



**DRAFT**  
**Interim Financial Plan**  
**2021-2023**  
**and**  
**10-year Capital Plan**  
**Update, 2021-2030**

**November 2020 (v4)**

## **1.0 INTRODUCTION**

Mississippi Valley Conservation Authority is moving from a period of steady state operations into a phase of capital renewal and evolving programming under amended legislation and regulations. These changes are placing pressures on both operating and capital budgets as identified in Staff Report 3074/20 the *Interim Financial Plan: Background Report* tabled in September 2020.

This document identifies proposed operating priorities for the period 2021-2023, and capital priorities for the period 2021-2030. It also identifies how these programs and services are currently funded, and recommends a funding approach for the capital program going forward.

Once finalized and approved, the Interim Financial Plan and updated 10-year Capital Plan will serve as the baseline financial plan against which changes can be applied arising from legislative and regulatory amendments expected later this year.

## 2.0 APPROACH AND METHODOLOGY

The following steps were taken to update the 10-year Capital Plan and prepare the 2021-2023 Interim Financial Plan (IFP):

**Completed capital needs assessment** –identified works in progress (WIP), activities and projects required to meet regulatory requirements, address growth, adapt to climate change, or achieve corporate objectives such as good asset management and maintaining service standards. Refer to staff report 3069/20 for results.

**Reviewed existing programs and services** –to assess which may be deemed mandatory<sup>1</sup> under 21.1(1) 1. and eligible for the municipal levy once legislative changes come into force:

21.1 (1)<sup>2</sup> The following are the programs and services that an authority is required or permitted to provide within its area of jurisdiction:

1. Mandatory programs and services required by the regulation.
  - mitigating risks from natural hazards.
  - conservation and management of authority owned/managed land.
  - serving as a source protection authority under the *Clean Water Act*.
  - other programs and services prescribed by the regulations.
2. Municipal programs and services that the authority agrees to provide on behalf of municipalities under Memoranda of Understanding or other agreement.
3. Other programs and services as the authority may determine are advisable to further its objectives.

**Reviewed existing staffing** – to assess the degree to which current workloads support one or more mandatory, municipal or other programs and services.

**Assessed capital and operation priorities** – using the methodology outlined below. Refer to Attachments 2 and 3 for results.

1. Identify the project driver:
  - External - Regulatory (including health and safety compliance)
  - External - Growth (addressing workload volumes and service standards)
  - External – Climate Change (adaptation and risk mitigation)
  - Internal - Strategic direction (corporate planning documents; continuous improvement)

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<sup>1</sup> For the purpose of this exercise it was assumed that programs and services that currently qualify for the annual provincial grant under Section 39 of the *CA Act* or Water and Erosion Control Infrastructure program grants represent work that will be considered “mandatory” going forward.

<sup>2</sup> Summary descriptions only. Actual wording can be found at <https://www.ontario.ca/laws>. (accessed Nov. 1/20.)

2. Assess the risk of not addressing the pressure (likelihood versus consequence analysis.) High/Medium/Low risks are shown as Red/Orange/Green in Attachments 2 and 3.
3. Identify linkages to other projects (cost optimization and leveraging opportunities)
4. Estimate net pressure on municipal levy (identify funding offsets and financing options)

**Conducted affordability review** – to determine what can be afforded assuming the current funding model, reserve balances, and annual capital contributions; and with and without financing of major capital works. Refer to Attachment 4 for scenario results.

**Prepared plans** – the draft IFP and 10-year Capital Plan reflect adjustments to programs and services, staff allocations, and phasing of capital works to address the financial limitations of the organization. Refer to Attachment 1 for the recommended updated 10-year Capital Plan.

## 2.1 Assumptions re: Capital Planning

The following assumptions were made in updating the 10-year Capital Plan:

1. Continuation of current financial practices as approved in 2018:
  - Annual Capital Levy that does not fluctuate up and down year over year.
  - Annual Capital Levy reflects annualized 10-year capital costs, not annualized lifecycle replacement costs.
  - The Annual Capital Levy includes a fixed annual mortgage payment of \$277,005 for the Authority HQ, (to be retired in 2040) yielding an estimated balance of \$250,000 (2018\$) for pay-as-you-go (PAYGO) projects and contributions to reserves.<sup>3</sup>
2. The 10-year capital needs (excluding mortgage payments) are roughly:
  - 75% for Water Control Structures (WCS) and Flood Forecasting & Warning (FFW);
  - 15% for Conservation Areas and HQ needs; and
  - 10% for Vehicles & Equipment and Information Technology.
3. Approximately 40% of WCS and FFW costs will be offset by Water & Erosion Control Infrastructure (WECl) funding from the province.<sup>4</sup>
4. The 10-year capital program focuses on areas of high risk.
5. The capital reserve funds will have a combined 2020 YE balance of approx. \$1.15 million.
6. The Annual Capital Levy of \$527,005 (2018 dollars) will be adjusted annually to replenish the combined reserve balance over the ten-year period.<sup>5</sup>

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<sup>3</sup> Plus approved annual increases.

<sup>4</sup> Not all WCS and FFW projects qualify for 50% funding.

<sup>5</sup> The proposed capital levy increase in 2021 is 2.5%. In subsequent years the annual increase to the capital levy would vary between 3.5% and 6.5% to allow for a 2030 YE combined reserve balance roughly equal to YE 2020. This does not allow for the impact of inflation on the cost of capital projects over the 10-year period and full replenishment is not forecasted. It also assumes debt financing of two major projects.

7. Provincial laws limit municipal debt financing payments to 25% of own-source revenues.<sup>6</sup> One or more member-municipalities could issue a debenture on behalf of the CA for a qualifying project. It is understood that the CA debt would count towards the municipality's 25%.
8. Existing mortgage payments represent 7.5% of the Authority's own source revenues. The Authority has room to borrow.

*The federal government has the money, the provincial governments have the constitutional authority, and local governments have the responsibility for making the actual investments.<sup>7</sup>*

Over 50% of Authority revenues for capital investments are from its eleven member-municipalities.

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<sup>6</sup> O. Reg. 403/02: Debt and Financial Obligation Limits, *Municipal Act*, 2001 (accessed November 1, 2020.)

<sup>7</sup> Hugh Mackenzie, "Canada's Infrastructure Gap: Where it Came From and Why It Will Cost So Much to Close," Canadian Centre for Policy Alternatives (2013): 13.

### 3.0 KEY FINDINGS AND CONCLUSIONS

The following are key findings and conclusions based upon analysis carried out to update the 10-year Capital Plan and prepare the IFP.

#### 3.1 Capital Program

Refer to Attachment 1 for the recommended updated 10-year Capital Plan.

1. The recommended 2021 Capital Levy is \$565,350, of which \$277,005 is dedicated to the mortgage payment. This leaves \$288,345 for Pay-As-You-Go (PAYGO) projects and contributions to reserves in 2021.
2. Actual annual capital needs over the next 10 years range from a low of \$301,000 to a high of \$1.04 million, net of WECl grants, and excluding mortgage payments.
3. One high year would deplete the capital reserves. Two high years are predicted over the planning period, driven by the Shabomeka and Kashwakamak dam projects.
4. Repair and replacement of dam structures and related studies represent the largest financial burden and potential risk. However, dedication of annual capital levies exclusively to that purpose would seriously undermine other areas of the organization.

#### Water Control Structures (WCS)

5. The Water Control Structure Reserve and the Glen Cairn Reserve<sup>8</sup> have a projected 2020 year-end (YE) balance of \$674,200.
6. The Shabomeka Lake Dam replacement project scheduled for 2021 will cost between \$1.3-\$1.5 million. To deliver this project on a Pay-As-You-Go (PAYGO) basis, and assuming 50% WECl funding, MVCA requires up to \$750,000. This could be achieved by depleting those reserves and using the 2021 capital levy to cover the difference.
7. Alternatively, a portion of funds could be taken from the operating reserve to be repaid in future years.
8. Both approaches would effectively deplete the two capital reserves leaving little for emergencies; and no funds to support delivery of other WCS projects including planned studies of the Kashwakamak Lake Dam scheduled to commence in 2021. (The Board approved deferring work at Kashwakamak based upon a risk assessment that recommended those studies and that the structure be replaced within 5-years.)
9. Debt financing of the Shabomeka Lake Dam would allow continued use of the two reserve funds for other high priority WCS projects (including some that do not qualify for WECl grants), maintain an emergency balance, and mitigate future increases to the capital levy.
10. Assuming debt financing of the Shabomeka Lake Dam, the projected reserve balances in 2029 would roughly equal what they are today. The cost of the Kashwakamak Lake Dam work is currently estimated at \$1.5 million which, at 50% WECl funding, equals \$750,000.

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<sup>8</sup> Use of this reserve is limited by parameters set by the province. It can be used for major capital WCS works and a variety of other uses.

As with Shabomeka, carrying out the Kashwakamak project on a PAYGO basis would deplete the WCS and Glen Cairn reserves, leave no buffer for emergencies, and prevent smaller projects from occurring (including regulated safety inspections.)

11. Alternatively, the Board could levy a premium on the annual capital levy in the two years that the projects proceed. This is not recommended due to current fiscal circumstance, and the Board’s previously stated preference for predictable levies over the planning period.
12. Debt financing of the Shabomeka Lake Dam and the Kashwakamak Lake Dam projects allows them to proceed in a timely manner without depleting reserves or requiring significant increases in the Capital Levy, as follows:
  1. Shabomeka Lake Dam, \$750,000 over 25 years at 2.09 % = \$38,670/year; and
  2. Kashwakamak Lake Dam, \$750,000 over 25 years at 2.09% = 38,670/year
13. The province recommends borrowing where appropriate: “Borrowing allows (municipalities) to spread out the cost of the project over its useful life and allows infrastructure costs to be paid not just by today’s taxpayer, but by future users as well.”<sup>9</sup> This holds true for CA dams as shown by Figure 1.
14. Carrying these two loans would raise the Authority’s total debt payments to 9.7% of own source revenues.

**Figure 1: Paying for long-life assets**

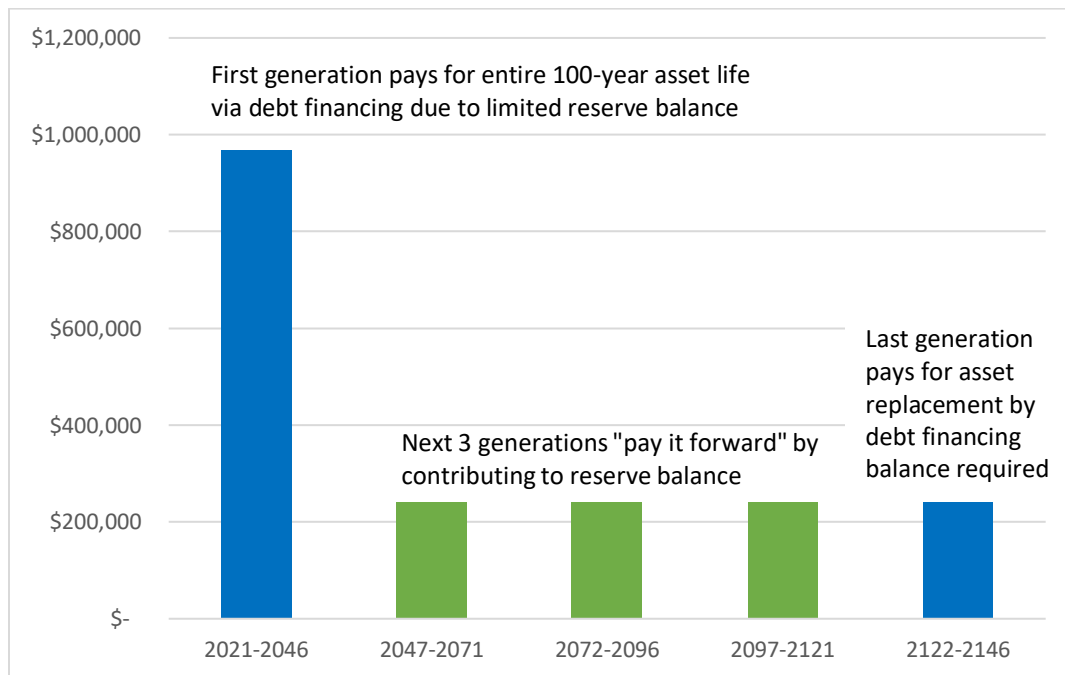


Figure 1 illustrates proposed financing of Shabomeka Lake Dam commencing 2021 compared to a sinking fund approach that is recommended for future replacement of the dam in 100 years.

<sup>9</sup> Ontario. “[Understanding municipal debt](#)”, accessed Nov. 3, 2020.

## Conservation Areas

15. The Conservation Area Reserve has a projected 2020 YE balance of \$42,000.
16. The combined value of all projects identified for the Conservation Areas over the next ten years is \$715,000 or an average of \$71,500 per year.
17. Four High Risk projects should be carried out over the next three years, with a combined value of \$74,000:
  1. MOK – Gatehouse accessibility and security improvements at ~\$10,000.
  2. MOK – Rebuild the Riverside Look-out for public safety at ~ \$9,000.
  3. Purdon – Replace boardwalk for public safety at ~\$50,000 total (over 4 years.)
  4. MICA – Bridge repairs for public safety at ~\$5,000.
18. A fifth compliance-driven project: accessibility improvements at the Education Centre valued at ~\$8,000 has been deferred pending decisions regarding future educational programming and use of the building.
19. A sixth compliance-driven project results from a recent structural and safety assessment of the Clyde River bridge on the K&P Trail. Cost estimates to replace the decking, railing, and related works range from \$123,550 to \$221,500 (design options vary in durability and longevity etc..) Refer to Staff Report 3093/20 for details. \$50,000 has been included in 2021 to address immediate safety concerns.
20. Several Medium Risk projects are designed to maintain current functionality and safety (e.g. replacement of wood chips at play structure.) Most can be delayed if needed, but not indefinitely.
21. Some Low Risk projects are suitable for fundraising (e.g. balcony repairs) and could be carried out if sufficient grants or donations are received.
22. Most museum improvements have been deferred to after 2023, but could proceed in the interim if desired or if fundraising facilitates their implementation.

## HQ Facility<sup>10</sup>

23. Connection of HQ to municipal water and sewer lines at an estimated cost of \$348,000 (2018\$) is planned for 2023. The current HQ reserve balance of \$338,701 supplemented by PAYGO will allow for connection to the system. (Connection during construction of the adjacent subdivision is needed to mitigate significant cost increases. Negotiations are currently underway regarding the location of fire hydrants that could impact costs.)
24. An additional \$105,000 in capital needs has been identified for the HQ facility as it reaches 10-years in age, reflecting the need for modest capital renewal.
25. Greater annual contributions to the reserve fund are required to allow for major equipment/component replacement at the facility in future (i.e. sinking fund.<sup>11</sup>)

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<sup>10</sup> Mill of Kintail (MOK), Purdon, Morris Island (MICA), Palmerston-Canonto, K&P Trail, Carp River (CRCA)

<sup>11</sup> Sinking Fund - established by setting aside revenue over a period of time to fund a future capital expense. For example, taking the replacement cost of a dam, dividing that by the number of years remaining life, and setting aside that amount annually to allow for future replacement.



26. Replacement of some components of the HQ could be eligible for debt financing due to their long-life. This would mitigate the need to set aside significant funds in the intervening years which taxpayers are already paying for by way of mortgage payments.

#### Information & Communications Technology (ICT)

27. The Information Technology Reserve Fund has a projected 2020 YE balance of \$16,300.
28. It has been Authority practice to set aside \$12,000/year to replace an average of three computers and three monitors a year, and for periodic data acquisition (e.g. DRAPE aerial photography.)
29. This assumes an average life of most hardware in excess of 10 years; and DRAPE acquisition once every five years.
30. Lifecycle replacement of larger capital items such as the plotter (used to produce mapping), storage devices, servers, and the boardroom A/V system were not included in the 2018 capital plan. Nor did it allow for acquisition of LiDAR elevation data as recommended in report 3088/20.
31. Increasing the annual ICT budget to \$15,000/year will allow for scheduled lifecycle replacement of larger ICT assets over the planning period supplemented by PAYGO funds in the year of expenditures.
32. Borrowing up to \$125,000 from the Operating Reserve would allow the Authority to acquire LiDAR data. This could be repaid to the reserve at a rate of \$5,000/year over 25 years. Elevation data does not change significantly on a watershed basis and the life and usefulness of this data warrants the internal loan. (The Operating Reserve has a projected 2020 YE balance of \$855,079.)
33. The Authority recently received a cost estimate of \$65k to upgrade the boardroom A/V systems to improve audio quality and user experience while video-conferencing. The project cannot be afforded in the near-term without a similar internal loan. The upgrade was not included pending a decision from the Board on the value of this investment.

#### Vehicles and Equipment

34. The Vehicles and Equipment Reserve Fund has a projected 2020 YE balance of \$81,403.
35. The Authority has 10 vehicles, all of which require vehicle markings/decals, 2-way radios, amber globe safety lights etc. and, in the case of trucks, storage systems for equipment, trailer hitches etc..
36. Vehicles *should* be replaced on a five-year rotation to ensure that they are in good working condition and not subject to breakdown and significant repair costs.
37. Other major equipment needs over the 10-year planning period include an ATV and ATV tracks, a tractor, a boat and motor, tandem utility trailer, and riding lawn mower.
38. This equipment has a combined estimated cost of \$96,000. No major equipment is expected to be needed within the first three years, however, monies should be set aside to afford their replacement in later years of the capital plan as they are essential for operations.

39. In recent years, the annual budget has set aside \$60,000-65,000/year for vehicles and equipment, which equates to replacing vehicles on a ten-year rotation, or double the desired service standard and with no allowance for outfitting vehicles.
40. Increasing the annual allocation to \$68,600 will maintain the current standard of vehicle replacement and ensure that essential equipment can be replaced when it reaches the end of its lifecycle.

### 3.2 Programs and Services

Table 1 summarizes current programs and services provided by the Authority, and where they *may have been* classified under regulations expected per Bill 108. With tabling of Bill 229 on November 5, 2020, these allocations could change, particularly items 5 and 6 due to proposed changes in the planning and regulatory roles of conservation authorities.

Table 1 is based upon the assumption that costs currently eligible for the MNRF annual Section 39 grant<sup>12</sup> or WECl grants would be considered mandatory; as well as matters directly related to Conservation Area management and source water protection.

**Table 1: Potential classification of costs per Bill 108**  
(based upon MVCA 2021 Draft Payroll Budget)

<b>Programs and Services</b>	<b>Mandatory</b>	<b>Municipal<sup>13</sup></b>	<b>Other</b>
1. Water Control Structures (WCS) – O&M	9.1%		
2. WCS – Preventative Maintenance	3.7%		
3. Flood Forecasting and Warning	6.8%		
4. Conservation Areas and HQ	7.9%		
5. Technical Studies & Watershed Planning	19.4%	3.5%	0.8%
6. Planning and Regulations	16.6%	6.3%	
7. Communications	0.05%		3.5%
8. Stewardship and Education		0.4%	2.0%
9. Visitor Services			3.0%
10. Vehicles and Equipment	0.4%		
11. Information & Communication Tech.	0.2%		
12. Administration	16.35%		
<b>Total</b>	<b>\$2,030,179</b>	<b>\$255,839</b>	<b>\$231,968</b>

The following findings and conclusions focus on work plans for 2021-2023, and on areas shown as ‘Municipal’ or ‘Other’ in Table 1.

<sup>12</sup> Ontario. *Policies and Procedures for Determining Eligibility for Provincial Grant Funding to conservation Authorities*. June 13, 1997.

<sup>13</sup> Memoranda of understanding, special levies, or other agreements exist with one or more municipalities for these services today.

## Stewardship and Education

1. Stewardship and education programs and services are not expected to qualify as mandatory. Some elements prescribed by source protection plans<sup>14</sup> may qualify.
2. Currently, the following stewardship programs are delivered under formal agreements:
  - Septic Reinspection Program (Tay Valley, North Frontenac, Drummond North Elmsley)
  - Ottawa Rural Clean Water Program (City of Ottawa)
  - Forest management (County of Lanark 5-year plan; annual timber assessment and marking)
3. The following stewardship programs are delivered through a combination of grants and the municipal levy, and can vary year to year:
  - Trees Canada Reforestation Program (rural tree planting in partnership with RVCA)
  - Watershed Watch Program (support to residents in lake monitoring program, in partnership with Watershed Canada)
  - Lake Stewards Program (support to residents in lake monitoring program, in partnership with the MECP and the Federation of Ontario Cottagers' Associations)
  - Ottawa City Stream Watch Program (monitoring of tributaries)
4. The following activities are carried out on an *ad hoc* basis with community groups and are funded by the municipal levy; and are often but not always offset by one-off grants:
  - Shoreline naturalization on public sites
  - Erosion control on public sites
  - Support to lake associations such as lake planning
  - Lake Links, annual stewardship event in partnership with Watersheds Canada
5. The average net cost to the municipal levy to deliver stewardship programming over the three years 2017-2019 was approximately \$34,600/year.
6. To date, stewardship programming has been delivered on a part-time basis. Members of the public and the Public Advisory Committee for the Watershed Plan have indicated significant interest in enhanced Stewardship programming by the Authority.
7. There is an opportunity to expand stewardship work, particularly where grants are available to offset costs.
8. A three-year pilot is recommended 2021-2023 to determine the degree of interest, uptake, and affordability given grants available and limits imposed by regulation.
9. The education program (currently suspended) is comprised of the following services:
  - Spring Water Awareness Program (delivered in February/March; the SWAP is funded by Ontario Power Generation)
  - Half-day programming for elementary students (Sept.-Jan.; April-June.)
  - Summer camp program (6 weeks per year)

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<sup>14</sup> Per the [Ontario Clean Water Act, 2006](#), accessed November 3, 2020.

10. Due to COVID-19, in lieu of the above, staff conducted 32 outreach events at public boat launches and beaches over July-August, funded by the municipal levy. Stewardship messaging as well as key facts about the watershed and related issues were shared.
11. Between 2017-2019, the education program was booked on average 60 days per year, delivered the SWAP to roughly 20 schools/year, and provided summer camp programming to an average of 120 children/year.
12. School and summer camp programming was delivered on a fee for service basis, and subsidized by the municipal levy an average of \$62,500/year between 2017-2019.
13. An assessment of the existing education program indicates a significant amount of “down time” and an opportunity to yield equal or greater public engagement and on-the-ground results through alternative methods.
14. The Authority recently developed a mobile application—Eco Trekr, that will allow primary school-aged students to learn about the Carp River Conservation Area as they walk the site with a teacher, friends or family. The app is game-based and links to educational facts and challenges; and can be expanded and used for other MVCA conservation areas and facilities. The app is scheduled for launch in spring 2021.
15. During 2021-2023, staff propose to pilot use of Eco Trekr at the Carp River Conservation Area, expand use of the tool to the MOK, and investigate alternative service delivery models for delivering CA-based curriculum with school boards in the watershed.
16. Continued suspension of the school and camp programs is recommended through to the end of 2022 given ongoing uncertainty regarding school programming due to COVID-19 and the potential of providing self-directed services for teachers and students at less cost.
17. This approach would also alleviate the need in the near-term to upgrade the Education Centre entry to become AODA-compliant.
18. Discussions are on-going with OPG regarding the potential for delivering SWAP remotely in spring 2021.

#### Watershed Planning and Technical Studies

19. Watershed Planning is eligible for the Section 39 grant and is a foundation piece to watershed management and the mandate of conservation authorities. On-going work on the Mississippi River Watershed Plan will inform drafting of MVCA’s Strategic Plan in 2021, and support refined priority setting and budgeting for the next 5 years.
20. Upon completion of the Plan in 2021, efforts will be directed towards implementing priority projects identified for MVCA.
21. Continued engagement of the Public Advisory Committee post delivery of the Watershed Plan is desirable to maintain and expand ties to the community and facilitate implementation.
22. Continued engagement of indigenous communities regarding the Watershed Plan and matters of shared interest was recommended in the *Mississippi River Management Plan – Implementation Report*, 2020 recently approved by the Province. This will require

sustained investment in relationship-building and technical support per recommendations of the Truth and Reconciliation Commission of Canada *Calls to Action*, 2015.

23. Not all technical studies carried out to support development of the Watershed Plan are eligible for the Section 39 grant, specifically:
  - Hydrological, hydraulic, and morphological studies are eligible, as are mapping and associated data management.
  - Surface water quality monitoring, all ground water monitoring, and all aquatic and terrestrial studies are ineligible, as are mapping and associated data management.
24. A mix of eligible and ineligible studies are needed to fulfill the Authority's obligations under the *Mississippi River Water Management Plan*, 2006.<sup>15</sup>
25. None of the studies completed by the Authority are carried out by any other public agency in the area. The MNRF acknowledged that it curtailed its field studies in the aforementioned *Implementation Report*, 2020.<sup>16</sup> If the Authority withdraws these services, staff, the Board and others will lose the data needed to identify trends and issues, and to support informed permitting, policy and investment decisions.
26. At present, the following "ineligible" field studies are carried out by MVCA:
  - Water quality monitoring is carried out at 14 Provincial Water Quality Monitoring Network (PWQMN) sites on behalf of the MECP every year. MVCA is not compensated for the work, but uses the results to help assess lake, river, and watershed health. Samples are analyzed at provincial laboratories at no cost to the Authority.
  - Water quantity and quality monitoring is carried out at 9 Provincial Groundwater Monitoring Network (PGMN) sites on behalf of MECP every year. MVCA is not compensated for that work, and has recommended significant modifications to the program to yield useful data to the Authority and others.<sup>17</sup>
  - Since 2018, the Authority has carried out a baseline monitoring program of 17 surface water sites under an MOU with the City of Ottawa. The City provides funding for 0.5 FTE for that purpose, and conducts analyses at its own laboratory and expense.
  - The Authority conducts annual water quality monitoring at key locations in the watershed, and targets a selection of smaller lakes each year for detailed study on a rotating basis.<sup>18</sup> Results are published and provided to lake associations and area municipalities the following year; and used to prepare a Watershed Report Card every 5-6 years.

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<sup>15</sup> For example, Section 4 states that MVCA is to support MNRF in environmental monitoring to evaluate the effectiveness of the Plan in protecting aquatic species and habitats.

<sup>16</sup> "In some cases, MNRF has not fulfilled commitments identified in the approved Water Management Plan (WMP)... Over time and since the approval of the WMP, ministry priorities, structure and approaches have shifted including those for Water Management Plans." The Implementation Report is on MVCA's [website](#).

<sup>17</sup> Per Board direction, notice was given to the province that MVCA will be withdrawing from the PGMN pending a review of the ground water monitoring sites and program design.

<sup>18</sup> Lake water is tested/analyzed for Total Phosphorus; stream sites are sampled for biota and habitat, not water chemistry.

- The Authority also has a limited number of temperature gauges in streams serving as cold water fish habitat that are checked periodically; and carries out spring-time surveys at different headwater locations each year to document flow inundation and seasonal habitats.
  - Sampling and modeling of algae growth in Mississippi Lake.
  - Pre and post-development fish and benthic sampling is carried out in areas identified as undergoing development pressures to assess baseline conditions, determine mitigation requirements, and identify opportunities to improve habitat conditions.
27. The average net cost to the municipal levy to deliver the above field monitoring and studies between 2017-2019 was \$57,685.
28. There are opportunities to improve aquatic and terrestrial field studies that are being investigated for implementation in 2021-2023.
- Reduce frequency in monitoring sites with consistently good to excellent water quality.
  - Increase frequency in monitoring higher risk sites to allow for better trend analysis.
  - Focus habitat/fisheries assessments on unevaluated wetlands near urban areas to identify connectivity amongst them and to Provincially Significant Wetlands (PSWs).
  - Pursue discussions with MECP regarding modifications to the groundwater monitoring program.
  - Increase and improve citizen-science field monitoring.
  - Improve sharing and promotion of the monitoring data and reports.
29. Technical studies to be carried out 2021-2023 that are eligible for Section 39 funding are the following:
- Dam Safety Reviews (DSR) for the following structures:
    - Kashwakamak Lake Dam
    - Carleton Place Dam
    - Lanark Dam
  - Kashwakamak Class Environmental Assessment
  - Safety boom design studies for Shabomeka Lake and Carleton Place Dams
30. Depending upon the level of funding for LiDAR data acquisition, flood plain mapping of the Clyde River in the area of Lanark Village would be updated.
31. The capital and operating budgets assume that all of the above studies will receive 50% WECl funding; except the LiDAR project, for which 50% funding will be sought under the National Disaster Mitigation Program.
32. In addition, the following technical studies are to be completed on a cost recovery basis under an MOU with the City of Ottawa:
- Carp River Flood Plain Mapping
  - Casey Creek Flood Plain Mapping
  - Watts Creek and Shirley's Brook Flood Plain Mapping

## Planning and Regulations

33. Section 28 regulation programs are eligible for the Section 39 grant, but not all planning services are eligible, specifically:
  - Planning input and advice to municipalities on behalf of the province on Natural Hazards per section 3.1 of the Provincial Policy Statement (PPS) are eligible.
  - Planning input and advice on all other matters are ineligible (for example, advice regarding hydrogeology, natural heritage protection, and stormwater management.)
34. Depending upon the scope and nature of changes made by the new regulations, significant effort may be required over 2021-2022 to understand the changes and to modify as needed, permitting practices and guidance documents for staff, area municipalities and the public.
35. As well, a compliance promotion and inspection program will be developed as set out in Staff Report 3030/19 that addresses any changes in regulation.
36. Ineligible planning and regulation services are mostly delivered on a fee for service basis, primarily via MOUs with the County of Lanark, City of Ottawa, and the townships of Tay Valley, North Frontenac, Drummond North Elmsley, the Town of Carleton Place and the Municipality of Mississippi Mills.<sup>19</sup>

## Visitor Services

37. Visitor services includes facility rentals for weddings and community groups, museum operations, and the hosting of special events such as Kintail Country Christmas.
38. Museum operations are supported by the following grants<sup>20</sup>:
  - Annual grant from the Municipality of Mississippi Mills; and
  - Annual provincial Community Museum Operating Grant (CMOG).
39. Facility rentals are directly tied to operation of the site as a conservation area, and allow for enhanced use of the property on a fee for service basis.
40. The average annual net cost to the municipal levy between 2017-2019 was \$80,084.
41. An *ad hoc* committee established by the Board is currently examining options for funding and operation of the Mill of Kintail Museum.
42. Until the regulations are issued and take effect or an alternative service delivery model has been found to fund and operate the museum, continued operation is planned at a reduced level of service per COVID-19 and the financial constraints of the organization.<sup>21</sup>

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<sup>19</sup> MOUs for planning advisory services with Lanark and Ottawa; for septic reinspection with Drummond North Elmsley, Tay Valley, and North Frontenac; and for source water protection with Carleton Place and Mississippi Mills.

<sup>20</sup> Under COVID-19, an additional grant was secured from the federal government.

<sup>21</sup> During the 2020 season, the museum was open Fridays through Mondays 10am-3pm.

### Facilities Management / Conservation Areas

43. Current operations represent the minimum required to maintain the safety, quality, and aesthetic experience of the Authority's conservation areas.
44. Typical activities include hazard tree identification and removal, inspection and maintenance of play structures, replacement of deteriorating boardwalks, repair of retaining walls, repair and rehabilitation of buildings, lawn mowing and trash removal, outhouse operations and maintenance, snow clearing, and parking meter operations.
45. Challenges in 2020 arising from COVID-19 that are expected to continue into 2021:
  - Increased washroom cleaning needs per health unit recommendations; and
  - Historic high attendance with consequent overflow of parking onto nearby roads.
46. Higher attendance levels warrant more frequent washroom cleaning should these be sustained post COVID-19 operations.
47. Authority staff accumulated significant overtime (OT) in 2020 to address washroom cleaning requirements. This cannot be continued into 2021 without impacting staff availability as the Authority provides time-off-in-lieu (TOIL) instead of OT pay.
48. Contracting out washroom cleaning for the Mill of Kintail and Morris Island sites is estimated to cost approximately \$42,000/year.
49. In launching the new Carp River Conservation Area, additional tasks will be required—primarily related to sign installation and the construction of bird and bat boxes and platforms and a lookout. Day to day operations and maintenance will remain with the City.

### Flood Forecasting and Warning (FFW)

50. All current and planned FFW activities are eligible for the Section 39 annual grant.
51. Project management and delivery of the following priority projects are planned for the period 2021-2023:
  - Watershed LiDAR acquisition – terrain data creation upon receipt of data files
  - Bathymetric data collection – field work
  - Development of a numerical watershed model – in-house
  - Expansion of monitoring network as set out in the 10-year Capital Plan
  - Development of digital forms for data collection and dam operation, inspection and maintenance – in-house
  - Development of automated data QA/QC procedure – in-house
  - Development of raster tools for flood forecasting and low flow response – per long-term WISKI operating contract in partnership with 9 other conservation authorities.

### Water Control Structure (WCS) Operation & Maintenance (O&M)

52. Some but not all dam O&M are eligible for the Section 39 grant, specifically “structures where no flood control function is performed (i.e. recreation, low flow augmentation



dams”) are ineligible.<sup>22</sup> This rule applies to WECA funding as well, which is why not all dam capital works are eligible for the 50% grant.

53. Removal of the municipal grant or other funding to operate, maintain and carry-out lifecycle repairs and replacement could have serious consequences for landowners benefiting from those structures.
54. Existing timesheet and maintenance systems do not allow for easy estimation of the average annual cost to operate, maintain and perform lifecycle works on affected assets.
55. Depending upon wording in the regulations, options to decommissions those dams or transfer ownership may need to be considered. Any change would be a lengthy process and require provincial approvals and public engagement.
56. Accordingly, no change in O&M requirements for those facilities is expected within the period 2021-2023.
57. Due to the larger liability associated with the Authority’s flood control structures, efforts will focus on those dams as outlined in the updated 10-year Capital Plan. The exception to this is Widow Lake Dam, which is in a very poor state of repair.<sup>23</sup>
58. MVCA monitors and operates five MNRF dams/weirs<sup>24</sup> under a 3-year contract that expires March 31, 2021. For this, the Authority receives \$7,125 per year. This amount is considered insufficient for the risk and responsibilities associated with the contract.
59. Maintaining a continued role in the management of those facilities is desirable from a systems operation’s and management perspective, but is not essential.
60. Negotiations with the Ministry are required and will be pursued imminently.

#### Governance and Administration

61. Administrative services are eligible for Section 39 funding, however, there is some question whether the new regulation will require this to be allocated to the municipal levy on a proportionate basis where CAs also deliver non-mandatory services.
62. There are several corporate governance and administrative gaps to be address that will be discussed in greater depth during the Strategic Planning process in 2021. Key issues that will require attention in the period 2021-2023 include the following:
  - Credibility gap with the public concerning financial management, the focus and direction of the organization, management of water levels, and its approach to Section 28 of the *CA Act*.
  - Transitioning the organization to the new regulatory framework.
  - Workload management and mental health in the workplace.
  - Resolution of outstanding legal matters such as clarification of land ownership at dams and conflicts with adjacent landowners on ROW use.

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<sup>22</sup> Ontario. *Policies and Procedures for Determining Eligibility for Provincial Grant Funding to Conservation Authorities*, June 13, 1997.

<sup>23</sup> The deck scheduled for replacement in 2019 did not occur due to the flood and limited staff availability.

<sup>24</sup> Palmerston, Canonto, Malcom and Summit dams, and Mosque weir.

- Structure and effectiveness of the Mississippi Valley Conservation Foundation.

### Communications

63. Flood warning communications are eligible for the Section 39 grant, but no other communication activities are eligible.
64. However, section 21.1. (1) of the *CA Act* identifies programs and services related to the management of natural hazards, conservation areas, and source water protection as mandatory, therefore communications related to these activities should remain eligible for the municipal levy, which represents most other communications.
65. Based upon the foregoing discussions, communications in the period 2021-2023 are proposed to focus on the following matters:
  - Watershed Plan – public engagement, roll out, and related initiatives
  - Public engagement for floodplain mapping and dam projects
  - Public awareness regarding any changes that may arise from the regulation
  - Launch and promotion of the Carp River Conservation Area
  - Continued promotion of all other conservation areas
  - Promotion of the stewardship pilot and related initiatives
  - Pilot and expanded use of the Eco Trekr mobile app for primary education
  - Support to the Board and communications with member municipalities
  - Enhanced use of multi-media for all of the above to engage with the public during and post COVID-19.

## **4.0 2021-2023 BUDGET**

The proposed 2021-2023 budget is shown in Table 1, in 2021 dollars. It reflects the 10-year Capital Plan contained in Attachment 1.

<b>Table 1: TOTAL BUDGET</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Operating	3,646,441	3,751,711	3,845,500	3,941,640
Capital	1,279,845	2,259,605	742,275	1,102,275
Contribution to Reserves	114,761	95,745	23,516	55,601
<b>Total</b>	<b>5,041,047</b>	<b>6,107,061</b>	<b>4,611,291</b>	<b>5,099,516</b>

## **5.0 MUNICIPAL LEVIES**

As authorized by the Board of Directors on October 21, 2020, the operating portion of the 2021 levy shows an increase of 2.0% for inflation and 1.5% for growth; and the Capital Levy a 2.5% increase for inflation and 1.5% for growth. This raises the total levy in 2021 by just over 3.6% as

shown in Table 2. In 2022 and 2023, the Capital Levy is recommended to increase by 4.5% in order to maintain appropriate reserve levels over the 10-year plan. The Special Levy is only paid by the City of Ottawa and is for delivery of its Baseline Water Quality Monitoring Program. In 2021, the municipal levy will constitute 53.3% of total revenues, down from 62.13% in 2020.

<b>Table 2: MUNICIPAL LEVIES</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
General Levy - Operating	\$2,588,714	\$2,679,319	\$2,773,095	\$2,870,153
Capital Levy	\$543,606	\$565,350	\$590,791	\$617,376
<b>Total</b>	<b>\$3,132,320</b>	<b>\$3,244,669</b>	<b>\$3,363,886</b>	<b>\$3,487,529</b>
Special Levy	\$61,500	\$62,000	\$62,000	\$62,000

## 6.0 RESERVES

A fundamental objective of the IFP and updated capital plan was to maintain adequate reserve balances over the planning period to allow for emergencies. Table 3 illustrates how reserve balances are projected to change over the next year, and by the end of 2030. This does not take into consideration inflation applied to the capital projects shown in the Capital Plan.

<b>Table 3: Reserve Balance Projections</b>	<b>2020</b>	<b>2021</b>	<b>2030</b>
Operating Reserve – YE Balance	\$855,079	\$730,079	n/a
Capital Reserves – YE Balance	\$1,152,603	\$1,177,096	\$1,086,194
Contribution to Reserves	\$114,761	\$95,745	\$114,375
Allocations from Reserves	\$296,808	\$71,252	0

## 7.0 LONG-TERM DEBT

Table 4 shows the debt schedule as proposed.

<b>Table 4: Debt Schedule</b>	<b>Principal</b>	<b>Interest and Amortization</b>	<b>Annual Payments</b>	<b>Retirement</b>
Shabomeka Lake Dam	\$750,000	2.09% for 25 years	\$38,670	2046
Kashwakamak Lake Dam	\$750,000	2.09% for 25 years	\$38,670	2050
HQ / works yard mortgage	\$4,640,000	3.4% for 25 years	\$277,005	2040

Annual debt payments are to be made from the annual operating budget.

## ATTACHMENT 1: DRAFT Capital Plan 2021-2030

<b>CAPITAL PLAN SUMMARY</b>											
<b>Water Control Structures</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>10 Yr Total</b>
Shabomeka Lake Dam	1,500,000	-	-	-	-	-	-	-	-	-	1,500,000
Mazinaw Lake Dam	-	-	-	-	-	-	-	-	50,000	50,000	100,000
Kashwakamak Lake Dam	50,000	75,000	20,000	75,000	1,500,000	-	-	-	-	-	1,720,000
Big Gull Lake Dam	-	-	-	-	50,000	50,000	-	-	-	-	100,000
Mississagagon Lake Dam	-	-	-	-	-	-	-	75,000	50,000	250,000	375,000
Farm Lake Dam	-	-	-	75,000	-	50,000	350,000	-	-	-	475,000
Pine Lake Dam	-	-	-	-	-	75,000	25,000	50,000	-	-	150,000
Carleton Place Dam	-	-	150,000	75,000	-	-	-	-	-	-	225,000
Lanark Dam	-	-	75,000	50,000	-	-	-	-	-	-	125,000
Widow Lake Dam	-	175,000	-	-	-	-	-	-	-	75,000	250,000
Bennett Lake Dam	-	-	-	-	-	-	-	75,000	75,000	-	150,000
Glen Cairn Detention Basin	-	-	-	-	-	-	-	-	-	-	-
MaLarens Landing	-	-	-	-	-	-	-	-	-	-	-
Project Management											
Preventative Maintenance	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000
<b>Proposed Debt Repayment</b>		<b>38,670</b>	<b>38,670</b>	<b>38,670</b>	<b>38,670</b>	<b>77,340</b>	<b>77,340</b>	<b>77,340</b>	<b>77,340</b>	<b>77,340</b>	<b>541,380</b>
<b>Subtotal</b>	<b>1,565,000</b>	<b>303,670</b>	<b>298,670</b>	<b>328,670</b>	<b>1,603,670</b>	<b>267,340</b>	<b>467,340</b>	<b>292,340</b>	<b>267,340</b>	<b>467,340</b>	<b>5,861,380</b>
<b>Watershed Monitoring</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>10 Yr Total</b>
Gauge Network	12,500	22,500	22,500	16,500	22,500	22,500	21,000	22,500	22,500	31,500	216,500
Survey & Flow Equipment	-	30,000	-	-	-	-	-	-	-	-	30,000
<b>Subtotal</b>	<b>12,500</b>	<b>52,500</b>	<b>22,500</b>	<b>16,500</b>	<b>22,500</b>	<b>22,500</b>	<b>21,000</b>	<b>22,500</b>	<b>22,500</b>	<b>31,500</b>	<b>246,500</b>
<b>Conservation Areas</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>10 Yr Total</b>
Mill of Kintail	9,000	10,000	-	38,000	35,000	115,000	60,000	87,000	99,000	60,000	513,000
Purdon	12,500	12,500	12,500	12,500	5,000	5,000	7,000	-	-	-	67,000
K&P Trail	50,000	-	-	2,000	2,000	2,000	7,000	32,000	2,000	2,000	99,000
Morris Island	-	5,000	-	10,000	6,000	5,000	5,000	-	-	-	31,000
Office Trail	-	-	-	-	5,000	-	-	-	-	-	5,000
<b>Subtotal</b>	<b>71,500</b>	<b>27,500</b>	<b>12,500</b>	<b>62,500</b>	<b>53,000</b>	<b>127,000</b>	<b>79,000</b>	<b>119,000</b>	<b>101,000</b>	<b>62,000</b>	<b>715,000</b>
<b>Vehicles &amp; Equipment</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>10 Yr Total</b>
Vehicles	68,600	68,600	56,600	60,600	58,600	43,600	68,600	68,600	47,600	48,600	590,000
Equipment	-	-	12,000	8,000	10,000	25,000	-	-	21,000	20,000	96,000
<b>Subtotal</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>68,600</b>	<b>686,000</b>
<b>HQ Building</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>10 Yr Total</b>
Debenture payment	277,005	277,005	277,005	277,005	277,005	277,005	277,005	277,005	277,005	277,005	2,770,050
Sewer and water connection	-	-	348,000	-	-	-	-	-	-	-	348,000
Other	-	-	-	-	15,000	-	70,000	10,000	10,000	-	105,000
<b>Subtotal</b>	<b>277,005</b>	<b>277,005</b>	<b>625,005</b>	<b>277,005</b>	<b>292,005</b>	<b>277,005</b>	<b>347,005</b>	<b>287,005</b>	<b>287,005</b>	<b>277,005</b>	<b>3,223,050</b>
<b>Information Technology</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>10 Yr Total</b>
Hardware	15,000	15,000	25,000	24,000	23,000	18,000	15,000	15,000	15,000	15,000	180,000
Data Acquisition	15,000	15,000	15,000	32,500	15,000	15,000	15,000	15,000	32,500	15,000	185,000
LIDAR	250,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	295,000
<b>Subtotal</b>	<b>280,000</b>	<b>35,000</b>	<b>45,000</b>	<b>61,500</b>	<b>43,000</b>	<b>38,000</b>	<b>35,000</b>	<b>35,000</b>	<b>52,500</b>	<b>35,000</b>	<b>660,000</b>
<b>Total</b>	<b>2,274,605</b>	<b>764,275</b>	<b>1,072,275</b>	<b>814,775</b>	<b>2,082,775</b>	<b>800,445</b>	<b>1,017,945</b>	<b>824,445</b>	<b>798,945</b>	<b>941,445</b>	<b>11,391,930</b>

## ATTACHMENT 2: Priority Assessment of Capital Projects

Project	Driver	Risk	2021-2023
<b>Water Control Structures (WCS)</b>			
Shabomeka Dam replacement	MNRF, CDA		√
Kashwakamak Dam Safety Review (DSR)	MNRF, CDA		√
Widow major dam repair	MNRF, CDA		√
Shabomeka Dam safety boom (design & installation)	MNRF, CDA		√
Kashwakamak Dam Class EA	MNRF, CDA		√
Carleton Place DSR	MNRF, CDA		√
Carleton Place safety boom (design and installation)	MNRF, CDA		√
Lanark DSR	MNRF, CDA		√
Kashwakamak Dam Design	MNRF, CDA		
Farm Dam Class EA	MNRF, CDA		
Carleton Place minor dam repair	MNRF, CDA		
Lanark minor dam repair	MNRF, CDA		
Big Gull DSR	MNRF, CDA		
Kashwakamak Dam replacement	MNRF, CDA		
Farm Dam design	MNRF, CDA		
Pine Dam Class EA	MNRF, CDA		
Big Gull minor dam repair	MNRF, CDA		
Pine Dam design	MNRF, CDA		
Farm Dam replacement/decommissioning	MNRF, CDA		
Mississagagon Dam Class EA	MNRF, CDA		
Bennett DSR	MNRF, CDA		
Pine Dam replacement/decommissioning	MNRF, CDA		
Mazinaw DSR	MNRF, CDA		
Mississagagon Dam design	MNRF, CDA		
Bennett minor dam repair	MNRF, CDA		
Widow DSR	MNRF, CDA		
Mississagagon Dam replacement/decommissioning	MNRF, CDA		
Mazinaw minor dam repair	MNRF, CDA		
<b>Flood Forecasting and Warning (FFW)</b>			
Watershed LiDAR acquisition	Climate change adapt.		√
Watershed model tool	Climate change adapt.		√
Bathymetric data collection	Climate change adapt.		√
Expansion of monitoring network	Climate change adapt.		√
Flow meter acquisition	Climate change adapt.		

Project	Driver	Risk	2021-2023
<b>Conservation Areas / HQ Facility</b>			
Bridge deck & handrail upgrades	Lifecycle replacement		TBC
Replace riverside look-out	Building Code Structural concerns		√
Gate house - accessibility doors and ramps	AODA compliance		√
Purdon - Replace sections on Boardwalk	Safety - Lifecycle replacement		√
MICA Trail Bridge repairs	Safety - structural		√
HQ Sewer and water connection	Agreement with C.P.		√
Education Centre - security and accessibility upgrades	AODA compliance		
MOK Replace play structure wood chips	CSA Compliance		√
MOK Resurface roadway and parking lot	Preventative Maint. BMP		√
Gatehouse - Replace veranda joists and flooring	Heritage Act. Prev. Maint.		√
Purdon - Replace site signage	Lifecycle replacement		√
HQ - Condition Assessment	Asset management BMP		
MOK Building Condition Assessment	Asset management BMP		
MOK Signage	Lifecycle replacement		
Gatehouse - Re paint all exterior window and door trim			
MOK Road maintenance	Preventative maint.		√
Develop MOK site work shop	Secure Storage of Equipment		√
Education Centre - Replace siding	Prev. Maint.		√
Gatehouse - Repoint stone work	Heritage Act, prev. maint.		
Museum - Balcony repairs	Heritage Act		
Museum - Repaint windows & trim	Heritage Act		
MOK Construct dog park	Public Request		
MOK Construct flush washrooms	MOK Master Plan		
Purdon - Replace main look-out	Lifecycle replacement		
K&P Trail Condition Assessment	Asset Mgt BMP		
MICA Trail brushing/improvements	Preventative maint.		
MICA Signage renewal	Lifecycle replacement		
Roy Brown Park - construct lookout	Park Plan / Agrt w C.P.		
<b>Vehicles and Equipment</b>			
Vehicle purchase			
ATV	Dam Ops		

Tracks for ATV	Dam Ops		
Tandem utility trailer	Dam Ops		
Riding Lawn mower			
<b>Information and Communications Technology</b>			
Servers	Lifecycle replacement		√
Data acquisition	Technical studies		
Computers lifecycle replacement	lifecycle repl.		
Integrated GIS/Reports for FP mapping	Transparency		
Printers	Lifecycle replacement		
Monitors	Lifecycle replacement		
Storage	Allow data growth		
Audio Visual Improvements	For remote meetings		
Purchase SAAS MS Exchange 365 backup	Improve data mgt.		
<b>Other</b>			
Carp Creek Restoration	MOU with City		√

### ATTACHMENT 3: Priority Assessment of Programs and Services

Project	Driver	Risk	2021-2023
<b>Governance and Administration</b>			
MOU drafting/renewals	Regulatory		√
Land Ownership Resolution	Legal		√
Transition Plan (incl. Museum)	Regulatory		√
Update Corporate Strategic Plan	Board Dir./BMP		√
Land Disposals	Financial/Board Dir.		√
Job Evaluation and Reconciliation	Employment mkt. and workplace health		√
Mental health in workplace	Workplace health		√
Asset Management Plan – Phase 2	Asset Mgt. - BMP		√
Business Automation - timesheets	BMP / Def. from 2020		
Integrate payroll and timesheet systems	Admin. BMP		
Business process mapping	Admin. BMP		
<b>Water Control Structures (WCS) and Flood Forecasting and Warning (FFW)</b>			
Operator safety inspections	H&S		√
Development of a numerical watershed model	Climate Change Adapt.		√
Model data collection and calibration	Climate Change Adapt.		√
Operator safety inspections	H&S		√
Dam inspection updates	MNRF/CDA		√
Public Safety Plans	MNRF/CDA		√
OMS manual updates	MNRF/CDA		√
Development of digital forms for data collection and dam operation, inspection and maintenance	Operational efficiency and data accessibility		√
Development of automated data QA/QC procedure	Climate Change Adapt.		√
Development of raster tools for flood forecasting and low flow response	Climate Change Adapt.		√
<b>Conservation Areas / HQ Facility</b>			
Asset Management Plan – Phase 2	Asset Mgt. - BMP		
Update MOK Master Plan	Regulatory changes		
Update MICA Master Plan	Regulatory changes		
Prepare CRCA Master Plan	New asset needs Plan		
Update Purdon Master Plan	Last updated 2013		
Update Palmerston-Canonto M. Plan	Last updated 2006		
Development of raster tools for flood forecasting and low flow response	Climate Change Adapt.		√



Project	Driver	Risk	2021-2023
<b>Planning Review and Regulations</b>			
Update planning policies	Regulation changes		√
Update regulation policies and procedures	Regulation changes		√
Update permitting documents	Regulation changes		√
Review guidelines and submission checklists for planning/permit applications	Regulation changes		√
Prepare Compliance Program	Regulation changes		√
Enhance application tracking/reporting	Admin. - BMP		
Review of hazard mapping criteria	Regulation changes		
Implement CO service standards	Admin. - BMP		
<b>Technical Studies and Watershed Planning</b>			
Project management of capital projects	Regulatory		√
Carp Flood Plain Mapping (FPM)	Climate Change Adapt.		√
Casey Creek Flood Plain Mapping	Climate Change Adapt.		√
Watts Creek FPM	Climate Change Adapt		√
Shirley's Brook FPM	Climate Change Adapt		√
Carp Creek Restoration Class EA	City of Ottawa MOU		√
Clyde or Fall River FPM	Climate Change Adapt.		
Implement Watershed Plan	Board dir.; public cred.		
Cont. community/First Nations liaison	Relationship building		√
Research / knowledge development re: watershed dynamics/response to change	Climate Change Adapt.		√
Review of wetlands in growth areas	Regulatory		√
Review and update of field monitoring program	Continuous Improvement		√
Enhance watershed reporting	Public request		√
Review groundwater monitoring prgm.	Partnership opportunity		
Technical support to Bonnechere River	Partnership opportunity		
<b>Information and Communications Technology</b>			
SOP - Computer/Internet Use	Improve data mgt.		√
Document Naming and Filing Standards	Improve data mgt.		√
File and Process - DRAPE 2019 data	Growth		√
ICT Plan and policies	BMP		√
Cyber Security Review/SaaS investment	Data asset Mgt. - BMP		√
MS Office 365 (cloud computing)	Staff collaboration / enhanced email security		√
Data Storage Strategy	Asset planning		√
Develop Network Plan	BMP		√

Project	Driver	Risk	2021-2023
Open data strategy	Data Mgt and public cred.		
Phone service strategy/VOIP	Admin. BMP		
<b>Education and Stewardship</b>			
Develop and pilot stewardship program			√
Conduct alternative service delivery review for education program			√
Pilot use of Eco Trekr			√
Expand use of Eco Trekr to other sites			√
<b>Communications</b>			
Prepare and implement Corporate Communications plan – focused on relationship building and awareness of regulatory changes etc.	Regulatory changes		√
Prepare and implement Communications Plans for priority projects	Priority projects		√
Prepare and implement social media plan	Regulatory and non-reg		√
Coordinate public events associated with priority projects	Regulatory and non-reg		√
Manage corporate identity and use	BMP		√
Manage corporate website	Regulatory and non-reg		√

# ATTACHMENT 4

## Impact on Capital Reserve Balances, Scenarios A, B, and C

