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| <p>1. LONG RANGE FINANCIAL PLAN V – WATER, WASTEWATER
AND STORMWATER SUPPORTED PROGRAMS</p> <p>PLAN FINANCIER À LONG TERME V – PROGRAMMES RELATIFS À L'EAU,
AUX EAUX USÉES ET AUX EAUX PLUVIALES FINANCÉS PAR LES TARIFS</p> |
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REFERRED TO COUNCIL:

That Council consider the following:

REPORT RECOMMENDATION:

That the Environment and Climate Protection Committee recommend Council receive and adopt the strategy described in this report, as amended.

RENOYÉE AU CONSEIL :

Que le Conseil examine la question suivante :

RECOMMANDATION DU RAPPORT :

Que le Comité de l'environnement et de la protection climatique recommande au Conseil d'accueillir et approuver la stratégie comme décrit dans le rapport, tel que modifié.

DIRECTION TO STAFF:

That staff make available the Motion or wording that was provided in reference to Committee discussions during its consideration of the Recommended Water, Wastewater, and Stormwater Rate Structure (ECPC meeting of 18 October 2016, ACS2017-CSD-FIN-0008) that spoke to the need for public engagement with regard to any proposed increases in rates (please see extract of draft Minute).

INSTRUCTIONS AU PERSONNEL :

Que le personnel rende accessible la motion ou le libellé fourni en lien avec les discussions du Comité pendant son étude du barème de redevances recommandé pour l'eau, les eaux usées et les eaux pluviales (réunion du Comité de l'environnement et de la protection climatique du 18 octobre 2016, ACS2017-CSD-FIN-0008), qui soulignait la nécessité de consulter la population sur toute augmentation des redevances proposée (veuillez voir l'extrait de l'ébauche du procès-verbal).

DOCUMENTATION/DOCUMENTATION

1. Deputy City Treasurer's Report, Corporate Finance Service, dated 12 September 2017 (ACS2017-CSD-FIN-0023)

Rapport de la Trésorière adjointe municipale, Direction Services financiers, daté le 12 septembre 2017 (ACS2017-CSD-FIN-0023)

2. Extract of draft Minutes, Environment and Climate Protection Committee, 19 September 2017.

Extrait de l'ébauche du procès-verbal, Comité de l'environnement et de la protection climatique, le 19 septembre 2017.

**ENVIRONMENT AND CLIMATE
PROTECTION COMMITTEE
REPORT 15
27 SEPTEMBER 2017**

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**COMITÉ DE L'ENVIRONNEMENT ET
DE LA PROTECTION CLIMATIQUE
RAPPORT 15
LE 27 SEPTEMBRE 2017**

**Report to
Rapport au:**

**Environment and Climate Protection Committee
Comité de l'environnement et de la protection climatique
19 September 2017 / 19 septembre 2017**

**and Council
et au Conseil
27 September 2017 / 27 septembre 2017**

**Submitted on 12 September 2017
Soumis le 12 septembre 2017**

**Submitted by
Soumis par:
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**Ward/Quartier : CITY WIDE / À
L'ÉCHELLE DE LA VILLE**

**File Number/N° de dossier : ACS2017-
CSD-FIN-0023**

**SUBJECT: LONG RANGE FINANCIAL PLAN V – WATER, WASTEWATER AND
STORMWATER SUPPORTED PROGRAMS**

**OBJET: PLAN FINANCIER À LONG TERME V – PROGRAMMES RELATIFS À
L'EAU, AUX EAUX USÉES ET AUX EAUX PLUVIALES FINANÇÉS PAR
LES TARIFS**

REPORT RECOMMENDATION

That the Environment and Climate Protection Committee recommend Council receive and adopt the strategy described in this report.

RECOMMANDATION DU RAPPORT

Que le Comité de l'environnement et de la protection climatique recommande au Conseil d'accueillir et approuver la stratégie comme décrit dans le rapport.

EXECUTIVE SUMMARY

Consistent with Council's strategic plan, and in keeping with sound financial planning practices, this report establishes a long range financial plan (LRFP) for water, wastewater and storm water capital investment needs. The report provides a series of financing strategies that balance the need to maintain and build capital assets with the need to manage debt, reserve balances and rate increases. The strategy reflects the capital intensive nature of delivering these services with assets that last for multiple generations.

The City's net book value for water, wastewater and storm water assets is over \$5.1 billion with an estimated replacement value of more than \$20.9 billion. This includes, but is not limited to 8,500 kilometers of water, sanitary and storm sewer pipes; two water purification plants (Lemieux and Britannia); the Robert O. Pickard Environmental Centre (ROPEC), the City's sewage treatment plant; 92 pump stations; and over 5,800 culverts.

The forecast capital requirements for the next ten years in this 2017 Rate LRFP V, are consistent with the those identified in the 2012 LRFP IV. As described in the companion report, Comprehensive Asset Management Program Update – Water and Sewer Rate Supported Programs”, the condition of the City assets has remained relatively stable - in Fair to Good condition. The current requirement is \$310 million per year (in 2017\$), which includes renewal, growth and strategic initiatives. The value of growth projects was forecasted based on the Development Charge Background study and strategic initiatives include Council approved initiatives or those resulting from new or changes to regulatory requirements.

The Capital Investment Requirements and the Capital Financing Plans throughout this report will be presented on a “net” City rate requirement basis. External revenue

sources and development charges are excluded. Therefore, the “net” City rate Capital Investment requirement is \$260 million per year (in 2017\$).

The capital investment requirements have increased slightly since 2012, and actual revenues from 2012 to 2016 were lower than what was forecast in the 2012 LRFP, primarily due to reductions in per capita water consumption. Therefore, the funding plan has been adjusted to reflect this change in forecast consumption and other key considerations. The funding plan was developed using the following principles:

- Debt servicing charges (principal and interest) for such a capital intensive program are set at a maximum 15% of the annual rate revenues, a level which is greater than the current Council limit of 7.5% for other City services;
- Debt will be issued for terms that match the life of the assets they are funding, which not only reduces the annual operating impact of debt issuance but also ensures that infrastructure investments are paid for by future generations that will benefit from these assets;
- Operating and Capital needs were allocated separately for each Service - Water, Wastewater and Stormwater to calculate the estimated cost of service for each service for cost recovery purposes and align expenditures with the new rate structure;
- Required rate increases were forecasted by Service and will be minimized as much as possible and will be smoothed over the 10 year forecast period in order to provide predictability for ratepayers; and
- Reserve fund balances are increased annually to maintain a recommended minimum balance as per the Reserve & Reserve Fund report scheduled for Council in October.

In total, the proposed Capital Funding Plan being proposed would be \$2.6 billion over the next ten years. The plan which will be reflected in the 2018 draft budget, uses a combination of reserves and debt to fund the capital investment while maintaining debt servicing within Council’s limit of 15% of own source revenues and maintaining reserve balances to effectively manage year over year fluctuations in spending. Rate increases required to support the plan differ by Service with an overall average of 5.2% in the first five years and, 4.4% in the last five years. These projected rate increases include inflation.

Council will review and adopt the operating and capital budgets on an annual basis. Future plans will reflect Council's annual reviews. It should also be noted that spending needs and financing plans may also be adjusted in the future as a result of legislative requirements; as a result of the City's planning process; and, initiatives to be approved in the September 19 Comprehensive Asset Management Program Update – Water and Sewer Rate Supported Programs. CAM update to Council ((ACS2017-PIE-IS-0010) to balance financial and non-financial strategies to bring sustainable practices for managing our assets in a way that supports service expectations.

SOMMAIRE

Conformément au plan stratégique du Conseil ainsi qu'aux saines pratiques de planification financière, le présent rapport établit un plan financier à long terme (PFLT) pour les besoins en matière d'investissement dans le secteur de l'eau, des eaux usées et des eaux pluviales. Le rapport propose une série de stratégies de financement qui concilient la nécessité de maintenir et de construire des immobilisations et la nécessité de gérer la dette, les soldes des réserves et les hausses de tarifs. La stratégie tient compte des importants besoins de capitaux qui découlent de la prestation de ces services à l'aide d'actifs qui dureront pendant de multiples générations.

La valeur comptable nette des ressources de la Ville relatives à l'eau, aux eaux usées et aux eaux pluviales est supérieure à 5,1 G\$, et leur valeur de remplacement est estimée à plus de 20,9 G\$. Cela comprend, sans s'y limiter, 8 500 kilomètres de conduites d'égouts, d'égouts sanitaires et d'égouts pluviaux; deux usines de traitement des eaux (Lemieux et Britannia); le Centre environnemental Robert-O.-Pickard, l'usine de traitement des eaux d'égout de la Ville; 92 stations de pompage et plus de 5 800 ponceaux.

Les besoins en capitaux prévus pour les 10 prochaines années dans le PFLT V 2017 sont conformes à ceux indiqués dans le PFLT IV 2012. Tel qu'indiqué dans le rapport complémentaire intitulé « Mise à jour sur le Programme de gestion intégrale des actifs – programmes financés à partir des redevances d'eau et d'égouts », l'état des actifs de la Ville est demeuré relativement stable, à savoir de « Passable » à « Bon ». Un examen des niveaux de financement nécessaires pour le maintien en bon état des actifs financés par les tarifs a été effectué pendant l'exercice 2016-2017. À l'heure actuelle, les besoins s'élèvent à 310 M\$ par année (en dollars de 2017), ce qui comprend le renouvellement, la croissance et les initiatives stratégiques. La valeur des projets de

croissance a été prévue en fonction de l'étude contextuelle des redevances d'aménagement et des initiatives stratégiques, notamment les initiatives approuvées par le Conseil municipal ou celles découlant de nouvelles exigences réglementaires ou de changements apportés aux exigences réglementaires.

Tout au long du présent rapport, les exigences en matière d'investissement en capital et les plans de financement des immobilisations seront présentés selon l'exigence d'un tarif municipal « net ». Les sources de revenus externes et les redevances d'aménagement sont exclues. Par conséquent, les investissements en capitaux provenant d'un tarif municipal « net » nécessaires s'élèvent à 260 M\$ par année (en dollars de 2017).

Les besoins en capitaux ont augmenté légèrement depuis 2012; les revenus réels de 2012 à 2016 ont été inférieurs à ceux prévus dans le PFLT de 2012, principalement en raison de la réduction de la consommation d'eau par habitant. Le plan de financement a donc été rajusté en fonction de cette modification de la consommation prévue et d'autres considérations clés. Le plan de financement a été élaboré selon les principes suivants :

- les frais de service de la dette (capital et intérêts) pour un programme nécessitant autant de capitaux sont fixés à un maximum de 15 % des revenus annuels, ce qui est supérieur à la limite actuelle de 7,5 % fixée par le Conseil municipal pour les autres services de la Ville;
- les dettes seront émises selon une durée qui correspondra à la durée prévue de l'actif financé, ce qui réduit les répercussions annuelles de l'émission des dettes sur les opérations et fait en sorte que les investissements relatifs aux infrastructures soient remboursés par les futures générations, qui profiteront de ces biens;
- les besoins relatifs au fonctionnement et aux immobilisation ont été attribués séparément pour chaque service – eau, eaux usées et eaux pluviales, afin d'estimer le coût du service pour chaque service aux fins du recouvrement des coûts et d'harmoniser les dépenses avec la nouvelle structure tarifaire;
- les hausses de tarifs requises ont été prévues par le Service; elles seront minimisées et harmonisées autant que possible pendant la période de prévision de 10 ans afin d'assurer la prévisibilité pour les abonnés;

- les soldes des fonds de réserve sont augmentés annuellement pour maintenir un solde minimal recommandé conformément au rapport sur la réserve et le fonds de réserve qui doit être présenté au Conseil municipal en octobre.

Au total, le plan de financement des immobilisations proposé serait de 2,6 G\$ au cours des 10 prochaines années. Le plan de financement, qui sera appliqué dans le budget provisoire de 2018, se fonde sur une combinaison de réserves et d'endettement pour financer les investissements en capitaux tout en maintenant le service de la dette en deçà de la limite de 15 % de la source de revenus, tel qu'exigé par le Conseil, et en maintenant les soldes des réserves afin de gérer avec efficacité les fluctuations des dépenses d'une année à l'autre. Les hausses de tarifs requises pour soutenir le plan varient selon les Services, avec une moyenne globale de 5,2 % au cours des cinq premières années et de 4,4 % au cours des cinq dernières années. Ces hausses de tarifs projetées tiennent compte de l'inflation.

Le Conseil examinera et adoptera annuellement les budgets de fonctionnement et d'immobilisations. Les plans futurs tiendront compte des examens annuels du Conseil. Il convient également de noter que les besoins découlant des dépenses et les plans de financement peuvent également être rajustés à l'avenir en fonction des exigences législatives, à la suite du processus de planification de la Ville et en fonction des initiatives à approuvées le 19 Septembre dans le rapport « Mise à jour sur le Programme de gestion intégrale des actifs – programmes financés à partir des redevances d'eau et d'égouts » au Conseil municipal (ACS2017-PIE-IS-0010) afin d'équilibrer les stratégies financières et non financières en vue d'assurer un équilibre durable de la gestion de nos actifs de manière à soutenir les attentes en matière de services.

BACKGROUND

Long range financial plans (LRFP) are a hallmark of good financial planning. These plans are updated at regular intervals to reflect new information such as changed priorities, adjusted economic factors and any new legislated requirements. This is the fifth long range financial plan since amalgamation.

Since the last Rate LRFP in 2012, the City has:

- approved a new Rate Structure for water and wastewater services that provides for a fixed and variable component and greater revenue stability;
- approved a new fixed stormwater fee that is no longer based on water consumption but rather on the type of property, also providing much greater revenue stability for these services;
- experienced lower than forecast revenues due to per capita reductions in water consumption; and,
- received funding approval from the federal government from the CWWF.

The following table provides a summary of the revenue and capital investments forecast in the 2012 LRFP IV and the actual results for the years 2012 to 2016:

Table 1 – Comparison of 2012 LRFP forecast and Actuals

\$Millions	2012	2013	2014	2015	2016	Total
Revenue						
LRFP 4 (inflated)	264.3	284.8	304.9	327.1	350.1	1,531.2
Actual	254.0	256.7	272.6	286.5	314.0	1,383.7
Revenue Shortfall	-10.3	-28.2	-32.3	-40.7	-36.1	-147.5
Net Capital Requirement						
Annual Budget	333.0	164.4	226.1	213.3	200.4	1137.3
LRFP 4 (Inflated)	332.9	149.5	197.6	178.7	187.2	1045.9

Increased Capital Requirement	0.1	14.9	28.5	34.6	13.2	91.4
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More debt was authorized each year, than originally planned in LRFP IV, to compensate for the increased net capital requirement but while remaining within the 15% limit for debt servicing as a percentage of revenue, established by Council.

This is the final report in a series of long range financial plan reports prepared during this term of Council that taken together, are the City's fifth long range financial plan (LRFP V). Council received the Long Range Financial Plan Transit (ACS2017-CSD-FIN-0002) in March and the Long Range Financial Plan V – Tax Supported Capital (ACS2017-CSD-FIN-0017) in June.

The funding strategies identified in this report are consistent with the principles regarding the use of debt adopted and amended by Council in the 2007 Fiscal Framework. These amended principles are as follows:

- Council has established a limit of 15% of the amount raised from rate revenues that can be used for the repayment of principal and interest (debt servicing).
- The term of the debt should match the useful life of the related asset. This ensures that the generations that benefit from the use of the asset share in paying for its cost.

The objective of this report is to present a ten-year outlook of the rate supported capital requirements for the delivery of water, wastewater and stormwater services. In particular, this report focuses on the funding strategies that are required to provide for the renewal and maintenance of the City's existing asset base in a state of good repair, as discussed in the *Comprehensive Asset Management Program* report. The objective of the proposed asset management program and policy is to apply the right intervention, on the right asset, at the right time in a manner that considers affordability and risk.

DISCUSSION

Rate supported capital works are mainly funded from contributions to capital and from debt financing which is repaid along with related interest over the life of the asset.

Capital works and operating costs are funded on a cost recovery basis from the fees charged to users of the City's water, wastewater and stormwater services. Growth related projects are also funded from development charges collected from new development. Senior government funding may also be received in relation to specific approved projects. All figures quoted within this report refer to the City's share of capital investments or net capital investment required, meaning that figures exclude development charges collected and senior government funding.

The objective of this report is to determine:

- Net Capital investment needs for the period 2018 to 2027;
- An appropriate funding strategy that will meet those needs and reflects the capital intensive nature of delivering these services through long lived assets that serve multiple generations.

Capital Asset Profile

The City's net book value for water, wastewater and storm water assets is over \$5.1 billion with an estimated replacement value of more than \$20.9 billion. This includes, but is not limited to 8,500 kilometers of water, sanitary and storm sewer pipes; two water purification plants (Lemieux and Britannia); the Robert O. Pickard Environmental Centre (ROPEC), the City's sewage treatment plant; 92 pump stations; and over 5,800 culverts.

For financial reporting purposes, and in accordance with accounting policies prescribed by the Public Accounting Standard Board, these capital assets are stated at historical cost and are amortized over their useful life. However, the Capital Investment Requirements are based on the cost of replacing these assets today. A breakdown of these assets by Service is as follows:

Table 2 Approximate Replacement Value \$000

Assets	Total	%
Water	\$7,465,000	36%
Wastewater	\$7,193,000	34%

Stormwater	\$6,296,000	30%
Total	\$20,954,000	100%

Capital Investment Requirements

Investment requirements are a function of: renewal of existing assets to ensure they remain in a state of good repair and comply with current service level standards; growth related to new development and redevelopment; strategic initiatives established by Council; or new regulatory requirements.

To quantify the investment required over the next ten years, City staff have analysed the inventory of existing water and sewer assets; reviewed forecasted growth projects; and referenced strategic initiatives and regulatory requirements to the extent known.

Both the Capital Investment Requirements and the Capital Financing Plan plans have been presented on a “net” City requirement basis. External revenue sources such as those received from other levels of government and development charges collected in relation to growth projects are excluded. This provides a clear view of the City’s own financial responsibility with respect to developing a funding strategy specifically for rate-supported services.

A total net investment of \$2.6 billion is required in this ten-year timeframe for water, wastewater and stormwater infrastructure which equates to an annual investment of approximately \$240 - \$280 million in most years.

A summary by Service is as follows:

Table 3 Water

\$Millions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Renewal	53.7	68.6	92.1	94.1	92.6	105.6	119.5	118.0	125.6	117.1	986.9
Growth	0.5	15.9	1.5	2.4	10.0	8.8	1.0	0.4	0.2	0.4	41.2
Strategic/Regulatory	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.0
Total	54.6	84.9	94.0	97.0	103.0	114.8	120.9	118.8	126.2	117.9	1,032.0

Table 4 Wastewater

\$Millions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Renewal	55.2	72.9	80.5	87.4	92.7	92.7	103.8	119.1	107.7	96.6	908.8
Growth	12.1	5.9	2.7	4.8	0.4	-	0.2	0.4	0.2	2.4	29.2
Strategic/Regulatory	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	12.0
Total	68.6	80.0	84.4	93.4	94.3	93.9	105.2	120.7	109.2	100.3	950.0

Table 5 Stormwater

\$Millions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Renewal	80.8	55.5	62.7	58.7	60.9	62.2	64.0	63.5	67.4	61.7	637.4
Growth	0.2	-	-	-	-	-	-	-	-	-	0.2
Strategic/Regulatory	2.3	1.1	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.8	10.1
Total	83.2	56.5	63.7	59.8	61.8	63.0	64.8	64.3	68.1	62.5	647.7

Table 6 Total Rate

\$Millions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Renewal	189.8	196.9	253.3	240.2	246.1	260.6	287.2	300.7	300.7	275.4	2,533.1
Growth	12.8	21.8	4.2	7.2	10.4	8.8	1.2	0.8	0.4	2.9	70.5
Regulatory	3.9	2.7	2.7	2.7	2.5	2.4	2.4	2.4	2.4	2.4	26.1
Total	206.4	221.4	242.2	250.1	259.1	271.7	290.8	303.8	303.5	280.7	2,629.7

RENEWAL

As described in the companion report, “Comprehensive Asset Management Program Update – Water and Sewer Rate Supported Programs”, the condition of the City assets has remained relatively stable - in Fair to Good condition and the report articulated the activities and the approaches that are applied daily by staff to maintain rate-funded assets in a state of good repair. Staff continue to apply recognised asset management practices founded on integrated asset planning practices, risk-based assessments, prioritization, and service-centric decision making. Of the \$2.6 billion total net capital investment needed to maintain assets in a state of good repair, the vast majority or \$2.5 billion is for renewal.

GROWTH

The capital growth needs were prepared based on projects that have been identified in the Development Charge Background study. Only projects that have a development charge component that is greater than 30% of the total authority requested have been categorized as growth related. Projects where the development charge component is 30% or less are usually classified as renewal projects with replacement assets' capacity expanded to service growth. These are captured in the renewal category.

STRATEGIC INITIATIVES/REGULATORY

The strategic initiatives category includes Council-directed initiatives identified in the City Corporate Plan. Strategic initiatives include projects that implement the various City master plans or enhance services currently being provided to residents, implement new legislative requirements, and respond to changes in demand for service.

Initiatives included in this ten-year forecast may be subject to change. Council reviews and approves operating and capital budgets on an annual basis. Capital investment requirements and related financing plans may also be adjusted in the future as a result of legislative requirements; as a result of the City's planning process; and, initiatives to be approved in the September 19 Comprehensive Asset Management Program Update – Water and Sewer Rate Supported Programs CAM update to Council (ACS2017-PIE-IS-0010) to balance financial and non-financial strategies to bring sustainable practices for managing our assets in way that supports service expectations.

Capital Financing Strategy, Goals and Assumptions

Currently, the City's operating revenues provide capital funding of approximately \$196 million annually; \$134 million as cash contributions towards new water, wastewater and stormwater capital investments; and \$62 million in debt authority. With a forecast of approximately \$260 million on average per year for capital investment requirements, this leaves approximately \$64 million per year to be financed through a combination of rate increases and new debt authority.

The funding strategy aims to strike the optimal balance between these sources and is guided by the following principles:

- Debt servicing levels will not exceed 15% of the amount raised from rate revenues to reflect the more capital intensive nature of water, wastewater and stormwater services.
- Longer terms for debt financing will be established for water, wastewater and stormwater projects to better match the life of the assets they are funding. This will result in lower annual debt service payments that will be funded over a longer time period by both the current and future residents benefiting from these assets.
- Capital reserves minimum balance levels will be established from a long term perspective with the intention that they be achieved over a period of several years.
- Rate increases required to fund water, wastewater and stormwater services will be minimized as much as possible and smoothed over the 10 year forecast period. This will provide ratepayers with some predictability of what increases they can anticipate from year to year.

Capital Financing Plan

The funding strategy allows the City to invest \$2.6 billion in water, wastewater and stormwater assets over the ten-year period through a combination of operating revenues and debt financing. This funding level is based on the adoption of the funding strategies outlined in this document.

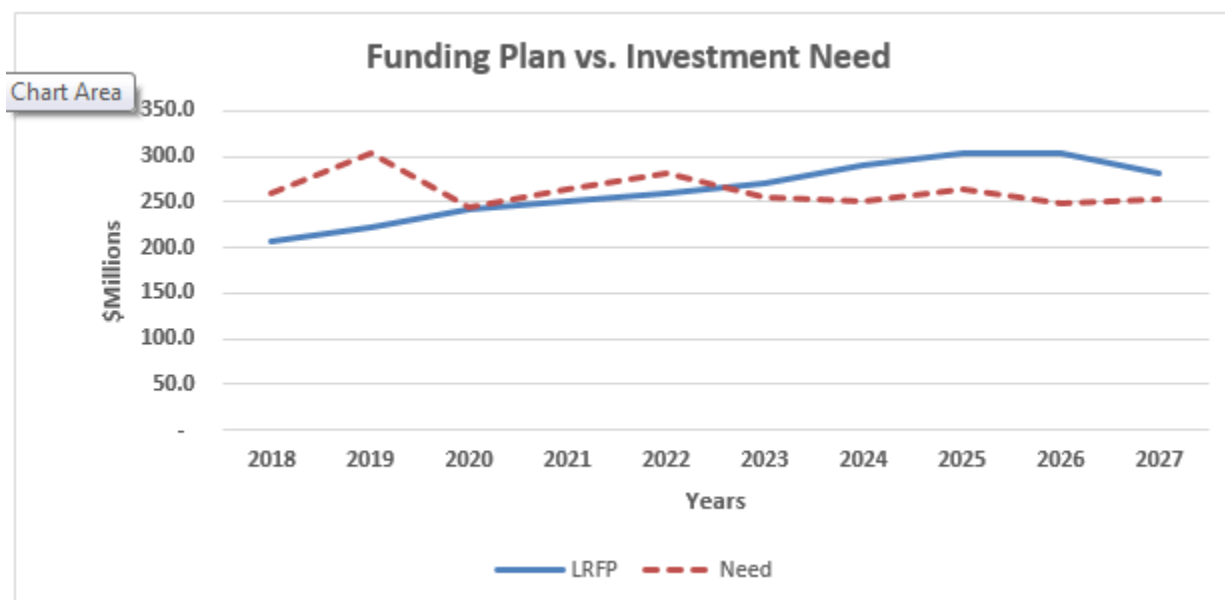
Table 7 2018 – 2027 Financing Plan for Rate Supported Capital

\$Millions	2018	2019	2020	2021	2022- 2027	Total
Capital Investment						
Water	54.6	84.9	94.0	97.0	701.6	1,032.0
Wastewater	68.6	80.0	84.4	93.4	623.6	950.0
Stormwater	83.2	56.5	63.7	59.8	384.4	647.7
Total Capital Investment	206.4	221.4	242.2	250.1	1,709.6	2,629.7
Reserves	(145.3)	(162.0)	(173.7)	(178.8)	(1,368.8)	(2,028.7)
Debt Authority	(61.1)	(59.3)	(68.5)	(71.3)	(340.8)	(601.0)
Total	206.4	221.4	242.2	250.1	1,709.6	2,629.7

Of the proposed \$2.630 billion investment program, \$2.029 billion of funding will be raised from water, wastewater and stormwater revenues and \$601 million to be funded from issuing new debt.

Based on the above plan, annual debt servicing costs as a percentage of rate supported operating revenues will average 14.0% over the forecast period.

In the initial years, the timing of investments will be need to be managed, while maintaining service levels and continuing to maintain assets in a state of good repair. The City has and will continue to put in place risk-based financial and non-financial strategies to manage the timing of these investments but the funding plan does fund the total net requirement of \$2.6 million over the ten-year plan. The following graph compares the Capital Investment Requirement to the recommended Capital Funding Plan over the ten-year period:



Debt Servicing Targets

Current debt service costs of \$42 million per year will increase to approximately \$77 million or 14.1% of the annual rate revenues by 2027.

Table 8 Debt Servicing Costs (\$ millions) / As a Percent of Rate Revenues

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
48.3	48.2	52.4	62.9	62.7	66.8	69.7	72.7	77.4	77.0
13.3%	12.6%	13.0%	14.9%	14.2%	14.5%	14.5%	14.5%	14.8%	14.1%

The Fiscal Framework (2007) Targets for Debt, amended and approved in LRFP IV, allow for principal and interest on rate supported debt to be limited to no more than 15% of rate supported revenues. This differs from the existing fiscal framework for tax supported debt service charges which are limited to no more than 7.5% of revenues.

Water and wastewater services are primarily delivered through substantial capital investments that are used by many generations. To limit the amount of debt that can be used to purchase or renew these assets puts a huge burden on current day ratepayers. The unique nature of these services necessitate a separate debt servicing level from those of other city services that are more labour rather than capital intensive. This is consistent with other utilities. For instance, a 2014 Survey: Opportunities and Challenges in Clean Water Utility Financing and Management was published by the National Association of Clean Water Agencies (US) and showed that debt service represented 26% of 2013 utility expenditures. The city's proposed plan remains well below such debt service levels.

Reserve Fund Levels

Water and Wastewater reserve balances are forecasted to be \$52 million at the end of 2017.

The funding strategy sets a target for the reserve funds balances to reach a minimum balance as determined and recommended in the Reserve & Reserve Fund Report anticipated in October of this year. The report recommends that the minimum target balance equate to the ten-year trend in year-end budget performance and that the maximum should be augmented by 1.5 times as per GFOA's best practise guidelines.

This is a long-term target with the intention that it be achieved over a period of years and provides flexibility in the annual use of reserves to fund needed capital projects to proceed without delay.

Table 9 Projected Year End Reserve Fund Balances (\$ millions)

Reserve	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
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Water	34.6	35.1	35.6	36.1	36.6	37.1	37.5	38.0	38.5	39.0
Wastewater	12.5	12.7	12.9	13.0	13.2	13.4	13.6	13.8	14.0	14.2
Stormwater	5.3	5.4	5.5	5.6	5.7	5.7	5.8	5.9	6.0	6.1
Total	52.4	53.2	53.9	54.7	55.5	56.2	57.0	57.7	58.5	59.3

Currently, the Water and Sewer reserves are managed separately and there is no Stormwater reserve. Staff will be recommending in the up coming Reserve & Reserve Fund Report, that a Stormwater Reserve be created and the Sewer Reserve balance be divided proportionally between separate wastewater and a stormwater reserve funds. Staff have reviewed the projected spending needs for wastewater and stormwater and have assumed a 70% wastewater and 30% stormwater split of the existing Sewer Reserve balance for this funding strategy. This transfer will provide funding for each program to meet their projected investment requirements.

Projected Revenue Increases

The funding strategy contemplates a continued need to increase water, wastewater and stormwater revenues over the 10-year program. These increases are smoothed over the period so that there is some predictability for the public on the expected rate increase from one year to the next.

The new rate structure approved by Council in 2016 provides much greater flexibility to match increases to the specific service and the fixed and variable components of the rate. The LRFP provides a framework for overall revenue increase requirements based on a 10-year plan. However, individual rate increases will be established each year as part of the budgeting process, using the overall revenues requirements established by the LRFP as the target.

The Water and Wastewater rates are established based on the overall revenue target and forecast consumption for the upcoming budget year. 20% of the revenue is calculated as a fixed charge per water meter account and the remaining 80% is calculated based on the forecast consumption for the upcoming budget year. There is

also the possibility to increase the 20% fixed portion up to a maximum of 35% over time, if required. If for example, capital costs increase as a proportion of total expenditures, then there is a cost recovery basis for increasing the fixed portion of the fee.

The Stormwater fee is a fixed fee based on the property type for residential properties and assessment value for Industrial, Commercial and Institutional (ICI) properties. The fee for stormwater will be calculated based on the target revenue amount divided by the number of residential units and ICI properties (based on assessment value) from the most recent MPAC rolls.

The most significant difference between LRFP IV and LRFP V is that we now need to show the rate increases per service rather than as an overall average, due to the new rate structure. The funding requirements for each service varies and since the fees are based on a full cost recovery basis, it is important to differentiate the revenue requirements for each. Based on the operating and capital requirements for each service, the increases will be lower for water services and wastewater services than what was forecast in 2012, but will be higher for stormwater. However, the overall rate increase is reduced over the ten-year period.

The following table shows the projected rate increases by Service over the ten-year period. It is important to note that the projected rate increases include inflation.

PROJECTED ANNUAL RATE % INCREASES / ANNUAL RATE REVENUES (\$ MILLIONS)

Table 10 Water

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
4%	4%	3%	3%	3%	2%	2%	2%	2%	2%
173.7	180.5	185.9	191.4	197.2	201.3	205.5	209.8	214.2	218.7

**REVISED Table 11 Wastewater
(as amended by Motion N^o ECPC 16/01, ECPC Meeting of 19 September 2017)**

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
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5%	5%	5%	4%	4%	3%	3%	3%	3%	3%
139.1	145.9	153.1	159.1	165.4	170.3	175.4	180.6	185.9	191.5

Table 12 Stormwater

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
13%	13%	12%	12%	12%	12%	12%	12%	10%	10%
50.3	56.7	63.5	71.1	79.5	89.0	99.7	111.6	122.7	134.9

**REVISED Table 13 TOTAL RATE SUPPORTED
(as amended by Motion N^o ECPC 16/01, ECPC Meeting of 19 September 2017)**

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
5.6%	5.5%	5.0%	4.8%	4.9%	4.2%	4.3%	4.4%	4.2%	4.2%
363.1	383.1	402.4	421.6	442.0	460.5	480.4	501.8	522.6	544.8

Rate increases required to support the plan differ by Service with an overall average of 5.2% in the first five years and, 4.4% in the last five years. The 2012 LRFP IV projected rate increases for all services at a higher rate than what is recommended in this revised LRFP V report. In 2012 the average rate increase over 10 years was 5.7% and the average rate increase over ten years is now forecast to be 4.8%.

By comparison, in Ontario, Toronto has approved a rate increase of 8% for 2017 and York has approved a rate increase of 9.0%. The 2014 NACWA Survey mentioned above states that the average fixed rate has increased 6% over the past three years and the average volume rate for residential customers (when combined with a flat charge) has increased 5.4% from 2001 to 2013.

RURAL IMPLICATIONS

This report applies to City-wide assets. Water, Wastewater and Stormwater are important assets serving the City's rural area.

CONSULTATION

The public consultation process will be incorporated with the review process for annual budgets.

COMMENTS BY THE WARD COUNCILLOR(S)

This is a City-wide report.

LEGAL IMPLICATIONS

There are no legal impediments to receiving the information in this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications.

ASSET MANAGEMENT IMPLICATIONS

The recommendations documented in this report are based on the background and updated needs assessment documented in the September 19 Comprehensive Asset Management Program Update – Water and Sewer Rate Supported Programs CAM update to Council (ACS2017-PIE-IS-0010). The requirements are consistent with the City's Comprehensive Asset Management (CAM) Program (City of Ottawa Comprehensive Asset Management Program) objectives.

FINANCIAL IMPLICATIONS

Financial implications are identified in the report.

ACCESSIBILITY IMPACTS

Maintaining assets in a good state of repair supports all accessibility objectives of the City.

TECHNOLOGY IMPLICATIONS

Funding requirements associated with technology are identified during the annual budget cycles.

TERM OF COUNCIL PRIORITIES

Recommendations in this report support various objectives under Council's priority of Financial Responsibility under the City Strategic Plan. The LRFP contributes directly to the achievement of Objective FS1 – Demonstrate sound financial management priorities and to Performance Measure 63-A as one of the components of the City's Fiscal Framework update.

DISPOSITION

Information contained in this report will be utilized during the annual budget setting process.