



Board of Directors
Meeting No. BOD-05-23
Friday, May 26, 2023
9:00 a.m.

Agenda

Meeting Location:

120 Bayview Parkway, Newmarket
Minutes and agendas are available at www.LSRCA.on.ca

Upcoming Events

Board of Directors' Meeting

Friday, June 23, 2023
120 Bayview Parkway, Newmarket

Lake Simcoe Conservation Foundation

34th Annual Conservation Dinner

Wednesday June 14, 2023
The Manor at Carrying Place

5th Annual Invitational Golf Tournament

Monday, August 21, 2023
Oakdale Golf and Country Club

A full listing of events can be found at www.LSRCA.on.ca

I. Acknowledgement of Indigenous Territory

II. Declarations of Pecuniary Interest and Conflicts of Interest

III. Approval of Agenda

Pages 1 - 5

Recommended: That the content of the Agenda for the May 26, 2023 meeting of the Board of Directors be approved as presented.

IV. Adoption of Minutes

a) Board of Directors

Pages 6 - 12

Included in the agenda is a copy of the draft minutes of the Board of Directors' Meeting, No. BOD-04-23, held on Friday, April 28, 2023.

Recommended: That the minutes of the Board of Directors' Meeting, No. BOD-04-23, held on Friday, April 28, 2023 be approved as circulated.

V. Announcements

VI. Presentations

a) Phosphorus Loads to Lake Simcoe – 2018 to 2020

Pages 13 - 15

Manager, Environmental Science and Monitoring, David Lembcke, will provide an update on phosphorus loads to Lake Simcoe from 2018 to 2020. This presentation will be provided at the meeting and will be available on the Conservation Authority's website following the meeting.

Recommended: That the presentation by Manager, Environmental Science and Monitoring, David Lembcke, regarding phosphorus loads to Lake Simcoe from 2018 to 2020 be received for information.

Staff Report No. 24-23-BOD regarding phosphorus loads to Lake Simcoe from 2018 to 2020 is included in the agenda.

Recommended: That Staff Report No. 24-23-BOD regarding phosphorus loads to Lake Simcoe from 2018 to 2020 be received for information.

b) Conservation Authority Lands Overview

Pages 16 - 20

Director, Conservation Lands, Phil Davies, will provide an overview of Conservation Authority owned lands. This presentation will be provided at the meeting and will be available on the Conservation Authority's website following the meeting.

Recommended: That the presentation by Director, Conservation Lands, Philip Davies, regarding Conservation Authority owned lands be received for information.

Staff Report No. 25-23-BOD regarding Conservation Authority owned lands is included in the agenda.

Recommended: That Staff Report No. 25-23-BOD regarding the Conservation Authority owned lands be received for information.

c) Lake Simcoe Conservation Foundation Overview

Lake Simcoe Conservation Foundation Executive Director, Cheryl Taylor, will provide an overview of the Foundation. This presentation will be provided at the meeting and will be available on the Conservation Authority's website following the meeting.

Recommended: That the presentation by Lake Simcoe Conservation Foundation Executive Director, Cheryl Taylor, regarding an overview of the Foundation be received for information.

VII. Hearings

There are no Hearings scheduled for this meeting.

VIII. Deputations

There are no Deputations scheduled for this meeting.

IX. Determination of Items Requiring Separate Discussion

(Reference Pages 4 and 5 of the agenda)

X. Adoption of Items Not Requiring Separate Discussion

XI. Consideration of Items Requiring Separate Discussion

XII. Closed Session

The Board will move to Closed Session to deal with a confidential legal matter.

Recommended: That the Board move to Closed Session to deal with a confidential legal matter; and

Further that the Chief Administrative Officer, members of the Executive Leadership Team, and the Director, Development Services, remain in the meeting for the discussion.

The Board will rise from Closed Session and report findings.

Recommended: That the Board rise from Closed Session and report findings.

a) Confidential Legal Matter

Director, Development Services, Ashlea Brown, will provide a presentation regarding a confidential legal matter.

Recommended: That the presentation by Director, Development Services, Ashlea Brown, regarding a confidential legal matter be received for information.

Confidential Staff Report No. 30-23-BOD will be sent to Board members prior to the meeting.

Recommended: That Confidential Staff Report No. 30-23-BOD regarding a confidential legal matter be received for information.

XIV. Other Business

Next Meeting

The next meeting of the Board of Directors will be held on Friday, June 23, 2023. This meeting will be held in person at the Conservation Authority's Newmarket offices located at 120 Bayview Parkway, Newmarket.

XV. Adjournment

Agenda Items

1. Correspondence

There are no Correspondence items included in this agenda.

Recommended: That no Correspondence items be received.

2. Offsetting Program Results – Reconciliation to December 31, 2022

Pages 21 - 26

Recommended: That Staff Report No. 26-23-BOD regarding an update on the Conservation Authorities Offsetting Cash in Lieu funds and Key Performance Indicators be received for information.

3. 2023 Budget Restatement

Pages 27 - 32

Recommended: That Staff Report No. 27-23-BOD regarding the restatement of the approved 2023 Budget be received; and

Further that the request to allocate deferred funds to be used for one-time investments in Asset management, data collections and research and support of ongoing projects be approved.

4. Water Balance Recharge Offsetting Policy and Phosphorus Offsetting Policy Updates

Pages 33 - 64

Recommended: That Staff Report No. 28-23-BOD regarding the updates to the Water Balance Recharge Offsetting Policy and Phosphorus Offsetting Policy be received; and

Further That the updated Lake Simcoe Region Water Balance Recharge Offsetting Policy, as attached, be approved; and

Further That the updated Lake Simcoe Region Phosphorus Offsetting Policy, as attached, be approved.

5. Western Creek Construction Tender

Pages 65 - 69

Recommended: That Staff Report No. 29-23-BOD regarding the Western Creek Restoration/Infrastructure Protection Project RFT- CA-2023-001, Town of Newmarket be received; and

Further that the recommended bidder **R&M Construction** (560789 Ontario Limited) for the tender contract bid price of **\$602,675.11** (excluding HST) as outlined in this report be approved.

Lake Simcoe Region Conservation Authority

Board of Directors' Meeting

Board of Directors' Meeting No. BOD-04-23

Friday, April 28, 2023

120 Bayview Parkway, Newmarket

Meeting Minutes

Board Members Present

Regional Chairman W. Emmerson (Chair), Councillor P. Ferragine (Vice Chair), Councillor S. Bell, Councillor F. Drodge, Councillor A. Eek, Mayor R. Greenlaw, Councillor B. Hamilton, Councillor S. Harrison-McIntyre, Mayor I. Lovatt, Councillor C. Pettingill, Mayor M. Quirk, Councillor C. Riepma, Councillor M. Thompson, Deputy Mayor and Regional Councillor T. Vegh

Board Members Absent

Regional Councillor B. Garrod, Mayor V. Hackson, Councillor D. Le Roy, Councillor E. Yeo

Staff Present

R. Baldwin, T. Barnett, A. Brown, M. Critch, A. Cullen, D. Goodyear, G. MacMillan, S. McKinnon, G Peat, C. Sharp, K. Toffan, K. Yemm

I. Land Acknowledgement

Chair Emmerson acknowledged the Lake Simcoe watershed as traditional Indigenous territory and thanked all generations of Indigenous peoples for their enduring and unwavering care for this land and water.

II. Declarations of Pecuniary Interest or Conflict of Interest

None noted for the meeting.

III. Approval of Agenda

Moved by: I. Lovatt

Seconded by: R. Greenlaw

BOD-052-23 **Resolved That** the content of the Agenda for the March 24, 2023 meeting of the Board of Directors be approved as circulated. **Carried**

IV. Adoption of Minutes

a) Board of Directors' Meeting

Moved by: F. Drodge

Seconded by: C. Pettingill

BOD-053-23 **Resolved That** the minutes of the Board of Directors' Meeting, No. BOD-03-23, held on Friday, March 24, 2023 be approved as circulated. **Carried**

V. Announcements

- a) CAO Baldwin reminded Board members that the Celebration of Life for former Newmarket Councillor and Board member Dave Kerwin was being held on Friday, May 12th at Newmarket Old Town Hall for anyone wishing to attend.
- b) CAO Baldwin advised that Conservation Ontario held its Annual General Meeting on April 13th. Elections were held for Chair, Vice Chair and Directors, with the following results:
 - Chair - Chris White, Grand River Conservation Authority
 - Vice Chair - Pierre Leroux, South Nation Conservation Authority
 - Vice Chair - Robert Rock, Kawartha Conservation
 - Director - Rob Baldwin, Lake Simcoe Region Conservation Authority
 - Director - Linda Laliberte, Ganaraska Region Conservation Authority
 - Director - Chandra Sharma, Niagara Peninsula Conservation Authority
- c) CAO Baldwin was pleased to advise that the Conservation Authority is being recognized as a 2023 recipient of the Salt Symposium Chloride Reduction Leadership Award at the upcoming 2023 Salt Symposium. He congratulated and thanked Manager, Integrated Watershed Management, Bill Thompson and his team for all their efforts on the Freshwater Roundtable.
- d) CAO Baldwin advised that the Bradford West Gwillimbury Mayor & Council's Golf Classic is being held on Friday, June 16th at the Club at Bond Head. Each year this event raises funds for important community services and initiatives, and for 2023, all proceeds will be donated to the new Nature Centre project at Scanlon Creek Conservation Area.
- e) CAO Baldwin reported that a donation of equipment from the Conservation Authority's Sprouting Seeds program run by our Education Department was recently made to Georgina Island First Nation. He noted the program ran from 2014 to 2022, and staff were pleased to be able to make this donation and see the continuation of this educational opportunity.
- f) CAO Baldwin advised that he recently attended the announcement of the Uxbridge Urban Provincial Park with Minister Piccini, MPP Bethlenfalvy, Durham Chair Henry, Mayor Barton, and TRCA CEO John Mackenzie.

VI. Presentations

a) 2022 Draft Audited Financial Statements

BDO Canada LLP Partner, Adam Delle Cese, provided an overview of the audit of the Conservation Authority's 2022 draft financial statements for the period ending December 31, 2022, noting that it is BDO's opinion that the financial statements present fairly, in all material respects, the financial position of Lake Simcoe Region Conservation Authority as at December 31, 2022, and its results of operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards. He went on to note that the audit was conducted in accordance with Canadian generally accepted auditing standards. Mr. Delle Cese confirmed that BDO Canada LLP is independent of Lake Simcoe Region Conservation Authority in accordance with the ethical requirements relevant to the audit of the financial statements.

To view this presentation, please click this link: [BDO's Audit Report to the Board of Directors](#)

Moved by: P. Ferragine

Seconded by: C. Riepma

BOD-054-23 **Resolved That** the presentation by BDO Canada LLP Partner, Adam Delle Cese, regarding an overview of the audit of the Conservation Authority's 2022 draft financial statements for the period ending December 31, 2022 be received for information. **Carried**

Included in the agenda was Staff Report No. 18-23-BOD regarding the 2022 Draft Audited Financial Statements.

Moved by: P. Ferragine

Seconded by: C. Riepma

BOD-055-23 **Resolved That** Staff Report No. 18-23-BOD regarding the Conservation Authority's 2022 Draft Audited Financial Statements be received; and

Further that the 2022 Draft Audited Financial Statements be approved; and

Further that the Appropriations to and from Reserves as outlined in Schedule 8 – Statement of Continuity of Reserves of the 2022 Draft Audited Financial Statements be approved; and

Further that the pending 2022 Audited Financial Statements be distributed to the Minister of Natural Resources and Forestry, the Conservation Authority's banker, and be made available on the Conservation Authority's website. **Carried**

b) Top Restoration Projects of 2022 and Planned Projects for 2023

Manager, Restoration Services, Christa Sharp, provided a presentation on the Conservation Authority's Restoration Program, noting that over 90 projects were either completed or funded across the Lake Simcoe watershed in 2022. Projects included stormwater retrofits, low impact development, community action projects, wetland habitat creation and agricultural projects. Key Performance Indicators are tracked with accomplishments including over 35,000 trees and shrubs planted, over 2,000 metres of streambank restored, over 25 hectares of land restored, and over 180 kg per year of Phosphorus reduced in Lake Simcoe. highlighted a few projects, including a stormwater management project in Aurora, a wetland project in Innisfil, and the retrofitting of a stormwater pond in Barrie.

Ms. Sharp was pleased to report that 88 projects are currently in progress, including 67 projects to address natural heritage, 14 urban stormwater projects, and 7 agricultural projects. She highlighted a stormwater pond and stream retrofit project in Barrie and controlled burn and restoration project at Rogers Reservoir in East Gwillimbury.

To view this presentation, please click this link: [Restoration Program and Top Restoration Projects of 2022](#)

Moved by: S. Bell

Seconded by: M. Thompson

BOD-056-23 **Resolved That** the presentation by Manager, Restoration Services, Christa Sharp, regarding the Conservation Authority's Restoration Program and the top projects completed in 2022, as well as planned projects for 2023 be received for information. **Carried**

Included in the agenda was Staff Report No. 19-23-BOD regarding the Conservation Authority's Restoration Program and Projects.

Moved by: S. Bell

Seconded by: M. Thompson

BOD-057-23 **Resolved That** the Staff Report No. No. 19-23-BOD regarding the Conservation Authority's Restoration Program and Projects be received for information. **Carried**

VII. Hearings

There were no Hearings at this meeting.

VIII. Deputations

There were no Deputations at this meeting.

IX. Determination of Items Requiring Separate Discussion

No items were identified under items requiring separate discussion.

X. Adoption of Items not Requiring Separate Discussion

Items No. 1 - 4 were identified under items not requiring separate discussion.

Moved by: S. Harrison-McIntyre

Seconded by: M. Quirk

BOD-058-23 **Resolved That** the following recommendations respecting the matters listed as "Items Not Requiring Separate Discussion" be adopted as submitted to the Board, and staff be authorized to take all necessary action required to give effect to same. **Carried**

1. Correspondence

BOD-059-23 **Resolved That** no Correspondence Items be received. **Carried**

2. 2023 Provincial Funding Agreements Summary - Lake Simcoe Protection Plan

BOD-060-23 **Resolved That** Staff Report No. 20-23-BOD regarding recently secured Provincial funding in support of the Lake Simcoe Protection Plan be received for information. **Carried**

3. Update on Purchasing of Off-lease Equipment and Vehicles

BOD-061-23 **Resolved That** Staff Report No. 21-23-BOD regarding changes in the replacement of certain aging assets be received; and

Further That the Chief Administrative Officer be authorized to draw from the Asset Management reserve, as necessary, to facilitate the purchase of off-lease office equipment and vehicles, where financially prudent for the Conservation Authority. **Carried**

4. SPO3 Stormwater Pond Retrofit, City of Barrie

BOD-062-23 **Resolved That** Staff Report No. 22-23-BOD regarding the SPO3 Stormwater Pond Retrofit in the City of Barrie be received; and

Further that funding for the project through the Conservation Authority's Offsetting Cash in Lieu funds and Restoration Assistance as outlined in this report be approved.

Carried

XI. Consideration of Items Requiring Separate Discussion

No items required separate discussion.

XII. Closed Session

The Board moved to Closed Session to deal with a confidential human resources matter.

Moved by: B. Hamilton

Seconded by: A. Eek

BOD-063-23 **Resolved That** the Board move to Closed Session to deal with a confidential human resources matter; and

Further that the Chief Administrative Officer remain in the meeting for the discussion.

Carried

The Board rose from Closed Session to report findings.

Moved by: R. Greenlaw

Seconded by: C. Riepma

BOD-064-23 **Resolved That** the Board rise from Closed Session and report findings.

Carried

a) Confidential Human Resources Matter

The Board adopted the following amended motion.

Moved by: P. Ferragine

Seconded by: S. Harrison-McIntyre

BOD-065-23 **Resolved That** Confidential Staff Report No. 23-23-BOD regarding a confidential human resources matter be received; and

Further that the Director, Human Resources be directed to bring recommendations for a new process to the June 23, 2023 Board of Directors' meeting. **Carried**

XIII. Other Business

- a) Chair Emmerson noted that the next meeting will be held on Friday, May 26, 2023 at 9:00a. This meeting will be held in person at the Newmarket Administrative Offices.

XIV. Adjournment

Moved by: A. Eek

Seconded by: T. Vegh

BOD-066-23 **Resolved That** the meeting be adjourned at 11:35 a.m. **Carried**

Original to be signed by:

Original to be signed by:

Regional Chairman Wayne Emmerson
Chair

Rob Baldwin
Chief Administrative Officer

Staff Report

To: Board of Directors

From: David Lembcke, Manager, Environmental Science and Monitoring

Date: May 16, 2023

Subject

Phosphorus Loads to Lake Simcoe Update – 2018 to 2020

Recommendation

That Staff Report No. 24-23-BOD regarding phosphorus load to Lake Simcoe from 2018 to 2020 be received for information.

Purpose of this Staff Report

The purpose of this Staff Report No. 24-23-BOD is to provide the Board of Directors with an update to the phosphorus loads to Lake Simcoe from 2018 to 2020.

Background

The Lake Simcoe Protection Plan is focused on restoring a healthy and sustainable cold-water fish community in Lake Simcoe. To help achieve this goal, the target of 7 mg/L dissolved oxygen at the end of summer was set. There is a connection between phosphorus loads and dissolved oxygen in a lake. Decomposing plants and algae use up dissolved oxygen, and the amount of algae present in the lake is controlled to some extent by in-lake phosphorus levels. These phosphorus levels are in-turn controlled by phosphorus loading. In this way, the target 7 mg/L of dissolved oxygen is linked to an ideal phosphorus loading goal of 44 tonnes per year. As such phosphorus loads have been monitored since the 1990s to track the total amount of phosphorus entering Lake Simcoe from all sources. This report provides an update on the three most recently calculated hydrologic years of 2018 to 2020.

Issues

A hydrologic year runs from June 1 of one year to May 31 of the next year. The newly calculated phosphorus loads cover the three hydrologic years of June 1, 2018 to May 31, 2021. The phosphorus load for these hydrologic years is 110 tonnes in 2018, 82 tonnes in 2019 and 58 tonnes in 2020.

Since 2000, there have been a number of years with loads exceeding 100 tonnes, including 2008, 2013, 2017 and 2018. Further investigation into the causes of these higher loads revealed the influence of wetter climatic conditions that led to greater tributary flows and resulting

higher phosphorus loads for those years. The 2018 hydrologic year, which is in this reporting period, recorded more precipitation than a typical year for most of its months. For example, there were six intense rain events in July and August, with each seeing between 20 and 45mm. While the loads from each single event were not abnormal, it was the combination of all these storm events that led to a higher phosphorus load for that year.

In contrast, the 2020 hydrologic year saw one of the lowest phosphorus loads in the last two decades at 58 tonnes. Overall, it was a relatively dry year with total monthly precipitation being below the long-term average for ten months of that year. The exception was August, which had a single day rain event of ~80mm on August 2nd. However, dry conditions preceding the event meant much of the rainfall was absorbed into the ground and by vegetation, leaving relatively little to no runoff into tributaries. As a result, the event did not produce significant flows or loads; the total load being only 0.5 tonnes for the event. By contrast, falling on already saturated ground, a 38mm event June 22nd through 23rd in 2017 resulted in significant flows in tributaries and a load of 13 tonnes of phosphorus in two days alone. Overall, in 2020, dryer conditions resulted in less water flowing through the tributaries, and less phosphorus being carried to Lake Simcoe, thereby resulting in a lower phosphorus load.

Relevance to Conservation Authority Policy

Phosphorus loads to Lake Simcoe is one of the key metrics used to assess lake health and efforts to manage phosphorus within the watershed. Phosphorus is an important indicator because of the traditional link phosphorus loads have with dissolved oxygen levels. However, it appears this traditional relationship is now changing with deepwater dissolved oxygen showing improvements in the long term despite some years with high phosphorus loads. Targeted studies are being undertaken to understand the role of climate, invasive species, and other biological changes that may be influencing the relationship between phosphorus loads and dissolved oxygen. These studies may inform the Lake Simcoe Protection Plan adaptive management approach by providing new information about the effect of emerging issues on our understanding of the total phosphorus loads needed to achieve and sustain dissolved oxygen of 7 mg/L.

Impact on Conservation Authority Finances

There is no impact on Conservation Authority finances. Monitoring and calculation of phosphorus loads is funded by the Province through its Lake Simcoe Protection Plan funding.

Summary and Recommendations

The most recently calculated phosphorus loads to Lake Simcoe (2018-2020) yielded one of the higher loads of the last two decades at 110 tonnes in 2018, along with the lowest at 58 tonnes in 2020. This variation highlights the role climate plays in the delivery of phosphorus to the lake

and the need for continued monitoring to accurately capture this variation. The changing relationship between phosphorus loads and deepwater dissolved oxygen underscores the need for targeted studies and continued monitoring in order to improve our understanding of the changing nutrient dynamics in Lake Simcoe. This in turn will inform improved lake management strategies resulting in a healthier and more sustainable lake ecosystem.

It is therefore **Recommended That** Staff Report No. 24-23-BOD regarding phosphorus loads to Lake Simcoe for 2018 to 2020 be received for information.

Pre-Submission Review

This Staff Report has been reviewed by the General Manager, Integrated Watershed Management and the Chief Administrative Officer.

Signed by:

Don Goodyear
General Manager, Integrated Watershed
Management

Signed by:

Rob Baldwin
Chief Administrative Officer

Staff Report

To: Board of Directors

From: Phil Davies, Director, Conservation Lands

Date: May 16, 2023

Subject

Overview of Conservation Lands

Recommendation

That Staff Report No. 25-23-BOD regarding the Conservation Lands program be received for information.

Purpose of this Staff Report

The purpose of this Staff Report No. 25-23-BOD is to provide the Board with an overview of the Conservation Lands program and contributions to the watershed community.

Background

The Conservation Authority owns, manages or holds easements over 36 properties that include a range of landscapes, ecosystem types and recreational opportunities. Acquired through purchases, donations and transfers, they include well-used and loved properties within town centres and more remote landholdings that are accessible only by foot or canoe. They range in size from the 0.43ha Beaverton Dam Conservation Area to the 500ha Beaver River Wetland Conservation Area in Brock Township. The Conservation Authority began acquiring properties in the 1950s, and the 358ha Lake Simcoe Conservation Preserve in Georgina was added in 2022.

The Conservation Authority owns 33 of the properties, and staff manage the majority. All or a portion of some properties are maintained under agreement by the host municipality. Durham Regional Forest, including six separate tracts, is owned by the Region and managed by the Conservation Authority under a formal Agreement scheduled to expire in 2023. The Conservation Authority is also party to Conservation Easement Agreements for two private property landholdings, playing a role in ensuring the long-term protection of the natural heritage features they protect. Collectively, landholdings include about 2,750ha of land with over 120km of trails.

Conservation Authority properties protect and connect significant natural heritage features on the landscape that include watershed headwaters on the Oak Ridges Moraine, riparian habitat along creeks and rivers, and the shoreline of Lake Simcoe. They contribute ecosystem service

benefits such as the provision of clean water, storage of flood waters, carbon sequestration and climate regulation, and nutrient cycling. A study undertaken in 2008 estimated that the ecological goods and services provided by the Lake Simcoe watershed were \$975 million per year, with the most highly valued natural assets being forests and wetlands. These features may be found on most properties and were calculated to provide an estimated \$20 million per year in ecological goods and services. At just over two percent of the total value provided by the entire watershed, this highlights the importance of protecting and expanding conservation lands.

Recently, eight properties were enrolled in the Federal government's Canada Target 1 Program, an international commitment for protected areas to conserve 25% of Canada's lands and oceans by 2025, working toward conserving 30% by 2030. This means that Conservation Authority lands have been counted toward Canada's national and international area-based conservation targets and will be publicly showcased for the contributions they make beyond the watershed.

Most of the properties are open for the public to visit and explore at their leisure, providing communities with many benefits in addition to environmental conservation. The properties offer opportunities for passive recreational pursuits, including hiking, bird watching, dog walking, picnics and other activities in all four seasons. According to the *Conservation Authorities Act*, passive recreational activities are those that may "be provided without the direct support or supervision of staff employed by the Conservation Authority or by another person or body". Studies have shown that significant health benefits are derived from outdoor recreation, linking increased physical activity leading to reductions in fatigue, anxiety and sadness. The importance of our lands became even more apparent during the pandemic, when property use increased by 40% as people sought opportunities to get outside.

Issues

The Conservation Authority completed a Landholdings Assessment in 2016 (Staff Report No. 40-16-BOD) with an overall objective moving towards more sustainable land management activities. A series of high-level recommendations were developed that included updating the Land Securement Strategy, developing a Land Disposition Strategy that provides direction for the sale or transfer of conservation landholdings, and reviewing existing management agreements to ensure they are up-to-date, and obligations being met.

Through this process, Conservation Authority staff have worked to rationalize the landholdings to ensure that we continue to own and manage the right properties for the right reasons. Recent actions have included withdrawal from land management agreements for properties in Aurora and Brock Township, where agreement terms were unfavourable for the Conservation

Authority, and transfer of ownership for Pefferlaw Dam Conservation Area to Georgina to meet local community interests. Staff continue to explore and negotiate the transfer of other properties identified within the Land Disposition Strategy (2020), and review property management agreements to ensure that Conservation Authority resources are effectively directed to our remaining landholdings.

Relevance to Conservation Authority Policy

The Conservation Authority's vision is a healthy lake, healthy land, healthy life for generations to come. Strategic Direction Three - spark a passion and action for nature - is achieved through landholdings that provide ecological and human health benefits in a sustainable way. The development and implementation of land management strategies and conservation area management and master plans assist in achieving this goal by providing a consistent approach to land management throughout the watershed.

Recent changes under the *Conservation Authorities Act* have identified "programs and services related to the conservation and management of lands owned or controlled by the Conservation Authority, including any interests in land registered on title" as a Mandatory as prescribed by the regulations. As directed by the Act, the Conservation Authority has initiated preparation of Conservation Area Strategy and Land Inventory documents, to be complete at the end of 2024 and 2023, respectively. The Strategy will inform the Conservation Authority's decision-making related to the lands it owns and controls, identify the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the Conservation Authority, and include the sources of financing for these programs and services, among other components. The Inventory will contain information for every parcel of land the Conservation Authority owns or controls, including the location, acquisition history, land use categories, and other details.

Impact on Conservation Authority Finances

This update will not impact Conservation Authority finances.

As a Mandatory program and service under the Conservation Authorities Act, beginning in 2024 the management, operation and maintenance of Conservation Authority owned or controlled lands in support of passive recreation (e.g., fencing, signage, patrolling, trail maintenance); Facility maintenance activities (e.g., trail maintenance, structural maintenance); rehabilitation, restoration or management activities; and programs or services to plant trees on Conservation Authority-owned or controlled lands are identified as Category 1 Programs.

Summary and Recommendations

It is therefore **Recommended That** Staff Report No. 25-23-BOD regarding the Conservation Lands program be received for information.

Pre-Submission Review

This Staff Report has been reviewed by the General Manager, Corporate and Financial Services and CFO, and the Chief Administrative Officer.

Signed by:

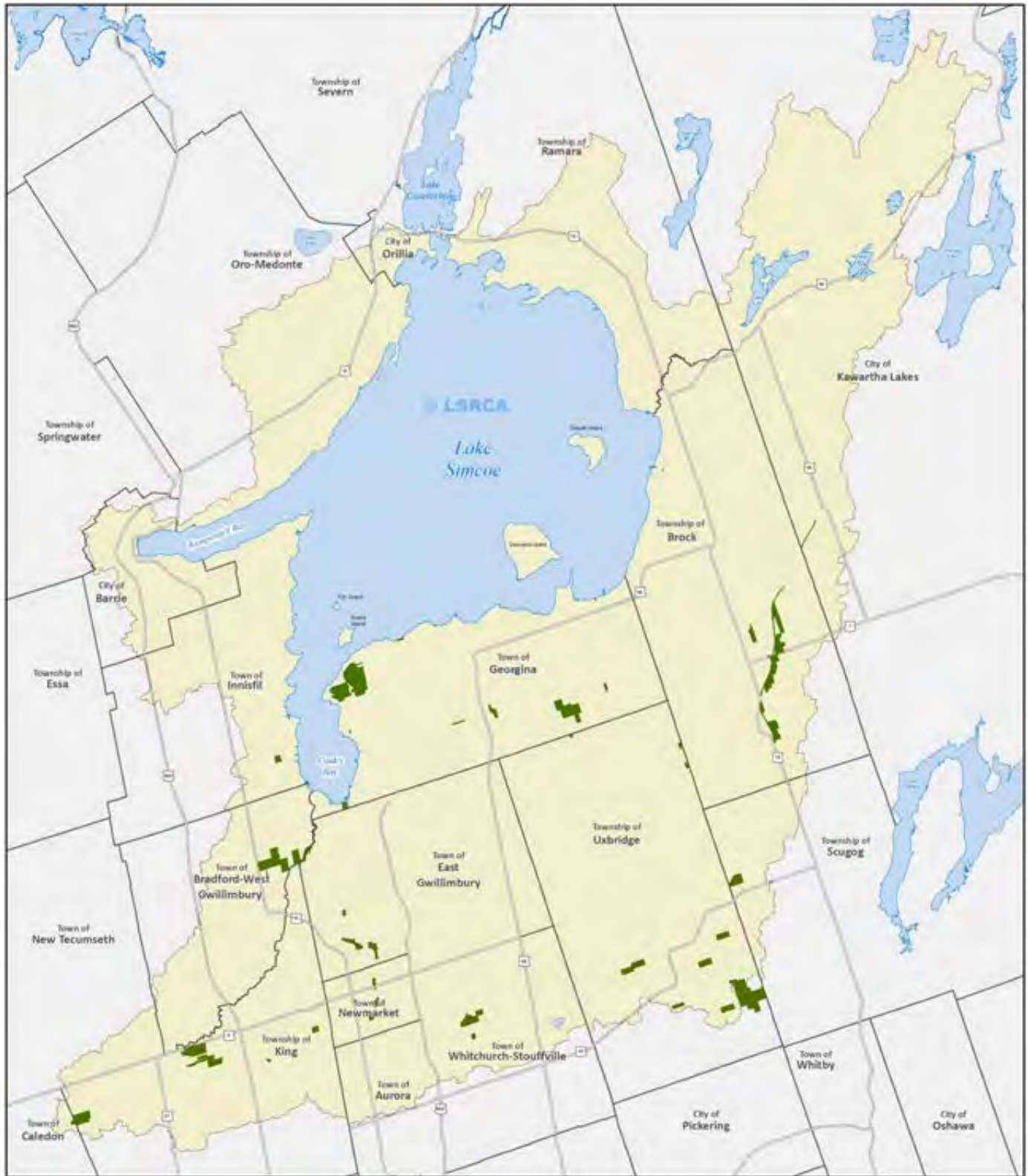
Mark Critch
General Manager, Corporate and Financial
Services and CFO

Signed by:

Rob Baldwin
Chief Administrative Officer

Attachments

- i) Map: Conservation Landholdings



Conservation Landholdings

Legend

- Lower Tier Municipality
- Major Highway
- Waterbody
- Land Holding



This product was produced by the Lake Simcoe Region Conservation Authority and some information depicted on this map may have been compiled from various sources. While every effort has been made to accurately depict the information, some mapping errors may exist. This map has been produced for illustrative purposes only.
 LSRCA GIS Services Data File created October 2020.
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Staff Report

To: Board of Directors

From: Christa Sharp, Manager, Restoration Services

Date: May 19, 2023

Subject

Offsetting Program Results – Reconciliation to December 31, 2022

Recommendation

That Staff Report No. 26-23-BOD regarding an update on the Conservation Authorities Offsetting Cash in Lieu funds and Key Performance Indicators be received for information.

Purpose of this Staff Report

The purpose of this Staff Report No. 26-23-BOD is to provide an update on the Conservation Authorities Cash in Lieu funds and Key Performance Indicators. This update provides an overview from the onset of this program up to December 31, 2022.

Background

The Conservation Authority's offsetting policies address loss of natural heritage features (ecological offsetting), groundwater recharge deficit (water recharge offsetting) and post development phosphorus loads (phosphorus offsetting), which are the result of development within the watershed. These policies are implemented by Planning and Development staff through review of development applications submitted through the Development review process.

The Conservation Authority's Ecological Offsetting Policy was approved by the Board of Directors in 2017 and was put in place to address the loss of natural heritage features and their associated vegetation protection zones.

Since 2017, the Lake Simcoe Phosphorus Offsetting Policy has been improving and protecting the quality of water in Lake Simcoe and its streams and rivers. Lake Simcoe Phosphorus Offsetting Policy requires that all new development must control 100% of the phosphorus from leaving the development site.

To ensure that adequate groundwater recharge is maintained throughout the entire Lake Simcoe watershed, and to mirror the policies of the Source Protection Plan, the Conservation Authority developed the Water Recharge Policy in 2018 to accompany Lake Simcoe Protection

Plan policies 6.40-DP and 4.8-DP, which are to be applied to all applications for major development outside of the WHPA Q2 area. This policy, as well as the WHPA Q2 policies of the Source Protection Plan (July 2015), address the deficit of groundwater recharge resulting from development.

The offsetting policies are tiered plans to avoid, minimize, mitigate and compensate. The collection and allocation of funds received and Key Performance Indicators through Ecological Offsetting, Phosphorus Offsetting and Water Recharge are outlined in the attached Tables 1, 2, and 3.

In April 2022 the Conservation Authority presented the program overview and results to the Building Industry Land Development Association, and the information was accepted as presented.

The primary key performance indicators for ecological offsetting projects are total natural heritage restored, wetland and woodland area restored, and area acquired/protected. Through the restoration and protection of wetlands, woodlands and other natural heritage features, the program has provided funding of \$1,268,028, which has accomplished 17.34 hectares of natural heritage restoration and protection. Other achievable co-benefits include but are not limited to additional grassland area, installation of habitat structures, increase in biodiversity, flood reduction, groundwater recharge, carbon mitigation, protection of infrastructure, thermal mitigation, urban heat reduction and social/community impacts. This program has also allocated an additional \$613,638. These projects will be implemented in 2023 and 2024 and include projects that improve the natural heritage restoration and protection and monitoring of projects.

Through the implementation of stormwater retrofits and low impact development projects, the water recharge and phosphorus offsetting projects achieve phosphorus reduction and infiltration as the main key performance indicators. The WHPA Q2 and Water Recharge program has provided funding of \$411,717 and the phosphorus offsetting program has provided funding of \$454,378 to achieve 18,607 m³/year of infiltration and 10.93 Kg/year phosphorus reduction. Other achievable co-benefits include but are not limited to water quality, peak flow reduction, increase in biodiversity, flood reduction, groundwater recharge in significant recharge areas, carbon mitigation, protection of infrastructure, thermal mitigation, urban heat reduction, improvements to the natural heritage system, and social/community impacts. These programs have also allocated \$1,717,500 to projects will be implemented in 2023 and 2024 and will be working towards improving infiltration, phosphorus reduction and monitoring of projects.

Issues

There are no issues associated with this report.

Relevance to Conservation Authority Policy

One of the goals of the Conservation Authority's Strategic Plan, a resilient watershed, is achieved through nature-based restoration solutions and an increase in protected areas on rural, urban and agricultural lands. The development and implementation of the offsetting policies assist in achieving this goal by providing a consistent approach to enhancement and restoration throughout the watershed.

Impact on Conservation Authority Finances

This update will not impact Conservation Authority finances. As provided in previous reports to the Board of Directors, a record of the collection and allocation of funds will be made available to watershed municipalities, Building Industry and Land Development Association and other interested stakeholders, on an annual basis, through a report to the Board of Directors. Staff continue to monitor inflation rates and will consider rate changes to the three policies as necessary.

Summary and Recommendations

It is therefore **Recommended That** Staff Report No. 26-23-BOD regarding an update on the Conservation Authorities Offsetting Cash in Lieu funds and Key Performance Indicators be received for information.

Pre-Submission Review

This Staff Report has been reviewed by the General Manager, Development, Engineering and Restoration and the Chief Administrative Officer.

Signed by:

Signed by:

Glenn MacMillan
General Manager, Development,
Engineering and Restoration

Rob Baldwin
Chief Administrative Officer

Attachments

- Table 1: Ecological Offsetting results
- Table 2: WHPA Q2 and Water Recharge results
- Table 3: Lake Simcoe Phosphorus Offsetting results

Table 1

Ecological Offsetting Policy Collection, Allocation of Funds and Key Performance Indicators of Restoration Projects by Subwatershed - 2017 to 2022

Subwatershed	Project Funds Collected (net of admin) (\$)	Funds Spent on Projects 2017 to 2022 (\$)	Ending Balance Available December 31, 2022 (\$)	Wetland Loss (ha)	Woodland Loss (ha)	Total Natural Heritage Restored (ha)	Wetland Restored and/or Protected (ha)	Woodland Restored and/or Protected (ha)	Acquisition (ha)
Barrie Creeks	163,517		163,517	0.6	2.17				
Beaver River	153,160		153,160		2.22				
East Holland	1,425,785	686,132	739,653	4.84	12.2	6.293	1.2	3.693	
Hewitts Creek	991,353		991,353	20.97	3.03				
Innisfil Creeks	1,800,315	570,776	1,229,539	30	66.62	9.8	2.2	4.3	0.57
Oro Creeks South	322,392		322,392	8.01	10.73				
Whites Creek	286,860		286,860	0.37	1.71				
Uxbridge Brook	160,670		160,670	0	1.97				
West Holland	337,263	6,209	331,054	2.16	4.08	1.25		1.25	
Lover's Creek	703,779		703,779	2.59	6.51				
Black River	372,799	4,911	367,888	1.3	0.3				
Hawkstone Creeks	610,847		610,847	7.51	8.26				
General Pool - Interest Earned	223,560		223,560	0	0				
Grand Total	\$7,552,300	\$1,268,028	\$6,284,272	78.35	119.8	17.34	3.4	9.243	0.57

Table 2:

WHPA Q2 and Water Recharge Policy Collection, Allocation of funds and Key Performance Indicators of Restoration Projects by Subwatershed - 2015 to 2022

Subwatershed	Project Funds Collected (net of Admin) (\$)	Spent on Projects 2015 to 2022 (\$)	Ending Balance Available at December 31, 2022 (\$)	Infiltration Deficit (m³/year)	Phosphorus Reduction Achieved (kg/year)	Infiltration Achieved (m³/year)
East Holland	1,723,553	150,955	1,572,598	47,143	1.29	1,818
West Holland	1,087,820		1,087,820	39,850		
Barrie Creeks	82,446		82,446	1834		
Beaver River	53,604		53,604	1192		
Black River	82,808		82,808	42,010		
Lover's Creek	288,904	228,052	60,852	4,655		16,789
Oro Creeks North	39,248		39,248	892		
Oro Creeks South	17,028		17,028	387		
Innisfil Creeks	1,076,612	746	1,075,866	25061		
General Pool	133,173	31,964	101,209	0		
Grand Total	4,585,196	411,717	4,173,479	163024	1.29	18,607

Table 3:

Lake Simcoe Phosphorus Offsetting Policy Collection, Allocation of funds and Key Performance Indicators of Restoration Projects by Subwatershed - 2016 to 2021

Subwatershed	Project Funds Collected (net of Admin) (\$)	Spent on Projects 2016 to 2022 (\$)	Ending Balance Available at December 31, 2022 (\$)	Phosphorus Loss (Kg/year)	Phosphorus Reduction Achieved (kg/year)	Infiltration Achieved (m ³ /year)
West Holland	1,087,354	36	1,087,318	11.84		
Maskinonge River	140,349		140,349	0.44		
Lovers Creek	954,836	372,155	582,681	10.26	10.43	
Innisfil Creeks	389,655		389,655	4.42		
Georgina Creeks	39,725		39,725	0.43		
Hewitts Creek	11,625		11,625	.13		
East Holland	2,847,041	59	2,846,982	31.29		
Black River	253,336		253,336	11.66		
Barrie Creeks	292,039	67,750	224,289	7.6	0.5	343
Whites Creek	63,123		63,123	0.07		
Uxbridge Brook	355,699		355,699	5.04		
General Pool - Interest Earned	147,922	14,378	133,544			
Grand Total	6,582,704	454,378	6,128,326	83.18	10.93	343

Staff Report

To: Board of Directors

From: Susan McKinnon, Manager, Budgets and Business Analysis

Date: May 16, 2023

Subject:

2023 Budget Restatement

Recommendation

That Staff Report No. 27-23-BOD regarding the restatement of the approved 2023 Budget be received; and

Further that the request to allocate deferred funds to be used for one-time investments in Asset management, data collections and research and support of ongoing projects be approved.

Purpose of this Staff Report:

The purpose of this Staff Report No. 27-23-BOD is to update the Board of Directors on the restatement of the 2023 Budget for the operating and capital budgets.

Background:

The Conservation Authority continues to look for ways to improve the financial reporting and budget review process and increase engagement and transparency with the Board of Directors. In-year funding announcements, in-year service level agreements and in-year management decisions can make it challenging to reflect progress in the quarterly reports and in the year-over-year comparisons for the annual budget. The Board approved Staff Report No. 54-21-BOD (October 2021), which delegated authority to the Chief Financial Officer to allow these budget adjustments to be made throughout the year. These changes to the budget will have no impact on municipal funding for 2023.

This report summarizes the following changes being made to the approved 2023 Budget: \$2,225K of revenue, a transfer into reserve of \$61K, along with related expense adjustments to operating and capital budget of \$2,164K.

Revenue Type	Funding Source	Amount (\$000s)
Special Capital & Municipal	Adjustments due to new funding	(\$126)
Special Capital & Municipal	New Municipal funding – Town of East Gwillimbury	121
Special Capital & Municipal	Deferred funding from Municipal Partners	1,057
Provincial & Federal	Ministry of Environment, Conservation and Parks	429
Revenue Generated	Offsetting for new approved projects	597
Revenue Generated	Lake Simcoe Conservation Foundation	147
Total		\$2,225

Reserve Type	Funding Source	Amount (\$000s)
Asset Management	AM - Project	(\$11)
Asset Management	AM – Approved in April Staff report	115
Rate Stabilization	Pending reversal	(165)
Total	Reduced reserve draw	(\$61)

Expenditures	Amount (\$000s)
Research and Studies (see Appendix 2 for additional details)	\$1,103
Restoration Projects	754
Asset Management	280
Afforestation	27
Grand Total	\$2,164

Relevance to Conservation Authority Policy:

The Conservation Authority is required to prepare annual budgets as part of its fiscal control and responsibilities of the organization. These budgets are also used in the audit process for evaluation by the external auditing firm. Annual audits are required under Section 38 of the *Conservation Authorities Act*. The updated consolidated budget summary can be found in Appendix 1.

The Board of Directors approved the delegation of authority to the Chief Financial Officer to make necessary budget adjustment to enable more meaningful budget-to-actual comparisons in year when new funding is acquired. Staff will inform the Board of Directors in the second, third and fourth quarter if restatement is required.

Impact on Conservation Authority Finances:

The Conservation Authority has entered into three new agreements and amended two existing agreements for the delivery of projects that support implementation of the Lake Simcoe Protection Plan. Staff Report No. 20-23-BOD (April 2023) gave further information on these projects. A total of \$429K of additional revenue was added to the budget. Applying for in-year funding is an important part of the Conservation Authority's sustainability strategy.

The Conservation Authority has also entered into an agreement with the Town of East Gwillimbury for \$121K for the maintenance, assessment, inspection, and other related services for its stormwater facilities. Partnering with our local municipalities is a cost-effective way to achieve our shared goals.

The Conservation Authority's internal Offsetting committee continues to approve new projects and those new projects have been recognized in the restatement for \$630K. This is a good news story for the Conservation Authority as it clearly shows an increased willingness to partner in achieving goals related our offsetting programs. Staff will report back at the end of the year on the outcomes achieved with the offsetting funds.

The Lake Simcoe Conservation Foundation continues to support the work of the Conservation Authority. This year, funds of \$147K were provided to support restoration, research projects, and afforestation. Management has ensured that there would be no impact on sustainability.

As the Conservation Authority transitions to the changes coming with Bill 229, management is recommending that deferred funding of \$1,057K be used for one-time investments in: asset management, data collections & research and support of ongoing projects in 2023. Using deferred funding in 2023 will reduce the need for future budget asks, improving the long-term sustainability of our municipal funding.

The total restatement is for \$2,225K of revenue with the related adjustments made to expenses and reserves.

Summary and Recommendations:

It is therefore **Recommended That** Staff Report No. 27-23-BOD regarding the restatement of the approved 2023 Budget be received; and **Further that** the request staff be authorized to allocate deferred balances to one-time investments.

Pre-Submission Review:

This Staff Report has been reviewed by the General Manager, Corporate and Financial Services/CFO and the Chief Administrative Officer.

Signed by:

Signed by:

Mark Critch
General Manager, Corporate and Financial
Services/CFO

Rob Baldwin
Chief Administrative Officer

Attachments:

1. Consolidated Summary: 2023 Restated Budget
2. Research and Studies - Expenditures details

Consolidated Summary: 2023 Restated Budget

2023 Capital & Operating Budget For the period January – December 31, 2023 Restatement – May 2023	Approved Budget 2023 (000s)	Add: Adjustment Q2 (000s)	Restated Budget 2023 (000s)
Revenue:			
General Levy	\$4,171	0	\$4,171
Special Capital Levy & Municipal Partners	8,472	\$1,052	9,524
Provincial and Federal Funding	1,734	429	2,163
Revenue Generated by Conservation Authority	8,006	744	8,750
Other Revenue	443	0	443
Total Revenue	\$22,826	\$2,225	\$25,051
Expenditures:			
Corporate Services	\$5,659	\$240	\$5,899
Ecological Management	3,449	(424)	3,025
Education & Engagement	859	0	859
Greenspace Services	987	0	987
Planning & Development Services	5,245	0	5,245
Water Risk Management	2,401	160	2,561
Watershed Studies & Strategies	1,142	201	1,343
Operating Expenditures	\$19,742	\$177	\$19,919
Internal Fee for Service	(2,893)	(47)	(2,940)
Capital and Project Expenditures	5,947	2,034	7,981
Total Gross Expenditures	\$22,796	\$2,164	\$24,994
Required Draws to/(from) Reserve	\$30	\$61	\$91
Net Revenue (Expenditures)	\$0	\$0	\$0

Research and Studies: 2023 Restated Budget

Expenditures – Research and Studies For the period January - December 31,2023 Restatement - May 2023	Restated Budget 2023 (000s)
Barrie Floodplain Mapping Update	\$235
Scanlon Creek Site Data	198
Stormwater Management Inspection and Maintenance	154
Concentration of Contaminants Study	98
Carbon Sequestration Study	79
Salt Case Studies	55
LiDAR (mapping)	50
Shoreline Hazard Study Update	40
Watershed Plan Update	40
SWM Coefficient Monitoring	36
Nature-based Climate Solutions	36
Monitoring Methane	33
Others	49
Total	\$1,103

Staff Report

To: Board of Directors

From: Kenneth Cheney, Director, Engineering

Date: May 16, 2023

Subject:

Water Balance Recharge Offsetting Policy and Phosphorus Offsetting Policy Updates

Recommendation:

That Staff Report No. 28-23-BOD regarding the updates to the Water Balance Recharge Offsetting Policy and Phosphorus Offsetting Policy be received; and

Further That the updated Lake Simcoe Region Water Balance Recharge Offsetting Policy, as attached, be approved; and

Further That the updated Lake Simcoe Region Phosphorus Offsetting Policy, as attached, be approved.

Purpose of this Staff Report:

The purpose of this Staff Report No. 28-23-BOD is to provide the Board of Directors with a summary of the proposed changes to the Phosphorous Offsetting Policy and the Water Balance Recharge Offsetting Policy, including the change to the recharge offsetting cost.

Background:

The Lake Simcoe Region Conservation Authority (Conservation Authority) has been implementing the Water Balance Recharge Offsetting Program since 2015 and the Phosphorous Offsetting Policy since 2019. The policies were originally established as a reflection of the regulatory framework and goals for maintenance of recharge and to reduce phosphorous loadings within the watershed.

In 2022, the Conservation Authority formed an external working group with BILD and municipal representatives to participate in a review of both the Phosphorous and Recharge Offsetting Policies. The project provided an opportunity for external partners and stakeholders to participate in the update of the policies and to share information related to the implementation of low impact development projects throughout the watershed.

The objective of updating the Recharge and Phosphorous Offsetting Policies is to ensure that the policies reflect the current regulatory framework of the Lake Simcoe Protection Plan and the South Georgian Bay Lake Simcoe Source Protection Plan and that the offsetting costs are

aligned with the actual costs of retrofit projects being funded, along with Conservation Authority administrative costs to implement the program.

Issues

While the offsetting policies have been effectively implemented and provide a necessary tool to manage an unavoidable reduction of groundwater recharge as well as phosphorous inputs through new development activities, the cost of retrofit projects has not remained static since the program began in 2015.

The working group reviewed stormwater retrofit project costs to evaluate if the offsetting cost for recharge was matching with the cost of retrofit projects the Conservation Authority was undertaking to make up the deficit. The review included looking at:

1. Costs of Conservation Authority stormwater retrofit project since the program began;
2. Low Impact Development and construction costs provided by working group members; and
3. Low Impact Development cost estimates obtained through the Toronto and Region Conservation Authority's Life Cycle Costing Tool.

Based on this evaluation, recharge costs for Low Impact Development retrofit projects undertaken by the Conservation Authority ranged from \$100 - \$250 per cubic metre. Due to the significant variation in project costs the Conservation Authority is proposing to increase the cost to the lowest amount of \$100 per cubic metre until more project cost data can be obtained.

Additionally, the policies were reviewed with regard for changes to provincial legislation and updated as appropriate to ensure compliance with amended provincial legislation.

Summary of Changes:

Housekeeping Updates:

- Offsetting fees need to be adjusted annually to account for the increased cost of the offsetting work. Values are reviewed annually and may be subject to adjustment to account for inflation or fluctuations in service and/or material costs. Adjustments for inflation are based on the annual consumer price index, updated in March, as provided by Statistics Canada: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000413>

Phosphorous Offsetting Policy:

- No change to the cost per kg of phosphorus at this time.
- Change from a target of net-zero, to a target of pre-development levels (i.e. post-pre) to be in alignment with Section 4.8-DP of the Lake Simcoe Protection Plan.
- Aligned the definition "Major development" with the Lake Simcoe Protection Plan.
- Minor editorial changes to the document.

Recharge Offsetting Policy:

- Recharge cost is proposed to change from \$44.97 per cubic metre to \$100 per cubic metre.
- Clarification on the legislative authority (i.e. Source Protection Plan and Lake Simcoe Protection Plan Policies).
- Editorial changes were made to the document to increase readability and consistency throughout.

Applicable to both Policies:

- If Phosphorous and Recharge Offsetting both apply to a site, only payment of the greater amount will be collected. This will remain unchanged from the current practice. The offsetting revenue is collected from either is used in the same manner for stormwater restoration, so a “duplicate charge” is inappropriate. The 15 % administrative fee will remain the same for both policies.

Relevance to Conservation Authority Policy

The updates are to existing Conservation Authority policies. The updates to the policies ensure consistent and current alignment with provincial policies and legislation.

Impact on Conservation Authority Finances

The proposed changes to the Phosphorus and Recharge Policies are intended to support the Conservation Authority in continuing to implement offsetting projects. The increase in cost in the Recharge Policy reflects the increase in observed costs of implementing recharge offsetting projects. The collected and future revenue allows the Conservation Authority to focus on implementing larger scale urban stormwater restoration projects and also increases the incentive municipal partners to implement projects.

Summary and Recommendations

The Conservation Authority has been leading the use of offsetting in facilitating development consistent with current legislation and policies, then in turn using the revenue to focus on implementing restoration projects addressing historical challenges. Legislative and capital costing increases required the above-mentioned minor amendments. These policies have been developed and supported by the development industry.

It is therefore **Recommended That** Staff Report No. 28-23-BOD regarding the updates to the Water Balance Recharge Offsetting Policy and Phosphorus Offsetting Policy be received; and **Further That** the updated Lake Simcoe Region Water Balance Recharge Offsetting Policy, as attached, be approved; and **Further That** the updated Lake Simcoe Region Phosphorus Offsetting Policy, as attached, be approved.

Pre-Submission Review

This Staff Report has been reviewed by the General Manager, Development, Engineering and Restoration and the Chief Administrative Officer.

Signed by:

Signed by:

Glenn MacMillan
General Manager, Development,
Engineering and Restoration

Rob Baldwin
Chief Administrative Officer

Attachments

- i) Lake Simcoe Water Balance Recharge Offsetting Policy
- ii) Lake Simcoe Phosphorous Offsetting Policy



Water Balance Recharge Offsetting Policy

2023-05-01

For more information, contact:

Development, Engineering and Restoration Services
Lake Simcoe Region Conservation Authority
120 Bayview Parkway, Newmarket, Ontario
Canada, L3Y 3W3
Telephone: 905-895-1281
Email: info@LSRCA.on.ca
Web: www.LSRCA.on.ca

Conservation Authority Resolution

At the LSRCA Board of Director's Meeting on December 14, 2018, the Water Balance Offsetting Policy was approved by the Board of Directors through the following resolution:

Moved by: P. Ferragin

Seconded by: M. Quirk

BOD-179-18 **Resolved that** Staff Report No. 51-18-BOD regarding the Water Balance Offsetting Policy be received; and

Further that the Water Balance Offsetting Policy be approved for implementation effective January 1, 2019.

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Revisions Registry

Identification	Date	Description of revision
Draft Policy	November 2018	Presented to Board and approved
Housekeeping Policy Update	May 2019	Minor housekeeping updates approved by Board
Policy Update	May 2023	Updates approved by Board

1.0 Introduction

The Lake Simcoe Region Conservation Authority (LSRCA) Strategic Plan, Transformation 2022-2024 reaffirms LSRCA’s vision of watershed health and the mission we aspire to achieve. Through identified action items and goals, the LSRCA envisions a thriving environment that inspires and sustains the needs of generations to come. Goal one of the Strategic Plan is to champion watershed health and climate resilience. The development and implementation of a Water Balance Recharge Offsetting Policy supports this goal by providing a consistent approach to groundwater recharge, throughout the watershed.

2.0 Background

Recharge areas are the areas of land over which precipitation in the form of rain or snow infiltrates into the ground and flows to an aquifer. Recharge areas tend to be characterized by permeable and porous soils such as sand or gravel. These soils allow water to percolate downward and replenish the water system. A recharge area is considered to be significant when it helps to maintain the water level in an aquifer that supplies drinking water, or groundwater to a cold-water ecosystem that is dependent on this recharge to maintain its ecological function. Recharge can occur in all areas where the ground surface is permeable, and groundwater is below surface. This policy summarizes the recharge policies within the Lake Simcoe Watershed and establishes a recharge offsetting program which can be utilized where pre-development infiltration cannot be maintained on a development site.

The following policies provide the basis and justification for LSRCA’s Water Balance Recharge Offsetting Policy:

- South Georgian Bay Lake Simcoe Source Protection Plan Policies:
 - Land Use Planning – 11
 - Land Use Planning – 12
- Lake Simcoe Protection Plan Policies:
 - Designated Policy 4.8
 - Designated Policy 6.40

The Lake Simcoe Protection Plan came into effect in 2009. Since then, the Significant Groundwater Recharge Areas (SGRAs) and Ecologically Significant recharge Areas (ESGRAs) have been identified and mapped (Figure 1). Recognizing the importance of recharge areas to sustaining a healthy watershed the Lake Simcoe Protection Plan (LSPP) includes a number of policies to help identify and protect SGRAs and ESGRAs. The approach taken within the LSPP follows three basic steps: 1) define and identify SGRAs/ESGRAs; 2) develop guidance for their protection and restoration, and 3) incorporate policies into municipal official plans to protect, improve and restore.

The South Georgian Bay Lake Simcoe Source Protection Plan Land Use Planning Policy -12 (LUP-12) came into effect July 2015, requiring offsite compensation be used in situations when pre-development recharge cannot be maintained within the WHPA-Q2 area (i.e. York Region Groundwater Recharge Management Area), shown in Figure 1.

For development applications to meet the requirements outlined in both the Source Protection Plan and the Lake Simcoe Protection Plan, the LSRCA Water Balance Recharge Offsetting Policy was created for those areas where it is demonstrated that the post-development infiltration is unable to match the pre-development infiltration volume and an infiltration deficit remains in the post-development scenario.

The water balance review and compensation program has been developed to support Urban Watershed Restoration at Lake Simcoe Region Conservation Authority, as well as local and regional municipalities in the Lake Simcoe Watershed. This document has been developed to support implementation of the recharge policies within the Lake Simcoe Water along with providing information and direction to assist planning and technical staff on the following:

1. Source Protection Plan and Lake Simcoe Protection Plan policy requirements related to recharge.
2. Hydrogeological Assessment and Water balance study requirements.
3. Compensation process:
 - a. When recharge compensation would be required,
 - b. Process for implementation.

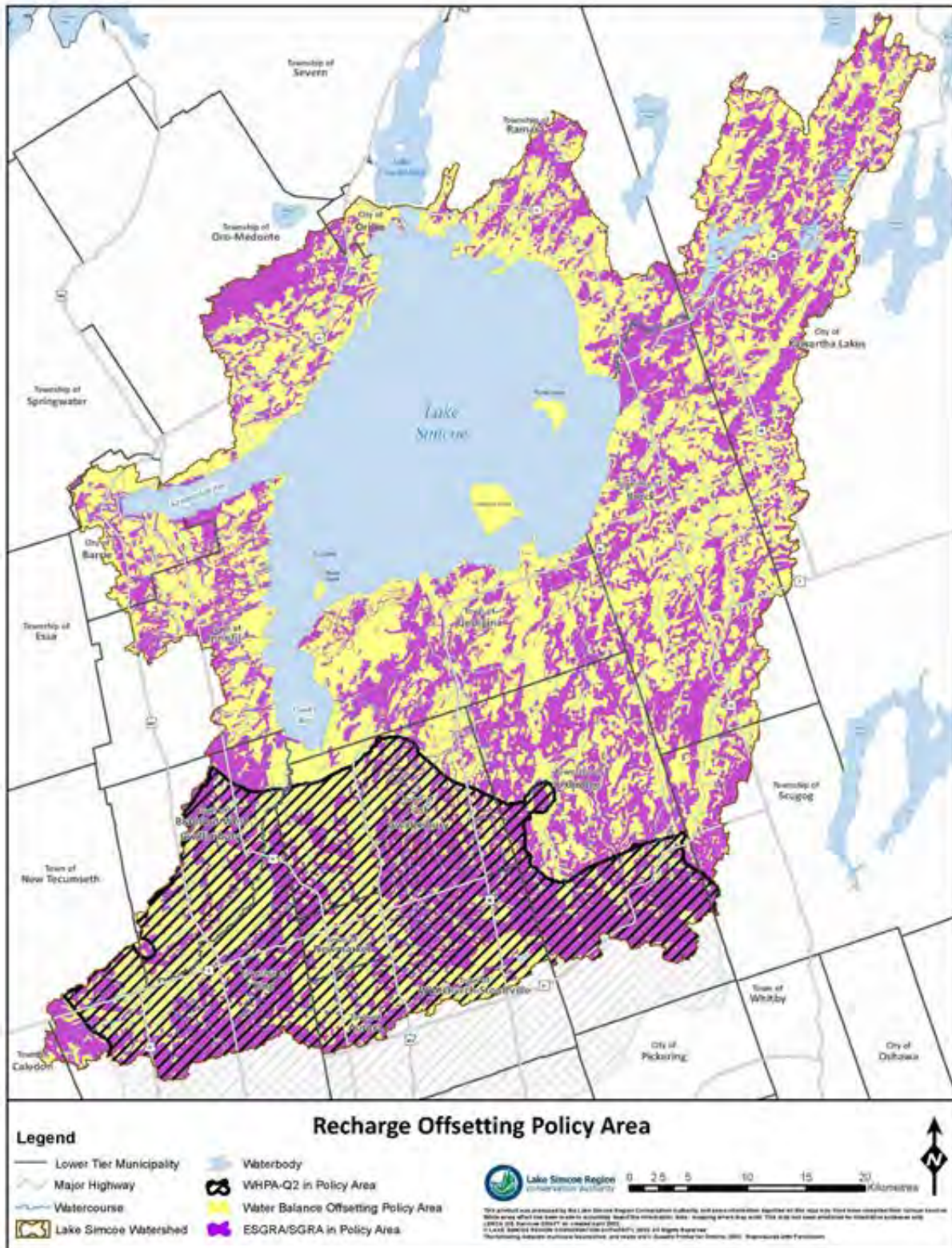


Figure 1 – Water Balance Recharge Offsetting Policy Area

3.0 Water Balance Recharge Offsetting Policy Requirements

As noted above, the Lake Simcoe Protection Plan (LSPP) was released in 2009. Both Policies 4.8-DP and 6.40-DP require the maintenance of pre-development recharge through a water balance assessment and/or a hydrogeological assessment for all planning applications for major development as defined by the LSPP (see Table 1).

Policy 4.8-DP requires the effects the development has on recharge reduction be minimized through various stormwater management methods. Implicit is the requirement for a climate-based water balance for the pre- and post-development scenarios and the use of BMP to minimize any infiltration deficit.

Policy 6.40-DP focuses specifically on Significant Groundwater Recharge Areas (SGRAs) and requires the demonstration that the quality and quantity of groundwater in these areas and the function of the recharge areas will be protected, improved or restored through the development. It should be noted that LSPP definition of SGRAs also includes areas delineated as Ecologically Significant Groundwater Recharge Areas (ESGRAs).

The definitions of a significant groundwater recharge areas, in accordance with LSPP policy 6.36-DP are as follows (Figure 1):

- a. Significant groundwater recharge area by any public body for the purposes of implementing the PPS,
- b. Significant groundwater recharge area (SGRA) in the Source Water Protection Assessment report required under the *Clean Water Act 2006 (CWA)*. Following the CWA definition, these are areas within which it is desirable to regulate or monitor drinking water threats that may affect the recharge of an aquifer, and
- c. An ecologically significant groundwater recharge area (ESGRA) is an area of land that is responsible for replenishing groundwater systems that directly support sensitive areas such as cold-water streams and wetlands.

The South Georgian Bay Lake Simcoe Source Protection Plan (SGBLS SPP) came into effect July 2015. Land Use Planning Policy – 12 (LUP-12), requires a hydrogeological assessment and water balance demonstrating no change to pre-development recharge through the use of best management practices. Where pre-development recharge cannot be maintained on-site, recharge compensation may be utilized.

Table 1 – Legislation requirements for water balance assessments within the Lake Simcoe Protection Plan

Legislative Authority	Policy Requirements
South Georgian Bay Lake Simcoe Source Protection Plan – Land Use Policy 12	Hydrogeological Assessment, pre- and post-development water balance required for all major development. Offsite compensation where pre-development recharge cannot be maintained.*
Lake Simcoe Protection Plan – 4.8 Designated Policy	Pre- and post-development water balance required for all major development and show how such changes shall be minimized.**
Lake Simcoe Protection Plan – 6.40 Designated Policy	Outside of the Oak Ridges Moraine area, an application for major development within a significant groundwater recharge area (SGRA) shall be accompanied by an environmental impact study that demonstrates that the quality and quantity of groundwater in these areas and the function of the recharge areas will be protected, improved or restored.**

*Policy applies to planning applications meeting the definition of major development under the South Georgian Bay Lake Simcoe Source Protection Plan (i.e. impervious area 500 m² or greater)

** Policy applies to planning applications meeting the definition of major development under the Lake Simcoe Protection Plan (i.e. building(s) 500 m² or greater)

4.0 Maintenance of Recharge

As noted above, a hydrogeological assessment and water balance analysis is required to estimate the pre-development and post-development infiltration and runoff for most development applications within the Lake Simcoe Region Conservation Authority, as outlined in Table 1. The purpose of the water balance analysis is to reasonably estimate the current infiltration to the subsurface and to then determine how much this rate will change as a result of the proposed development.

It should be noted that the terms ‘infiltration’ and ‘recharge’ are commonly used interchangeably in development application supporting documents. Infiltration is determined through the water balance assessment and relates to the capacity for the soil to allow water to enter the subsurface. Some of this infiltration results in lateral movement in the shallow unsaturated zone where interflow may predominate and some of the infiltration is directed downward to the deeper aquifer system. Whereas recharge is considered to be primarily water

that reaches the saturated zone of the aquifer and becomes part of the regional groundwater flow system. The maintenance of infiltration rates is essential to the sustainability of the groundwater flow system which may support local significant ecological features. In addition, infiltration may move to a regional deeper flow system that may be important at a regional scale from either an ecological or water supply perspective.

The maintenance of recharge should be focused on the infiltration target (i.e. loss) identified through the water balance assessment. Infiltration Low Impact Development (LIDs) measures may reduce or eliminate the infiltration loss from a proposed development but can also pose an additional risk to groundwater quality if not designed correctly. Infiltration LIDs should consider the source of runoff being infiltrated, the receiving groundwater receiver and any additional policies that may apply to the stormwater management design of a site (e.g. municipal policies, source protection plan policies, stormwater management criteria).

A hydrogeological assessment, authored by a qualified person (i.e., P.Geol or exempted P.Eng as per *Professional Geoscientists Act (2000)*), including a detailed climate based water balance as outlined in the Hydrogeological Assessment Submissions, Conservation Authority Guidelines for Development Applications, 2013 should accompany all planning applications for major development. During the review process for the application the hydrogeological assessment should be reviewed by a qualified person.

5.0 Implementation

This Water Balance Recharge Offsetting Policy is applicable to all lands subject to Lake Simcoe Protection Plan 4.8-DP, 6.40-DP and the Source Protection Plan LUP-12.

This Water Balance Recharge Offsetting Policy will be primarily implemented through Ontario's land use planning process under the *Planning Act*. A detailed climate based water balance (pre- and post-development will be required as part of the hydrogeological review). This water balance is to be assessed by a QP as defined under the *Professional Geoscientists Act*.

The Water Balance Recharge Offsetting Policy will be applied to the following applications under the *Planning Act*, the *Condominium Act* and the *Conservation Authorities Act*:

- Plans of subdivision,
- Plans of condominium,
- Site plans involving major development, and
- Consent applications

For the purposes of this Policy, major development is as defined in Section 0 above.

5.1 Transition Provisions for Applications under the *Planning Act*

This policy applies to applications under the *Planning Act* that are received and deemed complete by the municipal approval authority after July 1, 2015, for developments within the WHPA-Q2 area and after 1st January, 2019 for the rest of the watershed. To be consistent with section 3 of the *Planning Act*, the required compensation / offsetting will be in accordance with the current approved Water Balance Recharge Offsetting Policy on the date of the approval under the *Planning Act*. It is noted that the Authority will honour any previous offsetting strategies or compensation which have been agreed to and approved prior to the Board of Directors approval of the current version of this policy.

This policy is tied to the Lake Simcoe Protection Plan which came into effect in 2009. At present, any development application which was approved prior to 2009 is evaluated on a “best efforts” basis. Designated policies 4.8 and 6.40 of the Lake Simcoe Protection Plan require the submission of a Hydrogeological Assessment / Water Balance, accordingly, any application for major development submitted 2009 or later will have considered the water balance requirements and as such we will apply this policy in full when requested for updated conditions of approval for developments seeking an extension of approval under the *Planning Act*.

5.2 Exemptions

Applications under the *Planning Act* that facilitate permitted agricultural uses or the construction of an accessory structure (e.g., garage or barn and non-commercial structures) or a single-detached dwelling on an existing lot of record will not be subject to the recharge offsetting requirements.

6.0 Water Balance Recharge Offsetting Program

The preferred resolution is always for the post-development infiltration deficit to be mitigated during the development process by the proponent. However, it is recognized that this is not always possible such as in circumstances where the water table is high or the soils have low permeability (e.g., clay). In such circumstances and only after all reasonable efforts have been made to meet the infiltration deficit then cash compensation will be considered. In instances where the quantity of impervious area is an issue rather than high water table/impermeable soils options such as a redesign are to be considered (e.g., decrease in density).

6.1 Off-Site Compensation Process

Off-site compensation would be considered for development applications if they have met the following requirements:

1. All the required technical studies have been completed, and
2. It has been identified that one or more of the constraints previously mentioned make it difficult to maintain pre-development infiltration rates.

There are two processes in which off-site compensation may be achieved:

1. The developer may have an alternate site to make up the difference; or working with the developers of another property the infiltration deficit (for both properties) may be infiltrated in part or in full on the alternate property. The requirement for the timing of the facility to be constructed by the developer on an alternate site will be addressed through a Development Agreement. It is preferred that the compensating facility be constructed prior to the subject development causing the recharge deficit, and
2. Provide a Recharge Offsetting Fee to LSRCA, thereby allowing LSRCA to implement restoration projects (Examples: Stormwater pond retrofits, Low Impact Development) that address stormwater and achieve recharge. See Appendix A – Implementation Guidelines for Water Balance Recharge – Cash-in-Lieu.

6.2 Recharge Compensation Cost

Should the pre-development infiltration not be maintained in post-development conditions through best management practices, a recharge compensation fee will be calculated based on the infiltration deficit (m^3) determined from the annual pre- and post-development water balance assessments. This would exclude very low infiltration deficits of $100 m^3$ or less.

In the case the Lake Simcoe Phosphorus Compensation Policy also applies to an application, it is the greater of the two offsetting requirements which will be applied.

While recharge offsetting fees were originally determined based on low impact development project costs estimated from the TRCA LID Life Cycle tool (2015), compensation costs have since been updated based on LID restoration projects undertaken by the conservation authority. Please see the attached (Appendix A) fee schedule for updated costs. Offsetting fees need to be adjusted annually to account for the increased cost of the offsetting work. Values are reviewed annually and may be subject to adjustment to account for inflation or fluctuations in service and/or material costs. Adjustments for inflation are based on the annual consumer price index, updated in March, as provided by Statistics Canada:

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000413>



Appendix A – Recharge Offsetting Cost

Recharge Offsetting Fee:	\$100.00 per m ³
Administrative Fee:	15%
Approved Date:	Board Approved May 26, 2023

Appendix B – Implementation Guidelines for Recharge Offsetting – Cash – In – Lieu

Water Balance Recharge Committee

The following sections outline the implementation guidelines for LSRCA’s Cash-in-Lieu

Offsetting: Implementation Committee, Project Selection Criteria, Project Funding, Project Execution, Interest on Cash-in-lieu Funds and Project Reporting.

Implementation Committee

An Implementation Committee (Committee) will be established to assist in implementation through informed decision making. The members will be responsible for:

- Reviewing potential Stormwater Restoration projects for funding utilizing the Recharge Offsetting revenue.
- Ensuring that the projects meet Recharge Offsetting Implementation Criteria and either approving or denying projects.
- Reviewing and recommending which approved projects need to be monitored for water quality/quantity efficacy.
- Reviewing the annual reports and ensuring that desired outcomes are being achieved.
- Providing advice and direction on ways to improve the program. The Implementation Committee will establish and follow a Terms of Reference and will be comprised of members from the following service areas: Corporate Services, Planning & Development, and Watershed Restoration Services.

Project Funding

Recharge funding will be used to fund the project costs approved by the review committee. A review of the project funds, including the administration fee, will be completed annually to ensure the amount is appropriate.

Project Execution

Projects will be executed by LSRCA. Exceptions may be made at the discretion of the Committee and a grant agreement and/or MOU must be signed by the executing party.

LSRCA's Board of Directors have provided governance for the internal review committee to procure consultants and contractors and to issue grants to agencies, partners and participants in accordance with the current LSRCA Purchasing Policy.

Financial Controls

Offsetting funds will be tracked within a sub-watershed grouping account. Once a project has been approved the budget will be transferred to the project account. Internal monthly reporting on project budget versus actual will be prepared and reviewed at each Committee meeting.

Interest on Water Balance Recharge Policy Revenue

Due to timing difference between recharge offsetting revenue and project expenditures, LSRCA staff will segregate the idle recharge offsetting money and invest under the strict provisions of the LSRCA Investment Policy. Interest revenue earned will be allocated with 15% going to Program and Operational costs and 85% to Project costs. All interest attributed to Project Costs will be returned to the General Pool.

Reconciliation of Projects (Project close out)

At the conclusion of the project, any remaining funds from the project would be returned to a General Pool of recharge funding for redeployment towards other projects at the general discretion of the Committee and approved by the Board as necessary.

Reporting

Project reporting will be done internally monthly and be reported as part of the quarterly reporting (typically only done at the end of quarter 2,3 and 4). Available sub-watershed grouping balances, revenue received less committed expenditures, will be available for each Committee meeting. Annual audited balances (by sub-watershed or aggregate) will be available at year end or (unaudited) will be available upon request of the Committee or Board.



Phosphorus Offsetting Policy

May 2023

For more information, contact:

Development, Engineering and Restoration
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Acknowledgements

This policy could not have been developed without the participation of and collaboration with:

- Ministry of the Environment and Climate Change (MOECC)
- Chippewas of Georgina Island First Nation
- City of Barrie
- City of Kawartha Lakes
- Regional Municipality of Durham
- Township of Brock
- Township of Scugog
- Township of Uxbridge
- Town of Bradford West Gwillimbury
- Town of Innisfil
- Town of New Tecumseth
- Township of Oro-Medonte
- Township of Ramara
- Regional Municipality of York
- Town of Aurora
- Town of East Gwillimbury
- Town of Georgina
- Township of King
- Town of Newmarket
- Town of Whitchurch-Stouffville
- Building Industry and Land Development Association (BILD)
- Ontario Federation of Agriculture (Simcoe Chapter)

The Lake Simcoe Region Conservation Authority would especially like to acknowledge the support of the Minister of Environment, Conservation and Parks, the Hon. David Piccini.

Conservation Authority Resolution

The LSRCA Board of Directors on September 22, 2017, adopted the Phosphorus Offsetting Policy by resolution as follows:

Moved by: S. Macpherson

Seconded by: P. Ferragine

BOD-131-17 **Resolved that** Staff Report No. 38-17-BOD regarding the Lake Simcoe Phosphorus Offsetting Program be received; and

Further that the Phosphorus Offsetting policy be approved to take effect January 1, 2018; and

Further that LSRCA's member municipalities and the Building Industry and Land Development Association be notified accordingly. CARRIED

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Revisions Registry

Identification	Date	Description of revision
Draft Policy	September 2017	Presented to Board for approval
Housekeeping Policy Update	May 2019	Minor housekeeping updates approved by Board
Housekeeping Policy Update	May 2023	Minor housekeeping updates to align with provincial legislative changes, approved by Board

1.0 Introduction

The Lake Simcoe Region Conservation Authority (LSRCA) Strategic Plan, Transformation 2022-2024 reaffirms the LSRCA's vision of watershed health and the mission we aspire to achieve.

Strategic Direction One of the Strategic Plan is to champion watershed health and climate resilience. This update to the Lake Simcoe Phosphorus Offsetting Policy (LSPOP) is in alignment with the Lake Simcoe Protection Plan. Minimizing phosphorus loading will ultimately protect and improve the water quality in Lake Simcoe and its tributaries and support watershed health.

The LSPOP is the product of more than 4 years of work in collaboration with the First Nations, Chippewas of Georgina, the Ministry of the Environment, Conservation and Parks (MECP), our municipal partners, the Building Industry and Land Development Association (BILD) and the watershed community. Extensive consultation was held during the study and to develop policy to operationalize the program. This policy outlines the steps needed to facilitate an offset with the development industry and is intended to aid in operationalizing the program. The updated version of this policy will become effective on May 26, 2023, and is intended to bring this policy into alignment with the current provincial legislative framework.

It is noted that the Lake Simcoe Phosphorus Offsetting Program will result in many other environmental, social and economic benefits including:

- Reduced peak flows, frequency and severity of flooding, risk to life, property, and social disruption,
- Increased resilience of communities to climate change,
- Enhanced groundwater recharge to maintain ground-water drinking supplies and ecological services,
- Creation of green industry - jobs in construction, operation, and maintenance,
- Facilities that are aesthetically attractive and provide opportunities for carbon offsetting and climate change mitigation.

2.0 Context

The LSPOP requires that all new Major development, as defined by the Lake Simcoe Protection Plan control the phosphorus from leaving their property in accordance with Section 4.8-DP of the Lake Simcoe Protection Plan. This is referred to as the Export Target, a key component of the LSPOP that ensures new development or redevelopment activities do not continue to contribute to phosphorus loading to Lake Simcoe. Under this Policy, as new urban growth occurs phosphorus loads will be controlled to the maximum extent possible onsite using the best available control technology within the development itself in compliance with the MECP Stormwater Guidelines and the LSRCA Watershed Development Guidelines, whichever is most

stringent. Any remaining stormwater phosphorus load that cannot be controlled to meet pre-development phosphorus loading levels would trigger the need for an offset to achieve pre-development phosphorus loading levels. An offset ratio of 2.5:1 would be applied meaning that 2.5 kg of phosphorus per year would be removed for every 1 kg required to be offset. The offset measures would consist of phosphorus load reduction through the use of Low Impact Development (LID) techniques and the retrofit of existing stormwater discharges elsewhere in a subwatershed or in adjacent subwatersheds.

LSPOP is based on the following provincial, regional, and watershed documents in the Lake Simcoe watershed:

- Lake Simcoe Protection Act and Plan (2009)
- Conservation Authorities Act (2023)
- Lake Simcoe Environmental Management Strategy (1990 – 2007)
- Assimilative Capacity Study (2006)
- Lake Simcoe Phosphorus Offsetting Program (2014)
- Provincial Policy Statement (2020)
- Growth Plan for the Greater Golden Horseshoe (2020)
- Subwatershed Plans (2009 – 2017)

For example, Chapter 4 of the Lake Simcoe Protection Plan identifies that phosphorus loadings should be reduced to achieve a target for dissolved oxygen of 7mg/L in Lake Simcoe, which equates to a long-term goal of 44 tonnes per year. Phosphorus offsetting is a means to help achieve this long-term goal and target.

3.0 Principles

LSPOP is based on the following principles:

Accountable: Mechanisms will be in place to demonstrate that actual phosphorus reductions will result from the offsets and that program implementation and decisions will be transparent.

Beneficial: Offsetting will result in net water quality benefits to Lake Simcoe.

Defensible: Offsetting parameters, such as credits and ratios, will be based on reliable scientific evidence and methods.

Economical: Reductions in phosphorus loadings to Lake Simcoe that result from offsetting should be at an overall lower cost than traditional approaches to water quality improvement.

Enforceable: Offsetting procedures will be simple, consistent and implementable.

Equitable: Offsetting will avoid bias in terms of participation, location of trades, and value of credits.

Adaptable: Information about program operation and water quality improvements will be reviewed from time to time and will be used to adapt offsetting to changing knowledge and technology.



Figure 0-1 – Examples of stormwater control

4.0 Policy Approach

4.1 Goals

- To maintain and/or improve the water quality of Lake Simcoe and its tributaries by addressing stormwater, which is defined as wastewater and should not be discharged to a receiving water body that is at or as a result of the discharge, would exceed its assimilative capacity,
- To assist in achieving the Lake Simcoe Protection Plan target for dissolved oxygen of 7mg/L in Lake Simcoe with an annual phosphorus load of 44 tonnes per year.

4.2 Objectives

- To reduce stormwater runoff to pre-development conditions as close to the source as possible,
- To ensure that development within the watershed contributes to the protection or enhancement of water quality and quantity through the implementation of LID techniques such as enhanced swales, rain-gardens, and permeable surfaces,
- To prevent increases in phosphorus loads to Lake Simcoe and its tributaries by utilizing LID principles,
- To recognize stormwater retrofit projects on public lands as a means to achieving the overall phosphorus water quality target.

4.3 Definition

Phosphorus offsetting will be applied to:

- Development Applications meeting the definition of “Major development” as per the Lake Simcoe Protection Plan,
- Applications under the *Conservation Authorities Act* where applicable,
- Consolidated Linear Infrastructure Environmental Compliance Approvals for a municipality when specified by the MECP as a condition or a stormwater management criteria,
- Any other provincial and/or municipal requirement(s) as specified by the province or municipality.

4.3.1. Exceptions: applications made under the *Planning Act* that facilitate permitted agricultural uses or the construction of an accessory structure (e.g., garage or barn and non-commercial structures) or a single detached dwelling on an existing lot of record will not be subject to the Phosphorous Offsetting Policy requirements.

4.4 Phosphorus Offsetting Policies

4.4.1. An application as identified in Section 4.3 shall be accompanied by a Preliminary Phosphorus Budget as part of an overall Functional Servicing Report or Preliminary Stormwater Management Report. This evaluation shall be prepared by a qualified professional to the satisfaction of the municipality and local conservation authority prior to any draft plan of subdivision, site plan approval or granting of provisional consent. A Detailed Phosphorus Budget, based on the approved Preliminary Report, will be required as a condition of draft plan of subdivision/condominium or site plan approval or granting of provisional consent.

4.4.2. The Phosphorus Budget identified in Section 4.4.1 must demonstrate that the phosphorus load from the development on the property will not exceed pre-development phosphorus loadings. The Phosphorus Budget shall be prepared in accordance with the following:

- i. Municipality’s Comprehensive Stormwater Management Master Plan prepared under 4.5-SA of the Lake Simcoe Protection Plan (2009)
- ii. Subwatershed Evaluations under 8.3-SA of the Lake Simcoe Protection Plan
- iii. Designated Policy 4.8 of the Lake Simcoe Protection Plan
- iv. Section 2.2 of the Provincial Policy Statement (2020)
- v. LSRCA’s Technical Guidelines for Stormwater Management Submissions
- vi. Policy 3.2.7 of the Growth Plan for the Greater Golden Horseshoe (2020)

4.4.3. In situations where the phosphorus load cannot be met or demonstrated in a post-development scenario to achieve the pre-development phosphorus loadings, the developer or proponent shall be required to provide phosphorus offsetting to the LSRCA.

The Phosphorus Offsetting Fee will be calculated as follows:

- Offset Ratio = 2.5:1
- Offset Value = \$35,770/kg/year¹
- Offset Calculation = (ratio (2.5) x P load difference between post-development and pre-development in kg x \$35,770)

And Administration Fee (15%) will be added to the Phosphorus Offsetting Fee for Lake Simcoe Conservation Authority Program Costs. Offsetting fees need to be adjusted annually to account for the increased cost of the offsetting work. Values are reviewed annually and may be subject to adjustment to account for inflation or fluctuations in service and/or material costs. Adjustments for inflation are based on the annual consumer price index, updated in March, as provided by Statistics Canada:

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000413>

¹ Values are adapted from LSRCA restoration project costs and TRCA, NGO and private consulting estimates. Values are reviewed annually and may be subject to adjustment to account for inflation or fluctuations in service and/or material costs. Adjustments for inflation are based on the annual consumer price index, updated in March, as provided by Statistics Canada:

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000413>

- 4.4.4. The revenue generated through phosphorus offsetting will be used to reduce the phosphorus load in other parts of the subwatershed by funding the construction of; stormwater pond retrofits, Low Impact Development best management practices. The offset shall generally occur in the same catchment as the subject lands, subwatershed, or watershed in order of priority. See Appendix B for details on Implementation of Cash in Lieu revenue.
- 4.4.5. The phosphorus offset will be established in municipal development agreements to ensure the offset is addressed and will be maintained in perpetuity. Clauses in agreements or legal instruments, where appropriate, will be required though conditions of approval for any draft plan of subdivision or condominium, site plan or consent application, purchase and sale agreements, and covenants as per the *Conservation Land Act* registered under the *Land Titles Act*.
- 4.4.6. Council may enact by-laws under the *Municipal Act* to help implement the approved phosphorus offset. Existing fill or site alteration by-laws may be amended or updated to include the offset requirements.
- 4.4.7. Applications under the *Planning Act* that facilitate permitted agricultural uses or the construction of an accessory structure (e.g., garage) or a single-detached dwelling on an existing lot of record will not be subject to this Phosphorus Offsetting Policy. In addition, proposals requiring approval under Ontario Regulation 179/06 via the *Conservation Authorities Act* will not be subject to the requirements of this Policy.

4.5 Transition

Table 0-1 – Transition Policy

Application Type	Phosphorus Offsetting Applicability	Commentary
All applications under the <i>Planning Act</i>	yes	Applies to all applications submitted after January 1, 2018, that constitute major development as per the Lake Simcoe Protection Plan.
Draft plan of subdivision applications submitted prior to January 1, 2018	yes	Provided draft approval was <u>not</u> granted before January 1, 2018
Draft approved plans of subdivision prior to January 1, 2018	no	Provided an extension to draft approval is not required



Application Type	Phosphorus Offsetting Applicability	Commentary
Red-Line revision to plan of subdivision that was draft approved prior to January 1, 2018	yes	Only if there is a substantive change to the approved storm water management scheme. It is the responsibility of the applicant to show how the proposed changes are consistent with the original scheme.
Extension to draft approval	yes	Provided the extension is granted after January 1, 2018
Site Plan Approval for a Block on a Registered Plan	no	Provided there is no substantive change to the approved storm water management scheme. It is the responsibility of the applicant to show how the proposed changes are consistent with the original scheme.
Site Plan Approval for a Block on a Plan of Subdivision that was draft approved prior to January 1, 2018	no	Provided there is no substantive change to the approved storm water management scheme. It is the responsibility of the applicant to show how the proposed changes are consistent with the original scheme.
Site Plan Amendment	no	Provided there is no substantive change to the approved storm water management scheme. It is the responsibility of the applicant to show how the proposed changes are consistent with the original scheme.



Appendix A – Phosphorous Offsetting Cost

Phosphorus Offsetting Fee:	\$35,770 per kg
Administrative Fee:	15%
Approved Date:	Board Approved May 26, 2023

Appendix B – Implementation Guidelines for Recharge Offsetting – Cash - in – Lieu

Phosphorus Offsetting Committee

The following sections outline the implementation guidelines for LSRCA’s Cash-in-Lieu

Offsetting: Implementation Committee, Project Selection Criteria, Project Funding, Project Execution, Interest on Cash-in-lieu Funds and Project Reporting.

Implementation Committee

An Implementation Committee (Committee) will be established to assist in implementation through informed decision making. The members will be responsible for:

- Reviewing potential Stormwater Restoration projects for funding utilizing the Phosphorus Offsetting revenue.
- Ensuring that the projects meet Phosphorus Offsetting Implementation Criteria and either approving or denying projects.
- Reviewing and recommending which approved projects need to be monitored for water quality/quantity efficacy.
- Reviewing the annual reports and ensuring that desired outcomes are being achieved.
- Providing advice and direction on ways to improve the program. The Implementation Committee will establish and follow a Terms of Reference and will be comprised of members from the following service areas: Corporate Services, Planning & Development, and Watershed Restoration Services.

Project Funding

Phosphorus funding will be used to fund the project costs approved by the review committee. A review of the project funds, including the administration fee, will be completed annually to ensure the amount is appropriate.

Project Execution

Projects will be executed by LSRCA. Exceptions may be made at the discretion of the Committee and a grant agreement and/or MOU must be signed by the executing party.

LSRCA's Board of Directors have provided governance for the internal review committee to procure consultants and contractors and to issue grants to agencies, partners and participants in accordance with the current LSRCA Purchasing Policy.

Financial Controls

Offsetting funds will be tracked within a subwatershed grouping account. Once a project has been approved the budget will be transferred to the project account. Internal monthly reporting on project budget versus actual will be prepared and reviewed at each Committee meeting.

Interest on Phosphorus Offsetting Policy Revenue

Due to timing difference between phosphorus offsetting revenue and project expenditures, LSRCA staff will segregate the idle phosphorus offsetting money and invest under the strict provisions of the LSRCA Investment Policy. Interest revenue earned will be allocated with 15% going to Program and Operational costs and 85% to Project costs. All interest attributed to Project Costs will be returned to the General Pool.

Reconciliation of Projects (Project close out)

At the conclusion of the project, any remaining funds from the project would be returned to a General Pool of phosphorus funding for redeployment towards other projects at the general discretion of the Committee and approved by the Board as necessary.

Reporting

Project reporting will be done internally monthly and be reported as part of the quarterly reporting (typically only done at the end of quarter 2,3 and 4).

Available subwatershed grouping balances, revenue received less committed expenditures, will be available for each Committee meeting.

Annual audited balances (by subwatershed or aggregate) will be available at year end or (unaudited) will be available upon request of the Committee or Board.

Staff Report

To: Board of Directors

From: Christa Sharp, Manager, Restoration Services

Date: May 19, 2023

Subject

Western Creek Restoration/Infrastructure Protection Project RFT- CA-2023-001, Town of Newmarket

Recommendation

That Staff Report No. 29-23-BOD regarding the Western Creek Restoration/Infrastructure Protection Project RFT- CA-2023-001, Town of Newmarket be received; and

Further that the recommended bidder **R&M Construction** (560789 Ontario Limited) for the tender contract bid price of **\$602,675.11** (excluding HST) as outlined in this report be approved.

Purpose of this Staff Report

The purpose of this Staff Report No. 29-23-BOD is to obtain approval from the Board of Directors for the Western Creek Restoration/Infrastructure Protection in the Town of Newmarket to award the construction contract to the lowest bidder that submitted a fully completed tender package that was posted publicly on Bids & Tenders on April 14, 2023.

Background

The subject section of Western Creek is approximately 60 metres in length and starts just downstream of Metrolinx's rail crossing and ends upstream of the bridge crossing to the Metrolinx commuter parking. This creek system is within a heavily urbanized catchment and the subject area has shown signs of bank instability and downcutting for many years. It is within the Conservation Authority's regulated areas, being entirely within the Regional Storm floodplain. York Region's Infrastructure crosses under and runs parallel to the creek. The subject area is located at the rear of 465 Davis Drive owned by the Town of Newmarket with adjacent landowners including Metrolinx, the Tannery Mall, Town of East Gwillimbury and the Conservation Authority.

The purpose of this project is to complete creek erosion restoration, natural channel construction, infrastructure protection (sanitary sewer encasement and armour stone wall construction) and restore the site to a natural state. Additional improvements to the site will

also be made including fencing surrounding the watercourse, tree & shrub plantings and watercourse improvements.

As the project is within the Regional Storm floodplain, an as-built geodetic topographic survey will be required following the completion of construction to confirm the project maintains overland conveyance, and that the existing overland flow paths are not impacted by the proposed cut/fill locations.

The Regional Municipality of York has retained the Conservation Authority to lead on the restoration of this project and one hundred percent of the funding will be covered through York Region's IIPWP, for Conservation Authority staff time, consultant fees, permit approvals and the construction tender.

The lowest bidder who submitted a fully complete tender package was R&M Construction (560789 Ontario Limited) at **\$602,267.78** excluding HST, which is within the current budget and detailed estimate. This included the submission of an acceptable Proof of Ability and References document. The contract is to be awarded on May 29, 2023. This project is anticipated to be constructed before October 30, 2023.

Issues

There are no issues associated with this report.

Relevance to Conservation Authority Policy

One of the goals of the Conservation Authority's Strategic Plan, a resilient watershed, is achieved through nature-based restoration solutions and an increase in protected areas on rural, urban and agricultural lands. The Regional Municipality of York through their IIPWP assist in achieving this goal by providing a consistent approach to enhancement, restoration and protection throughout the watershed.

Impact on Conservation Authority Finances

This update will not impact Conservation Authority finances. Funding for this project has already been allocated through York Region's IIPWP.

Summary and Recommendations

It is therefore **Recommended That** Staff Report No. 29-23-BOD regarding the Western Creek Restoration/Infrastructure Protection Project RFT- CA-2023-001, Town of Newmarket be received; and **Further that** the recommended bidder **R&M Construction** (560789 Ontario Limited) for the tender contract bid price of **\$602,675.11** (excluding HST) as outlined in this report be approved.

Pre-Submission Review

This Staff Report has been reviewed by the General Manager, Development, Engineering and Restoration and the Chief Administrative Officer.

Signed by:

Glenn MacMillan
General Manager, Development,
Engineering and Restoration

Signed by:










Rob Baldwin
Chief Administrative Officer

Attachments


- 1: Project site location
- 2: Current Conditions



Features

-  LSRCA Watershed Boundary
-  LSPP Watershed Boundary
-  Assessment Parcel
-  Lot and Concession
- Road Labels**
-  Watercourse
- Roads**
-  Hwy 400 Series
-  Highway, Arterials
-  Local Road
- Railway**
-  Lower Tier Municipality

Printed On:
3/8/2021

 WGS_1984_Web_Mercator_Auxiliary_Sphere
Mapped By:

This product was produced by the Lake Simcoe Region Conservation Authority and some information depicted on this map may have been compiled from various sources. While every effort has been made to accurately depict the information, data/mapping errors may exist. This map has been produced for illustrative purposes from an interactive web mapping site. LSRCA GIS Services DRAFT printed 2021. © LAKE SIMCOE REGION CONSERVATION AUTHORITY, 2021. All Rights Reserved. The following data sets of Assessment Parcel, Roads, Upper & Lower Tier Municipalities, Wetlands are © Queens Printer for Ontario. Reproduced with Permission, 2021. The Current Regulation Limit and Boundary data sets are derived products from several datasets. Orthophotography 2002, 2005, 2007-2009, 2011-2018. © First Base Solutions, Inc.

Scale 1: 3,246



Failing Western Creek Bank Protection

Failing pre-cast wall protecting York Region Sanitary sewer line

