

2019 Enterprise Asset Management Plan

Investments in Peel's Infrastructure





Executive Summary

Maintaining the 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 the service levels the public expects, achieve the 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 **\$27.4 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 2019 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 it's 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 \$2,280.8 Million are included in the 10-year Capital Plan. \$1,873.9 Million of this will be required to be funded through Utility Rates and \$406.9 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.

2019

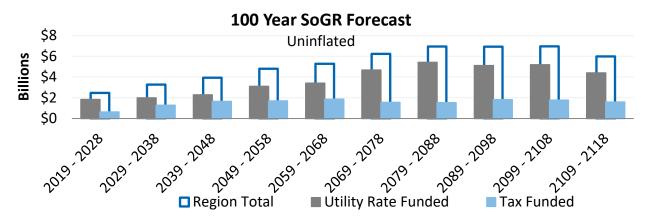


This rating currently excludes Peel Regional Police and Peel Housing Corporation infrastructure.

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

Descriptions of the Infrastructure Risk Management Scores are included in Appendix II Reading Guide

Long Term Forecast

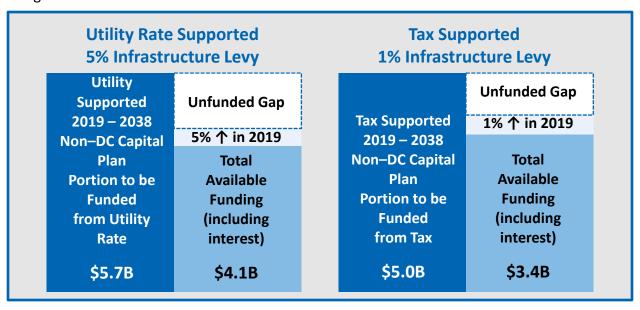


Infrastructure reinvestment needs at the Region of Peel are expected to increase steadily over the next 70 years. While the requirements for Tax funded infrastructure are expected to stabilize in 30 years, requirements for the Utility Rate funded infrastructure are expected to continue to grow beyond that as the bulk of the water and wastewater systems are relatively new and account for over 85% 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 2019 Budget.



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

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 creates infrastructure risks for which the organization must be prepared.

To improve information on the state of the Region's infrastructure, a number of studies, condition appraisals and risk assessments are underway on a broad portfolio of assets that will reveal substantial new information on the risks ahead and the required actions to manage the risks. As the new information is accounted for, the high rating of the Region's infrastructure and the infrastructure outlook may be adjusted, and further capital works and financing identified.

Peel's Enterprise Asset Management Roadmap

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

- Update of the Region's Asset Management Policy to meet the new Ontario Regulation 588/17. (Completed)
- 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 the Affordable Housing service provided by Peel Living will be added to the Enterprise Asset Management reporting.
- The assets supporting Peel Regional Police will be added to the Enterprise Asset Management reporting.



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Introduction

Building new infrastructure and maintaining the 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 Levels 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 they receive. 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 Scores.³

The Region's long-term goal is to maintain Peel's infrastructure portfolios at a minimum overall score of 'Good'. A score 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 assets.

Customer Levels of Service



Asset Levels 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 Levels of Service** are included as **Appendix IV**

Descriptions of the Infrastructure Risk Management Scores 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 Strategic Plan

Vision: Community for Life

Mission: Working with you to create a healthy, safe and connected community

Living

People's lives are improved in their time of need

Thriving

Communities are integrated, safe and complete

Leading

Government is futureoriented

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 in *Area of Focus dashboards* ³ on the Region of Peel website.

http://peelregion.ca/strategicplan/

² http://peelregion.ca/strategicplan/media/2018-Community-for-Life-Annual-Report.pdf

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,** and **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 Dashboards on the Region of Peel website under Strategic Plan. ²



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

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

http://peelregion.ca/strategicplan/dashboard/

Descriptions of the Infrastructure Risk Management Scores 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

Respect the tax payer.

Maintain assets.

Ensure Capital is sustainable.

Deliver value for money.

Financial Vulnerability

Users pay where appropriate.

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

Prudently Invest.

Financial Flexibility

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. 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.

¹ http://peelregion.ca/finance/media/2019-Financial-Planning-Strategy.pdf

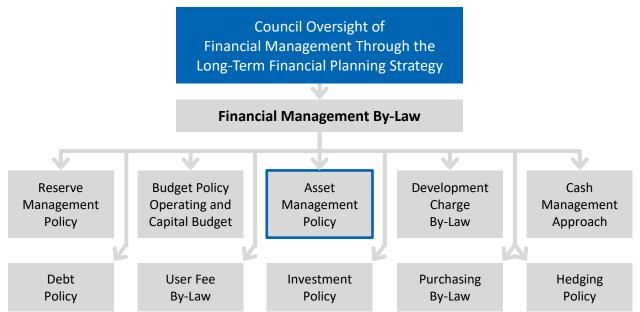
The **2019 Financial Scorecard** provides indicators of the strength of the three financial pillars.¹

Financial Pillar Indicator Asset Health Score Financial Target: Good Sustainability

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 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.



- http://peelregion.ca/finance/ media/2019-Financial-Scorecard.pdf
- ² Descriptions of the Infrastructure **Risk Management Scores** which are used as the metric towards tracking the service outcome of Asset Management are included in **Appendix II**

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:

- 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;
- Risk Management Measures risks to assets and by extension to the services the assets provide is a core fundamental of 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.

Asset Management Reinvestment Plan The Region of Peel

Peel's Infrastructure

What Infrastructure Does the Region Own?

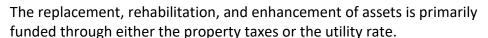
The Region of Peel is the second largest municipality in the Province of Ontario.

The Region owns and operates infrastructure assets including:

- Roads
- Bridges
- Storm water systems
- 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 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

TransHelp Paramedics

Long Term Care Housing Support

Homelessness Support Child Care

Heritage, Arts and Culture

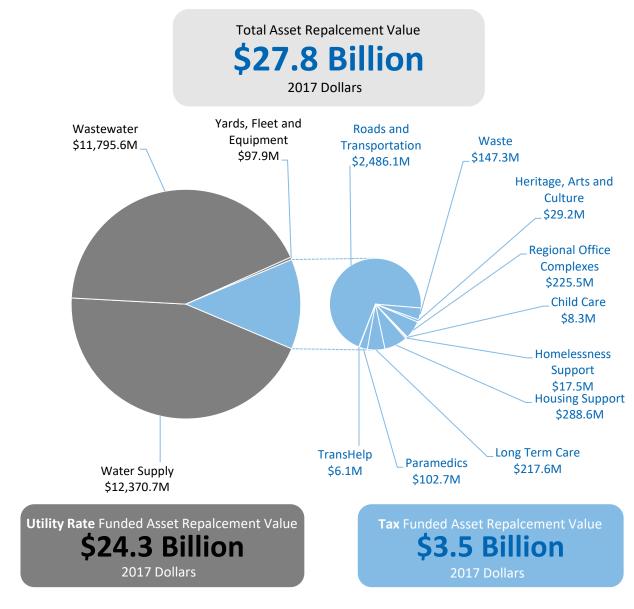
In addition to these services, this plan also includes two internal service providers which manage assets on behalf of many other services. They are:



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 \$27.8 Billion (2017 values excluding land).



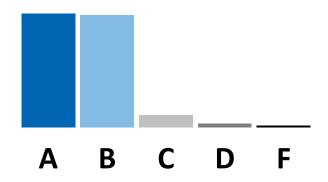
The Region owned assets **covered under the Enterprise Asset Management Strategy** have an estimated replacement value of **\$27.4 Billion** (2017 values excluding land).

Currently, the Enterprise Asset Management Strategy does not cover all assets under these Services. It also currently excludes Peel Regional Police and Peel Housing Corporation infrastructure. As part of the ongoing improvement of asset management and as more asset information becomes available the Strategy will cover more infrastructure.

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 tax payer.



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:

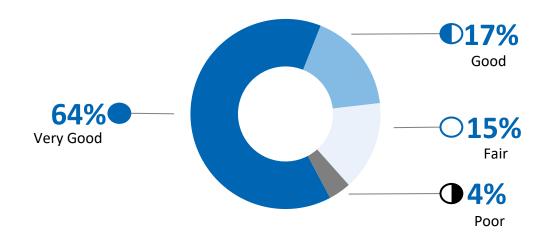




Target: OGood

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 Strategy and as the primary measure in the **Infrastructure Status and Outlook Report.**⁴

What is the Breakdown of Ratings?



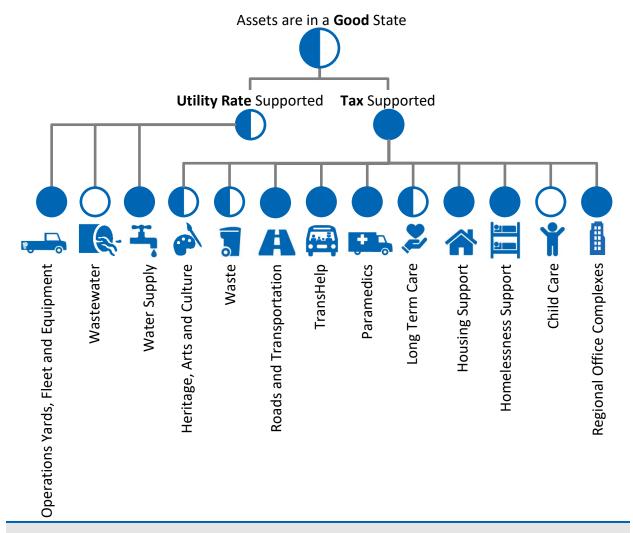
http://peelregion.ca/strategicplan/dashboard/

² http://peelregion.ca/strategicplan/media/2018-Community-for-Life-Annual-Report.pdf

³ http://peelregion.ca/finance/ media/2019-Financial-Scorecard.pdf

⁴ http://peelregion.ca/finance/ media/2018-infrastructure-status-outlook-report.pdf

How Do the Services Contribute to the Overall Rating?



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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets

10-Year Infrastructure Reinvestment Plan

What is the Plan?

	Condition (SoGR)	Performance Enhancements*	Total
Forecasted 10-Year Reinvestment Needs	\$2,291.0	\$20.6	\$2,311.6
Reinvestments in the 10-Year Capital Plan	\$2,188.2	\$92.7	\$2,280.8

Reinvestment requirements of \$2,280.8 Million are forecasted for the next 10 years to maintain the infrastructure in a state of good repair. \$1,873.9 Million of this will be required to be funded through Utility Rates and \$406.9 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 **\$20.6 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 **\$2,280.8 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 2 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.

^{*}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	\$1,865.3	\$20.6	1,886.0
Reinvestments in the 10-Year Capital Plan	\$1,781.3	\$92.7	1,873.9

What is the Plan for Tax Supported Infrastructure?

	Condition (SoGR)	Performance Enhancements*	Total
Forecasted 10-Year Reinvestment Needs	\$425.7	-	\$425.7
Reinvestments in the 10-Year Capital Plan	\$406.9	-	\$406.9

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.

^{*}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.

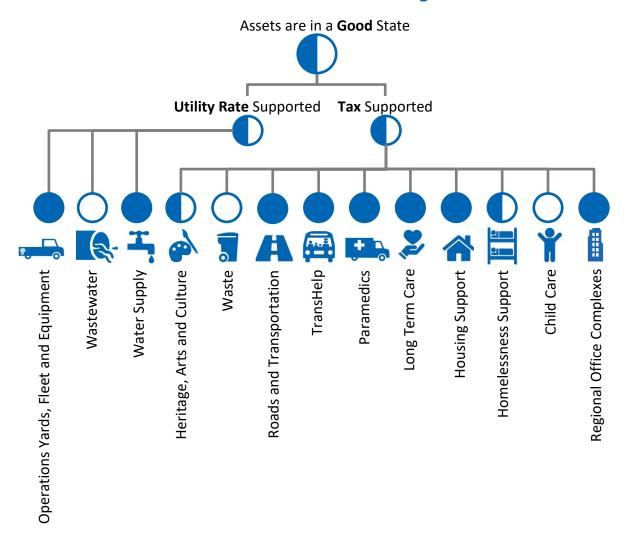
Forecasted State of the Infrastructure in 2028

With the Reinvestments in the 10-year Capital Plan...

The Region of Peel will achieve an overall rating of:



How will the Services Contribute to the Overall Rating?



		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
0	Fair	Many assets in the portfolio are not achieving the desired targets
•	Poor	Most assets in the portfolio are not achieving the desired targets
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Summary of the 10-Year Plan

	Current State		10 Year Reinvestment Plan		Plan
Service	Current Rating (2018)	Replacement Value (2017 \$ Millions)	Forecasted Reinvestment Needs (2019 \$ Millions)	Reinvestments in the 10-Year Capital Plan (2019 \$ Millions)	Forecasted Rating (2028)
Ops. Yards, Fleet & Equipment		97.7	56.5	56.9	
Wastewater	0	11,618.5	732.9	\$727.8	0
Water Supply		12,353.1	1,096.5	\$1,089.2	
Utility Rate Supported Services - Total	•	\$24,223.8	1,886.0	1,873.9	•
Heritage, Arts and Culture	•	\$29.2	\$5.9	\$6.2	•
Waste	•	\$147.3	\$34.9	\$19.3	0
Roads and Transportation		\$2,145.1	\$258.6	\$247.0	
TransHelp		\$6.1	\$8.4	\$8.6	
Paramedics		\$102.7	\$52.3	\$51.8	
Long Term Care	•	\$217.6	\$34.9	\$35.2	
Housing Support		\$288.6	\$0.0	\$5.2	
Homelessness Support		\$17.5	\$4.0	\$3.6	•
Child Care	0	\$8.3	\$3.5	\$3.6	0
Regional Office Complexes		\$225.5	\$23.1	\$26.5	
Tax Supported Services - Total		\$3,187.9	\$425.7	\$406.9	0
Region of Peel - Total		27,411.7	\$2,311.6	\$2,280.8	D

		What do the Risk Management Ratings mean?
	Very Good	Almost all assets in the portfolio are achieving the desired targets
lacksquare	Good	Most assets in the portfolio are achieving the desired targets
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\otimes	Verv Poor	Almost all assets in the portfolio are not achieving the desired targets

20-Year State of Good Repair (SoGR) Forecast

The 20-year State of Good Repair forecasts allow 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



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



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

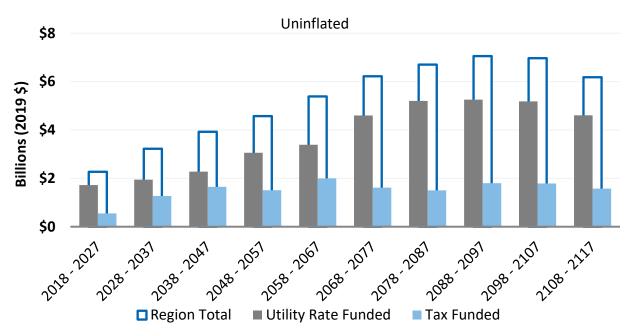
The 10-year Capital Plan is in line with the forecasted 10-year SoGR reinvestment needs. Since the SoGR needs are forcasted to increase significantly over the next 20 years, future Capital Plans will need to increase significantly beyond the rate of inflation in order to ensure that the infrastructure 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



The Region of Peel's Capital SoGR needs are expected to increase steadily over the next 80-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 30 years primarily see increased needs in the tax funded portfolio with a moderate increase in the needs of the utility funded portfolio. After the first 30 years, the tax funded infrastructure needs are forecasted to level off while the utility rate funded infrastructure needs are expected to climb. The steady increase in needs is driven in large part by the water distribution network and the wastewater collection network which together comprise over 70% of the total replacement value of the Region's infrastructure. The pipes in both networks are, to a large extent, relatively new, but will require increased rehabilitation and replacement over time.

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 works.

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"

2019 Long Term FinancialPlanning 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:

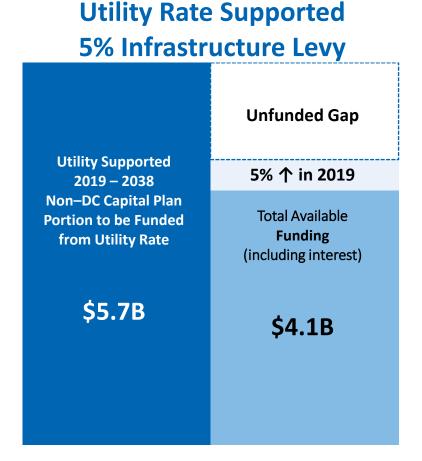
- Tax and Utility Rates
- Forecasted growth
- Employment and demographics
- Capital plans
- Operational plans and projections, and
- 20-year Enterprise Asset Management reinvestment forecasts

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 **\$1.6 billion gap** by the end of 2038 at current reserve funding rates.

A 5% increase in utility 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.

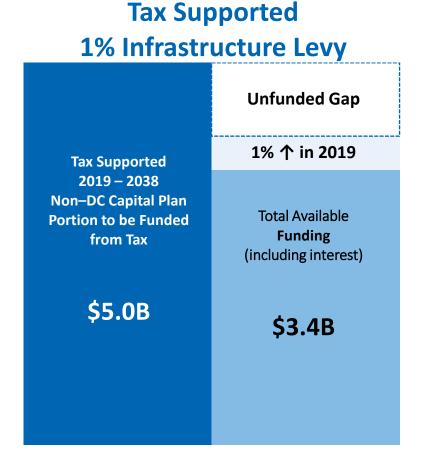


The Utility Rate Capital Reserve gap and the impact of the 2019 dedicated 5% increase.

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 **\$1.6 billion gap** by the end of 2038 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.



The Tax Rate Capital Reserve gap and the impact of the 2019 dedicated 1% increase.

Risks to Financing Plan

Weather and Climate Change Impacts

Weather primarily impacts water consumption during the summer and winter road maintenance programs. 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.

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.

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.

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



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.

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.

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 colocated 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 longterm 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.

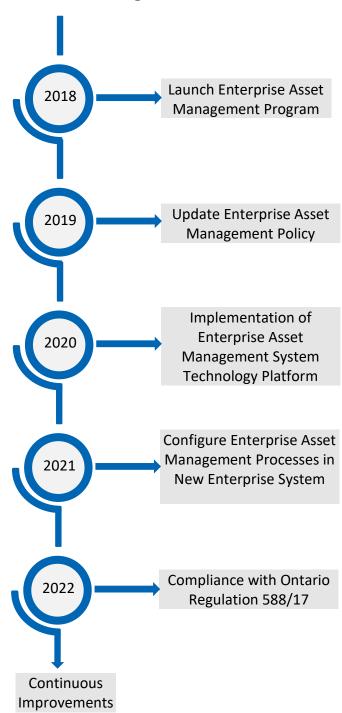


Changes since the 2018 Enterprise Asset Management Plan

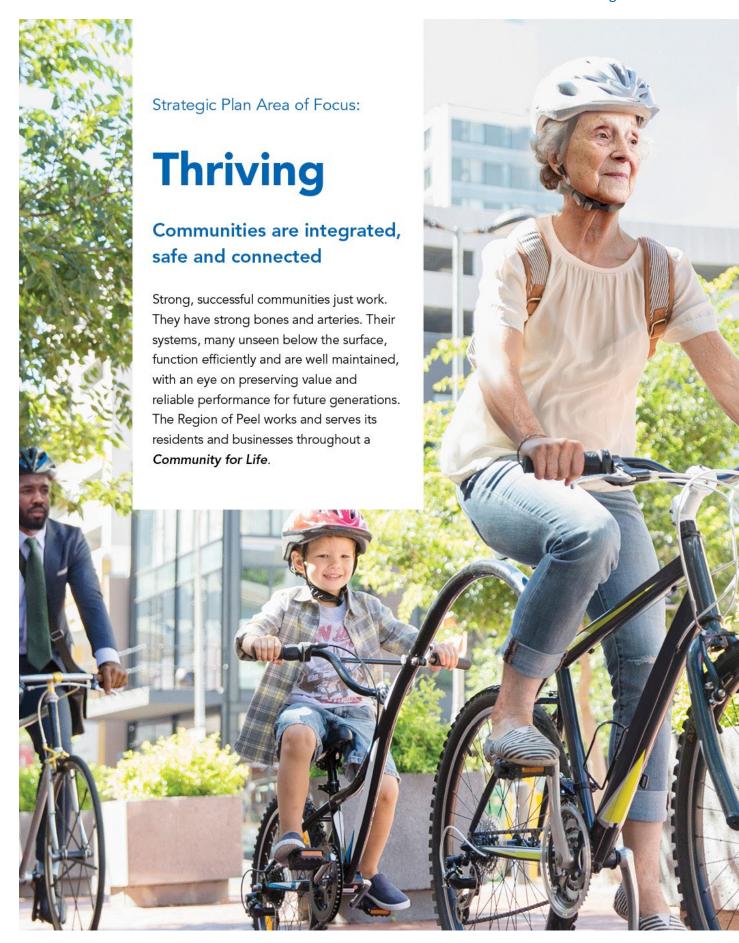
- Enterprise Asset Management (EAM) division established within the Finance department.
- The infrastructure supporting the Heritage, Arts & Culture service is incorporated into the Asset Management Planning.

Improvements for the Future

- The Region's Asset Management Policy has been updated to meet the new Ontario Regulation 588/17.
- 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 the Affordable Housing service provided by Peel Living will be added to the Enterprise Asset Management reporting.
- The assets supporting Peel Regional Police will be added to the Enterprise Asset Management reporting.







Asset Management Reinvestment Plan Operations Yards, Fleet and Equipment

State of the Infrastructure Ops. Yards, Fleet and Equipment

Five works yards454 vehicles217 vehicle equipment assets

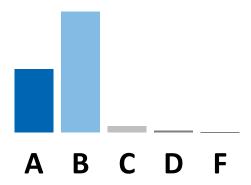
\$91.2 Million
2017 Dollars

Operations, Yards and Equipment assets are generally in 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.

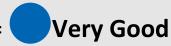
Condition of the Infrastructure

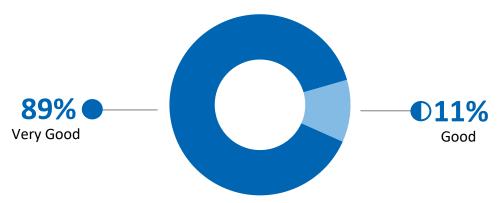
28



	How is the Condition Graded?
Α	New or like new condition
В	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:





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.

Quick response time on fleet procurement requests.



	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					
0	Fair	Many assets in the portfolio are not achieving the desired targets					
	Poor	Most assets in the portfolio are not achieving the desired targets					
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets					

Infrastructure Reinvestment Plan Ops. Yards, Fleet and Equipment

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	\$56.5M	\$56.9M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$56.5M	\$56.9M

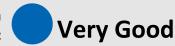
2019 dollars

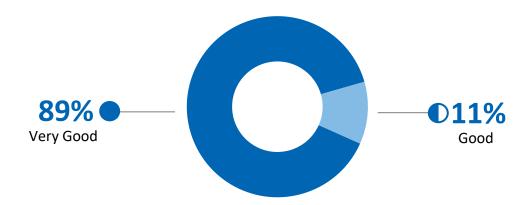
Reinvestments of **\$56.9 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

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 2028...

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





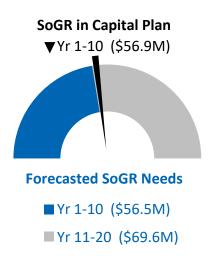
^{*}Reinvestments in Performance Enhancements are only included where a direct link has been established between the capital reinvestment and a defined improvement in a Performance Asset Level of Service (ALOS), and where Performance Enhancement is the primary goal of the initiative. Projects where the 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

	Current State		10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions)		2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)
		ă O	SoGR	Perf.*	SoGR	Perf.*	
Operations Yards, Fleet and Equipment		91.2	56.5	-	56.9	-	

^{*}Performance Enhancements

20 Year SoGR Outlook Operations Yards, Fleet and Equipment



State of Good Repair reinvestment needs are forecasted to increase slightly 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			
0	Fair	Many assets in the portfolio are not achieving the desired targets			
	Poor	Most assets in the portfolio are not achieving the desired targets			
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets			



State of the Infrastructure Wastewater

Two treatment plants,32 sewage pumping stations3,630 km of sanitary sewer pipes

Total Asset Replacement Value

\$11.8 Billion

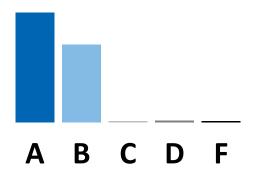
2017 Dollars

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

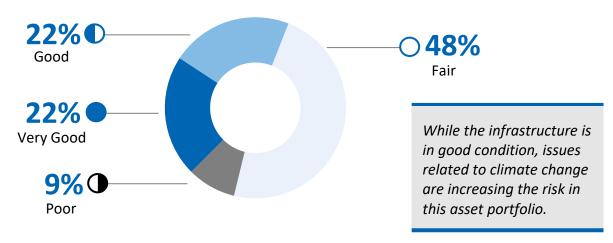
32



How is the Condition Graded?					
Α	New or like new condition				
В	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:





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					
0	Fair	Many assets in the portfolio are not achieving the desired targets					
	Poor	Most assets in the portfolio are not achieving the desired targets					
\otimes	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)	\$732.9M	\$727.8M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$732.9M	\$727.8M

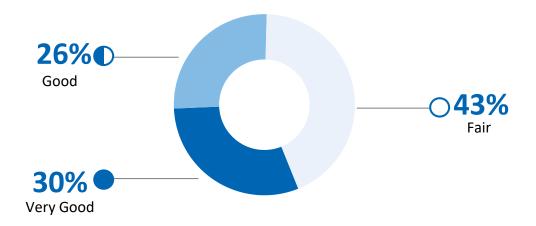
2019 dollars

Reinvestments of **\$727.8 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 2028...





^{*}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.

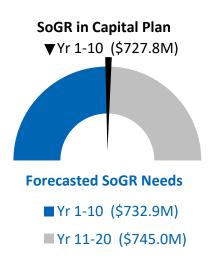
10 Year Summary Wastewater



	Current State		10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions)		2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)
		ă O	SoGR	Perf.*	SoGR	Perf.*	
Wastewater	0	11,779.5	732.9	-	727.8	-	0

^{*}Performance Enhancements

20 Year SoGR Outlook Wastewater



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			
0	Fair	Many assets in the portfolio are not achieving the desired targets			
	Poor	Most assets in the portfolio are not achieving the desired targets			
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets			



Asset Management Reinvestment Plan Water Supply

State of the Infrastructure Water Supply

Two treatment plants

14 wells

36

19 pumping stations

24 water storage facilites

4,565 km of water pipes

Total Asset Replacement Value

\$12.4 Billion

2017 Dollars

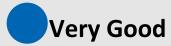
The water infrastructure is in a very good state for delivering safe reliable drinking water.

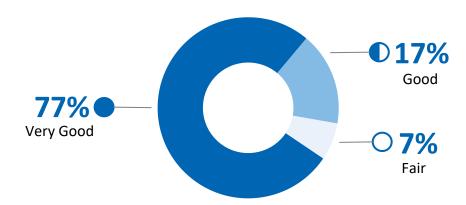
Proactive pipe replacement programs are in place to keep the water system safe and reliable for homes and industries.



How is the Condition Graded?					
Α	New or like new condition				
В	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:





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					
0	Fair	Many assets in the portfolio are not achieving the desired targets					
	Poor	Most assets in the portfolio are not achieving the desired targets					
\otimes	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)	\$1,075.9M	\$996.6M
Performance Enhancements*	\$20.6M	\$92.7M
Total Reinvestment	\$1,096.5M	\$1,089.2M

2019 dollars

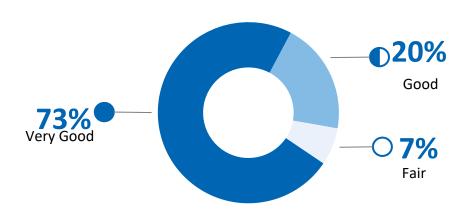
Reinvestments of **\$996.6 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair.

Infrastructure Enhancement opportunities valued at **\$92.7 Million** are planned to improve water pressure and redundancy in the distribution system.

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

If the Reinvestments in the Capital Plan are made over 10 years, in 2028...





^{*}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.

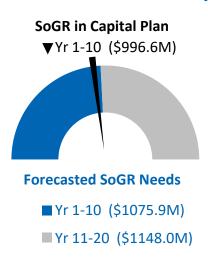
10 Year Summary Water Supply



	Curre	ent State		10	Year Plan			
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions) 2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)			
		ž –	SoGR	Perf.*	SoGR	Perf.*		
Water Supply		12,353.1	1,075.9	20.6	996.6	92.7		

^{*}Performance Enhancements

20 Year SoGR Outlook Water Supply



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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets



Asset Management Reinvestment Plan Heritage, Arts and Culture

State of the Infrastructure Heritage, Arts and Culture

Four heritage facilities

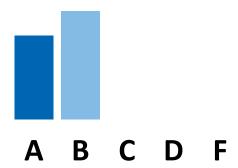
Total Asset Replacement Value

\$29.2 Million

2017 Dollars

The Heritage, Arts and Culture infrastructure is in good condition, supporting and sustaining the historical and cultural fabric of Peel.

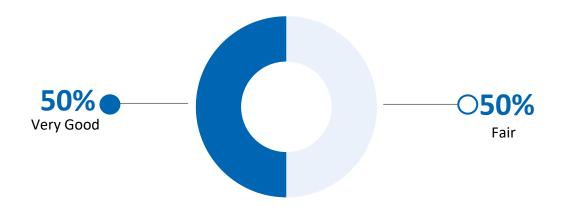
Being a Heritage Complex, all the buildings are designed to older building standards impeding their ability to meet some current program requirements.



	How is the Condition Graded?						
Α	New or like new condition						
В	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:





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					
0	Fair	Many assets in the portfolio are not achieving the desired targets					
	Poor	Most assets in the portfolio are not achieving the desired targets					
\otimes	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)	\$5.9M	\$6.2M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$5.9M	\$6.2M

2019 dollars

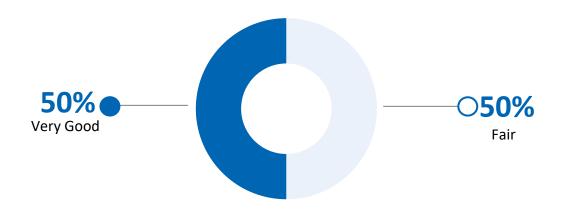
Reinvestments of **\$6.2 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are is slightly higher than the forecasted reinvestment needs.

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 2028...

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





^{*}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.

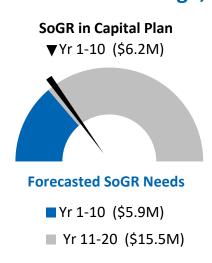
10 Year Summary Heritage, Arts and Culture



	Curre	nt State		10	Year Plan			
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset	Reinvestment Needs (2019 \$ Millions)	2019-2028 Capital Plan	Reinvestments (2019 \$ Millions)	Forecasted Rating (2028)	
		Ä)	SoGR	Perf.*	SoGR	Perf.*		
Heritage, Arts and Culture	•	29.2	5.9	-	6.2	-	•	

^{*}Performance Enhancements

20 Year SoGR Outlook Heritage, Arts and Culture



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
0	Fair	Many assets in the portfolio are not achieving the desired targets
•	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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

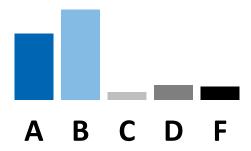
Total Asset Replacement Value

\$147.3 Million

2017 Dollars

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

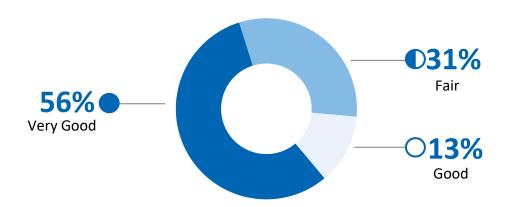
Waste Management staff is working on an Infrastructure Development Plan to support diversion targets outlined by the Region's Waste Reduction and Resource Recovery Strategy to adapt to Council's long-term direction.



	How is the Condition Graded?						
Α	New or like new condition						
В	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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)	\$34.9M	\$19.3M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$34.9M	\$19.3M

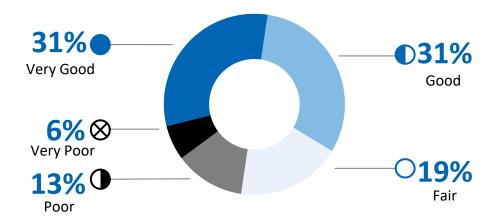
2019 dollars

Reinvestments of \$19.3 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 significantly less than the forecasted reinvestment needs. Direction from Council to explore the options and changing provincial regulations have introduced uncertainty in the service. Planned reinvestments in the Capital Plan are reduced until a long term directon for the service is formalized. Staff are monitoring the infrastructure 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 2028...





^{*}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.

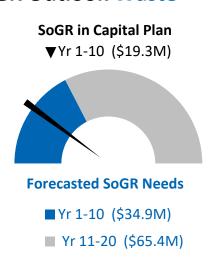
10 Year Summary Waste



	Curre	nt State		10	Year Plan			
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset	Reinvestment Needs (2019 \$ Millions)	2019-2028 Capital Plan	Reinvestments (2019 \$ Millions)	Forecasted Rating (2028)	
		R.	SoGR	Perf.*	SoGR	Perf.*		
Waste	•	147.3	34.9	-	19.3	-	0	

^{*}Performance Enhancements

20 Year SoGR Outlook Waste



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

The SoGR reinvestments in the Capital Plan are significantly less than forecasted reinvestment needs and will remain that way until a long-term direction is formalized for the service

		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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets



Asset Management Reinvestment Plan Roads and Transportation

State of the Infrastructure Roads and Transportation

1,627 km of Regional roads

176 bridges and large culverts

182 meters of noise walls

130 retaining walls

Three stormwater pumping stations

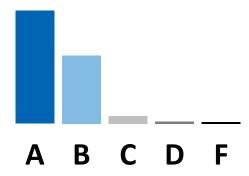
Total Asset Replacement Value

\$2.1 Billion

2017 Dollars

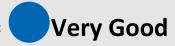
The Transportation infrastructure remains in very good condition to provide reliable transportation services. The Region continues to proactively assess the condition of roads infrastructure to support safe and efficient transportation services.

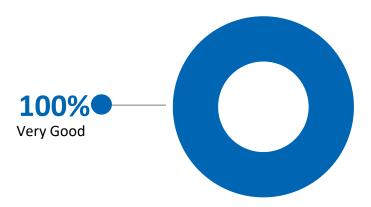
Condition assessments of Peel's storm sewers and roadside retaining walls are underway. The improvements recommended by these studies will be included in future Capital Plans.



How is the Condition Graded?				
Α	New or like new condition			
В	In a good state of repair			
С	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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)	\$258.6M	\$247.0M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$258.6M	\$247.0M

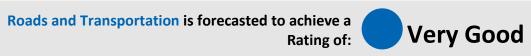
2019 dollars

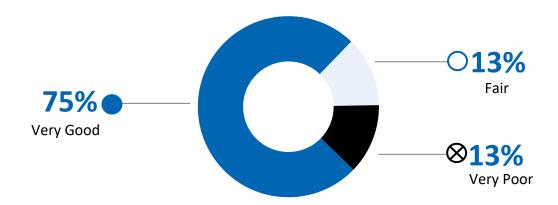
Reinvestments of **\$247.0 Million** are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are in line with forecasted reinvestment needs.

Reinvestments in the property around some stormwater pumping stations are currently on hold while the Region redevelops these facilities, allowing these assets to degrade while monitoring them 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 2028...





^{*}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.

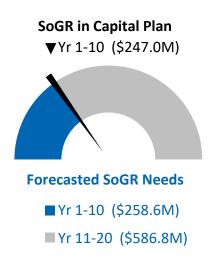
10 Year Summary Roads and Transportation



	Current State		10 Year Plan				
Service	Current Rating (2019)	Rating (2019) Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions)		2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)
			SoGR	Perf.*	SoGR	Perf.*	
Roads and Transportation		2.1B	258.6	-	247.0	-	

^{*}Performance Enhancements

20 Year SoGR Outlook Roads and Transportation



State of Good Repair reinvestment needs are forecasted to increase slightly 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					
0	Fair	Many assets in the portfolio are not achieving the desired targets					
	Poor	Most assets in the portfolio are not achieving the desired targets					
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets					







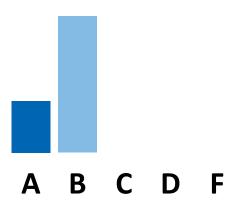
Asset Management Reinvestment Plan TransHelp

State of the Infrastructure TransHelp

62 TransHelp vehicles

\$6.1 Million
2017 Dollars

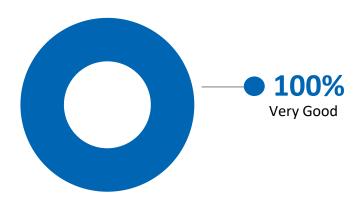
The TransHelp assets are in very good condition to support travel within the community for Peel's residents in need.



How is the Condition Graded?			
Α	New or like new condition		
В	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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)	\$8.4M	\$8.6M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$8.4M	\$8.6M

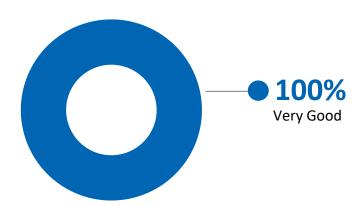
2019 dollars

Reinvestments of **\$8.6 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.

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 2028...





^{*}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.

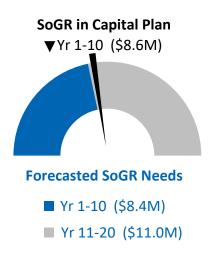
10 Year Summary TransHelp



	Current State		10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions)		2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)
		ă O	SoGR	Perf.*	SoGR	Perf.*	
TransHelp		6.1	8.4	-	8.6	-	

^{*}Performance Enhancements

20 Year SoGR Outlook TransHelp



State of Good Repair reinvestment needs are forecasted to increase slightly 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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets



State of the Infrastructure Paramedics

14 regional paramedic stations151 paramedic vehicles646 paramedic equipment assets

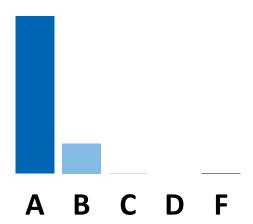
Total Asset Replacement Value

\$102.7 Million

2017 Dollars

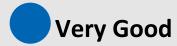
The Region's paramedic services consist of new state-of-the-art-facilities, medical equipment and emergency response vehicles, which are in good condition to support the emergency medical services.

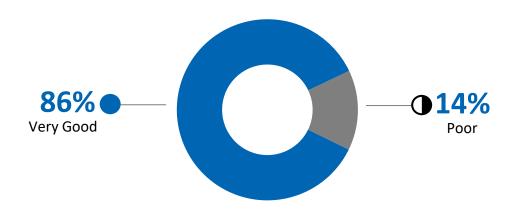
As the assets are relatively new, replacement cycles for the equipment and fleet are being monitored to ensure service needs are met.



	How is the Condition Graded?				
Α	New or like new condition				
В	In a good state of repair				
С	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Paramedics

10 Year Reinvestment	Forecasted Needs	Capital Plan	
Condition (SoGR)	\$52.3M	\$51.8M	
Performance Enhancements*	\$0.0M	\$0.0M	
Total Reinvestment	\$52.3M	\$51.8M	

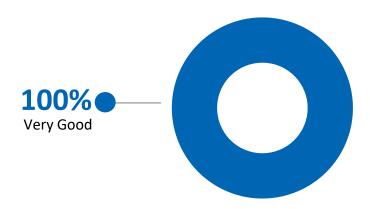
2019 dollars

Reinvestments of **\$51.8 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 2028...

Paramedics is forecasted to achieve a Rating of: 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.

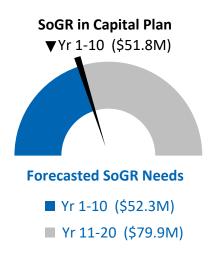
10 Year Summary Paramedics



	Current State		10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions)		2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)
		Ä.	SoGR	Perf.*	SoGR	Perf.*	
Paramedics		102.7	52.3	-	51.8	-	

^{*}Performance Enhancements

20 Year SoGR Outlook Paramedics



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		
0	Fair	Many assets in the portfolio are not achieving the desired targets		
•	Poor	Most assets in the portfolio are not achieving the desired targets		
\otimes	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

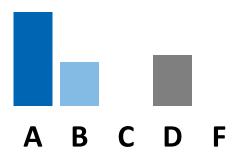
Five Long Term Care Centres

Total Asset Replacement Value

\$217.6 Million

2017 Dollars

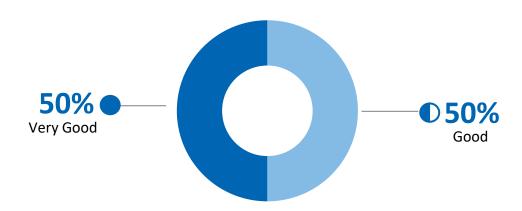
The Region continually monitors the ability of the Long Term Care Centres to meet the ever-changing requirements of senior care and support. Peel Manor no longer meets the service needs and will be replaced with a new facility. Otherwise, the Long Term Care Centres are in good condition to support the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



How is the Condition Graded?		
Α	New or like new condition	
В	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:





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		
0	Fair	Many assets in the portfolio are not achieving the desired targets		
	Poor	Most assets in the portfolio are not achieving the desired targets		
\otimes	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)	\$34.9M	\$35.2M	
Performance Enhancements*	\$0.0M	\$0.0M	
Total Reinvestment	\$34.9M	\$35.2M	

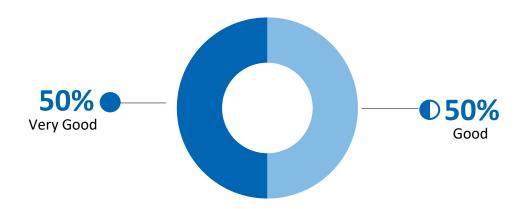
2019 dollars

Reinvestments of **\$35.2 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 2028...





^{*}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.

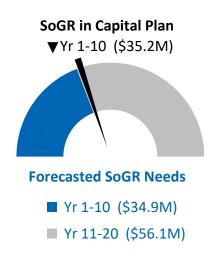
10 Year Summary Long Term Care



	Curre	ent State	10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset Reinvestment Needs (2019 \$ Millions)		2019-2028 Capital Plan Reinvestments (2019 \$ Millions)		Forecasted Rating (2028)
		Ä.	SoGR	Perf.*	SoGR	Perf.*	
Long Term Care		217.6	34.9	-	35.2	-	

^{*}Performance Enhancements

20 Year SoGR Outlook Long Term Care



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					
0	Fair	Many assets in the portfolio are not achieving the desired targets					
	Poor	Most assets in the portfolio are not achieving the desired targets					
\otimes	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

\$288.6 Million

2017 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.

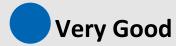
Condition of the Infrastructure

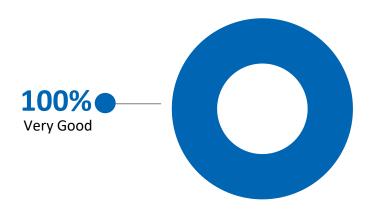


A B C D F

How is the Condition Graded?					
Α	New or like new condition				
В	In a good state of repair				
С	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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)	\$0.0M	\$5.2M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$0.0M	\$5.2M

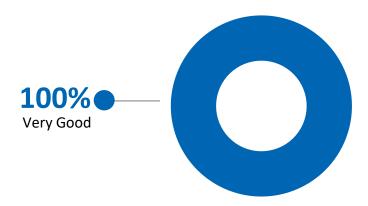
2019 dollars

Reinvestments of **\$5.2 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 significantly more than forecasted reinvestment needs. Reinvestments that are forecasted after 10 years have been brought forward in the Capital Plan to bundle work and find cost efficiencies.

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 2028...

Housing Support is forecasted to achieve a Rating of: 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



	Curre	nt State	10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset	Reinvestment Needs (2019 \$ Millions)	2019-2028 Capital Plan	Reinvestments (2019 \$ Millions)	Forecasted Rating (2028)
		Ř O	SoGR	Perf.*	SoGR	Perf.*	
Housing Support		288.6	0.0	-	5.2	-	

^{*}Performance Enhancements

20 Year SoGR Outlook Housing Support



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 in the Capital Plan to bundle work and find cost efficiencies.

to ballate work and this cost efficiencies.							
	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						
	Good Fair Poor						



Asset Management Reinvestment Plan Homelessness Support

State of the Infrastructure Homelessness Support

Three Homeless Shelters

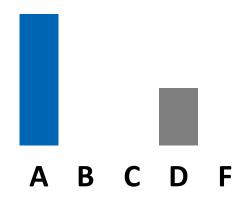
Total Asset Replacement Value

\$17.5 Million

2017 Dollars

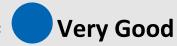
The Shelters and homelessness support facilities are achieving the desired outcome of supporting safe, secure, temporary living services. These facilities experience intensive use and high turnover of residents, and are constantly in need of significant repair and maintenance.

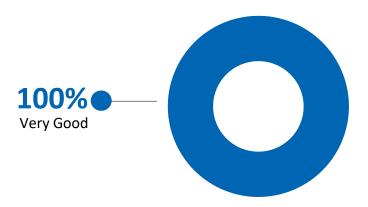
Condition of the Infrastructure



	How is the Condition Graded?					
Α	New or like new condition					
В	In a good state of repair					
С	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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)	\$4.0M	\$3.6M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$4.0M	\$3.6M

2019 dollars

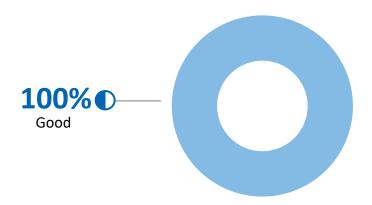
Reinvestments of \$3.6 Million are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are slightly less than the forecasted reinvestment needs. The difference is primarily due to updated information that will be 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 2028...

Homelessness Support is forecasted to achieve a Rating of:





^{*}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.

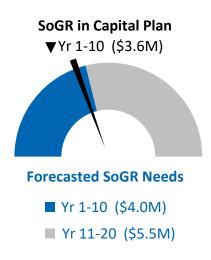
10 Year Summary Homelessness Support



	Curre	nt State	10 Year Plan				
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset	Reinvestment Needs (2019 \$ Millions)	2019-2028 Capital Plan	Reinvestments (2019 \$ Millions)	Forecasted Rating (2028)
		Ä.	SoGR	Perf.*	SoGR	Perf.*	
Homelessness Support		17.5	4.0	-	3.6	-	•

^{*}Performance Enhancements

20 Year SoGR Outlook Homelessness Support



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

The SoGR reinvestments in the Capital Plan are slightly less 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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	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

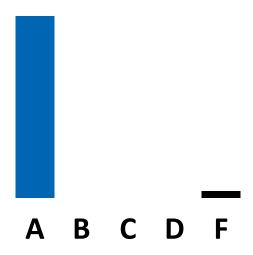
Three child care centres

Total Asset Replacement Value \$8.3 Million

2016 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.

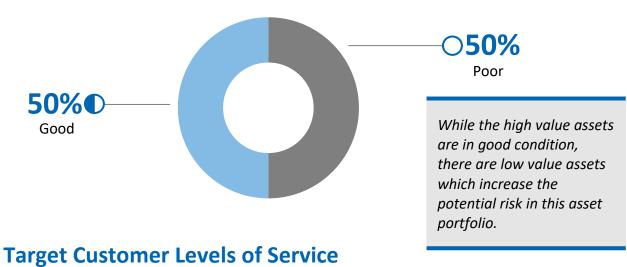
Condition of the Infrastructure



	How is the Condition Graded?				
Α	New or like new condition				
В	In a good state of repair				
С	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:





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
0	Fair	Many assets in the portfolio are not achieving the desired targets
•	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets

Infrastructure Reinvestment Plan Child Care

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	\$3.5M	\$3.6M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$3.5M	\$3.6M

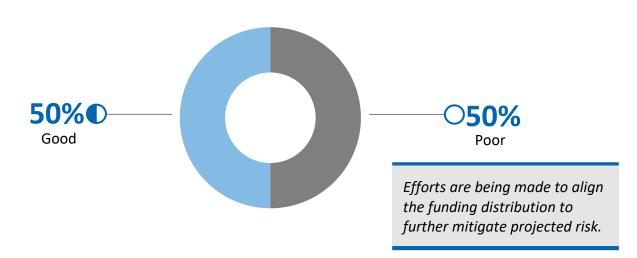
2019 dollars

Reinvestments of **\$3.6 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.

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 2028...





^{*}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.

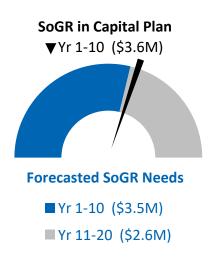
10 Year Summary Child Care



	Curre	ent State	nt State 10			Year Plan		
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset	Reinvestment Needs (2019 \$ Millions)	2019-2028 Capital Plan	Reinvestments (2019 \$ Millions)	Forecasted Rating (2028)	
		ž –	SoGR	Perf.*	SoGR	Perf.*		
Child Care	0	8.3	3.5	-	3.6	-	0	

^{*}Performance Enhancements

20 Year SoGR Outlook Child Care



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

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

	Wh	nat 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
0	Fair	Many assets in the portfolio are not achieving the desired targets
	Poor	Most assets in the portfolio are not achieving the desired targets
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets







Asset Management Reinvestment Plan Regional Office Complexes

State of the Infrastructure Regional Office Complexes

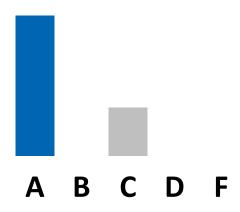
Two Regional office complexes

\$225.5 Million
2017 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 37 years old and requires higher levels of capital to maintain. Suite A remains viable to provide Regional services.

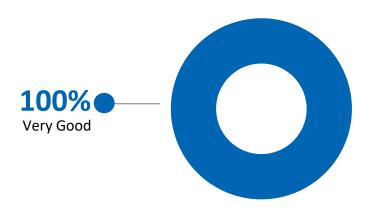
Condition of the Infrastructure



	How is the Condition Graded?				
Α	New or like new condition				
В	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				

EPS is currently achieving a rating of:





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				
0	Fair	Many assets in the portfolio are not achieving the desired targets				
•	Poor	Most assets in the portfolio are not achieving the desired targets				
\otimes	Very Poor	Almost all assets in the portfolio are not achieving the desired targets				

Infrastructure Reinvestment Plan Regional Office Complexes

10 Year Reinvestment	Forecasted Needs	Capital Plan
Condition (SoGR)	\$23.1M	\$26.5M
Performance Enhancements*	\$0.0M	\$0.0M
Total Reinvestment	\$23.1M	\$26.5M

2019 dollars

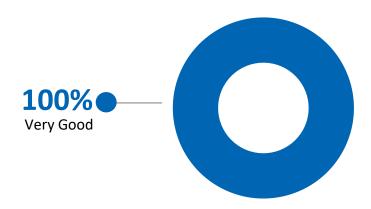
Reinvestments of \$26.5 Million are planned over the next 10 years to maintain the infrastructure in a State of Good Repair. The infrastructure reinvestments in the Capital Plan are more than forecasted reinvestment needs. Reinvestments that are forecasted after 10 years have been brought forward in the Capital Plan to bundle work and find cost efficiencies.

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 2028...

Regional Office Complexes is forecasted to achieve a Rating of:





^{*}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.

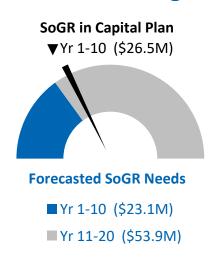
10 Year Summary Regional Office Complexes



	Curre	nt State		10	Year Plan		
Service	Current Rating (2019)	Replacement Value (2017 \$ Millions)	Forecasted Asset	Reinvestment Needs (2019 \$ Millions)	2019-2028 Capital Plan	Reinvestments (2019 \$ Millions)	Forecasted Rating (2028)
		Ä.	SoGR	Perf.*	SoGR	Perf.*	
Regional Office Complexes		225.5	23.1	-	26.5	-	

^{*}Performance Enhancements

20 Year SoGR Outlook Regional Office Complexes



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

The Capital Plan exceeds the currently forecasted requirements. Reinvestments that are forecasted after 10 years have been brought forward in the Capital Plan to bundle work and find cost efficiencies.

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 Most assets in the portfolio are not achieving the desired targets Almost all assets in the portfolio are not achieving the desired targets			What do the Risk Management Ratings mean?
Poor Many assets in the portfolio are not achieving the desired targets Most assets in the portfolio are not achieving the desired targets		Very Good	Almost all assets in the portfolio are achieving the desired targets
Poor Most assets in the portfolio are not achieving the desired targets		Good	Most assets in the portfolio are achieving the desired targets
	0	Fair	Many assets in the portfolio are not achieving the desired targets
Almost all assets in the portfolio, are not achieving the desired targets		Poor	Most assets in the portfolio are not achieving the desired targets
Very Poor Aimost all assets in the portiono are not achieving the desired targets	\otimes	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 Focus

Area of

Service Service Category

Asset Class



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.

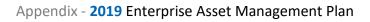
Asset Levels of Service

- 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.



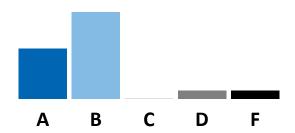
Very Poor State – Almost all assets are not achieving the desired targets.

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.

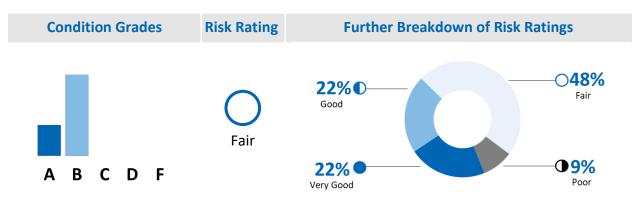
- ▲ New or like new condition
- **B** In a good state of repair
- **C** Some non-critical defects; some critical repairs in the near term
- **D** Some critical defects; many critical repairs in the near term
- Many critical defects; immediate repair or replacement

Comparing Risk Management Ratings and Condition Grades

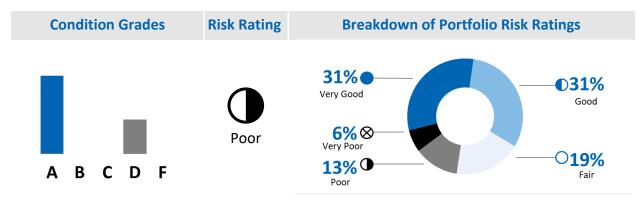
Condition Grades and **Risk Ratings** are especially powerful metrics when viewed together. One metric alone does not tell the whole story.



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.

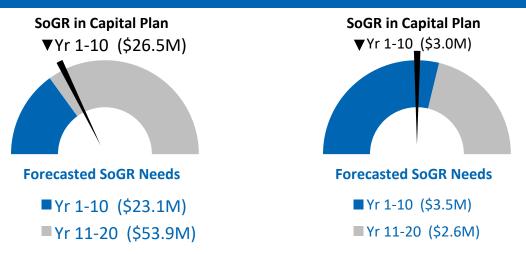


An asset portfolio with all assets in a **good state of repair** may be **Fair** in terms of risk if there are performance issues which council has not approved funding to address such as a lack of backups or failure to meet accessability requirements.



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



Increasing Forecasted Needs.

10-year Capital Plan is Above Forecasted Needs

Decreasing 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 Strategy

The Life Cycle 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.

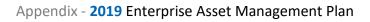
Corporate Reporting

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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Operations '	Yards, Fleet and Equi	pment Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
PW & Corporate Light & Medium Duty Vehicles	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
PW & Corporate Heavy-Duty Vehicles & Equipment	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
PW & Corporate Standard (or small) Equipment	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
PW & Corporate Trailers	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	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
Operations Support Administrative Offices	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

Asset	Level of Service	What Does It Mean?	Туре
	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
Operations Support General Storage	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
	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
Operations Support Light Industrial	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?	Туре	
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	

Water Sup	<u> </u>	Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
Intake	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	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 equipment when it reaches its estimated service life	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 equipment when it reaches its estimated service life	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?	Туре
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Provide capacity and technology to produce water of suitable quality	Provide sufficient system capacity to treat raw water to acceptable levels.	Performance
Filtration	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
	Reservoir Condition Score = B (2.5)	Maintain Plant Reservoir in Good Condition (as per Reservoir Score Matrix)	SoGR
Treated Water Storage	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
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
Chemical Systems	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
Uigh Lift	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
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

Water Sup	ply	Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
High Lift	Provide redundant power supply	Two power feed lines into the plant	Performance
Pumps	Provide adequate pressure during maximum day demands periods	Provide sufficient system capacity to maintain acceptable pressure within the water distribution system	Performance
Plant Wide	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Support Systems	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	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
Water Treatment	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
Automation Systems (SCADA)	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
	Physical security devices	Site Security against tampering	Performance
	Server configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance
Wells	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Must meet design capacity	Well can meet water treatment demand	Performance

Water Supply		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Must meet design capacity	Well can meet water treatment demand	Performance
Well Pumps	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
Wall	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Well Disinfection	Provide backup capacity for all critical process components	Can meet operations demand if largest piece of equipment fails	Performance
Wells Power	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Supply	Provide Standby Power	Enough Standby Power to operate for 24 hours without electricity	Performance
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Croundwater	Back up pump capacity	Can meet operations demand if largest piece of equipment fails	Performance
Groundwater Booster Pumps	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
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

Water Supply		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	Maximum 7 breaks per km of pipe	Replace watermain when it is anticipated to reach 7 breaks per km equivalent	SoGR
Distribution Mains	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
Small	Maximum 2 breaks per km of pipe	Replace Watermain when it is anticipated to reach 2 breaks per km equivalent	SoGR
Small Feedermains	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
	No Breaks	Replace before breaks could occur.	SoGR
Large Feedermains	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
recuermants	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
	No Breaks	Replace before breaks could occur.	SoGR
Transmission Mains	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 Supply		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Back up pump capacity	Can meet operations demand if largest piece of equipment fails	Performance
Water Pumping Station	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
Elevated	Reservoir Condition Score = B (2.5)	Maintain Elevated Tank in Good Condition (as per Reservoir Score Matrix)	SoGR
Tanks	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
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Provision of redundant network components (WAN)	Backup Network Components to prevent loss of connection	Performance
Water Pump Station Automation Systems (SCADA)	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	
	Provide redundant power supply	Two power feed lines into the plant	Performance
	Physical security devices	Site Security against tampering	Performance

Water Supply		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	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
Water General Storage Water General Storage	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
	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
Water Heavy Industrial	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?	Туре
	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
Water Medium Industrial	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
	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
Water Process Support Structures	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 Supply		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
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?	Туре
South Peel - Headworks	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	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 dectect 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 electicity and secondary power feed	Performance
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
South Peel - Primary Treatment	Sufficent Hydraulic Capacity to avoid overflows during maximum peaking factor	Plant has enough capacity to prevent overflows of partialy treated effluent to the environement	Performance
	Secondary electrical supply and standby power for all critical process and life safety assets	Enough Standby Power to operate for 36 hours without electicity 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

Wastewate	er	Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Sufficent Hydraulic Capacity to avoid overflows during maximum peaking factor	Plant has enough capacity to prevent overflows of partialy treated effluent to the environement	Performance
South Peel - Secondary	Secondary electrical supply and standby power for all critical process and life safety assets	Enough Standby Power to operate for 36 hours without electicity and secondary power feed	Performance
Treatment	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
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	Performance
	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	SoGR
South Peel - Disinfection Systems	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 electicity 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?	Туре
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
South Peel -	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
Biosolids Treatment	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
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
South Peel - Biosolids Processing	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet wastewater treatment demand if largest piece of equipment fails	Performance
	Backup on-site fuel supply.	Enough Fuel to start incinerators	Performance
South Peel -	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Plant Wide Support Systems	Backup capacity for all critical equipment (electrical and mechanical)	Plant can meet water treatment demand if largest piece of equipment fails	Performance
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
Wastewater	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
Treatment Automation Systems	Provide Standby Power	Enough Standby Power to operate for 36 hours without electricity	Performance
(SCADA)	Provide redundant power supply	Two power feed lines into the plant	Performance
	Physical security devices	Site Security against tampering	Performance
	Server configuration to block and detect unauthorized access	Network Security to prevent unauthorized access	Performance

Wastewater		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	Maintain PACP Condition Grade = Level 3	Replace when sewer is no longer in good condition	SoGR
Collection Sewers	No surcharging of pipes	Have sewers of sufficient capacity to prevent surcharging	Performance
	Overflows are alarmed	Alarm to alert staff of overflows	Performance
	Maintain PACP Condition Grade = Level 3	Replace when sewer is no longer in good condition	SoGR
Sub Trunk Sewers	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
	Maintain PACP Condition Grade = Level 3	Replace when sewer is no longer in good condition	SoGR
Trunk Sewers	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
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 equipment when it reaches its estimated service life	SoGR
Forcemains	No Breaks (rating TBD)	Replace before breaks could occur. Refining of TLOS is pending further condition assessment studies	SoGR

Wastewater		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	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
Wastewater	Backup capacity for all critical equipment (mechanical)	Can continue to operate if largest piece of equipment fails	Performance
Pumping Stations	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
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Wastewater Pump Station	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
Automation Systems	Provide Standby Power	Enough Standby Power to operate for 36 hours without electicity	Performance
(SCADA)	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
	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
Wastewater Administrative Offices	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

Wastewate	er	Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
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
	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
Wastewater General Storage	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

Wastewate	er	Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
Wastewater Heavy Industrial	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
	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
Wastewater Medium Industrial	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
	Building Condition = B (Good)	Maintain Building in an acceptable Condition (as per Facility Condition Index)	SoGR
Wastewater Light Industrial	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		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	Facility Environment and Security = B (Good)	Building and site have appropriate security and built environment to support services	Performance
Wastewater Light Industrial	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
	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
Wastewater Process Support Structures	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

Waste		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	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
Material Recovery	2 days on-site material storage capacity on tipping floor	To accommodate temporary loss of processing capacity	Performance
Equipment	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
	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Transfer	Redundancy on critical equipment	Plant can still operate if some of the equipment fails	Performance
Stations	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	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
and Curing	Redundancy - modular box system	Plant can still operate if some of the equipment fails	Performance
CDC:	Maintain Equipment at a Condition Rating= B (Good)	Replace equipment when it reaches its estimated service life	SoGR
CRCs	On-site storage in Transtors and bins (1 day)	To accommodate temporary storage of materials	Performance
Leachate Collection System (Pumping Stations)	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?	Туре
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Gas Collection System	Standby Power	Standby power to operate if electricity is lost	Performance
	Automatic redundant infrastructure	Backup for critical SCADA components	Performance
	Maintain Equipment at a Condition Rating = B (Good)	Replace equipment when it reaches its estimated service life	SoGR
Gas Collection Automation Systems	Replace hardware before obsolescence	Replace hardware before it becomes less efficient/ not compatible with systems	Performance
(SCADA)	Provide redundant power supply	Standby power to operate if electricity is lost	Performance
	Physical security devices	Site Security against tampering	Performance
	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
Waste Management Administrative	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
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

Waste		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	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
Waste Management Process	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
Support Structures	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
	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
Waste Management Commercial Light Industrial	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		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	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
Waste Management	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Retail Spaces	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
	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
Waste Management Labour Intense	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Heavy 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 = 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?	Туре
	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
Waste Management	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Public 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
	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
Waste Management Medium Industrial	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	Level of Service	Asset Levels What Does It Mean?	of Service Type
Waste Management Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

Transporta	tion and Roads	Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
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
	Minimum condition rating = C (Fair)	Replace equipment when it reaches its estimated service life	SoGR
Stormwater	Back up capacity for all critical equipment (mechanical)	Can continue to operate if largest piece of equipment fails	Performance
Pumping Stations	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

Transportation and Roads		Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	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
Transportation Medium	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
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
Transportation Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR

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

Paramedio	Services	Asset Levels	of Service
Asset	Level of Service	What Does It Mean?	Туре
	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
Paramedics Reporting	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Stations	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
	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
Paramedics Satellite	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Stations	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?	Туре
Paramedics Facilities Site Elements	Building Site Condition = B (Good)	Maintain site in an acceptable Condition (as per Condition Index)	SoGR
Conveyance Equipment	Condition Rating= B (Good)	Replace fleet and equipment when it reaches its estimated service life	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?	Туре
	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
Long Term	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Care Centres	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

Heritage, Arts and Culture		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Type
	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
PAMA	Capacity and Change Adaptability for Program Requirements = B (Good)	Building and site have space and room to grow as needed	Performance
Facilities	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

Housing Support		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	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
Peel Region High Density Affordable Housing	Capacity and Change Adaptability for Program Requirements = C (Fair)	Building and site have space and room to grow as needed	Performance
J	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
	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
Dool Pogion	Facility Finishes and Fixtures = C (Fair)	Maintain appropriate interior appearance and curb appeal	Performance
Peel Region Medium Density Affordable Housing	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?	Туре
	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
Shelter Facilities	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

Child Care Asset	Level of Service	Asset Levels What Does It Mean?	s of Service
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

Enterprise Programs & Services		Asset Levels of Service	
Asset	Level of Service	What Does It Mean?	Туре
	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
Headquarters	Capacity and Change Adaptability for Program Requirements = B (Fair)	Building and site have space and room to grow as needed	Performance
Facilities	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