

STATE OF THE ASSET REPORT

2017



OUR COMMITMENT

The right intervention, on the right asset, at the right time

Mission

The City's physical assets are managed in a way that meets approved customer outcomes at a level that is safe and affordable.

Value Statement

Our value-for-money service proposition must be underpinned by assets that maintain the ability to support the delivery of services. It must comply with all legal obligations and meet future challenges of demand, quality, efficiency and environmental change.

Our assets may be of variable condition, but they must be safe to the users and affordable to the community.

Our asset management practices have both an outward focus on the community and an inward focus on efficiency.

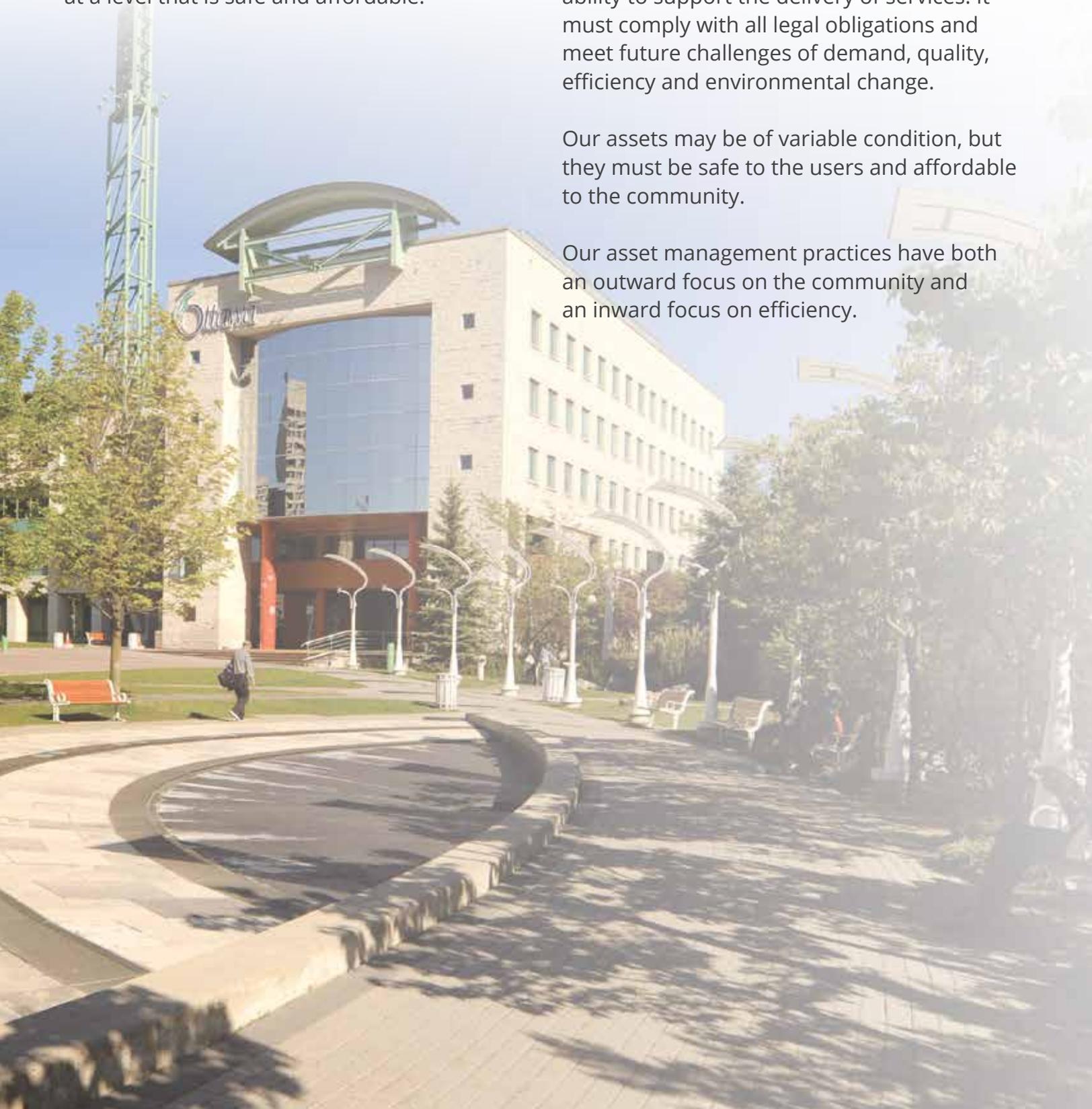


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HIGHLIGHTS

The State Of Assets Report (SOAR) is a document prepared once per term of Council to report on the physical condition of the many assets that support the various services provided by the City. The information conveyed in this document represents the information as it existed at a point in time – it is a snapshot. Unless otherwise noted, the physical condition reported is indicative of the assets as they were at the start of the 2016 calendar year.

The SOAR is prepared as factually accurate as possible. The majority of the assets' conditions are obtained from inspection reports. For those assets where inspection reports are not available, their conditions are reported according to industry recognised practices. In most cases, that means that the condition is inferred from the age of the assets taking into consideration the material or the construction techniques of that era.

For the 2017 version of the report, the approach has been kept the same as that of 2012. The report is broken into individual services and the assets supporting the delivery of that service are presented in similar groups. The report presents 117 groups of assets which represent 293 asset types.

New for 2017 are inclusion of the information technology, solid waste, and police (buildings only) services. Other services have been refined to show more details on asset types for which public interest has increased in the last couple of years. For example, in 2012 sidewalks and pathways were grouped into a single reporting group but have been separated in this version of the report. Similarly, in the 2012 report, we only reported on the library buildings, but in this version we have included some components that are essential to that service.

Overall, the condition of the assets has remained essentially the same since the last report in 2012. The City's services are supported by assets that are safe and generally in a fair to good condition. Some service areas have seen slight decreases in overall condition (water, wastewater) which is mainly due to the very large volume of buried infrastructure that continues to age. Because this buried infrastructure accounts for a very significant portion of the service's overall score, a small change directly impacts the overall condition.



INTRODUCTION

In 2012, the City of Ottawa released its first version of the State Of the Asset Report (SOAR) which was intended to convey as factually as possible the physical condition of the assets supporting the multiple services provided to residents, businesses and visitors. The 2017 edition of the SOAR follows the same approach and provides the same level of details. The methodology and definitions used to establish the condition ratings are consistent with the first iteration published in 2012 and they are also consistent with the Canadian Infrastructure Report Card.

The physical conditions of the assets are representative of the condition reported at the beginning of the 2016 calendar year. Unless otherwise noted, all asset data was captured as a snapshot in time, early in 2016 and the results were compiled in the months following.

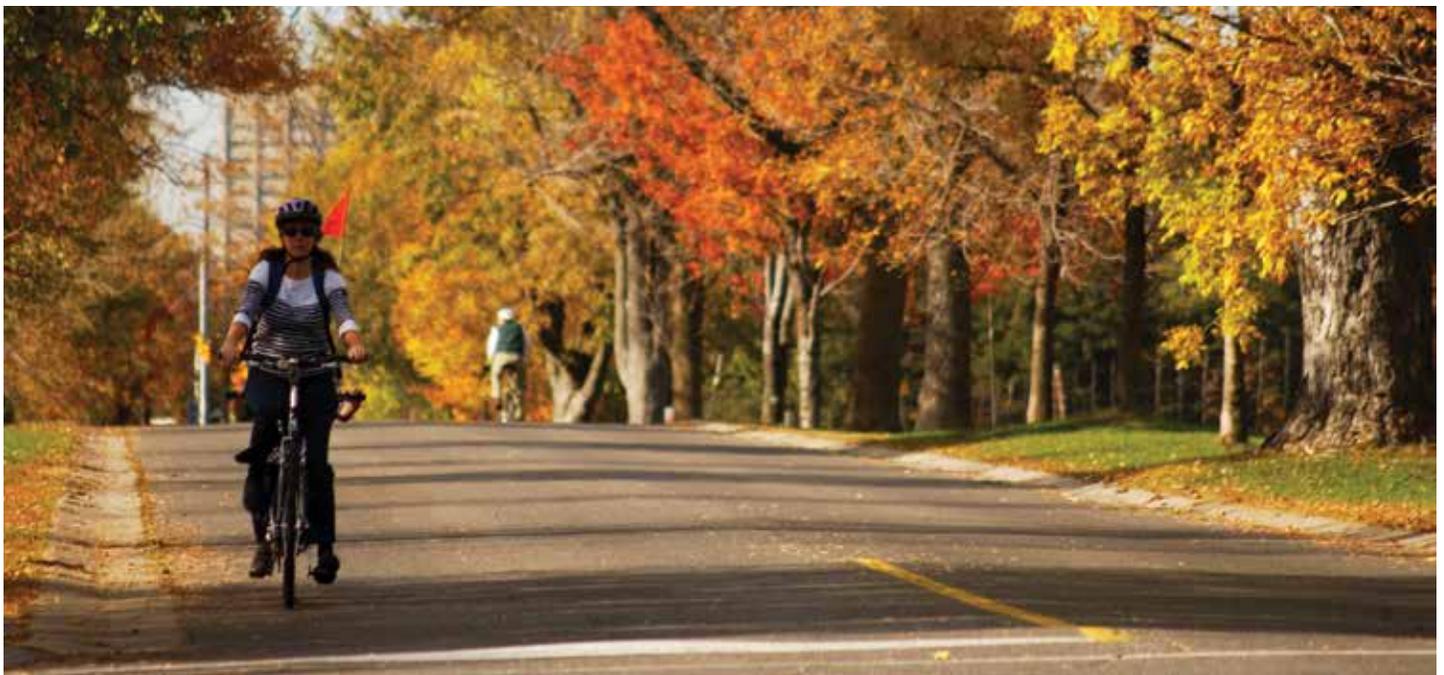
The report does not provide a score on the level to which services are delivered but only focuses on the physical condition of the assets. The physical condition of the assets only offers a portion of the service delivery picture. The complete picture includes the operating, maintenance and renewal strategies in conjunction with risk mitigation approaches.

In other words, an asset may show sign of deterioration but is still fully functional, safe and operating within the desired capacity. For example, if assets are at a more pronounced state of deterioration but can be taken out of function for maintenance with no impact to the service because of mitigation measures, the strategy may be to let those assets deteriorate further before renewing them. Such an asset management strategy may yield lower life cycle costs while maintaining service delivery high at a safe level. These concepts and approaches are further detailed in the City's Strategic Asset Management Plan.

It should be noted that for those assets supporting services that are more legislated, the supporting documentation and data tend to be more complete, of better quality, and found to be more reliable. However, this last statement does not imply that for areas where definitive data is less prevalent that the results should not be trusted. Through sensitivity testing, it was found that the opinion of subject matter experts strongly aligned with empirical data. Visual inspection, *in-situ* testing, recorded use, and age of the assets are the most common methods through which conditions are established, but in all cases, the reported conditions were reviewed by city professionals in each specific service.

SUMMARY TABLE

Service	2017 Status		2012 Status	
	Asset Replacement Value	Overall Condition Rating	Asset Replacement Value	Overall Condition Rating
Water	\$ 7,465 M	Good-Fair	\$ 6,638 M	Good
Wastewater	\$ 7,193 M	Fair-Good	\$ 5,678 M	Good-Fair
Stormwater	\$ 6,296 M	Good-Fair	\$ 4,670 M	Good-Fair
Solid Waste	\$ 59 M	Good-VG		
Transit	\$ 1,980 M	Fair-Good	\$ 1,951 M	Good-Fair
Transportation	\$ 12,612 M	Fair	\$ 11,076 M	Fair
Parks, Rec and Culture	\$ 2,232 M	Fair	\$ 1,970 M	Fair
Libraries	\$ 126 M	Good	\$ 94 M	Good
Social Services	\$ 3,032 M	Good-Fair	\$ 176 M	Good-Fair
Fire	\$ 291 M	Fair		
Paramedic	\$ 44 M	Good	\$ 313 M	Good-Fair
Bylaw	\$ 13 M	Fair		
Police	\$ 148 M	Fair		
Corporate Services	\$ 338 M	Fair-Poor	\$ 257 M	Fair
Information Technology	\$ 123 M	Fair		
Overall Summary	\$ 41,953 M	Fair-Good	\$ 32,823 M	Fair-Good





2017 STATE OF ASSET REPORT

Physical Condition of Assets by Service





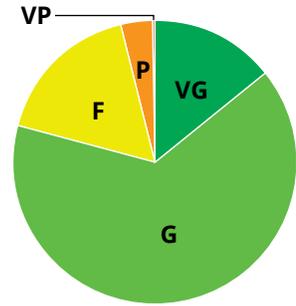
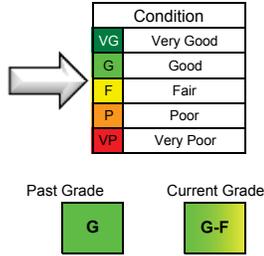
Drinking water assets support one of the many essential services provided to residents, businesses and visitors. The City operates two water purification plants, Britannia and Lemieux Island. Both draw water from the Ottawa River and together they purify on average 290 million litres of water a day.

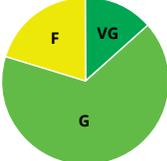
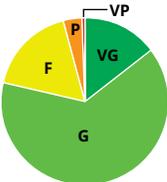
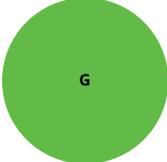
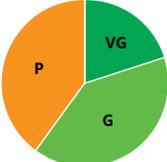
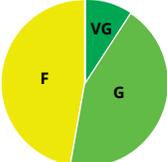
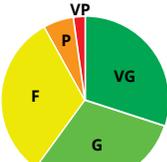
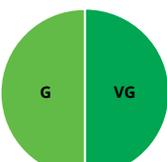
The average age of all the watermains combined is 33 years and the pipes are expected to have service lives in the range of 80 to 100 years. A combination of aging pipes, pump stations, and storage structures has slightly reduced the overall grade since the last report.

Key Facts

- The majority of the drinking water conveyance assets are buried and pressurised. As a result it is difficult and often costly to inspect them to determine their condition.
- The methodology to determine the condition rating for transmission and distribution mains was enhanced in this iteration to reflect a new risk-based process and corresponding data. The results obtained with the new methodology are more reflective of the condition of the network.
- Since 2009, Ottawa has received perfect scores for water quality in annual inspections done by the Ministry of the Environment and Climate Change.
- In the last couple of years, there have been significant investments to provide redundancy to areas outside of the greenbelt. In case of failure of the primary transmission mains, the impact to the service would be reduced.

Value	
Replacement	Per Capita
\$ 7,465 M	\$7,708



<p>Transmission Mains</p>  <p>226 km \$ 1,070.0 M</p>	<p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	G	Past	G-F	Current		Target		Future Trend	<p>Distribution Pipes</p>  <p>2,779 km \$ 5,565.7 M</p>	<p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	G	Past	G-F	Current		Target		Future Trend
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<p>Treatment Plants</p>  <p>2 plants \$ 579.3 M</p>	<p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	G	Past	G	Current		Target		Future Trend	<p>Pump Stations</p>  <p>17 stations \$ 111.0 M</p>	<p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	F	Past	F	Current		Target		Future Trend
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<p>Communal Well System</p>  <p>5 systems \$ 24.8 M</p>	<p>Condition</p> <table border="1"> <tr><td>F-G</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	F-G	Past	G-F	Current		Target		Future Trend	<p>Storage</p>  <p>9 structures \$ 75.0 M</p>	<p>Condition</p> <table border="1"> <tr><td>G-F</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	G-F	Past	G-F	Current		Target		Future Trend
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<p>Fleet</p>  <p>195 assets \$ 15.5 M</p>	<p>Condition</p> <table border="1"> <tr><td>G-F</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	G-F	Past	G	Current		Target		Future Trend	<p>SCADA</p>  <p>1 system \$ 24.1 M</p>	<p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG-G</td><td>Current</td></tr> <tr><td> </td><td>Target</td></tr> <tr><td> </td><td>Future Trend</td></tr> </table> 	N/A	Past	VG-G	Current		Target		Future Trend
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WASTEWATER



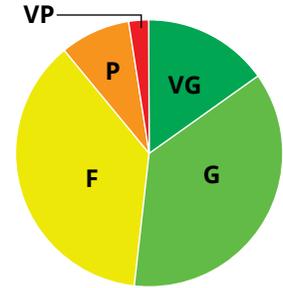
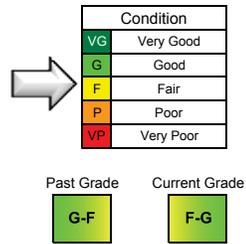
The City plays an important role in collecting, treating and releasing the water used and discharged by homes, businesses, industries, and institutions. All of the City's wastewater flows by gravity or via pumping stations, in a complex network of pipes, to eventually make its way to the 25-year old Robert O. Pickard Environmental Centre (ROPEC) where it is treated. An average of 341 million litres per day are processed before being returned to the Ottawa River, purifying in 6 hours what would normally take the river 100 years to do naturally.

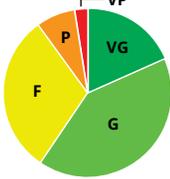
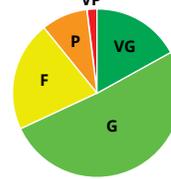
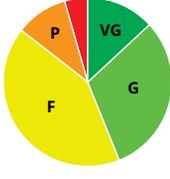
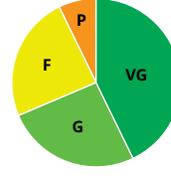
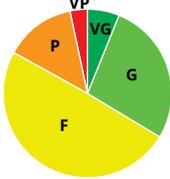
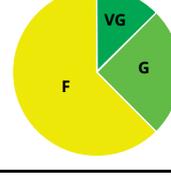
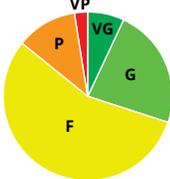
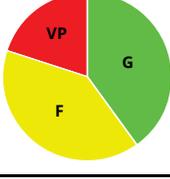
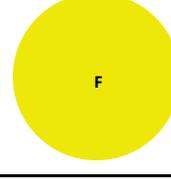
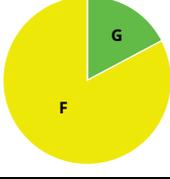
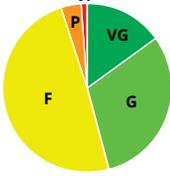
Key Facts

- Wastewater pipes are generally inspected by camera on a 17-year cycle and cleaned on a 5-year cycle, but known critical areas are getting inspected and cleaned more frequently.
- A network-wide risk assessment is also helping to prioritise interventions to those areas more in need.
- The average age of the wastewater pipes is 33 years. Sewer pipes have an expected service life of 60-75 years for metal and plastic pipes and roughly 100 years for concrete pipes.
- The oldest known sewer pipes still in function today were built in 1875 and are located in Lowertown.

WASTEWATER

Value	
Replacement	Per Capita
\$ 7,193 M	\$7,427



<p>Collection Pipes</p>  <p>1,818 km \$ 2,992.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F-G Current: F-G Target: [] Future Trend: [] 	<p>Wastewater Trunks</p>  <p>199 km \$ 786.6 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F Current: F-G Target: [] Future Trend: [] 
<p>Partially Separated Pipes</p>  <p>706 km \$ 1,250.3 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: N/A Current: F-G Target: [] Future Trend: [] 	<p>Forcemains</p>  <p>93 km \$ 173.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: N/A Current: G Target: [] Future Trend: [] 
<p>Pump Stations</p>  <p>65 stations \$ 142.2 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F Current: F Target: [] Future Trend: [] 	<p>Regulator Sites</p>  <p>8 sites \$ 29.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: VG Current: F Target: [] Future Trend: [] 
<p>Treatment Plant</p>  <p>1 plant \$ 1,745.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: G-F Current: F Target: [] Future Trend: [] 	<p>Wastewater Tanks</p>  <p>3 tanks \$ 13.4 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: G Current: G Target: [] Future Trend: [] 
<p>Odour Control</p>  <p>5 stations \$ 5.2 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F Current: F Target: [] Future Trend: [] 	<p>Lagoon</p>  <p>2 lagoons \$ 6.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F Current: F Target: [] Future Trend: [] 
<p>Flow Monitoring</p>  <p>23 stations \$ 1.0 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F Current: F Target: [] Future Trend: [] 	<p>SCADA</p>  <p>1 sewer system \$ 39.3 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: G-F Current: F-P Target: [] Future Trend: [] 
<p>Fleet</p>  <p>123 assets \$ 6.3 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: G Current: G-F Target: [] Future Trend: [] 	

STORM WATER



Stormwater services group all aspects related to the safe collection, conveyance, and release of rain and meltwater runoff to the natural environment. The water is collected and safely diverted in all parts of the City whether it is an urban, suburban or rural area.

The meltwater and runoff are contained or controlled to protect properties, roads and local waterways from flooding and erosion, and also to help with groundwater protection.

Key Facts

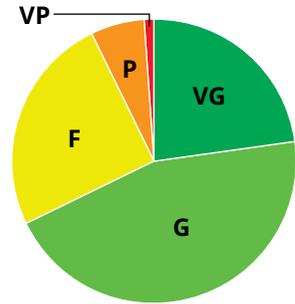
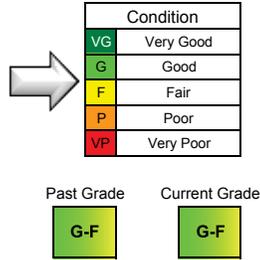
- The Combined Sewer Storage Tunnel, the single largest buried infrastructure project ever undertaken by the City (excluding the light rail project) will be in operation by 2020. This project consists of two tunnels with the capacity to hold up to 43 million litres of sewer overflow during major rainfalls; the equivalent capacity of approximately 18 Olympic sized pools.
- The ongoing implementation of the wet weather infrastructure management plan is targeting to reduce the risk of basement flooding in older

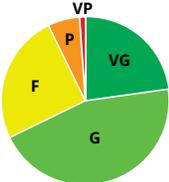
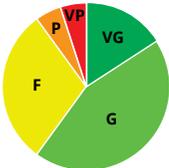
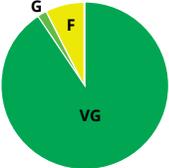
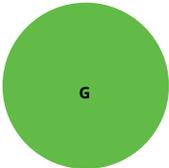
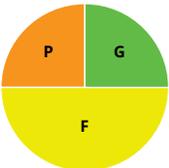
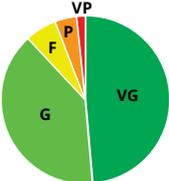
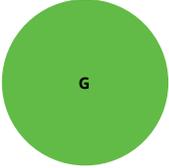
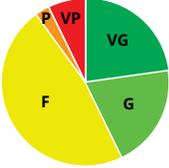
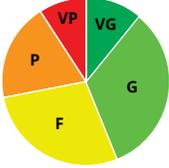
neighbourhoods. Neighborhoods that were built to the standard of the day half a century ago may not be as resilient as newly built areas. The inflow of runoff into the underground pipes may need to be controlled and in some cases the pipes may need to be replaced with larger ones even if their condition is still acceptable. Large investments continue to be made to improve the service and reduce the likelihood of basement flooding.

- The most widely used and recognisable storm water asset other than the corrugated steel culvert is the common road-side ditch. The City of Ottawa relies on approximately 5,500 kilometers of roadside ditches to convey water towards natural watercourses. Placed end to end, that is slightly more than the driving distance between Ottawa and Whitehorse.
 - The City has an annual program through which the network of ditches is maintained. The areas needing maintenance are typically identified by road patrols in the spring or through service requests coming in for the public. At this time, the City does not maintain a detailed condition inventory of the ditches.

STORMWATER

Value	
Replacement	Per Capita
\$ 6,296 M	\$6,500



<p>Collection Pipes</p>  <p>2,572 km \$ 5,377.4 M</p> <p>Condition</p> <ul style="list-style-type: none"> G Past G Current Target Future Trend 	<p>Stormwater Trunks</p>  <p>168 km \$ 552.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> G Past G-F Current Target Future Trend 
<p>Stormwater Forcemains</p>  <p>3 km \$ 4.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past VG Current Target Future Trend 	<p>Stormwater Management*</p>  <p>58 structures No Values Given</p> <p>Condition</p> <ul style="list-style-type: none"> G Past G Current Target Future Trend 
<p>Pump Station*</p>  <p>10 stations No Values Given</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F Current Target Future Trend 	<p>Stormwater Outfalls</p>  <p>1,686 outfalls No Values Given</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past G-VG Current Target Future Trend 
<p>Stormwater Pond*</p>  <p>158 Ponds No Values Given</p> <p>Condition</p> <ul style="list-style-type: none"> G Past G Current Target Future Trend 	<p>Medium Culverts (1m to 3m)</p>  <p>1,218 culverts \$ 165.6 M</p> <p>Condition</p> <ul style="list-style-type: none"> P-VP Past F-P Current Target Future Trend 
<p>Fleet</p>  <p>30 assets \$ 0.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> G Past G-F Current Target Future Trend 	<p>Small Culverts (less than 1m)</p>  <p>4,668 culverts \$ 194.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> P Past F Current Target Future Trend 

* 2016 data not available, condition shown reflects 2012 SOAR report only.

SOLID WASTE



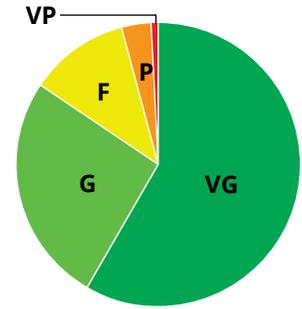
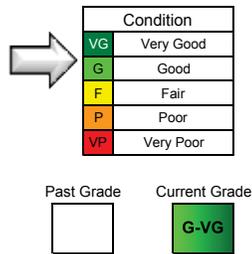
The Trail Road Waste Facility (TWF) landfill is owned and operated by the City to primarily manage residual waste from the residents of Ottawa. An assessment in 2002 concluded that optimizing the TWF was the preferred long-term solution.

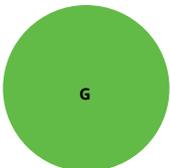
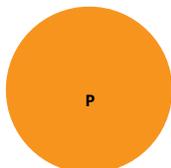
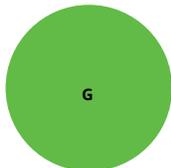
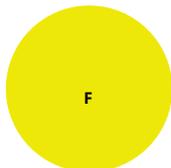
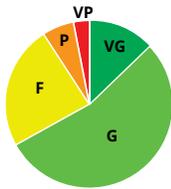
Strategically placed polyethylene caps help reduce landfill gas emissions to the environment. In addition, beneath the caps, kilometers of gas collection piping and dozens of gas collection wells vacuum landfill gas to an electrical energy generation/flaring system. Six megawatts of electrical power is generated by the collected gas – enough to power 6,000 residential homes.

Key Facts

- The landfill was purchased from the City of Nepean and opened as a Regional facility in 1980.
 - Over 100,000 vehicles entered the facility in 2016.
 - Over 450,000 tonnes of material were brought and disposed at the facility in 2016.
- In the last couple of years, there has been (and there continues) to be significant investments by the City to decommission roughly 28 hectares of the landfill by installing a final cover system. Other significant works include projects to improve the on-site handling and conveyance of leachate, and in the near future, projects to treat the leachate on-site prior to discharging the treated water into neighboring water courses.
- The current estimated closure date of the landfill is 2043.

Value	
Replacement	Per Capita
\$ 59 M	\$61



<p>Admin Building</p>  <p>1 building \$ 20.5 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	VG	Current		Target	<p>Recycling & Diversion Centre</p>  <p>1 centre \$ 2.1 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	G	Current		Target
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<p>Scale House & Entrance</p>  <p>1 asset \$ 1.8 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>P</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	P	Current		Target	<p>Leachate Pre-Treatment System</p>  <p>1 system \$ 2.1 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	VG	Current		Target
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<p>Landfill Gas Extraction System</p>  <p>1 system \$ 5.1 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	G	Current		Target	<p>Landfill Gas Power Generation Facility</p>  <p>1 facility \$ 1.0 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	VG	Current		Target
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<p>Leachate System</p>  <p>1 system \$ 3.1 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	F	Current		Target	<p>Stage 1 Cover</p>  <p>1 asset \$ 6.2 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	VG	Current		Target
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<p>Fleet</p>  <p>112 assets \$ 17.4 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> </table> <p>Future Trend</p> 	N/A	Past	G-F	Current		Target							
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TRANSIT



Public transit is undergoing transformative changes which will impact commuters and residents like no other service has in recent history. At the time of releasing this document, the City's first leg of the light rail transit – the Confederation line – is nearing completion. Approximately 8.8 kilometer of bus rapid transit route has been converted to a rail line, and a new tunnel crosses the downtown core.

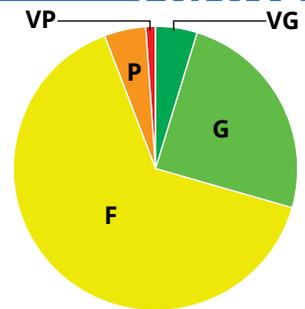
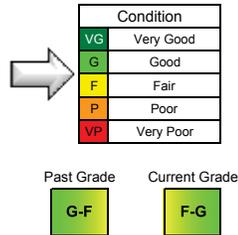
All of the new assets are crucial for the provision of the new rail service, but the public transit network still relies heavily on revenue and non-revenue fleet, the Transitway and dedicated lanes, the O-Train Trillium line, a growing network of sidewalks, walkways, bridges, retaining walls, and transit stations. All of these supporting assets continue to deteriorate and are expected to require some form of renewal in the coming

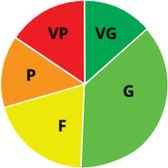
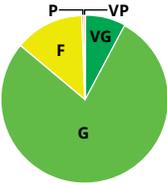
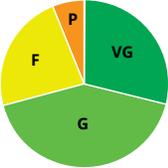
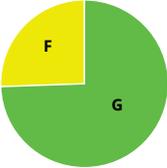
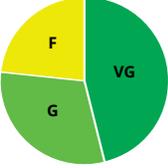
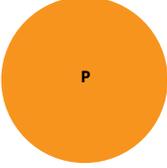
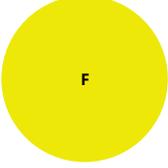
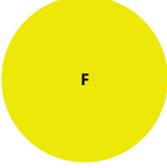
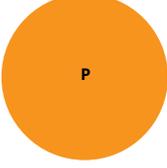
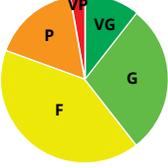
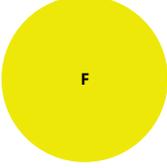
years. In 2015, the three trainsets that service the O-Train Trillium line were replaced with six Alstom LINT trains with an expected service life of 20 to 30 years.

Key Facts

- In 2016, 92 Para Transpo fleet vehicles were replaced with 82 new units (this change occurred after the data was compiled).
- The 12.5 kilometre O-Train Confederation line from Blair Station to Tunney's Pasture includes a 2.5 kilometre tunnel through the downtown core, 13 stations, and a maintenance and Storage Facility.
- People will be moved in 34 Alstom CITADIS Light Rail Vehicles.
- The LRT assets (existing or currently under construction) are not included in this report unless they remain the responsibility of the City (as opposed to the Rideau Transit Group).

Value	
Replacement	Per Capita
\$ 1,980 M	\$1,951



<p>Transitway and Dedicated Lanes</p>  <p>78 km \$ 137.3 M</p> <p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	F	Past	F	Current		Target		Future Trend	<p>Structures</p>  <p>280 structures \$ 449.9 M</p> <p>Condition</p> <table border="1"> <tr><td>G-F</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	G-F	Past	G	Current		Target		Future Trend
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<p>Walkways</p>  <p>12 km \$ 5.4 M</p> <p>Condition</p> <table border="1"> <tr><td>G-F</td><td>Past</td></tr> <tr><td>G-VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	G-F	Past	G-VG	Current		Target		Future Trend	<p>Bus Stops and Shelters</p>  <p>8,098 assets \$ 8.5 M</p> <p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	F	Past	F	Current		Target		Future Trend
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<p>Park and Ride Lots</p>  <p>13 lots \$ 31.9 M</p> <p>Condition</p> <table border="1"> <tr><td>G-VG</td><td>Past</td></tr> <tr><td>VG-G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	G-VG	Past	VG-G	Current		Target		Future Trend	<p>Para Transpo</p>  <p>92 Vehicles \$ 12.9 M</p> <p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>P</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	F	Past	P	Current		Target		Future Trend
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<p>Non Revenue Fleet</p>  <p>289 Vehicles \$ 19.0 M</p> <p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	F	Past	F	Current		Target		Future Trend	<p>Revenue Fleet</p>  <p>930 Buses \$ 702.1 M</p> <p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	G	Past	F	Current		Target		Future Trend
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<p>O-Train</p>  <p>6 trainsets \$ 39.0 M</p> <p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	G	Past	VG	Current		Target		Future Trend	<p>Tracks and Signals</p>  <p>9 km \$ 90.0 M</p> <p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>P</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	F	Past	P	Current		Target		Future Trend
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<p>Buildings and Facilities</p>  <p>158 facilities \$ 483.3 M</p> <p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>F-G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	G	Past	F-G	Current		Target		Future Trend	<p>Transit Signage</p>  <p>599 Signs \$ 0.03 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	N/A	Past	F	Current		Target		Future Trend
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	Target																
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<p>Garbage and Recycling Bins</p>  <p>250 bins \$ 0.3 M</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> 	N/A	Past	VG	Current		Target		Future Trend									
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TRANSPORTATION



The transportation of people, goods and services is fundamental to the economic and social fabric that defines our City. The City of Ottawa is nearly as wide (East-West) as the north-south width of Lake Ontario.

As such, people tend to cover great distances to get to their destination.

With the adoption of the Complete Streets Implementation Framework in 2015, the need to accommodate and ensure inclusivity for all users remains a key theme for infrastructure planning moving forward. Renewal investments continue to be aimed at assets that have a greater risk of impacting levels of service. For example, this means that more funding is directed towards transit, major cycling routes, and arterial roads that convey more traffic but less to local roads.

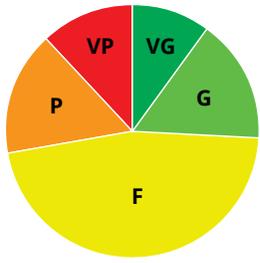
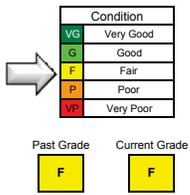
Key Facts

- The City of Ottawa is responsible for over 12,200 lane-kilometers of road. This is the equivalent length of a two-lane Trans-Canada Highway between the Ferry Docks in North Sydney, Nova Scotia and Vancouver, British Columbia.

- Approximately 25% of the road network is in good or very good condition.
- Roughly 30% of the road network is in a condition that may negatively impact the level of service.
- The remaining 45%, or approximately 5,500 lane-kilometers of roads, are in fair condition which means that they are showing signs of deterioration but are still providing their intended functionality.
- Over the last 5 years, the pathways and sidewalks inventory across the city has significantly increased. Since the last report in 2012, the City has built or acquired nearly 30 kilometers of pathways annually. Over the same period the length of sidewalks across the City has also increased by approximately 500 kilometers per year.
- The City inspects all of the bridges on a two year cycle. The investments needed for repairs or renewals are prioritised based on risk to the service from a social, environmental and economical perspective.
- Since 2012, the City has constructed, replaced or received (through development) 17 bridges dedicated to pedestrians and cyclists. Through significant investments, the City continues to promote active transportation.

TRANSPORTATION

Value	
Replacement	Per Capita
\$ 12.612 M	\$13.021



<p>174 (4 Lanes)</p> <p>14 km of 4 lane divided \$ 71.2 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-G Current Target Future Trend 	<p>174 (2 Lanes)</p> <p>12 km of 2 lane undivided \$ 25.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-G Current Target Future Trend
<p>174 (Ramps)</p> <p>13 km in length \$ 26.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-P Current Target Future Trend 	<p>Arterial Roads</p> <p>1,454 km \$ 2,916.0 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F Current Target Future Trend
<p>Collector Roads</p> <p>1,410 km \$ 2,474.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> P-F Past P Current Target Future Trend 	<p>Local Roads</p> <p>2,366 km \$ 3,499.4 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F Current Target Future Trend
<p>Gravel Roads</p> <p>564 km \$ 1,359.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F Current Target Future Trend 	<p>Bridges & Bridge Culverts</p> <p>657 bridges \$ 983.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> G-F Past G-F Current Target Future Trend
<p>Public Works Fleet</p> <p>942 assets \$ 116.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> G Past G-F Current Target Future Trend 	<p>Retaining Walls</p> <p>284 structures \$ 23.6 M</p> <p>Condition</p> <ul style="list-style-type: none"> G-F Past F Current Target Future Trend
<p>Guardrails</p> <p>149.7 km \$ 24.3 M</p> <p>Condition</p> <ul style="list-style-type: none"> VG-G Past VG-G Current Target Future Trend 	<p>Noise Barriers</p> <p>4 km \$ 5.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past F-G Current Target Future Trend
<p>Sidewalks and Crosswalks</p> <p>2,008 km \$ 582.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> G-VG Past G-VG Current Target Future Trend 	<p>Parking Facilities</p> <p>12 assets \$ 136.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> F-G Past F-P Current Target Future Trend
<p>Pathways</p> <p>287 km \$ 90.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past VG-G Current Target Future Trend 	<p>Building / Garages</p> <p>113 structures \$ 264.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-P Current Target Future Trend
<p>Overhead Sign Supports</p> <p>49 assets \$ 9.4 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past VG Current Target Future Trend 	<p>Gates and Arches</p> <p>2 assets \$ 1.5 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past VG Current Target Future Trend

Assets to be included in future version: Street Lighting, Traffic Signs, Traffic Controls

RECREATION



Over sixty per cent of city-owned buildings exist for the purpose of delivering recreational and cultural services. These range in extent from small community buildings, community centres, museums, heritage buildings, arenas, and pools to large multipurpose recreation complexes.

Constrained funding over the last decade has increased pressure on maintaining the condition of existing facilities and some unscheduled service interruptions can be expected. Renewal investments will continue to be directed towards assets that pose a higher risk to the service, or to meet the legislated requirements.

Key Facts

- Overall, the city's recreation facilities received nearly 10 million visitors in 2016.

- In the last 5 years, the City has opened 3 new major recreational centers to better serve growing areas, namely the François Dupuis, the Richcraft and the Minto Recreation Complexes.
- The City's largest recreation complex is the Nepean Sportsplex which has a floor area of nearly 350 thousand square feet (equivalent to 6 football fields).
- In 2016 the Sportsplex saw nearly 1.5 million people come through its doors to either participate in an activity or visit the facility as an attendee or as a spectator of an event.
- The Ray Friel Recreation Complex (Orleans) and the Walter Baker Sports Center (Barrhaven) are the next two busiest facilities.
- The City's largest outdoor park is Petrie Island that covers just over 197 hectares. This park has several amenities including a well-known beach, comfort stations, and outdoor trails.

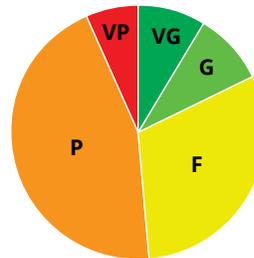
PARKS, RECREATION & CULTURE

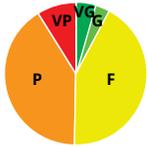
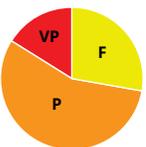
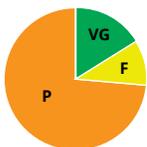
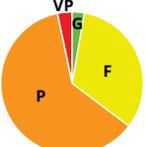
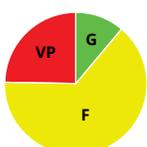
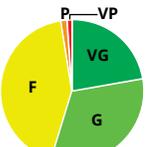
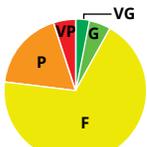
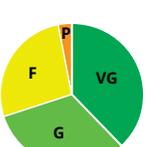
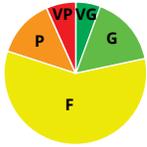
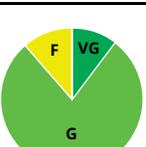
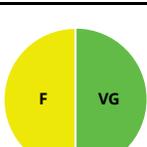
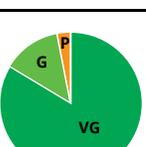
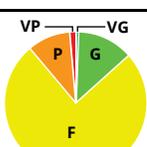
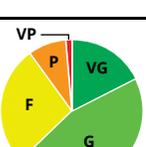
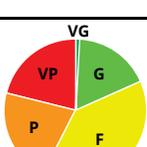
Value	
Replacement	Per Capita
\$ 2,232 M	\$2,304



Condition	
VG	Very Good
G	Good
F	Fair
P	Poor
VP	Very Poor

Past Grade	Current Grade
F	F



<p>Cultural Facilities</p>  <p>101 assets \$ 288.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> G-F Past F Current Target Future Trend 	<p>Community Centres and Buildings</p>  <p>88 buildings \$ 285.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-P Current Target Future Trend 
<p>Arenas</p>  <p>26 arenas \$ 292.7 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past P Current Target Future Trend 	<p>Recreation Complexes</p>  <p>18 facilities \$ 518.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-P Current Target Future Trend 
<p>Indoor, Outdoor Pools</p>  <p>28 facilities \$ 76.0 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past P Current Target Future Trend 	<p>Boating</p>  <p>10 assets \$ 8.4 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past P-F Current Target Future Trend 
<p>Fleet</p>  <p>675 assets \$ 37.6 M</p> <p>Condition</p> <ul style="list-style-type: none"> G-F Past G Current Target Future Trend 	<p>Wading Pools</p>  <p>61 assets \$ 21.3 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F-P Current Target Future Trend 
<p>Splash Pads</p>  <p>115 assets \$ 19.7 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past G Current Target Future Trend 	<p>Sports Fields & Other Outdoor Facilities</p>  <p>2,435 Assets \$ 439.8 M</p> <p>Condition</p> <ul style="list-style-type: none"> P-F Past F Current Target Future Trend 
<p>Playgrounds</p>  <p>636 playgrounds \$ 55.0 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past F Current Target Future Trend 	<p>Covered Sports Fields</p>  <p>2 assets \$ 0.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past G Current Target Future Trend 
<p>Park Lighting</p>  <p>4,589 assets \$ 25.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past VG Current Target Future Trend 	<p>Urban Street Trees</p>  <p>99,485 trees \$ 40.9 M</p> <p>Condition</p> <ul style="list-style-type: none"> N/A Past F Current Target Future Trend 
<p>Recreational Pathways</p>  <p>328 km \$ 111.4 M</p> <p>Condition</p> <ul style="list-style-type: none"> F Past G-F Current Target Future Trend 	<p>Admin, Storage & Utility Buildings</p>  <p>71 structures \$ 10.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> F-P Past P-F Current Target Future Trend 

LIBRARIES



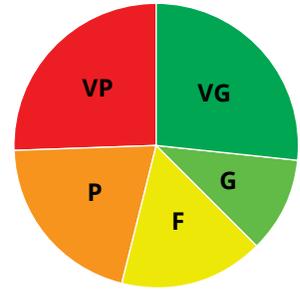
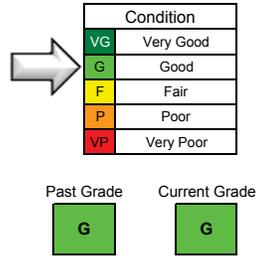
A prominent service within the community, libraries extend beyond the bricks and mortar of the buildings. While assets are generally in good condition, constrained funding levels are putting pressure on maintaining older library buildings at a level where service is not adversely impacted.

Keeping pace with changing demands (i.e., technology, demographics, creating a sense of place) is creating funding pressures that go beyond the physical condition of the buildings.

Key Facts

- Since 2012, over \$4M has been planned towards various retrofits and updates, including \$300,000 towards accessibility features at older facilities.
- To improve customer service, the City has been converting its 33 branches to Radio Frequency ID systems for its collections, processing and checkout systems since 2012. This multiyear retrofit project will be completed at the end of 2017.
- Significant library asset projects have included the Emerald Plaza expansion (2013), Beaverbrook branch expanded rebuild (2014) and the new Constance Bay branch (2015). All have resulted in significantly increased use at these branches.
- The Automated Material Handling System, Bookmobile Fleet, SmartBins, Radio Frequency ID Sorting Systems in branches, and OPL Kiosks are all new additions and accounted for in the Library grade.

Value	
Replacement	Per Capita
\$ 126 M	\$130



<p>Buildings</p>  <p>21 buildings*</p> <p>Condition</p> <table border="1"> <tr><td>G</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 119.0 M</p>	G	Past	G-F	Current		Target		Future Trend	<p>Library Support Fleet</p>  <p>6 vehicles</p> <p>Condition</p> <table border="1"> <tr><td>F</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 0.3 M</p>	F	Past	G	Current		Target		Future Trend
G	Past																
G-F	Current																
	Target																
	Future Trend																
F	Past																
G	Current																
	Target																
	Future Trend																
<p>Automated Material Handling Systems</p>  <p>1 system</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 1.5 M</p>	N/A	Past	VG	Current		Target		Future Trend	<p>Bookmobile Fleet</p>  <p>2 vehicles</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 0.5 M</p>	N/A	Past	G	Current		Target		Future Trend
N/A	Past																
VG	Current																
	Target																
	Future Trend																
N/A	Past																
G	Current																
	Target																
	Future Trend																
<p>SmartBins</p>  <p>224 smart bins</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 1.1 M</p>	N/A	Past	G	Current		Target		Future Trend	<p>Radio Frequency Identification Sorting System</p>  <p>11 RFID sorters</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 3.3 M</p>	N/A	Past	VG	Current		Target		Future Trend
N/A	Past																
G	Current																
	Target																
	Future Trend																
N/A	Past																
VG	Current																
	Target																
	Future Trend																
<p>OPL Kiosks</p>  <p>3 assets</p> <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>\$ 0.1 M</p>	N/A	Past	G	Current		Target		Future Trend									
N/A	Past																
G	Current																
	Target																
	Future Trend																

*Does not include leased facilities or libraries located in City multi functional complexes.

SOCIAL SERVICES



The facilities within Social and Health Services help support vulnerable members of our community from infancy to the elderly. These facilities include child care, subsidized housing, emergency shelters, long term care homes, and cemeteries.

Buildings supporting community services are generally in good to fair condition but have been gradually declining since the last report as current funding levels have not been able to keep pace with maintenance requirements. Especially notable is that the majority of Day Care Centres and Community Shelters are currently in poor condition.

New for 2017 is the addition of Ottawa Community Housing inventory to the city's report (roughly \$2B in assets).

Key Facts

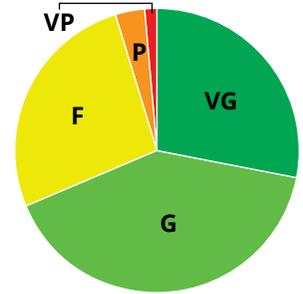
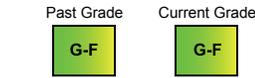
- Over 455 Municipal Child Care spaces, out of a total of 11 facilities (7 city-owned independent buildings – 4 day care centres in shared or leased facilities).

- The City operates 4 Long Term Care Homes with 717 beds to support the elderly.
- The Family Shelters contain 63 rooms that can accommodate over 250 individuals.
- The City is responsible, as the sole shareholder, for the buildings of the Ottawa Community Housing Corporation (OCHC), which houses over 32,000 people – approximately equivalent to the entire population of the City of Orillia.
- The Cornerstone Women's shelter provides beds for up to 55 women.
- The City is also designated by the province as the service manager of over 60 social and affordable housing providers – providing over 24,000 units of subsidized housing.
- In 2016 the City allocated over \$16M to funding develop over 150 units of housing for seniors, families, vulnerable women, youth and the chronically homeless. An additional 18.8M was allocated for essential repairs to social housing, improving building conditions for over 6000 households.

SOCIAL SERVICES

Value	
Replacement	Per Capita
\$ 3,032 M	\$3,131

Condition	
VG	Very Good
G	Good
F	Fair
P	Poor
VP	Very Poor



<p>Day Care</p>  <p>7 buildings \$ 13.2 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F-G Current: F Target: (empty) Future Trend: (empty) 	<p>Perpetual Care</p>  <p>9 cemeteries \$ 0.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: G-F Current: F Target: (empty) Future Trend: (empty)
<p>Long Term Care</p>  <p>4 facilities (7 buildings) \$ 127.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F-G Current: F-P Target: (empty) Future Trend: (empty) 	<p>Shelters</p>  <p>3 buildings \$ 16.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: F Current: P-F Target: (empty) Future Trend: (empty)
<p>Fleet</p>  <p>3 assets \$ 0.1 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: VG-G Current: F-G Target: (empty) Future Trend: (empty) 	<p>Community Housing</p>  <p>166 buildings \$2,875.6 M</p> <p>Condition</p> <ul style="list-style-type: none"> Past: N/A Current: G Target: (empty) Future Trend: (empty)

FIRE



There are 45 Fire Stations, 4 Buildings and 1 Dispatch Centre from where the Ottawa Fire Services reach out and help protect the lives, property and environment of the people who live, work and visit the City of Ottawa. The stations are strategically assigned to geographic locations to maximize the coverage and minimise response time for emergencies. Overall, the buildings and the fleet remain in 'Fair' condition.

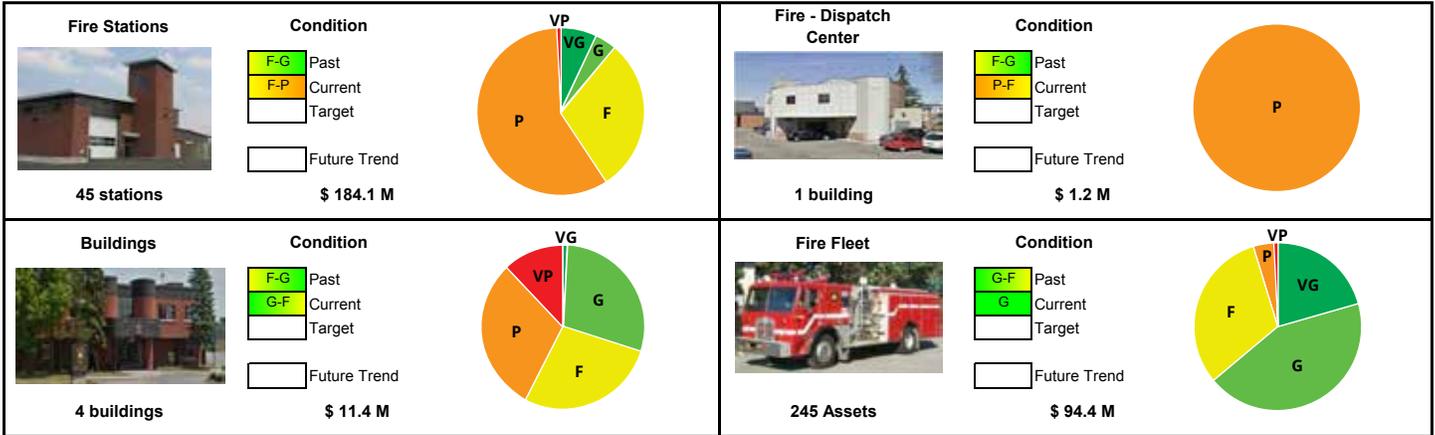
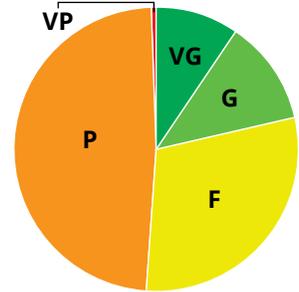
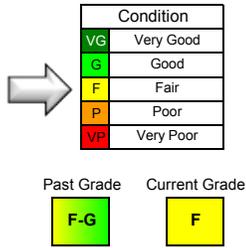
Ottawa Fire Services is concerned for Ottawa residents' safety. Service personnel are highly trained to respond to a wide variety of emergency and non-emergency incidents including fires, rescues, medical, and hazardous-material emergencies. Firefighters also educate the public about fire prevention and safety so that the City has fewer fire-related personal and property losses.

Key Facts

- The 45 stations scattered across the city of Ottawa provide emergency response coverage to the full surface area of the City of Ottawa; nearly 2,800 square kilometers, an area larger than the cities of Toronto, Montreal, Vancouver, Calgary and Edmonton combined.
- The Ottawa Fire Services is the largest composite fire service in Canada consisting of 29 career staffed stations and 16 volunteer staffed stations including 4 stations that contain a composite response of both career and volunteer personnel.
- In 2016, Ottawa Fire Services completed 62,417 vehicle movements throughout the city of Ottawa.

FIRE SERVICES

Value	
Replacement	Per Capita
\$ 291 M	\$301



PARAMEDICS



Ottawa's highly trained Paramedics are the only medically certified providers of out-of-hospital medical treatment. They deliver advanced medical treatment to all residents and visitors of Ottawa that find themselves in need. That need may be more common or it may be a life-threatening medical emergency such as a heart attack, a stroke, a respiratory distress or other traumatic injury.

Paramedic Posts are strategically located to allow for an efficient deployment in response to an emergency. The Paramedic Fleet, comprised of 125 assets, has improved since 2012 in light of several recently replaced vehicles. In general, Paramedic assets remain in 'Good' condition.

Key Facts

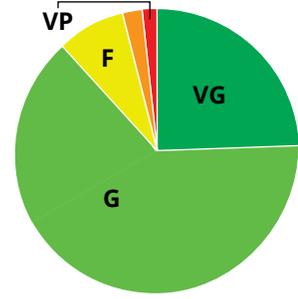
- Ottawa Paramedic Service is one of the largest Paramedic Service's in Ontario.
- In 2016, Ottawa Paramedic Service completed 137,974 responses throughout the city of Ottawa.
- The Ottawa Paramedic Service has a unique fleet of specialized vehicles in addition to ambulances including a Bariatric Care Unit, Neonatal Transport Unit, Treatment and Rehabilitation bus, and all terrain Bobcats for events like Winterlude on the Rideau Canal.

PARAMEDIC SERVICES

Value	
Replacement	Per Capita
\$ 44 M	\$45

Condition	
VG	Very Good
G	Good
F	Fair
P	Poor
VP	Very Poor

Past Grade	Current Grade
G	G



Asset Type	Quantity	Value	Condition Legend	Condition Chart										
Paramedic Posts	4 buildings	\$ 27.5 M	<table border="1"> <thead> <tr> <th colspan="2">Condition</th> </tr> </thead> <tbody> <tr> <td>G-VG</td> <td>Past</td> </tr> <tr> <td>G-VG</td> <td>Current</td> </tr> <tr> <td></td> <td>Target</td> </tr> <tr> <td></td> <td>Future Trend</td> </tr> </tbody> </table>	Condition		G-VG	Past	G-VG	Current		Target		Future Trend	
Condition														
G-VG	Past													
G-VG	Current													
	Target													
	Future Trend													
Paramedic Fleet	125 Assets	\$ 16.1 M	<table border="1"> <thead> <tr> <th colspan="2">Condition</th> </tr> </thead> <tbody> <tr> <td>G-F</td> <td>Past</td> </tr> <tr> <td>G</td> <td>Current</td> </tr> <tr> <td></td> <td>Target</td> </tr> <tr> <td></td> <td>Future Trend</td> </tr> </tbody> </table>	Condition		G-F	Past	G	Current		Target		Future Trend	
Condition														
G-F	Past													
G	Current													
	Target													
	Future Trend													

BYLAW



By-law and Regulatory Services' mandate is to protect and serve residents, businesses and visitors through education on, and enforcement of, regulations that address public health and safety, consumer protection and nuisance control. This is accomplished through timely and effective enforcement of by-laws enacted by city council and provincial legislation. Enforcement activities may include yard maintenance, property standards and zoning, noise control, animal care and control, parking and traffic enforcement, graffiti management, taxi licensing and inspections, nuisance abatement, and business licensing.

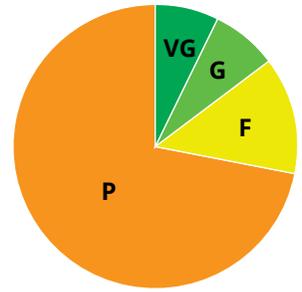
The current grade for Bylaw assets is "Fair" which is slightly lower than in 2012. This is mainly due to the aging of the administration building and vehicles.

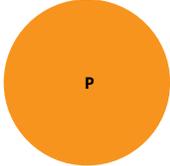
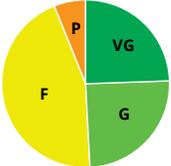
Key Facts

- In 2016, By-law and Regulatory Services completed approximately 75,000 requests for services throughout the city of Ottawa.

Value	
Replacement	Per Capita
\$ 13 M	\$14

Condition	
VG	Very Good
G	Good
F	Fair
P	Poor
VP	Very Poor



Asset Category	Value	Condition Legend	Condition Chart
By-Law Admin Building  1 Building \$ 9.0 M	Condition F Past P Current Target Future Trend		
By-Law Fleet  154 Assets \$ 4.2 M	Condition G-VG Past VG-G Current Target Future Trend		

POLICE



The Ottawa Police Service is committed to protecting the safety and security of our communities. The Ottawa Police Service offers a variety of services designed to assist in many different ways.

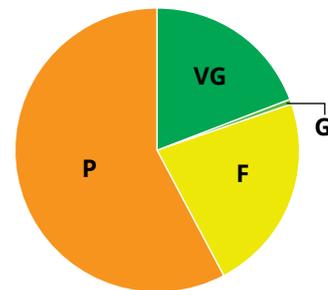
This report includes condition information on the buildings. Other assets such as fleet, tactical equipment and tools are not included. The long term Facility Management Plan for the acquisition, disposal, and refit of key facilities enacted by the Ottawa Police services aims to ensure that new facilities will remain safer for both residents and personnel. The plan also targets for the facilities to be more efficient, but also improve the lifespan of several existing stations currently in operation.

POLICE SERVICES

Value	
Replacement	Per Capita
\$ 148 M	\$153

Condition	
VG	Very Good
G	Good
F	Fair
P	Poor
VP	Very Poor

Past Grade	Current Grade
N/A	F



Police Station/Centres

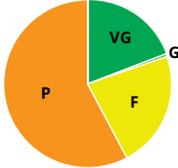


9 Buildings

Condition

N/A	Past
F	Current
	Target
	Future Trend

\$ 148.0 M



CORPORATE, OPERATIONAL & COUNCIL SERVICES



Corporate Services groups the more administrative services provided the City. The majority of assets are shared-service centre buildings but there are also a number of vehicles that are used for multiples functions.

The buildings typically house City staff who provide technical or administrative functions in support of multiple services. Residents may be more familiar with Client Service Centers where they can pay their property tax bills, apply for permits, register a pet, or other services.

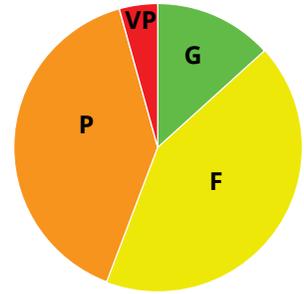
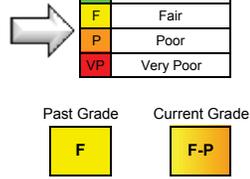
It should also be noted that there are a number of other facilities from where technical staff ensure the services needed by residents are provided. For example, the Mary Pitt Center is a facility in which staff from such departments as Social Services, Information Technology, Finance, Transportation, Infrastructure, Public Health, Surveys and Mapping provide their services.

Investments continue to be directed to building elements with higher associated risks to the capacity of delivering services such as the roof, the electrical system, or the mechanical system.

Key Facts

- There are 8 Client Service Centers, including City Hall, that are distributed across the City from Orleans to West Carleton to North Gower.

Value	
Replacement	Per Capita
\$ 338 M	\$349



<p>General Admin Buildings/Facilities</p>  <p>9 buildings</p> <p>\$ 35.9 M</p>	<p>Corporate Fleet</p>  <p>148 assets</p> <p>\$ 7.4 M</p>
<p>Service Centres</p>  <p>8 buildings</p> <p>\$ 295.0 M</p>	Empty space for Corporate Fleet condition chart

INFORMATION TECHNOLOGY



Information Technology Services (ITS) enables technology solutions for the City of Ottawa, as well as for the Ottawa Public Library and Ottawa Public Health. This involves managing a complex set of hardware and software infrastructure that form the technology backbone of the corporation and allow the functioning of multiple enterprise applications and over 170 business specific applications.

There are two primary drivers behind the asset renewal efforts. First, a time limited technology lifecycle requires an active approach to plan for technology upgrades in both hardware and software domains. Second, new business needs arise that can have technology implications.

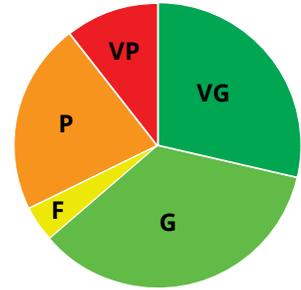
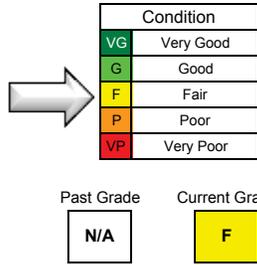
Key Facts

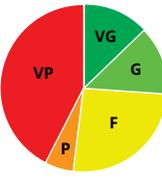
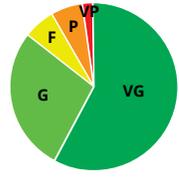
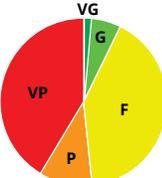
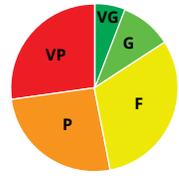
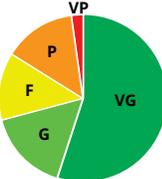
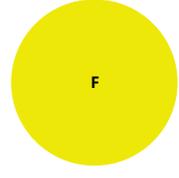
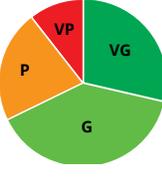
- Currently, the computer lifecycle replacement program accounts for approximately 45% laptops and 55% desktops, with the trend shifting towards an increase in laptops.

- Laptops and desktops are planned to be replaced every 5 years which translates to approximately 1,800 computers upgrades per year.
- The expected life of an application varies from application to application based on the investment and changing business needs. The expected service life could vary from 5 years to 20 years or more. But given the relatively short expected life of several asset types, the data for the Information Technology service was updated with 2016 year-end data.
- There are a number of major software solutions that are approaching the end of their expected life. For example, applications used by the Planning group (MAP), by the Finance and Accounting groups (SAP), and by the Recreation and Culture groups (CLASS – public class registration system) are among the more noteworthy.

INFORMATION TECHNOLOGY

Value	
Replacement	Per Capita
\$ 123 M	\$127



<p>Data Center</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>P-VP</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>514 servers \$ 15.3 M</p> 	N/A	Past	P-VP	Current		Target		Future Trend	<p>Network</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VG-G</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>269 assets \$ 3.2 M</p> 	N/A	Past	VG-G	Current		Target		Future Trend
N/A	Past																
P-VP	Current																
	Target																
	Future Trend																
N/A	Past																
VG-G	Current																
	Target																
	Future Trend																
<p>Telecom</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>VP-P</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>68 devices \$ 1.6 M</p> 	N/A	Past	VP-P	Current		Target		Future Trend	<p>Desktop Devices</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>P</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>7,403 desktops \$ 6.2 M</p> 	N/A	Past	P	Current		Target		Future Trend
N/A	Past																
VP-P	Current																
	Target																
	Future Trend																
N/A	Past																
P	Current																
	Target																
	Future Trend																
<p>Mobile Devices</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G-VG</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>7,903 devices \$ 10.2 M</p> 	N/A	Past	G-VG	Current		Target		Future Trend	<p>Office Productivity Software</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>11,531 licenses \$ 3.9 M</p> 	N/A	Past	F	Current		Target		Future Trend
N/A	Past																
G-VG	Current																
	Target																
	Future Trend																
N/A	Past																
F	Current																
	Target																
	Future Trend																
<p>Business & Enterprise Applications</p>  <p>Condition</p> <table border="1"> <tr><td>N/A</td><td>Past</td></tr> <tr><td>G-F</td><td>Current</td></tr> <tr><td></td><td>Target</td></tr> <tr><td></td><td>Future Trend</td></tr> </table> <p>115 assets \$ 83.0 M</p> 	N/A	Past	G-F	Current		Target		Future Trend									
N/A	Past																
G-F	Current																
	Target																
	Future Trend																

Appendix I: How to read SOAR

The City established a methodology that provides a consistent grading scheme across different assets. The City's report is very similar in nature to the Canadian Infrastructure Report Card (CIRC) in that it provides a condition rating of physical assets at a point in time.

The overall score provides a summary of the value, physical condition score, and weighted average of all city-owned asset types for the purpose of delivering the specified service (e.g. collection pipes, forcemains, pump stations, etc.). The asset type level provides a report on the condition of all asset types evaluated

to create the overall assessment. Each asset type is presented individually to help readers understand the makeup of the overall condition distribution.

Methodology:

The first step is to establish a single evaluation scale to act as the common denominator for all assets. The 5-point scale aligns with the CIRC for ease of comparison and leverages any future information. The 5-point scale is based on a 100-point score (common denominator) that allows different assets using different attributes, different metrics, and different scales to be rolled up to a common rating and condition description.

Rating	Rating - Description	Score (common)	Asset Type Metric (examples)	
			Life Consumed	Pavement Quality Index
Very Good	Very Good – Fit for Future Well maintained, good condition, new or recently rehabilitated	80 – 100	0 to 19%	$9 < PQI \leq 10$
Good	Good – Adequate for Now Acceptable, generally in mid stage of expected service life	70 – 79	20% to 39%	$7 < PQI \leq 8.9$
Fair	Fair – Requires Attention Signs of deterioration, requires attention, some elements exhibit deficiencies	60 – 69	40% to 59%	$5 < PQI \leq 6.9$
Poor	Poor – Increasing potential of affecting service Approaching end of service life, condition below standard, large portion of system exhibits significant deterioration	50 – 59	60% to 79%	$3 < PQI \leq 4.9$
Very Poor	Very Poor – Unfit for Sustained Service Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be unusable.	0 – 49	80% or more	$0 < PQI \leq 2.9$

The asset condition summary is compiled following these steps:

- Capture all individual inventory data.
- Determine appropriate fields to use for condition status and proxy metrics where existing condition properties are not available;
- Align metrics to condition ratings to appropriately reflect perception (both from subject matter experts and management);
- Determine factual condition distribution of assets for each asset type;
- Determine relative importance value for each asset type within each asset group or service and identify replacement cost for each asset.
- Determine level of granularity to be reported upon (which assets have sub types (e.g., roads reported by road class, and watermains reported as transmission and distribution).
- Apply relative importance weighting and replacement cost weighting to factual distribution.
- Combine weighted distributions to generate final condition distribution of assets and align assets under a City provided service (not an internal department, and not necessarily according to the funding source).

- Roll up granular values to the higher report levels and generate the final overall “grade” using the weighted distribution.

The published results include inventory (quantity), inventory replacement cost, current condition and the makeup of the condition. The results are presented using a tiered approach: City wide, Service, and Asset type. As such, the information provided is intentionally kept simple, straightforward, factual, and laid out in a reader friendly format.

One of the main objectives, other than generating a factual, consistent, repeatable report, is to produce a report that is clear and understandable. The final report is not aimed at subject matter experts or technical staff but rather at the general public, elected officials and management.



