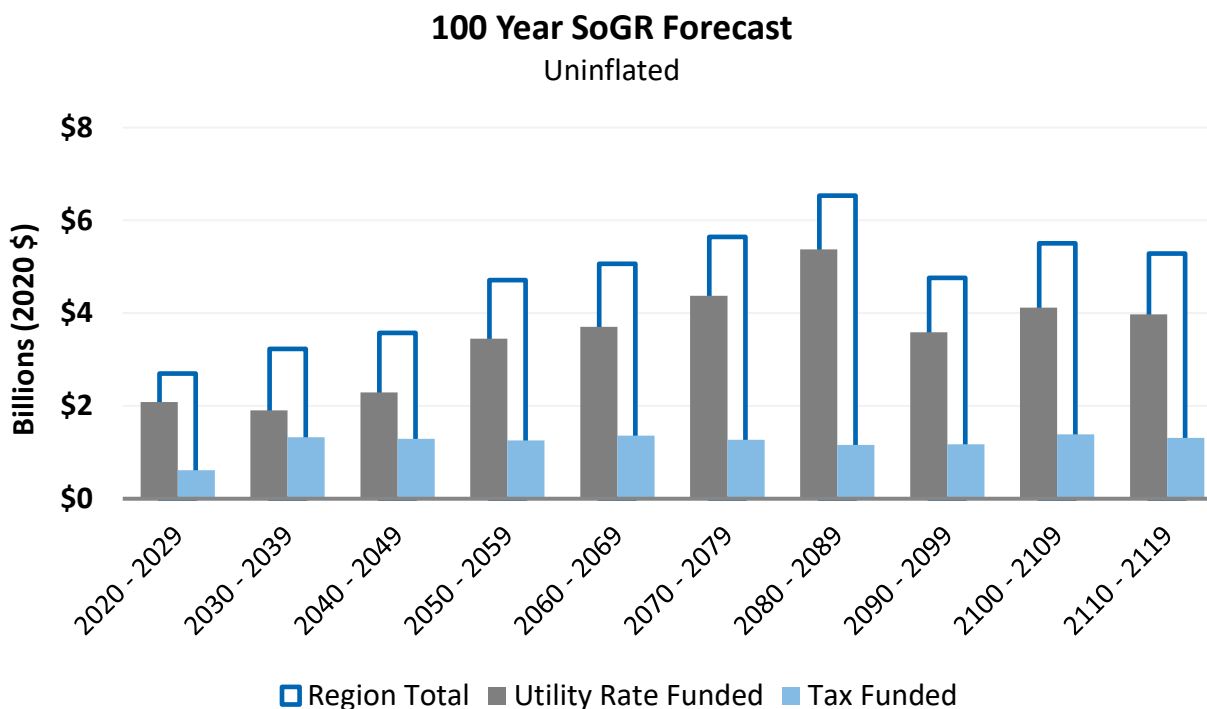■ Yr 1-10 ($903.0M)
■ Yr 11-20 ($1286.3M)

Uninflated SoGR reinvestment needs for the tax levy supported infrastructure portfolio are forecasted to **increase** in the next 20 years.

The 10-year Capital Plan is slightly higher than the forecasted 10-year SoGR reinvestment needs. Since the SoGR needs are forecasted to increase over the next 20 years, future Capital Plans will need to increase beyond the rate of inflation in order to ensure that the infrastructure is in an adequate state to support the delivery of services.

100-Year State of Good Repair Forecast

Long-term infrastructure investment forecasts allow decision makers to anticipate major trends in the Region's infrastructure needs and make proactive financing and asset management decisions. Long-term SoGR projections include the estimated rehabilitation and replacement costs of existing assets as well as the estimated rehabilitation and replacement cost of planned asset growth.

100 Year SoGR Forecast
Uninflated

The Region of Peel's Capital SoGR needs are expected to increase steadily over a 70-year timeframe even before factoring in inflation. Increasing capital reserve contributions at the rate of inflation will not be enough to meet forecasted needs.

The first 20 years primarily see increased needs in the tax funded portfolio with a minimal decrease in the needs of the utility funded portfolio. After the first 20 years, the tax funded infrastructure needs are forecasted to stabilize while the utility rate funded infrastructure needs are expected to continue to grow and peak at nearly $5.5 Billion. This is primarily due to the fact that bulk of the water and wastewater systems are relatively new and account for over 80% of the infrastructure value. As these systems age, they will require greater and more frequent reinvestments.

> Because the 100-Year forecast is shown without forecasted inflation; the dollars can be roughly translated into the volume of work required.

Financing Plan

Infrastructure Reinvestment Financing Strategy

State of Good Repair capital works are financed through the **Tax-supported Capital Reserve** and **Utility Rate-supported Capital Reserve**. The Enterprise Asset Management Plan proposes and prioritizes the Region's infrastructure investment requirements according to their respective reserve financing sources.

The Region of Peel's Debt Management Policy promotes a "**Pay as You Go**" philosophy to State of Good Repair financing and generally discourages the use of debt to fund State of Good Repair work.

Regional Council has been supportive of this approach and has approved modest annual increases to the Capital Reserve levies since 2009 to reduce the unfunded infrastructure gap.

The infrastructure reinvestment strategy supports the three objectives of Peel's Long Term Financial Planning Strategy:

1. **Ensure financial sustainability**

2. **Minimize financial vulnerability**

3. **Manage financial flexibility**

"Borrow when appropriate for capital infrastructure – Maintain an affordable level of debt required to achieve desired service levels while minimizing the impact of borrowing to the tax payer and ensuring intergenerational equity"

– 2020 Long Term Financial Planning Strategy

Financial Modeling

The Region's Financing Strategy utilizes financial modelling to determine revenue requirements to finance the Region's annual budget and forecast. The inputs for the Financial Model include, but are not limited to:
- Tax and Utility Rates
- Forecasted growth
- Employment and demographics
- Capital plans
- Operational plans and projections, and
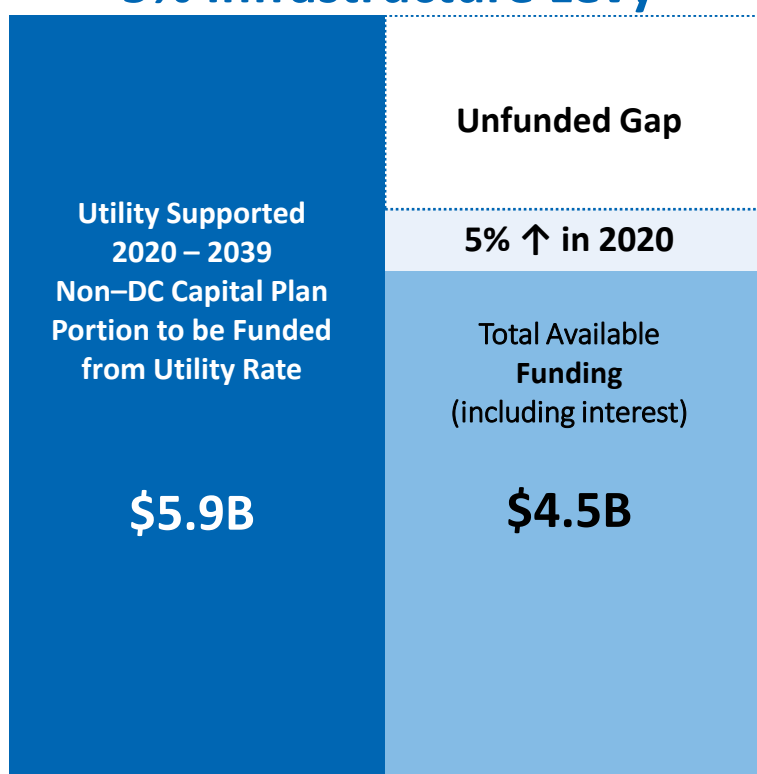- 20-year Enterprise Asset Management reinvestment forecasts

The Model is updated on an annual basis to reflect changes in policy and strategy and informs the capital planning process. The Financial Model is used in part to determine the adequacy of the tax and utility rate supported reserves and to calculate an appropriate adjustment in rates if required.

Utility Rate Supported Infrastructure Financing Plan

The utility rate infrastructure financing plan uses a 20-year horizon to determine the adequacy of infrastructure reserves. There is expected to be a **$1.4 Billion gap** by the end of 2039 at current reserve funding rates.

A **5%** increase in utility rates dedicated to funding the capital reserve is included in the 2020 Capital Plan to partially close the gap. A long term financial planning exercise will commence in 2020. Options and opportunities to further reduce the Region's unfunded infrastructure investment gap will be considered with Council and incorporated into future plans.

Utility Rate Supported
5% Infrastructure Levy

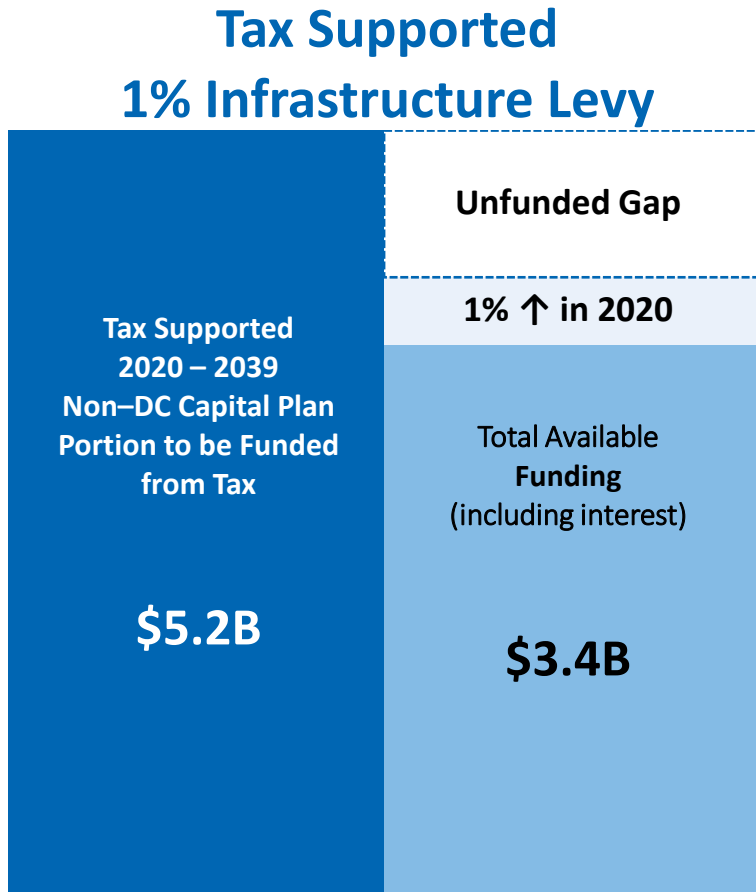| Utility Supported 2020 – 2039 Non–DC Capital Plan Portion to be Funded from Utility Rate	Unfunded Gap
	5% ↑ in 2020
$5.9B	Total Available **Funding** (including interest) **$4.5B**

The Utility Rate Capital Reserve gap and the impact of the 2020 dedicated 5% increase.

Tax Rate Supported Infrastructure Financing Plan

The tax rate supported infrastructure financing uses a 20-year horizon to determine the adequacy of infrastructure reserves. There is expected to be a **$1.8 Billion gap** by the end of 2039 at current reserve funding rates.

A **1%** increase in property tax rates dedicated to funding the capital reserve is included in the 2019 Capital Plan to partially close the gap. Options and opportunities to further reduce the Region's unfunded infrastructure investment gap will be considered with Council and incorporated into future plans.

Tax Supported
1% Infrastructure Levy

Tax Supported 2020 – 2039 Non–DC Capital Plan Portion to be Funded from Tax $5.2B	Unfunded Gap
	1% ↑ in 2020
	Total Available **Funding** (including interest) $3.4B

The Tax Rate Capital Reserve gap and the impact of the 2020 dedicated **1%** increase.

Risks to Financing Plan

Servicing Peel's Population Growth

Intensification of populated areas – In order to promote better use of land and services, preserve green space and satisfy the Province's "*Places to Grow"* requirements, there is greater emphasis on intensifying the use of populated lands. Although this is a prudent method to better utilize lands and services, the construction of infrastructure to accommodate growth in such areas can lead to higher initial capital costs and the need to prematurely replace infrastructure which may not have reached its full life span.

Expanding into un-serviced "greenfield" lands – Peel's growth also requires the urbanization of rural lands. Such expansions require the extension of water, wastewater, roads, solid waste, health and social services to accommodate the added population. The expansion of infrastructure to accommodate these services as well as the increase in Regional fleet and distances to provide services will create added pressures in terms of operating and maintaining the Region's expanded network.

Ongoing Condition Assessment Program

Detailed asset condition assessments are carried out across the organization. The results of these assessments will improve the SoGR analysis and more accurately identify capital needs.

Weather and Climate Change Impacts

Weather impacts water consumption demand primarily during the summer as well as the TransHelp and road maintenance programs in the winter. Efforts are made to mitigate this risk using trend analysis and the Stabilization Reserves.

Additionally, the risk of damage to assets from significant weather events is increasing. Future increased capital reinvestment to mitigate this damage will be required.

Economic Conditions

Changes to economic conditions can impact the Financing Plan. Specific risks to the plan include:

- Increases in labour costs
- Decreases in revenue for recycled materials
- Increases in energy costs
- Increases in debt servicing costs
- Decreases in grants and subsidies

Significant change to the broader economic condition may also impact the capacity and appetite of the community to pay for services.

Regulatory Impacts

Changes to regulations in the Region of Peel's operational environment have significant impact on financial plans and may change:

- What services are provided by the Region
- The content of the Region's capital asset portfolio
- The availability of funding sources
- Design and construction
- Technology requirements
- Operational practices

Changes to Level of Service Targets

Level of Service Targets drive the reinvestment forecasts in the Asset Management Reinvestment Plan. Levels of Service are based on regulations, standards, and council approved service levels. Increased regulations and standards will require changes to the level of service targets. Council approved levels of service may also change to better align with the priorities of the community.

Impacts from and Alignment with Infrastructure Plans of Other Governments and Agencies

Where the Region of Peel owns or manages infrastructure in proximity to that of other levels of government or external agencies, reinvestment plans may need to be adjusted to align infrastructure planning between organizations. These adjustments have the potential to significantly increase the Region's infrastructure financing requirements if a high value piece of infrastructure is required to be relocated or enhanced prior to the asset's normal end of life. Alternatively, there are opportunities for cost sharing between organizations when co-located assets require replacement or rehabilitation within a similar time frame.
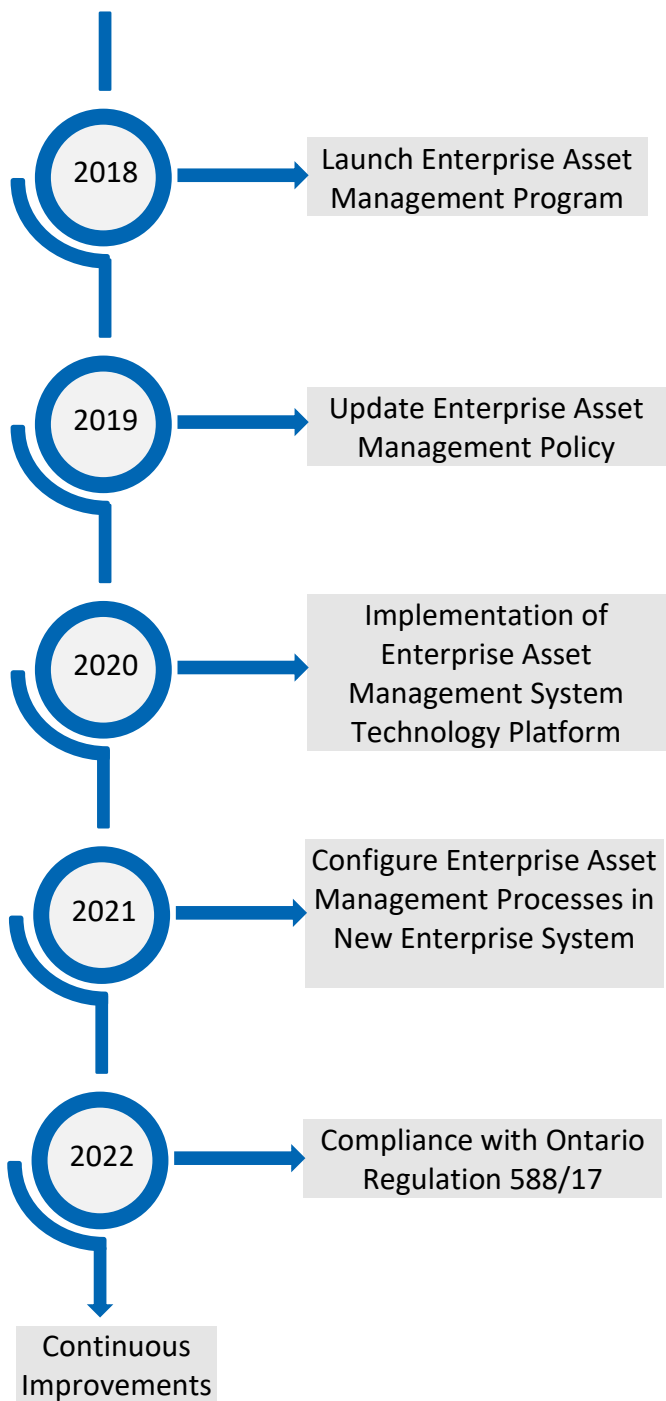
Enterprise Asset Management Road Map

Enterprise Asset Management is an integral part of the Region of Peel's strategic and long-term planning practices. Introduced in 2007, the program focuses on developing sustainable plans to maintain the infrastructure over a planning horizon that can be as long as 100 years. Guided by the principle of continuous improvement, these plans support Council's level of service targets and long-term financial strategies. The Region's Asset Management program is guided by industry best practice, as well as regulatory requirements. The program is continuously evolving in order to leverage opportunities and address challenges.

Although the Region of Peel's long-term asset planning program has been in place since 2007, it is still good practice to review the program in order to accommodate emerging trends. In 2017, the Region retained an independent third-party consultant to initiate a comprehensive asset management program review. The objective of the review was to align the Region's asset management practices with industry best practices. As a result of the review, over the next several years several initiatives have been proposed. These initiatives will address emerging trends as well as focus on identified gaps.

Year	Milestone
2007	Introduced Corporate Asset Management
2008	Established Asset Management Team
2008	Council endorses Tax and Utility Rate infrastructure levies
2011	Enterprise Asset Management Strategy
2011	1st Asset Management Update to Audit and Risk Committee
2013	Asset Management Policy
2013	Levels of Service accepted by Council
2013	Long Term Financial Planning Strategy
2014	1st Annual Infrastructure Status and Outlook Report Published
2017	1st Annual Enterprise Asset Management Plan Published
2018	Provincial Asset Management Regulations

Changes since the 2018 Enterprise Asset Management Plan

- **Enterprise Asset Management** (EAM) division established within the Finance department.

- The Region's **Asset Management Policy** has been updated to meet the new Ontario Regulation 588/17.

- The assets supporting the **Affordable Housing** service managed by **Peel Housing Corporation** is incorporated into Asset Management reporting.

Improvements for the Future

- Staff is undertaking many **technical studies** and **condition assessments** to improve knowledge of the Region's infrastructure conditions.

- **Asset Management planning process improvements** are being made across several services to improve investment forecasting and to manage risks to Regional services.

- An **Enterprise Asset Management System** will be introduced to support asset management functions across the organization.

- The assets supporting **Peel Regional Police** will be added to the Enterprise Asset Management reporting.

Year	Milestone
2018	Launch Enterprise Asset Management Program
2019	Update Enterprise Asset Management Policy
2020	Implementation of Enterprise Asset Management System Technology Platform
2021	Configure Enterprise Asset Management Processes in New Enterprise System
2022	Compliance with Ontario Regulation 588/17
	Continuous Improvements

Strategic Plan Area of Focus:

Thriving

Communities are integrated, safe and connected

Strong, successful communities just work. They have strong bones and arteries. Their systems, many unseen below the surface, function efficiently and are well maintained, with an eye on preserving value and reliable performance for future generations. The Region of Peel works and serves its residents and businesses throughout a *Community for Life*.

Asset Management Reinvestment Plan
Water Supply

State of the Infrastructure Water Supply

Two treatment plants
14 wells
20 pumping stations
22 water storage facilites
4,304 km of water pipes

Total Asset Replacement Value

$11.3 Billion

2018 Dollars

> The water infrastructure is in a very good state for delivering safe, reliable drinking water; however, the early effects of climate change are beginning to impact the Peel's water treatment and transmission system.
>
> The Region is proactively identifying how the infrastructure can be enhanced to mitigate the risk of extreme heat events and changing quality of the Lake Ontario water and will require future investments to mitigate these risks.
>
> Proactive pipe replacement programs are in place to keep the water system safe and reliable for homes and industries.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Water Supply is currently achieving a rating of: ● **Very Good**

20% ◐
Good

○**7%**
Fair

◐ **3%**
Poor

⊗ **3%**
Very Poor

67% ●
Very Good

Target Customer Levels of Service

Our customers should expect…

Potable water which meets or exceeds all regulatory requirements.

Aesthetically pleasing water quality.

Efficient and reliable Water Treatment.

Reliable and consistent water pressure and flow.

Efficient delivery of water services.

The Facilities are structurally sound and in a state of good repair.

The Facilities fully meet the Programs' services requirements.

The Facilities provide a safe, healthy environment for staff and the public.

The Facilities are accessible as required.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Water Supply

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$1,115.5M	$938.5M
Performance Enhancements*	$26.3M	$113.1M
Total Reinvestment	**$1,141.8M**	**$1,051.5M**

Values are in 2020 dollars

Reinvestments of **$938.5 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair.

Infrastructure enhancement opportunities valued at **$113.1 Million** are planned to improve water pressure and redundancy in the distribution system.

The infrastructure reinvestments in the Capital Plan are less than the forecasted reinvestment needs. The Capital Plan reflects the fact that many watermains are lasting longer then their estimated service lives and do not require replacement. The lifecycle assumptions for watermain SoGR forecasting are being reviewed.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029…

Water Supply is forecasted to achieve a Rating of: **Very Good**

80% Very Good

10% Good

7% Fair

3% Poor

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
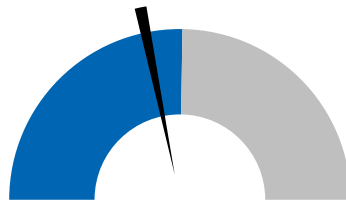
10 Year Summary Water Supply

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Water Supply	●	11,323.2	1,115.5	26.3	938.5	113.1	●

*Performance Enhancements

20 Year SoGR Outlook Water Supply

SoGR in Capital Plan

▼ Yr 1-10 ($938.5M)

Forecasted SoGR Needs

■ Yr 1-10 ($1115.5M)

■ Yr 11-20 ($1094.7M)

State of Good Repair reinvestment needs are forecasted to remain comparable in the next 20 years.

The SoGR reinvestments in the Capital Plan are less than the forecasted reinvestment needs. The Capital Plan reflects the fact that many water mains are lasting longer then their estimated service lives and do not require replacement.

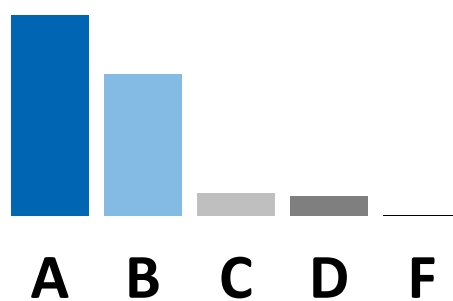| What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Wastewater

State of the Infrastructure Wastewater

Two treatment plants,
32 sewage pumping stations
3,667 km of sanitary sewer pipes

Total Asset Replacement Value

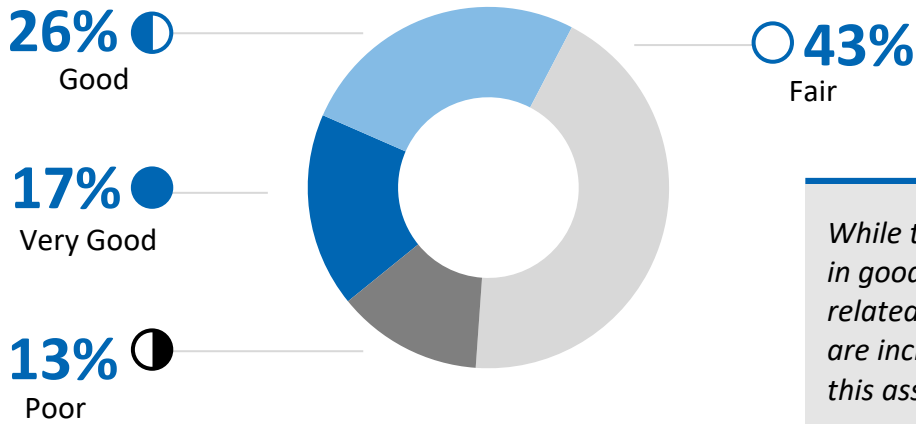## $12.5 Billion

2018 Dollars

The wastewater infrastructure is currently in good condition; however, the early effects of climate change are beginning to impact the Peel wastewater collection system.

The Region is proactively identifying how the infrastructure can be enhanced to mitigate the risk of overflows to the environment and backups into homes and businesses which should raise the overall score of the portfolio.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Wastewater is currently achieving a Rating of: ○ **Fair**

26% ◑ Good

17% ● Very Good

13% ◐ Poor

○ **43%** Fair

While the infrastructure is in good condition, issues related to climate change are increasing the risk in this asset portfolio.

Target Customer Levels of Service

Our customers should expect…

Reliable, efficient and effective wastewater collection and treatment.

The Facilities are structurally sound and in a state of good repair.

The Facilities fully meet the Programs' services requirements.

The Facilities provide a safe, healthy environment for staff and the public.

The Facilities are accessible as required.

		What do the Risk Management Ratings mean?
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Wastewater

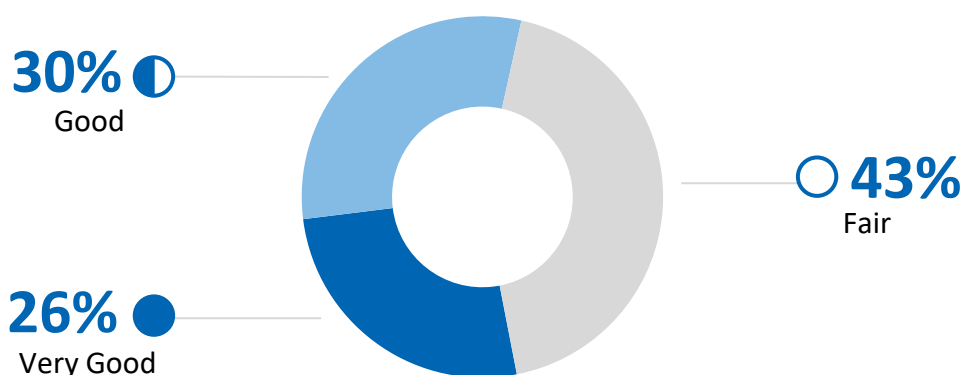| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$911.7M	$911.3M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$911.7M**	**$911.3M**

Values are in 2020 dollars

Reinvestments of **$911.3 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Wastewater **is forecasted to achieve a Rating of:** ◯ **Fair**

30% ◑
Good

26% ●
Very Good

◯ **43%**
Fair

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
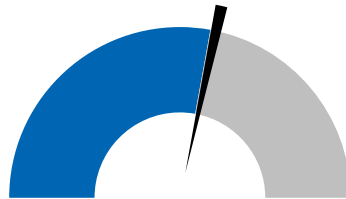

10 Year Summary **Wastewater**

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Wastewater	◯	12,496.9	911.7	-	911.3	-	◯

*Performance Enhancements

20 Year SoGR Outlook **Wastewater**

SoGR in Capital Plan

▼ Yr 1-10 ($911.3M)

Forecasted SoGR Needs

■ Yr 1-10 ($911.7M)
■ Yr 11-20 ($724.5M)

State of Good Repair reinvestment needs are forecasted to slightly decrease in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
◯	**Fair**	Many assets in the portfolio are not achieving the desired targets
◑	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Operations Yards, Fleet and Equipment
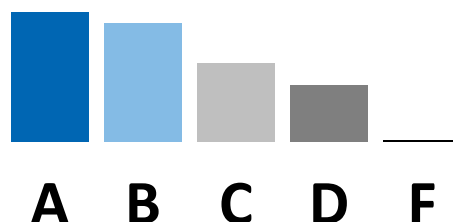
State of the Infrastructure Ops. Yards, Fleet and Equipment

Five works yards
461 vehicles
243 pieces of major equipment

Total Asset Replacement Value

$98.4 Million

2018 Dollars

Operations, Yards and Equipment assets are generally in a good condition to support the service in achieving their service level objectives.

Works yard redevelopment projects are underway to enhance or replace some aging facilities which do not meet all current requirements of the assets.

Condition of the Infrastructure

A   B   C   D   F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Ops. Yards, Fleet & Equipment is currently achieving a Rating of: ● **Very Good**

89% ●
Very Good

● **11%**
Good

Target Customer Levels of Service

Our customers should expect…

The Facilities are structurally sound and in a state of good repair.

The Facilities fully meet the Programs' services requirements.

The Facilities provide a safe, healthy environment for staff and the public.

The Facilities are accessible as required.

Fleet is safe and maintained in a state of good repair.

The Fleet quality and availability fully meet the Programs' service requirements.

		What do the Infrastructure Risk Management Ratings mean?
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Infrastructure Reinvestment Plan Ops. Yards, Fleet and Equipment

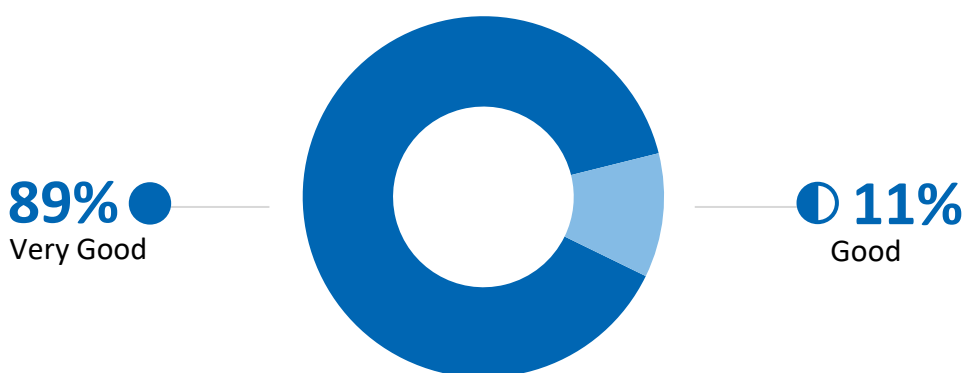| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$56.1M	$55.9M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$56.1M**	**$55.9M**

Values are in 2020 dollars

Reinvestments of **$55.9 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Operations Yards, Fleet & Equipment is forecasted to achieve a Rating of: **Very Good**

89%
Very Good

11%
Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

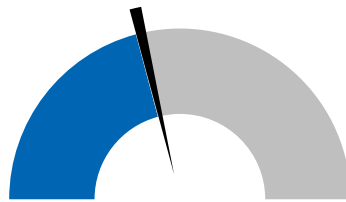## 10 Year Summary Operations Yards, Fleet and Equipment

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Operations Yards, Fleet and Equipment	🔵	98.4	56.1	-	55.9	-	🔵

*Performance Enhancements

20 Year SoGR Outlook Operations Yards, Fleet and Equipment

SoGR in Capital Plan

▼ Yr 1-10 ($55.9M)

Forecasted SoGR Needs

🟦 Yr 1-10 ($56.1M)

⬜ Yr 11-20 ($78.4M)

State of Good Repair reinvestment needs are forecasted to increase in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

What do the Risk Management Ratings mean?		
🔵	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
◯	**Fair**	Many assets in the portfolio are not achieving the desired targets
◑	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Asset Management Reinvestment Plan Heritage, Arts and Culture

State of the Infrastructure Heritage, Arts and Culture

Four heritage facilities

Total Asset Replacement Value

$30.8 Million

2018 Dollars

The Heritage, Arts and Culture infrastructure is in fair condition. There are currently projects underway that will improve the condition of these facilities to support and sustain the historical and cultural fabric of Peel.

Being a Heritage Complex, all the buildings are designed to older building standards impeding their ability to meet some current program requirements.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Heritage, Arts and Culture is currently achieving a rating of: ◑ **Good**

50% ●
Very Good

○ **50%**
Fair

Target Customer Levels of Service

Our customers should expect…

A place where the past, present and future are linked in dynamic displays and explored through creative programming and research.

The Region's artistic heritage is preserved and promoted, and quality educational programs are produced.

Materials which deal with the development of the Region of Peel are collected, preserved and made available.

Local, regional and national artists unique gift ideas for every occasion and budget are on offer.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Heritage, Arts and Culture

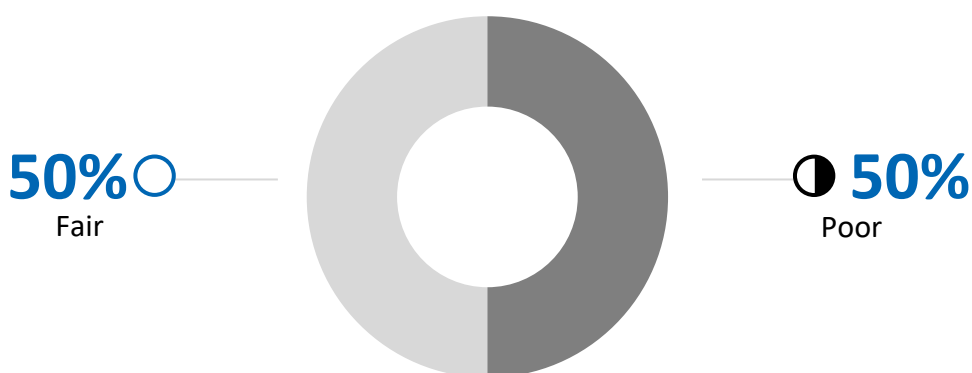| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$5.4M	$5.9M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$5.4M**	**$5.9M**

Values are in 2020 dollars

Reinvestments of **$5.9 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are slightly higher than the forecasted reinvestment needs. Underinvestment in the property around the facilities is the primary cause of the decrease in the risk rating. The portfolio has sufficient funding to redirect funds if required.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Heritage, Arts and Culture is forecasted to achieve a Rating of: ◯ **Fair**

50% ◯
Fair

◖ **50%**
Poor

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
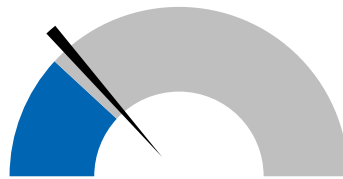
10 Year Summary Heritage, Arts and Culture

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Heritage, Arts and Culture	◑	30.8	5.4	-	5.9	-	○

*Performance Enhancements

20 Year SoGR Outlook Heritage, Arts and Culture

SoGR in Capital Plan

▼ Yr 1-10 ($5.9M)

Forecasted SoGR Needs

■ Yr 1-10 ($5.4M)
■ Yr 11-20 ($17.2M)

State of Good Repair reinvestment needs are forecasted to increase significantly in the next 20 years.

The SoGR reinvestments in the Capital Plan are slightly higher than the forecasted reinvestment needs.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan Waste

State of the Infrastructure Waste

Six community recycling centres
Three composting and curing facilities
One material recycling facility

Total Asset Replacement Value

$158.6 Million

2018 Dollars

The majority of the Waste Management infrastructure is in good condition, supporting the safe removal of solid waste from the community.

Waste Management staff is working on an Infrastructure Development Plan to support diversion targets outlined by the Region's Waste Reduction and Resource Recovery Strategy to adapt to Council's long-term direction.

Condition of the Infrastructure

A   B   C   D   F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Waste is currently achieving a rating of: ⬤ **Very Good**

87% ⬤
Very Good

◐ **7%**
Good

○ **7%**
Fair

Target Customer Levels of Service

Our customers should expect…

Biweekly collection of recyclables and processing of recyclables.

Biweekly collection of garbage.

Weekly collection of organics.

Seasonal collection of yard waste – weekly/biweekly.

Community Recycling Centres open during appropriate hours to meet community needs.

Operations of sites within Certificate of Approval parameters, with no impact on site neighbours.

The facilities are structurally sound and in a state of good repair.

The facilities fully meet the Programs' services requirements.

The facilities provide a safe, healthy environment for staff and the public.

The Facilities are accessible as required.

What do the Risk Management Ratings mean?	
⬤ **Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐ **Good**	Most assets in the portfolio are achieving the desired targets
○ **Fair**	Many assets in the portfolio are not achieving the desired targets
◑ **Poor**	Most assets in the portfolio are not achieving the desired targets
⊗ **Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Waste

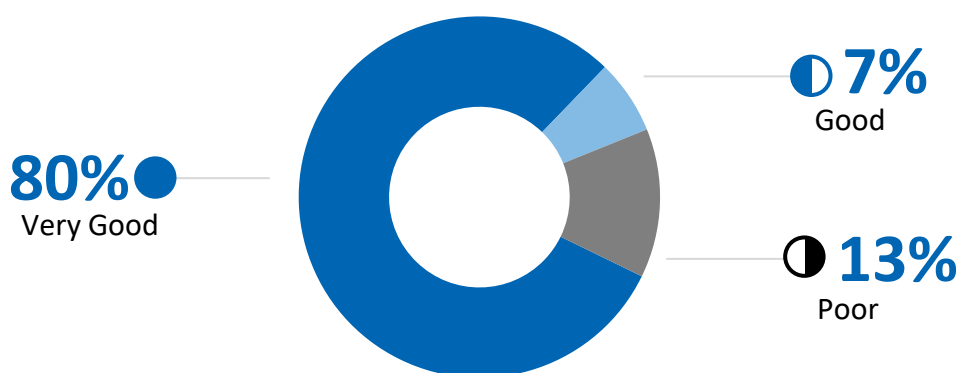| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$32.4M	$28.2M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$32.4M**	**$28.2M**

Values are in 2020 dollars

Reinvestments of **$28.2 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are less than the forecasted reinvestment needs. Direction from Council to explore the options and changing provincial regulations have introduced uncertainty into the service. Staff are monitoring the infrastructure to ensure risks to services are managed while new plans are being implemented.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Waste is forecasted to achieve a Rating of: Good

80% Very Good

7% Good

13% Poor

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

10 Year Summary **Waste**

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Waste	●	158.6	32.4	-	28.2	-	◐

*Performance Enhancements

20 Year SoGR Outlook **Waste**

SoGR in Capital Plan

▼ Yr 1-10 ($28.2M)

Forecasted SoGR Needs

■ Yr 1-10 ($32.4M)

■ Yr 11-20 ($64.8M)

State of Good Repair reinvestment needs are forecasted to increase significantly in the next 20 years.

The SoGR reinvestments in the Capital Plan are slightly less than forecasted reinvestment needs.

What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◑	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Asset Management Reinvestment Plan
Roads and Transportation

State of the Infrastructure Roads and Transportation

1,643 km of Regional roads
176 bridges and large culverts
29,303 meters of noise walls
130 retaining walls
Two stormwater pumping stations

Total Asset Replacement Value
$2.1 Billion
2018 Dollars

The Transportation infrastructure is in good condition to provide reliable transportation services. The Region continues to proactively assess the condition of roads infrastructure to support safe and efficient transportation services.

Condition assessments of Peel's storm sewers, roadside retaining walls and noise walls are being finalized. The improvements recommended by these studies will be included in future Capital Plans.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Roads and Transportation is currently achieving a rating of: ◐ **Good**

75% ●
Very Good

◐ **25%**
Poor

Target Customer Levels of Service

Our customers should expect…

Roads are safe and accessible year round and during all weather conditions.

Roads are maintained in a state of good repair at the lowest practical costs.

Roads are capable of supporting all modes of transportation and facilitate emergency vehicles.

Roadways are designed and operated in an environmentally sustainable manner and address social and aesthetic considerations.

Traffic signals are synchronized to promote the highest practical level of progression.

The Facilities are structurally sound and in a state of good repair.

The Facilities fully meet the Programs' services requirements.

The Facilities provide a safe, healthy environment for staff and the public.

The Facilities are accessible as required.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◖	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Roads and Transportation

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$231.2M	$231.6M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$231.2M**	**$231.6M**

Values are in 2020 dollars

Reinvestments of **$231.6 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

Currently, the Region is redeveloping the stormwater pumping stations, and they are being monitored to ensure risks to services are managed.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029…

Roads and Transportation is forecasted to achieve a Rating of: **Very Good**

100%
Very Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

10 Year Summary Roads and Transportation

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Billions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Roads and Transportation	◑	2.1	231.2	-	231.6	-	●

*Performance Enhancements

20 Year SoGR Outlook Roads and Transportation

SoGR in Capital Plan

▼ Yr 1-10 ($231.6M)

Forecasted SoGR Needs

■ Yr 1-10 ($231.2M)
■ Yr 11-20 ($609.8M)

State of Good Repair reinvestment needs are forecasted to increase significantly in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

What do the Infrastructure Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Strategic Plan Area of Focus:

Living

People's lives are improved in their time of need

Investing to build a *Community for Life* begins with people, and ensuring that those in need can find the help and support they need in Peel – from housing to accessible transportation, and from income support to paramedic services and long term care – the Region of Peel is a welcoming community to all.

Asset Management Reinvestment Plan TransHelp

State of the Infrastructure TransHelp

62 TransHelp vehicles

Total Asset Replacement Value

$6.1 Million

2018 Dollars

> The TransHelp assets are in very good condition to support travel within the community for Peel's residents in need.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?
A   New or like new condition
B   In a good state of repair
C   Some non-critical defects; some critical repairs in the near term
D   Some critical defects; many critical repairs in the near term
F   Many critical defects; immediate repair or replacement required

TransHelp is currently achieving a rating of: ⬤ **Very Good**

⬤ **100%**
Very Good

Target Customer Levels of Service

Our customers should expect…

Clients are transported in a safe manner and travel in a clean and well-maintained vehicle by an operator who practices appropriate personal hygiene.

Clients are treated with courtesy & respect.

Service calls are answered promptly & courteously.

Clients are picked up on time and within the pickup window.

Transport to a safe place if delivery to original destination is not possible.

Clients are taken to the first accessible door of the final destination.

Service is compliant with the Accessibility for Ontarians with Disabilities Act (AODA).

What do the Risk Management Ratings mean?		
⬤	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◖	**Good**	Most assets in the portfolio are achieving the desired targets
◯	**Fair**	Many assets in the portfolio are not achieving the desired targets
◖	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan TransHelp

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$8.7M	$8.5M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$8.7M**	**$8.5M**

Values are in 2020 dollars

Reinvestments of **$8.5 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

TransHelp is forecasted to achieve a Rating of: ● **Very Good**

● **100%**
Very Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

10 Year Summary TransHelp

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
TransHelp	●	6.1	8.7	-	8.5	-	●

*Performance Enhancements

20 Year SoGR Outlook TransHelp

SoGR in Capital Plan

▼ Yr 1-10 ($8.5M)

Forecasted SoGR Needs

■ Yr 1-10 ($8.7M)
■ Yr 11-20 ($8.3M)

State of Good Repair reinvestment needs are forecasted to remain comparable in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan Paramedics

State of the Infrastructure Paramedics

17 Regional paramedic stations
157 paramedic vehicles
705 pieces of paramedic equipment assets

Total Asset Replacement Value
$138.1 Million
2018 Dollars

> The Region's paramedic services consist of new state-of-the-art-facilities, medical equipment and emergency response vehicles, which are in good condition to support the emergency medical services.
>
> As the assets are relatively new, replacement cycles for the equipment and fleet are being monitored to ensure service needs are met.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Paramedics is currently achieving a rating of: ● **Very Good**

83% ●
Very Good

○**17%**
Fair

Target Customer Levels of Service

Our customers should expect…

Expedient and safe response and possible transport to hospital.

Provide the best evidence based medical care.

Pre-hospital emergency care at the minimum standard of the Ambulance Act.

24/7 functionality for an emergency service.

Recognizable positioning in the community.

A safe and comfortable environment.

Accessible and properly equipped EMS Facilities.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◖	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Infrastructure Reinvestment Plan **Paramedics**

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$52.1M	$52.1M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$52.1M**	**$52.1M**

Values are in 2020 dollars

Reinvestments of **$52.1 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Paramedics is forecasted to achieve a Rating of: **Very Good**

100%
Very Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

10 Year Summary Paramedics

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Paramedics	●	138.1	52.1	-	52.1	-	●

*Performance Enhancements

20 Year SoGR Outlook Paramedics

SoGR in Capital Plan

▼ Yr 1-10 ($52.1M)

Forecasted SoGR Needs

■ Yr 1-10 ($52.1M)

■ Yr 11-20 ($85.1M)

State of Good Repair reinvestment needs are forecasted to increase in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◑	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Long Term Care

State of the Infrastructure Long Term Care

Five Long Term Care Centres

Total Asset Replacement Value
$229.2 Million
2018 Dollars

The Region continually monitors the ability of the Long Term Care Centres to meet the ever-changing requirements of senior care and support. Peel Manor no longer meets the service needs and will be replaced with a new facility. Otherwise, the Long Term Care Centres are in good condition to support the Region's array of senior care services.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Long Term Care is currently achieving a rating of: ⬤ **Very Good**

50% ⬤
Very Good

◐ **50%**
Good

Target Customer Levels of Service

Our customers should expect…

Provision of support and services to residents and their families in accordance with the Long Term Care Homes Act.

A safe and secure building environment which meets all Long Term Care Homes Act standards.

Fully accessible and equipped Facilities (Buildings) to meet the needs of resident, visitors and staff.

	What do the Risk Management Ratings mean?	
⬤	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
◯	**Fair**	Many assets in the portfolio are not achieving the desired targets
◖	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Long Term Care

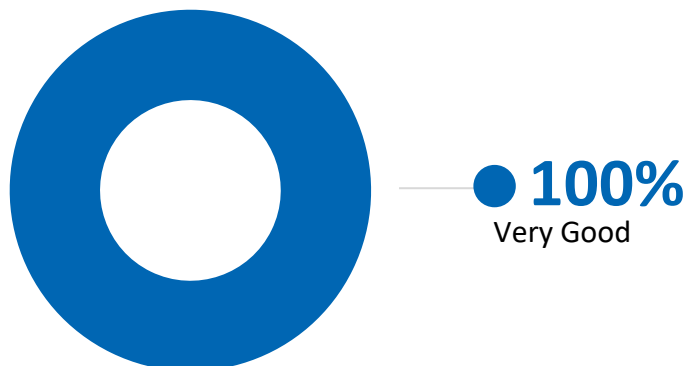| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$44.8M	$44.1M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$44.8M**	**$44.1M**

Values are in 2020 dollars

Reinvestments of **$44.1 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Long Term Care is forecasted to achieve a Rating of: ● **Very Good**

● **100%**
Very Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
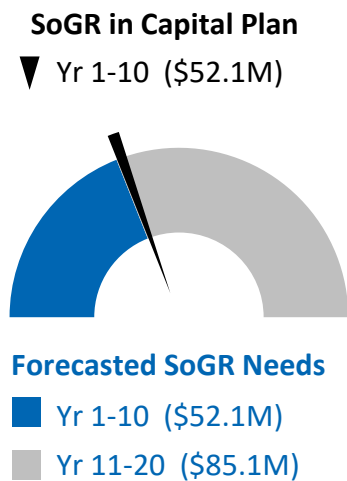
10 Year Summary Long Term Care

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Long Term Care	●	229.2	44.8	-	44.1	-	●

*Performance Enhancements

20 Year SoGR Outlook Long Term Care

SoGR in Capital Plan

▼ Yr 1-10 ($44.1M)

Forecasted SoGR Needs

■ Yr 1-10 ($44.8M)

■ Yr 11-20 ($53.9M)

State of Good Repair reinvestment needs are forecasted to increase in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

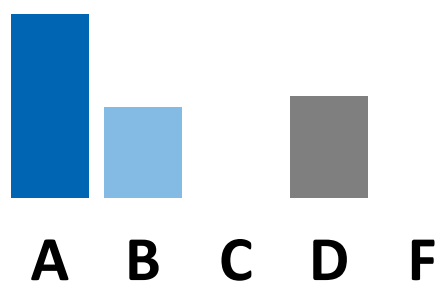|	What do the Infrastructure Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◖	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Housing Support

State of the Infrastructure Housing Support

Seven affordable housing buildings

Total Asset Replacement Value
$303.6 Million
2018 Dollars

The Region owned Affordable Housing stock is relatively new. However, intensive use of the facilities requires that ongoing investments continue in order to maintain a liveable environment for residents and to blend with the surrounding community.

Condition of the Infrastructure

A   B   C   D   F

How is the Condition Graded?	
A	**New or like new condition**
B	**In a good state of repair**
C	**Some non-critical defects; some critical repairs in the near term**
D	**Some critical defects; many critical repairs in the near term**
F	**Many critical defects; immediate repair or replacement required**

Housing Support is currently achieving a rating of: ● **Very Good**

● **100%**
Very Good

Target Customer Levels of Service

Our customers should expect…

Prompt, efficient and effective property management services.

A safe, well maintained, amenable living environment meeting all legislative requirements.

What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Housing Support

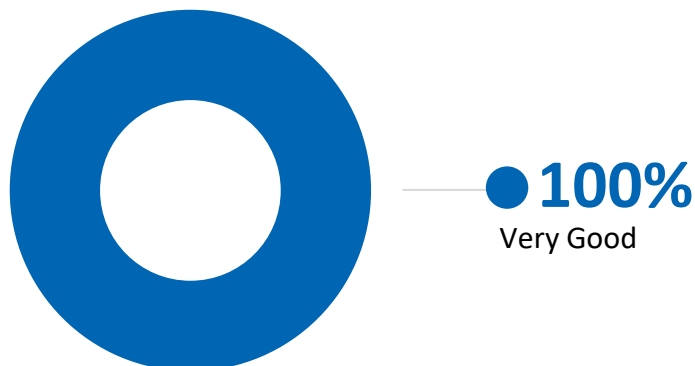| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$2.5M	$7.0M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$2.5M**	**$7.0M**

Values are in 2020 dollars

Reinvestments of **$7.0 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are significantly more than forecasted reinvestment needs. Reinvestments that are forecasted after 10 years have been brought forward into the Capital Plan. Staff will monitor and validate the longer-term reinvestments in the Capital Plan.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Housing Support **is forecasted to achieve a Rating of:** ● **Very Good**

● **100%**
Very Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
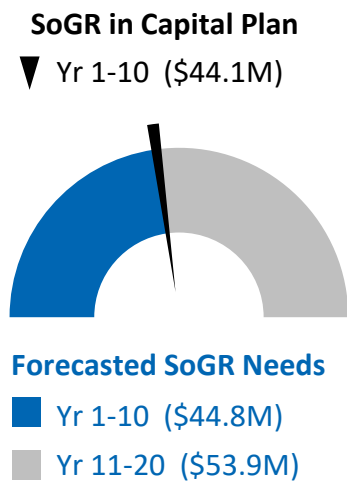
10 Year Summary Housing Support

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Housing Support	●	303.6	2.5	-	7.0	-	●

*Performance Enhancements

20 Year SoGR Outlook Housing Support

SoGR in Capital Plan

▼ Yr 1-10 ($7.0M)

Forecasted SoGR Needs

■ Yr 1-10 ($2.5M)

■ Yr 11-20 ($37.2M)

State of Good Repair reinvestment needs are forecasted to significantly increase in the next 20 years, which is expected in a portfolio of newer assets.

The infrastructure reinvestments in the Capital Plan are significantly more than forecasted reinvestment needs. Reinvestments that are forecasted after 10 years have been brought forward into the Capital Plan. Staff will monitor and validate the longer-term reinvestments in the Capital Plan.

What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Peel Housing Corporation

State of the Infrastructure Housing Support

88 affordable housing buildings

Total Asset Replacement Value

$2.4 Billion

2018 Dollars

> The Affordable Housing stock managed by Peel Housing Corporation has a diverse mix of dwelling types, ages, designs, building code conformities and locations. The portfolio is currently in good condition.
>
> However, intensive use of the facilities requires that ongoing investments continue in order to maintain a liveable environment for residents and to blend with the surrounding community.

Condition of the Infrastructure

A   B   C   D   F

How is the Condition Graded?	
A	**New or like new condition**
B	**In a good state of repair**
C	**Some non-critical defects; some critical repairs in the near term**
D	**Some critical defects; many critical repairs in the near term**
F	**Many critical defects; immediate repair or replacement required**

Housing Support is currently achieving a rating of: ● **Very Good**

67% ●
Very Good

◐ **33%**
Good

Target Customer Levels of Service

Our customers should expect…

Prompt, efficient and effective property management services.

A safe, well maintained, amenable living environment meeting all legislative requirements.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◐	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◑	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Peel Housing Corporation

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$486.2M	$506.7M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$486.2M**	**$506.7M**

Values are in 2020 dollars

Reinvestments of **$506.7 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Housing Support is forecasted to achieve a Rating of: ⬤ **Very Good**

67% ⬤
Very Good

◐ **33%**
Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
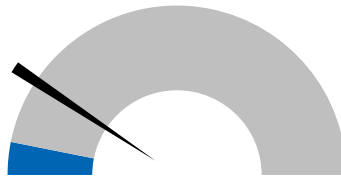
10 Year Summary Housing Support

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Housing Support	⬤	2,442.5	486.2	-	506.7	-	⬤

*Performance Enhancements

20 Year SoGR Outlook Housing Support

SoGR in Capital Plan

▼ Yr 1-10 ($506.7M)

Forecasted SoGR Needs

🟦 Yr 1-10 ($486.2M)

⬜ Yr 11-20 ($328.7M)

State of Good Repair reinvestment needs are forecasted to decrease in the next 20 years.

The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

	What do the Risk Management Ratings mean?	
⬤	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◖	**Good**	Most assets in the portfolio are achieving the desired targets
◯	**Fair**	Many assets in the portfolio are not achieving the desired targets
◑	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Homelessness Support

State of the Infrastructure Homelessness Support

Five homeless shelters

Total Asset Replacement Value

$35.3 Million

2018 Dollars

The shelters and homelessness support facilities are achieving the desired outcome of supporting safe, secure, temporary living services. These facilities experience intensive use and high turnover of residents and are constantly in need of significant repair and maintenance.

Condition of the Infrastructure

A   B   C   D   F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Homelessness Support **is currently achieving a rating of:** ● **Very Good**

● **100%**
Very Good

Target Customer Levels of Service

Our customers should expect…

Provision of basic needs, protection, referral and the alleviation of trauma associated with homelessness to those in emergency shelters.

Immediate, 24 hour access to shelters, and a safe, secure temporary living environment meeting all legislative requirements.

What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Homelessness Support

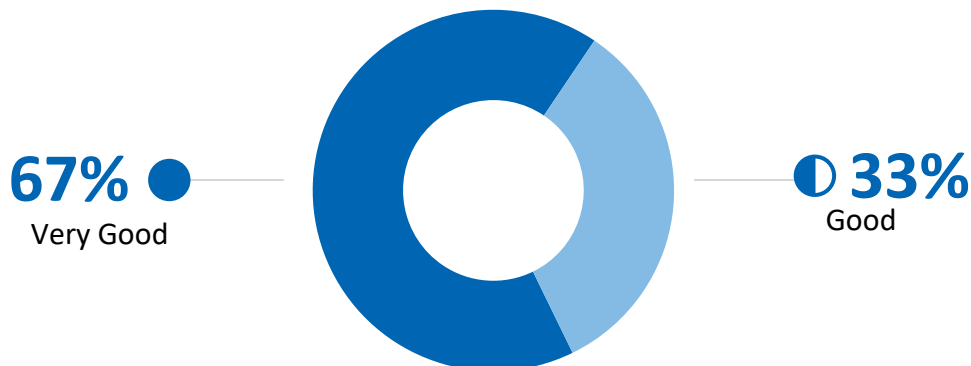| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$6.6M	$7.5M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$6.6M**	**$7.5M**

Values are in 2020 dollars

Reinvestments of **$7.5 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are more than the forecasted reinvestment needs. The difference is primarily due to updated information that will be included in the next reporting cycle.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029…

Homelessness Support is forecasted to achieve a Rating of: **Very Good**

100%
Very Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.

10 Year Summary Homelessness Support

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Homelessness Support	●	35.3	6.6	-	7.5	-	●

*Performance Enhancements

20 Year SoGR Outlook Homelessness Support

SoGR in Capital Plan

▼ Yr 1-10 ($7.5M)

Forecasted SoGR Needs

■ Yr 1-10 ($6.6M)
■ Yr 11-20 ($12.1M)

State of Good Repair reinvestment needs are forecasted to increase in the next 20 years.

The SoGR reinvestments in the Capital Plan are more than forecasted reinvestment needs primarily due to updated information that will be included in the next reporting cycle.

		What do the Risk Management Ratings mean?
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Asset Management Reinvestment Plan
Child Care

State of the Infrastructure Child Care

Three child care centres

Total Asset Replacement Value

$8.7 Million

2018 Dollars

> The Child Care centres are in a good condition to support the private child care services. The Region of Peel has leased the facilities to independent child care providers.

Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Child Care is currently achieving a rating of: ◑ **Good**

50% ●
Very Good

◑ **50%**
Good

Target Customer Levels of Service

Our customers should expect…

Provision of high-quality licensed child care in a safe environment.

Fully accessible and equipped facilities to meet the daily requirements of children and caregivers.

	What do the Risk Management Ratings mean?	
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Infrastructure Reinvestment Plan Child Care

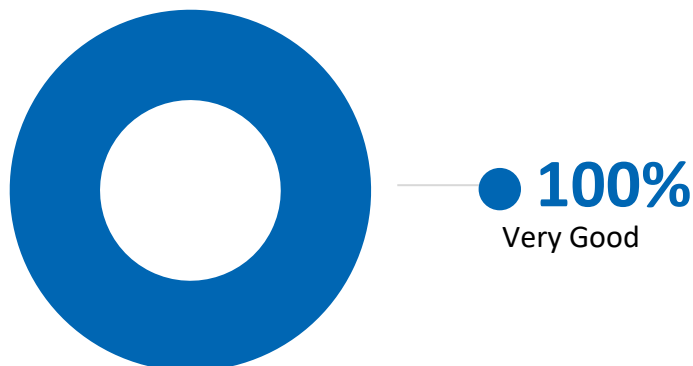| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$4.2M	$4.2M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$4.2M**	**$4.2M**

Values are in 2020 dollars

Reinvestments of **$4.2 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Child Care is forecasted to achieve a Rating of: ◐ **Good**

50% ●
Very Good

◐ **50%**
Good

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
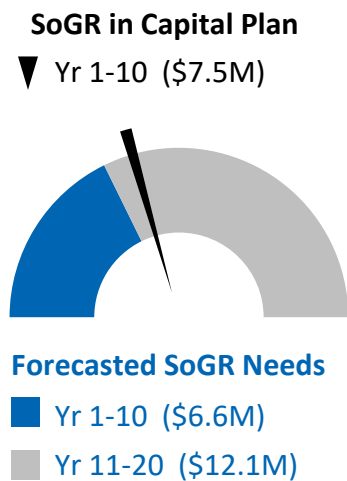
10 Year Summary Child Care

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Child Care	◑	8.7	4.2	-	4.2	-	◑

*Performance Enhancements

20 Year SoGR Outlook Child Care

SoGR in Capital Plan

▼ Yr 1-10 ($4.2M)

Forecasted SoGR Needs

■ Yr 1-10 ($4.2M)

■ Yr 11-20 ($2.4M)

State of Good Repair reinvestment needs are forecasted to decrease in the next 20 years.

The SoGR reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

What do the Infrastructure Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

Strategic Plan Area of Focus:

Leading

Government is future-oriented and accountable

What are the Region's goals in investing to build a **Community for Life**? Listening and incorporating the voice of residents and businesses in decision-making. Ensuring a secure and financially flexible future. Constantly developing new, better and less costly ways to deliver services that residents and businesses value. Seeking to attract and retain top talent as an employer of choice. And acting, always, to earn and keep our community's trust.

Asset Management Reinvestment Plan
Regional Office Complexes

State of the Infrastructure Regional Office Complexes

Two Regional office complexes

Total Asset Replacement Value
$237.6 Million
2018 Dollars

Most of the Regional office buildings are fairly new and in good condition.

The original building at 10 Peel Centre Drive (Suite A) is 38 years old and requires higher levels of capital to maintain. Suite A remains viable to provide Regional services.
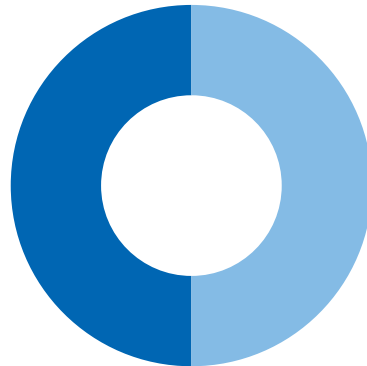
Condition of the Infrastructure

A B C D F

How is the Condition Graded?	
A	New or like new condition
B	In a good state of repair
C	Some non-critical defects; some critical repairs in the near term
D	Some critical defects; many critical repairs in the near term
F	Many critical defects; immediate repair or replacement required

Regional Office Complexes is currently achieving a rating of: ◑ **Good**

50% ●
Very Good

◑ 50%
Good

Target Customer Levels of Service

Our customers should expect…

Regional properties are maintained at an acceptable level of cleanliness and in a State of Good Repair.

Customer concerns are promptly addressed.

What do the Risk Management Ratings mean?		
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Infrastructure Reinvestment Plan Regional Office Complexes

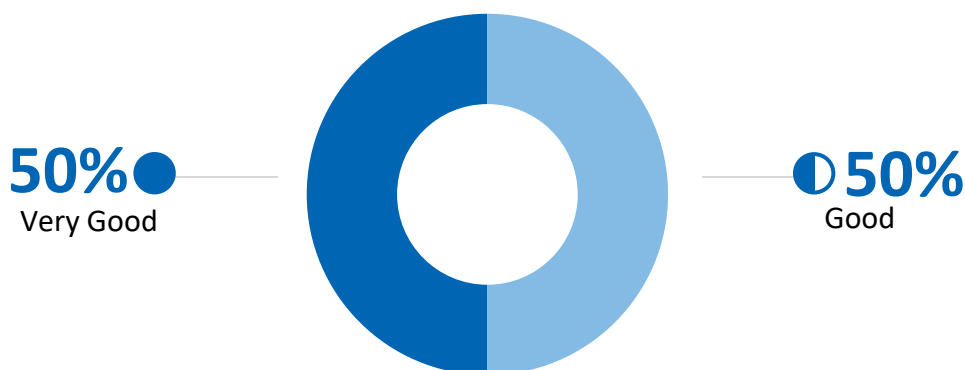| 10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	$28.9M	$35.1M
Performance Enhancements*	$0.0M	$0.0M
Total Reinvestment	**$28.9M**	**$35.1M**

Values are in 2020 dollars

Reinvestments of **$35.1 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are more than forecasted reinvestment needs. Reinvestments that are forecasted after 10 years have been brought forward into the Capital Plan. Staff will monitor and validate the longer-term reinvestments in the Capital Plan.

No infrastructure enhancement opportunities have been identified which are not already incorporated into forecasted State of Good Repair work.

If the Reinvestments in the Capital Plan are made over 10 years, in 2029...

Regional Office Complexes **is forecasted to achieve a Rating of:** ◐ **Good**

50% ●
Very Good

◐ **50%**
Fair

*Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the primary driver is the State of Good Repair (SoGR) can also improve Performance ALOS as a secondary project goal.
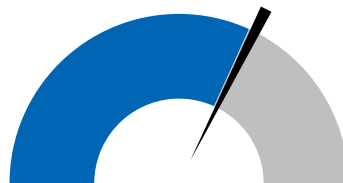
10 Year Summary Regional Office Complexes

Service	Current State		10 Year Plan				
	Current Rating (2020)	Replacement Value (2018 $ Millions)	Forecasted Asset Reinvestment Needs (2020 $ Millions)		2020-2029 Capital Plan Reinvestments (2020 $ Millions)		Forecasted Rating (2029)
			SoGR	Perf.*	SoGR	Perf.*	
Regional Office Complexes	◑	237.6	28.9	-	35.1	-	◑

*Performance Enhancements

20 Year SoGR Outlook Regional Office Complexes

SoGR in Capital Plan

▼ Yr 1-10 ($35.1M)

Forecasted SoGR Needs

■ Yr 1-10 ($28.9M)
■ Yr 11-20 ($66.7M)

State of Good Repair reinvestment needs are forecasted to increase significantly in the next 20 years which is typical as a portfolio of newer facilities ages.

The SoGR reinvestments in the Capital Plan are more than forecasted reinvestment needs. Reinvestments that are forecasted after 10 years have been brought forward into the Capital Plan. Staff will monitor and validate the longer-term reinvestments in the Capital Plan.

		What do the Risk Management Ratings mean?
●	**Very Good**	Almost all assets in the portfolio are achieving the desired targets
◑	**Good**	Most assets in the portfolio are achieving the desired targets
○	**Fair**	Many assets in the portfolio are not achieving the desired targets
◐	**Poor**	Most assets in the portfolio are not achieving the desired targets
⊗	**Very Poor**	Almost all assets in the portfolio are not achieving the desired targets

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Asset Management Line of Sight

Strategic Plan Vision & Mission	Area of Focus	Service	Service Category	Asset Class	Asset

Community For Life

Thriving

Water Supply

Lake Based Water Treatment

Water Disinfection

Pump

Mission
Working with You to create a healthy safe and connected community

Area of Focus Outcome
Communities are integrated, safe and complete

Service Outcome
Safe, reliable and high quality drinking water is available to Peel customers

Customer Levels of Service
- Potable water at an appropriate pressure and quality.
- Efficient delivery of water services.

Asset Levels of Service
- Asset Condition = B (Good)
- Sufficient Capacity to meet demand
- Backup Power Generator
- Backup Capacity for Critical Equipment
- Automated monitoring systems in place

Asset Information
- Asset Condition
- Installation Date
- Usage Data
- Replacement Cost
- Rehab Cost
- Asset Lifecycle
- Number/Redundancy
- Size/Capacity
- Suitability

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Reading Guide

Interpreting the Infrastructure Risk Management Ratings

The Infrastructure Risk Management Ratings indicate the state of the assets relative to the target levels of service and the risk they are presenting to service delivery. The ratings take into account approved funding that is available for SoGR (State of Good Repair) and Performance Enhancement projects.

The ratings and the accompanying explanations are provided to give a sense of how much excess risk exists within an infrastructure portfolio. Since the rating is measured at a portfolio level, the health and performance of individual assets may vary widely within the larger infrastructure portfolio.

Very Good State – Almost all assets are achieving the desired targets.

Good State – Most assets are achieving the desired targets.

Fair State – Many assets are not achieving the desired targets.

Poor State – Most assets are not achieving the desired targets.

Very Poor State – Almost all assets are not achieving the desired targets.

Interpretation Examples:

In a **Very Good State:** Almost all assets are at or near Asset Level of Service targets and therefore, the risk to services is at a desired or acceptable level.

In a **Poor State:** Most assets are not achieving Asset Level of Service targets and therefore the risk to services is significantly higher than desired.

Interpreting the Condition Grades

This indicator breaks down the distribution of asset condition across a standardized grading system (A-F). The Condition (SoGR) scores only represent the physical heath of the assets and unlike the Risk Management Ratings, do not consider currently approved funding.

Asset condition is graded based on combination of asset age, expected life, condition assessment data, and current life cycle strategies as is appropriate for each type of asset.

Most assets have Level of Service targets which should keep them 'in a good sate of repair' (B) or better, though some assets have lower targets which allow their condition to deteriorate further providing that the customer level of services is not impacted and that it lowers the total cost providing the service. Since different assets have different targets, this indictor does not indicate the level of risk to services which is illustrated by the Infrastructure Risk Management Rating.

A   New or like new condition

B   In a good state of repair

C   Some non-critical defects; some critical repairs in the near term

D   Some critical defects; many critical repairs in the near term

F   Many critical defects; immediate repair or replacement

Comparing Risk Management Ratings and Condition Grades

Condition Grades and **Risk Ratings** are especially powerful metrics when viewed together. One metric alone does not tell the whole story.

Condition Grades	Risk Rating	Distribution of Portfolio Risk Ratings

Very Good

By Value of Asset Classes: 75% 25%

By Number of Asset Classes: 89% 11%

An asset portfolio with assets which have **critical defects** in their condition may be **Very Good** in terms of risk if council has already approved funding to address the condition of the assets.

Condition Grades	Risk Rating	Further Breakdown of Risk Ratings

Fair

By Value of Asset Classes: 1% .8% 96.4% 1.7%

By Number of Asset Classes: 17.4% 26.1% 43.5% 13%

An asset portfolio with all assets in a **good state of repair** may be **Fair** in terms of risk if there are performance issues which council has not approved funding to address such as a lack of backups or failure to meet accessability requirements.

Condition Grades	Risk Rating	Breakdown of Portfolio Risk Ratings

Poor

By Value of Asset Classes: 44% 6% .4% 44% 6%

By Number of Asset Classes: 37% 11% 4% 37% 11%

An asset portfolio with assets which have **critical defects** in their condition may be **Poor** in terms of risk if there are condition and/or performance issues which council has not approved funding to address.

Interpreting the SoGR Capital Reinvestment Outlook

SoGR in Capital Plan
▼Yr 1-10 ($26.5M)

SoGR in Capital Plan
▼Yr 1-10 ($3.0M)

Forecasted SoGR Needs

■ Yr 1-10 ($23.1M)
■ Yr 11-20 ($53.9M)

Forecasted SoGR Needs

■ Yr 1-10 ($3.5M)
■ Yr 11-20 ($2.6M)

Increasing Forecasted Needs.	Decreasing Forecasted Needs.
10-year Capital Plan is Above Forecasted Needs	10-year Capital Plan is Below Forecasted Needs

This indicator provides a 20-year perspective of infrastructure investment needs. The intent is to show the general reinvestment requirements beyond the 10-year capital plan and aid decision-makers to assess future infrastructure trends and related resourcing requirements. This could include increasing or decreasing requirements for financing, maintenance and operations, internal project management staff, or external suppliers and contractors.

The **black needle** indicates how the planned reinvestments in the 10-year Capital Plan align with the forecasted reinvestment needs. A difference does not mean anything is wrong. The planned reinvestments do not always align with the forecasted needs. There can be good reasons for this, such as:

- new information from studies and condition assessments have become available
- there have been increases or decreases in asset costs
- there have been recent Council decisions or changes in regulations which needs to be accounted for
- investments in assets are being strategically delayed or advanced for various reasons including:
  - to smooth resourcing needs over the longer term
  - to align projects internally or with external parties
  - to avoid reinvestments in assets which will be decommissioned

The Enterprise Asset Management Strategy

The Enterprise Asset Management Strategy defines how the Asset Management Policy is implemented. The strategy outlines how infrastructure is assessed and how infrastructure needs are identified and prioritized in a consistent way across the entire organization. The Enterprise Asset Management Strategy is made up of four sub strategies:

Level of Service Strategy

The Level of Service Strategy links an assets' condition and performance to the level of service it provides to the customer. Asset levels of service targets are set to enable the delivery of service outcomes the public is expecting to receive. The Asset Levels of Service are approved by Council under the Asset Management Policy.

Risk Management Strategy

The Risk Management Strategy supports informed decisions across a very complex and diverse portfolio of assets. Asset risk is directly related to whether an asset meets level of service targets. Risk helps to prioritize infrastructure investments and maximize return on investments. When a service is exposed to asset related risk beyond the tolerances of Council, the assets generating the high level of risk become a priority for infrastructure investments.

Lifecycle Management Strategy

The Life Cycle Management Strategy provides a means to forecast both how an asset will measure up against level of service targets and future asset investment needs. As assets age their health deteriorates and their ability to meet level of service targets decreases. The amount of risk to the customer's service is directly related to the degree to which assets don't meet level of service targets. Asset investments are used to improve the health or replace an asset. Asset life cycles are unique to each type of asset and include replacement and refurbishment strategies. Replacement strategies identify the optimal time to replace an asset. Refurbishment strategies prolong the functional lifespan of an asset. Both replacement and refurbishment strategies maximize the Region's return on asset investments. Life cycles allow the Region to forecast risk and investment needs.

Asset Replacement Values

Asset Replacement values are required as part of asset lifecycles. Replacement values are estimates of the realistic cost to replace an asset. Asset life cycles require asset replacement values to forecast asset investment needs.

Corporate Reporting on Asset Management

The Reporting Strategy defines the requirements of Corporate level reporting which is undertaken annually to give an organization wide perspective on the Region of Peel's infrastructure needs and priorities to enable better, more informed strategic planning and decision making.

Levels of Service

Defined Levels of Service are an integral part of the Region of Peel's Enterprise Asset Management Process. Levels of Service allow for the assessment of both financial requirements and risk. The Region's Enterprise Asset Management strategy uses two tiers of Levels of Service:

Customer Levels of Service

Customer Levels of Service (CLOS) describe how a service is expected to be received by the customer and sets non-technical service targets. The Region considers factors including health and safety, adequacy, quantity, quality and other social, financial and environmental factors when defining CLOS.

Asset Levels of Service

Asset Levels of Service (ALOS) are specific and measurable. The Region sets ALOS targets at levels which mitigate the risk of the Region not delivering on the CLOS targets. Some ALOS are discretionary and can be adjusted to suit Council's risk tolerance. Other Asset Levels of Service are regulatory requirements. All Asset Levels of Service are endorsed by Regional Council under Peel's Asset Management Policy. The level of risk to services is determined according to the degree to which the assets are not meeting desired ALOS targets. The Region's Enterprise Asset Management Strategy utilizes two types of Asset Levels of Service:

Asset **Condition** Levels of Service

Condition Levels of Service measure the physical "health" of the assets. Measures on the condition of the asset can include pipe breaks, pavement wear, roof leaks, foundation cracks, equipment malfunctions and failures. The Condition Levels of Service can be forecasted using lifecycle models. Capital projects to improve the condition of the assets generally involve major rehabilitation or replacement of the assets.

Asset **Performance** Levels of Service

Performance levels of service measure the "suitability" of the assets. They assess the assets' or asset systems' ability to provide sufficient quality and quantity of service and/or have adequate capacity to reasonably protect against external risks to services. Performance Levels of Service can include ensuring adequate pipe capacities, acceptable heating and cooling of building units, adequate back-up capacity in the event of primary system failures and adequate measures to protect the environment. Capital projects to improve the performance of an asset or system can include replacing and upgrading an old asset with more modern technology, reconfiguring assets or adding additional assets to the system.

Risk Management

Finding the balance between ensuring that the Region's infrastructure is in a state to support the Region's desired Service Outcomes and doing so at the least possible cost to the residents of Peel is about managing risk. The Region could try to maintain all assets in as good as new condition, but that would be financially unrealistic for the residents of Peel. At the other extreme, the Region could stop reinvesting in the infrastructure, but then the Region would not be able to provide the services that the residents rely on. Risk management is the tool to find the balance between these extremes.

The risk management approach looks at infrastructure related threats to the Region's Services and assesses the level of risk using consequence and likelihood.

Consequence is the impact that a potential threat could have on the Region's goals. Consequence is assessed using a standardized scoring guide on a scale from 'Insignificant' to 'Severe' and looks at potential:

- Strategic and long-term impacts to the community
- Corporate image and reputational impacts to the Region
- Environment impacts
- Health and safety impacts to employees and the public
- Third party impacts
- Operational impacts and the continuity of service
- Financial impacts to the Region

Likelihood is the probability that the consequences of a potential threat will be experienced. Likelihood is assessed using a standardized scoring guide on a scale from 'Rare' to 'Certain'. The asset levels of service reduce the likelihood of potential threats to the Region's goals to within council's risk tolerance.

The Enterprise Asset Management Strategy uses the risk-management-based approach to:

- Identify the assets that are putting the Region's service outcomes and goals at undue risk because of condition and performance deficiencies as measured by the asset level of service targets.
- Prioritize asset reinvestments to minimize the risk to service from potential asset failures and impaired asset performance.

Lifecycles

Defined asset lifecycles allow for the forecasting of asset related risk to service and the capital requirements of rehabilitations and replacements. They are also used to estimate the current condition of assets where condition inspections are not possible or current condition data is not available.

Lifecycles are calibrated to specific types of assets and are extensively tested and validated with program staff to ensure they represent current best practices and are aligned with the risk models. Lifecycles include strategies for the major rehabilitation and replacement of assets. They are developed with planned maintenance practices in mind. The lifecycles assume that the programs are actively managing the assets between treatments, by undertaking the planned maintenance activities. The lifecycles are calibrated with actual asset data, and changes in maintenance practices are reflected in the assumptions. The lifecycle assumptions are reviewed annually, and the lifecycles are re-calibrated as needed to consider: new practices, changing technologies, and new asset information.

There are four broad types of lifecycle models used:

No Deterioration: This model is used when a measure is not expected to change over time without intervention. Performance levels of service and some condition levels of service are static measures. This model may drive a current need, but will never forecast a future need;

Estimated Service Life (ESL): This model is used when either there is insufficient data to develop lifecycle curves for an asset class, or there is no cost benefit to do so. ESL models can include rehabilitations which extend the asset life at defined trigger points. Assets are replaced when they reach the end of life;

Lifecycle Curve: This model is used when sufficient data, in house knowledge, or industry knowledge exists to plot the change of an ALOS over time. Lifecycle Curve Models can include rehabilitations which improve the level of service of an asset. Assets are replaced when either they reach a defined ALOS target or reach a defined end of service life;

Forward Works: This model is used for facilities. Detailed Building Condition Assessments (BCAs) are used to forecast a Facility Condition Index (FCI). Rehabilitations occur when the FCI passes a trigger point defined by the ALOS.

All lifecycle models require asset class specific data to run. Asset data is evaluated and updated annually and includes the following data at a minimum:

- Asset ID and/or Name;
- Asset condition, installation data, Estimate Service Life, and/or Forward Works Plan;
- Asset Replacement and Rehabilitation costs; and
- Asset Size and/or Type (i.e. area, length, volume, diameter, material, or class).

Asset Replacement Values

The asset replacement value is the cost that would be incurred to replace the capital asset in its current configuration based on market and industry prices today. A variety of cost estimation approaches are applied to the asset inventory to derive the replacement values depending on the availability of data.

Inflation

Asset costs are required to be represented in current and future values. Where current infrastructure costs are not available inflation is applied.

Inflation rates from Stats Canada are used to bring the assets replacement values to current dollars. Forecasted inflation rates are used to project replacement and rehabilitation costs for long-term reserve sustainability modelling according to Region of Peel standards.

Corporate Reporting

Corporate reporting provides an organization wide perspective on the Region of Peel's infrastructure needs. This reporting helps decision makers prioritize infrastructure reinvestment and enables better, more informed strategic planning and decision-making. Varying levels of reporting are provided to different stakeholder groups to best support the decisions that they need to make.

Detailed reporting is provided to asset managers throughout the Region to support the development of the Capital Plan.

Organization wide executive asset management reporting is provided to the senior leadership to support strategic decision-making.

Service focused reporting is provided to Regional Council to support Council decisions, meet current and future regulatory requirements, and to instill public confidence in the Region as stewards of the infrastructure. This reporting ensures that the public is aware of the state of the Region's infrastructure and how any associated risks are being managed.

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Water Supply — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Intake	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Backup Capacity for Intake	Plant can meet water treatment demand if intake pipe fails	SoGR
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feed lines into the plant	Performance
Pre-treatment	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Security Systems in place and 24/7 monitoring	Monitor activity within the plant	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Provide capacity and technology to produce water of suitable quality	Provide sufficient system capacity to treat raw water to acceptable levels.	Performance
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feed lines into the plant	Performance
Water Disinfection	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feed lines into the plant	Performance
	Provide capacity and technology to produce water of suitable quality	Provide sufficient system capacity to treat raw water to acceptable levels.	Performance
	Automated monitoring systems in place	Monitor activity within the plant	Performance

Water Supply			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Filtration	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provide capacity and technology to produce water of suitable quality	Provide sufficient system capacity to treat raw water to acceptable levels.	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feed lines into the plant	Performance
	Automated monitoring systems in place	Monitor activity within the plant	Performance
Treated Water Storage	Reservoir Condition Score = B (2.5)	Maintain Plant Reservoir in Good Condition (as per Reservoir Score Matrix)	SoGR
	Reservoir Performance Score = B (2.5)	Reservoir to meet safety, hydraulic and security standards	Performance
	Backup capacity for all critical equipment	Plant can continue to operate with the loss of a reservoir cell	Performance
Chemical Systems	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Provide capacity and technology to produce water of suitable quality	Provide sufficient system capacity to treat raw water to acceptable levels.	Performance
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feed lines into the plant	Performance
High Lift Pumps	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR

Water Supply		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
High Lift Pumps	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feed lines into the plant	Performance
	Provide adequate pressure during maximum day demands periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
Plant Wide Support Systems	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
Water Treatment Automation Systems (SCADA)	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provision of redundant network components (WAN)	Backup Network Components to prevent loss of connection	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
	Provide redundancy on network components	Backup SCADA servers in case of server failure	Performance
	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power (UPS)	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feeds to the SCADA network components	Performance
	Physical security on SCADA assets (Lock-ins & Block-outs)	Network is physically secured to prevent unauthorized access	Performance
	Server and switch configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance

Water Supply		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Wells	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Must meet design capacity	Well can meet water treatment demand	Performance
Well Pumps	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Must meet design capacity	Well can meet water treatment demand	Performance
	Provide sufficient capacity to ensure a minimum service pressure of 50 psi during maximum day demands periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
	Provide backup pump capacity	Can meet operations demand if largest piece of equipment fails	Performance
Well Disinfection	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provide backup capacity for all critical process components	Can meet operations demand if largest piece of equipment fails	Performance
Wells Power Supply	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Standby Power for critical systems	Enough Standby Power to operate for 24 hours without electricity	Performance
Groundwater Booster Pumps	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Back up pump capacity	Can meet operations demand if largest piece of equipment fails	Performance
	Maintain a minimum pressure of 50 psi during maximum day demand periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
	Standby Power for critical systems	Enough Standby Power to operate for 36 hours without electricity	Performance

"We are all asset managers" - Appendix IV

Water Supply			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Groundwater Water Storage	Reservoir Condition Score = B (2.5)	Maintain Elevated Tank in Good Condition (as per Reservoir Score Matrix)	SoGR
	Reservoir Performance Score = B (2.5)	Maintain Reservoirs and Standpipes to meet safety, hydraulic and security standards	Performance
Ground Water Systems Automation Systems (SCADA)	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provision of redundant network components (WAN)	Backup Network Components to prevent loss of connection	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
	Provide redundancy on network components	Backup SCADA servers in case of server failure	Performance
	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power (UPS)	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feeds to the SCADA network components	Performance
	Physical security on SCADA assets (Lock-in & Block-outs)	Network is physically secured to prevent unauthorized access	Performance
	Server and configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance
Distribution Mains	Maximum 7 breaks per km of pipe	Replace watermain when it is anticipated to reach 7 breaks per km equivalent	SoGR
	Maintain a minimum pressure of 40 psi during maximum day demand periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance

Water Supply			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Small Feedermains	Maximum 2 breaks per km of pipe	Replace Watermain when it is anticipated to reach 2 breaks per km equivalent	SoGR
	Maintain a minimum pressure of 40 psi during maximum day demand periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
Large Feedermains	No Breaks	Replace before breaks could occur.	SoGR
	Provide sufficient system capacity to meet average day demand during a failure event.	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
	Maintain a minimum pressure of 40 psi during maximum day demand periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
Transmission Mains	No Breaks	Replace before breaks could occur.	SoGR
	Provide sufficient system capacity to meet average day demand during a failure event.	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
	Maintain acceptable velocity	Water velocity within the transmission main to be kept at less than 3 m/s	Performance
Water Pumping Station	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Back up pump capacity	Can meet operations demand if largest piece of equipment fails	Performance
	Maintain a minimum pressure of 50 psi during maximum day demand periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
	Standby Power for critical systems	Enough Standby Power to operate for 36 hours without electricity	Performance
	Secondary Disinfection System for Rechlorination	Rechlorinate water within reservoir if needed	Performance

Water Supply		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Elevated Tanks	Reservoir Condition Score = B (2.5)	Maintain Elevated Tank in Good Condition (as per Reservoir Score Matrix)	SoGR
	Reservoir Performance Score = B (2.5)	Elevated Tank to meet safety, hydraulic and security standards	Performance
Reservoirs	Reservoir Condition Score = B (2.5)	Maintain Reservoir in Good Condition (as per Reservoir Score Matrix)	SoGR
	Reservoir Performance Score = B (2.5)	Reservoir to meet safety, hydraulic and security standards	Performance
Water Pump Station Automation Systems (SCADA)	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provision of redundant network components (WAN)	Backup Network Components to prevent loss of connection	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
	Provide redundancy on network components	Backup SCADA servers in case of server failure	Performance
	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power (UPS)	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feeds to the SCADA network components	Performance
	Physical security on SCADA assets (Lock-ins & Block-outs)	Network is physically secured to prevent unauthorized access	Performance
	Server and switch configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance

Water Supply			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Water Administrative Offices	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = C (Fair)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Water General Storage	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = C (Fair)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance

Water Supply — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Water Heavy Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Water Medium Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance

Water Supply		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Water Process Support Structures	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Water Treatment Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR
Water Transmission Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Wastewater			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
South Peel - Headworks	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
	Plant operating capacity during dry weather flows not to exceed 90% of total rated capacity	Plant flow in dry water should not be more than 90% of the total design capacity	Performance
	Presence of functional Gas detection and HVAC controls system	Plant has equipment in place to remove and detect the buildup of harmful gases, and meets regulatory requirements	Performance
	Secondary electrical supply and standby power for all critical process and life safety assets.	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
South Peel - Primary Treatment	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Sufficient Hydraulic Capacity to avoid overflows during maximum peaking factor	Plant has enough capacity to prevent overflows of partially treated effluent to the environment	Performance
	Secondary electrical supply and standby power for all critical process and life safety assets	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
	Plant operating capacity during dry weather flows not to exceed 90% of total rated capacity	Plant flow in dry water should not be more than 90% of the total design capacity	Performance

Wastewater			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
South Peel - Secondary Treatment	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Sufficient Hydraulic Capacity to avoid overflows during maximum peaking factor	Plant has enough capacity to prevent overflows of partially treated effluent to the environment	Performance
	Secondary electrical supply and standby power for all critical process and life safety assets	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
	Plant operating capacity during dry weather flows not to exceed 90% of total rated capacity	Plant flow in dry water should not be more than 90% of the total design capacity	Performance
South Peel - Disinfection Systems	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	SoGR
	Plant operating capacity during dry weather flows not to exceed 90% of total rated capacity	Plant flow in dry water should not be more than 90% of the total design capacity	Performance
	Secondary electrical supply and standby power for all critical process and life safety assets.	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
	Disinfection system to operate at peak wet weather flows.	Able to disinfect additional flows due to rain storms	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance

Wastewater		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
South Peel - Biosolids Processing	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
	Plant operating capacity during dry weather flows not to exceed 90% of total rated capacity	Plant flow in dry water should not be more than 90% of the total design capacity	Performance
	Secondary electrical supply and standby power for all life safety assets	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
South Peel - Biosolids Disposal	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
	Secondary electrical supply and standby power for all life safety assets	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
South Peel - Plant Wide Support Systems	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Secondary electrical supply and standby power for all critical process and life safety assets.	Enough Standby Power to operate for 36 hours without electricity and secondary power feed	Performance
Wastewater Treatment Automation Systems (SCADA)	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provide redundancy on Network Components (WAN)	Backup Network Components to prevent loss of connection	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance

Wastewater			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Wastewater Treatment Automation Systems (SCADA)	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power (UPS)	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feeds to the SCADA network components	Performance
	Physical security on SCADA assets (Lock-ins & Block-outs)	Network is physically secured to prevent unauthorized access	Performance
	Server & switch configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance
Collection Sewers	Maintain PACP Condition Grade = Level 3	Replace when sewer is no longer in good condition	SoGR
	No surcharging of pipes	Have sewers of sufficient capacity to prevent surcharging	Performance
	Overflows are alarmed	Alarm to alert staff of overflows	Performance
Sub Trunk Sewers	Maintain PACP Condition Grade = Level 3	Replace when sewer is no longer in good condition	SoGR
	Maximum hydraulic grade line = 3m below the ground surface elevation directly above the pipe or the top of pipe; whichever is less	Place sewers deep enough to prevent surcharging	Performance
	Access to sewers	Sewers must be accessible for maintenance	Performance
	Overflows are alarmed	Alarm to alert staff of overflows	Performance
Trunk Sewers	Maintain PACP Condition Grade = Level 3	Replace when sewer is no longer in good condition	SoGR
	Maximum hydraulic grade line = 3m below the ground surface elevation directly above the pipe or the top of pipe; whichever is less	Place sewers deep enough to prevent surcharging	Performance

Wastewater		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Trunk Sewers	Access to sewers	Sewers must be accessible for maintenance	Performance
	Slope Erosion protection around creeks and rivers (geomorphology)	Prevent trunk sewers from being exposed by erosion	Performance
	Overflows are alarmed	Alarm to alert staff of overflows	Performance
Odour and Corrosion Control Systems	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
Forcemains	No Breaks (rating TBD)	Replace before breaks could occur. Refining of TLOS is pending further condition assessment studies	SoGR
Wastewater Pumping Stations	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Overflows are alarmed	Alarm to alert staff of overflows	Performance
	Overflows are operable	Overflow work to direct spills into designed location	Performance
	Backup capacity for all critical equipment (mechanical)	Can continue to operate if largest piece of equipment fails	Performance
	Required hours of wet well storage according to station type as per ROP design standards	Sufficient storage to mitigate the risk of overflows in the event of forcemain failure.	Performance
	Ensure standby power or sufficient wetwell storage to meet Ministry of the Environment regulations	Enough Standby Power to operate without electricity or enough storage to prevent overflows	Performance
Wastewater Pump Station Automation Systems (SCADA)	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provision of redundant network components (WAN)	Backup Network Components to prevent loss of connection	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance

Wastewater			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Wastewater Pump Station Automation Systems (SCADA)	Provide redundancy on Network Components	Backup SCADA servers in case of server failure	Performance
	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power (UPS)	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feeds to the SCADA network components	Performance
	Physical security devices	Network is physically secured to prevent unauthorized access	Performance
Wastewater Administrative Offices	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Wastewater Administrative Offices	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
Wastewater General Storage	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR

Wastewater		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Wastewater General Storage	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = C (Fair)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Wastewater Heavy Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance

Wastewater		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Wastewater Medium Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Wastewater Medium Industrial	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Wastewater Light Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance

Wastewater		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Wastewater Process Support Structures	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Wastewater Treatment Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR
Wastewater Collection Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Operations Yards, Fleet and Equipment		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
PW & Corporate Light & Medium Duty Vehicles	Maintain Equipment at a Condition Rating B (Good)	Replace assets when they are no longer in good condition	SoGR
PW & Corporate Heavy-Duty Vehicles & Equipment	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
PW & Corporate Standard (or small) Equipment	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
PW & Corporate Trailers	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
Operations Support Administrative Offices	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Operations Yards, Fleet and Equipment — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Operations Support General Storage	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = C (Fair)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Operations Support Light Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance

Operations Yards, Fleet and Equipment		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Operations Support Ancillary Storage	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = D (Poor)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site have appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Operations Support Facilities Site Elements	Building Site Condition = C (Fair)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Heritage, Arts and Culture — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
PAMA Facilities	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
PAMA Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Waste			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Material Recovery Equipment	Maintain Equipment at a Condition Rating =B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Redundancy on most critical equipment	Plant can still operate if some of the equipment fails	Performance
	2 days on-site material storage capacity on tipping floor	To accommodate temporary loss of processing capacity	Performance
	Standby Power	Some Standby power to operate if electricity is lost	Performance
	Achievement of design throughput and market specifications for sorted materials	Must have enough equipment and right configuration to produce materials which meet market specifications	Performance
Transfer Stations	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Redundancy on critical equipment	Plant can still operate if some of the equipment fails	Performance
	2-4 days storage requirements on tipping floor	To accommodate temporary storage of materials	Performance
	Standby Power	Some Standby power to operate if electricity is lost	Performance
Composting and Curing	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Redundancy - modular box system	Plant can still operate if some of the equipment fails	Performance
CRCs	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	On-site storage in Transtors and bins (1 day)	To accommodate temporary storage of materials	Performance
Pumping and Treatment Systems	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Overflows are alarmed	Staff will be automatically notified of overflows	Performance
	Backup capacity for all critical equipment (mechanical)	Can continue to operate if largest piece of equipment fails	Performance

Waste			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Pumping and Treatment Systems	Standby Power meets MECP (Ministry of Environment, Conservation and Parks) guidelines	Standby power to operate if electricity is lost	Performance
Gas Collection System	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Standby Power	Standby power to operate if electricity is lost	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
Gas Collection Automation Systems (SCADA)	Maintain Equipment at a Condition Rating = B (Good)	Replace assets when they are no longer in good condition	SoGR
	Provision of redundant network components (WAN)	Backup Network Components to prevent loss of connection	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
	Provide redundancy on Network Components	Backup SCADA servers in case of server failure	Performance
	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power (UPS)	Enough Standby Power to operate for 36 hours without electricity	Performance
	Provide redundant power supply	Two power feeds to the SCADA network components	Performance
	Physical security on SCADA assets (Lock-ins & Block-outs)	Network is physically secured to prevent unauthorized access	Performance
	Server and switch configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance

Waste			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Waste Management Administrative Offices	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
Waste Management Process Support Structures	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance

Waste			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Waste Management Commercial Light Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Waste Management Retail Spaces	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Waste			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Waste Management Labour Intense Heavy Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Waste Management Medium Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance

Waste		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Waste Management HI Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR
Waste Management CRC Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Roads and Transportation		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Roads	Minimum pavement condition index = 72	Regional Roads to be kept in good condition	SoGR
	Incorporate all feasible and practical aspects of Peel's Road Characterization Policy	Road rehabilitations will retrofit aspects of the road characterization in accordance with the Policy where feasible and practical	Performance
Stormwater Pumping Stations	Minimum condition rating = C (Fair)	Replace equipment when it reaches its estimated service life	SoGR
	Back up capacity for all critical equipment (mechanical)	Can continue to operate if largest piece of equipment fails	Performance
	Ensure standby power or sufficient wetwell storage to meet Ministry of the Environment regulations	Enough Standby Power to operate without electricity or enough storage to prevent overflows	Performance
	Secondary forcemain or storage capacity	Twinned or enough capacity to prevent overflows	Performance
Bridges and Grade Separations	Minimum bridge condition index = 91	Maintain Structures in Good Condition	SoGR
Major Culvert	Minimum condition index = 91	Maintain Structures in Good Condition	SoGR
Regional Noise Walls	Minimum overall rating = C (Fair)	Service Improvement; Maintenance of walls in fair condition per Council Resolution 2015-663	SoGR
	Replace and relocate private noise walls to Regional Property when minimum overall rating <= C (Fair)	Service Improvement; Maintenance of walls in fair condition per Council Resolution 2015-663	Performance
Regional Retaining Walls	Minimum overall rating =C (Fair)	Maintain walls in fair condition	SoGR

Roads and Transportation — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Transportation Medium Industrial	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = C (Fair)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = C (Fair)	Building and site meet service accessibility needs	Performance
Transportation Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

TransHelp		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
TransHelp Fleet	Condition Rating = B (Good)	Replace fleet when it reaches its estimated service life	SoGR

Paramedic Services — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Paramedics Reporting Stations	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
Paramedics Satellite Stations	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Paramedic Services			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Paramedics Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR
Medical Equipment	Condition Rating= B (Good)	Replace fleet and equipment when it reaches its estimated service life	SoGR
Emergency Response Vehicles	Condition Rating= B (Good)	Replace fleet and equipment when it reaches its estimated service life	SoGR
Light and Medium Duty Vehicles	Condition Rating= B (Good)	Replace fleet and equipment when it reaches its estimated service life	SoGR

Long Term Care			Asset Levels of Service
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Long Term Care Centres	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
Long Term Care Centres Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Housing Support   Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Peel Region High Density Affordable Housing	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
Peel Region Medium Density Affordable Housing	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Peel Housing Corporation — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Peel Region High Density Affordable Housing	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance
Peel Region Medium Density Affordable Housing	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Peel Housing Corporation   Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Peel Region Low Density Affordable Housing	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Homelessness Support		Asset Levels of Service	
Asset	**Level of Service**	**What Does It Mean?**	**Type**
Shelter Facilities	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Good)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Good)	Building and site meet service accessibility needs	Performance

Children's Services   Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Peel Region Child Care Centre Facilities	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
Peel Region Child Care Centre Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Regional Office Portfolio — Asset Levels of Service

Asset	Level of Service	What Does It Mean?	Type
Headquarters Facilities	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
	Facility Quality and Relationship to Current Standards = C (Fair)	Building and site meet current standards	Performance
	Facility Finishes and Fixtures = B (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
	Capacity and Change Adaptability for Program Requirements = B (Fair)	Building and site have space and room to grow as needed	Performance
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
	Facility Amenities for Service Delivery = B (Good)	Building and site has appropriate amenities for staff and the public, and can be accessed easily	Performance
	Accessibility Features = B (Fair)	Building and site meet service accessibility needs	Performance
Headquarters Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR