Upper Thames River Conservation Authority Board of Directors' Meeting Agenda - AMENDED
Tuesday January 25, 2022 at 9:30 A.M

Virtual Meeting Due to COVID-19 Pandemic

1. Approval of Agenda

Mover: B.Petrie
Seconder: J.Reffle
THAT the Board of Directors approve the Agenda as posted.

2. Declaration of Conflicts of Interest

3. Minutes of the Previous Meetings: Tuesday November 23, 2021

Mover: J.Salter
Seconder: M.Schadenberg
THAT that the Upper Thames River Conservation Authority Board of Directors approve the Board of Directors' minutes dated November 23, 2021, including any closed session minutes, as posted on the Upper Thames River Conservation Authority web-site.

4. Business Arising from the Minutes

4.1. By-Passes and Overflow in the Upper Thames Watershed – B.Glasman
Admin #4400
Mover: A.Westman
Seconder: M.Blosh
THAT the Board of Directors receives the report as presented.

5. Delegations

6. Correspondence

6.1. Letter of Thanks from Minister Rickford Regarding Flooding in British Columbia
Mover: A.Hopkins
Seconder: T.Jackson
THAT the Board of Directors receives the correspondence for information.

UPPER THAMES RIVER
CONSERVATION AUTHORITY

7. Business for Approval

7.1. Species at Risk Stewardship Program Funding Concern - Letter to Minister, Environment, Conservation and Parks – T.Annett #125146
Mover: S.Levin
Seconder: M.Lupton
THAT the Board of Directors approve the recommendation as presented in the report.

8. Business for Information

8.1. Administration and Enforcement - Section 28 Status Report – J.Allain ENVP #11349
Mover: N.Manning
Seconder: H.McDermid
THAT the Board of Directors receives the report as presented.

8.2. 2022 Draft Budget and Municipal Feedback – T.Annett Admin #4399
Mover: P.Mitchell
Seconder: A.Murray
THAT the Board of Directors receives the report as presented.

8.3. Harrington and Embro Conservation Areas Heritage Studies and Other Updates – C.Tasker FC #2139
Mover: J.Reffle
Seconder: B.Petrie
THAT the Board of Directors receives the report as presented

8.4. Inventory of Programs & Services Presentation – T.Annett
Mover: M.Schadenberg
Seconder: J.Salter
THAT the Board of Directors receives the presentation as presented.

8.5. Annual Meeting Details Verbal Update – T.Annett

9. 2022 Elections – T.Annett Admin #4384

I. Chair
II. Vice-Chair
III. Hearings Committee (2 positions)
IV. Finance & Audit Committee (2-4 positions)
V. Source Protection Striking Committee/Committee Liaison (1 position)

UPPER THAMES RIVER
CONSERVATION AUTHORITY

10. January 2022 For Your Information Report

11. Other Business (Including Chair and General Manager's Concluding Remarks)

12. Closed Session – In Accordance with Section C.13 of the UTRCA Administrative By-Law

Mover: M.Blosh
Seconder: A.Westman
THAT the Board of Directors adjourn to Closed Session – In Camera, in accordance with Section C.13 of the UTRCA Administrative By-Law, to discuss litigation or potential litigation, including matters before administrative tribunals affecting the Authority.

12.1. Litigation Affecting the Authority – T.Annett Admin #4348

Moved by: T.Jackson
Seconded by: A.Hopkins
THAT the Board of Directors Rise and Report progress.

Mover: M.Lupton
Seconder: S.Levin
THAT the Board of Directors receive the report, as presented in closed session, for information.

13. Adjournment

Mover: N.Manning

Tracy Annett, General Manager

Minutes
Upper Thames River Conservation Authority Board of Directors Meeting
Tuesday, January 25, 2022

Virtual Meeting Due to COVID-19 Pandemic

Alan Dale, UTRCA Board Chair, called the meeting to order at 9:30am.

Members Present:

M.Blosh
A.Dale – Chair
A.Hopkins
T.Jackson
S.Levin
M.Lupton
N.Manning
H.McDermid
P.Mitchell
A.Murray
B.Petrie
J.Reffle
J.Salter
M.Schadenberg
A.Westman

Regrets: None

Solicitor: G. Inglis

Staff:

J.Allain
T.Annett
E.Chandler
B.Dafoe
J.Dony
S.Gillingwater
B.Glasman
T.Hollingsworth
K.Maaskant
C.Saracino
J.Schnaithmann
C.Tasker
B.Verscheure
M.Viglianti - Recorder

1. Approval of Agenda

The Chair confirmed the mover and seconder were willing to let their names stand.

The Chair noted an amendment to the agenda. The matter the Harrington and Area Community Association planned on presenting to the Board has been resolved. They withdrew their request to delegate at this meeting.

Mover: B.Petrie
Seconder: J.Reffle
THAT the Board of Directors approve the agenda as amended.
Carried.

2. Declaration of Conflicts of Interest

The Chair inquired whether the members had any conflicts of interest to declare relating to the agenda. There were none.

3. Minutes of the Previous Meeting – November 23, 2021

The Chair confirmed the mover and seconder were willing to let their names stand.

Mover: J.Salter
Seconder: M.Schadenberg
THAT the UTRCA Board of Directors approve the Board of Directors' minutes dated November 23, 2021, including any closed session minutes, as posted on the Members' web-site.
Carried.

4. Business Arising from the Minutes

4.1. By-Passes and Overflow in the Upper Thames Watershed

The Chair confirmed the mover and seconder were willing to let their names stand.

There was discussion on the limited scope and data available to staff for this report and Board members suggested a more comprehensive analysis and total sum of all by-passes in the watershed. Staff noted that while that Province does not currently have that data, there have been recent changes to reporting requirements for wastewater treatment plants so in the future that kind of detail would become available.

There was a suggestion to have staff provide an annual water quality and by-pass update report.

The Board discussed past research projects and non-point source nutrient loading. Staff were asked to circulate the 2015 Water Quality Assessment in the Thames River Watershed – Nutrient and Sediment Sources report to the Board members for their information.

Mover: A.Westman
Seconder: M.Blosh
THAT the Board of Directors receives the report as presented.
Carried.

5. Delegations

6. Correspondence

6.1. Letter of Thanks from Minister Rickford Regarding Flooding in British Columbia

The Chair confirmed the mover and seconder were willing to let their names stand.

Mover: A.Hopkins
Seconder: T.Jackson
THAT the Board of Directors receives the correspondence for information.
Carried.

7. Business for Approval

7.1. Species at Risk Stewardship Program Funding Concern - Letter to Minister, Environment, Conservation and Parks
(Report attached)

The Chair confirmed the mover and seconder were willing to let their names stand.

The Board raised concerns over the lack of transparency of the provincial funding program and discussed with staff options for future funding for the UTRCA species at risk program.

Mover: S.Levin
Seconder: M.Lupton
THAT the Board of Directors approve the recommendation as presented in the report.
Carried.

8. Business for Information

8.1. Administration and Enforcement - Section 28 Status Report
(Report attached)

The Chair confirmed the mover and seconder were willing to let their names stand.

A Board member noted a correction for Permit # 117-21, clarifying that the property is in the Municipality of Perth South, not Perth East.

Mover: N.Manning
Seconder: H.McDermid
THAT the Board of Directors receives the report as presented.
Carried.

8.2. 2022 Draft Budget and Municipal Feedback
(Report attached)

The Chair confirmed the mover and seconder were willing to let their names stand.

Staff noted there had been no additional formal or written feedback from other Municipalities, but a budget presentation to West Perth Council is scheduled for next week. Staff also noted an upcoming meeting with Conservation Ontario to talk about the representation questions from the Town of St. Marys and what the process would be to change Board composition.

A.Murray left the meeting at 11:00am.

Concerns were raised regarding the need to replace trucks in 2022, given the supply shortage. A suggestion to consider electric or hybrid trucks was made.

Mover: P.Mitchell
Seconder: M.Lupton
THAT the Board of Directors receives the report as presented.
Carried.

8.3. Harrington and Embro Conservation Areas Heritage Studies and Other Update

(Report attached)

The Chair confirmed the mover and seconder were willing to let their names stand.

It was noted that the Harrington and Area Community Association expressed an interest in coming as a delegation to a future meeting to introduce themselves and discuss their long range plans.

Mover: J.Reffle
Seconder: B.Petrie
THAT the Board of Directors receives the presentation as presented.
Carried.

8.4. Inventory of Programs and Services Presentation

The Chair confirmed the mover and seconder were willing to let their names stand.

Staff provided a presentation outlining the inventory of programs and services, which will come to the Board for approval at the February meeting, and answered questions.

Mover: M.Schadenberg
Seconder: J.Salter
THAT the Board of Directors receives the presentation as presented.
Carried.

8.5. Annual Meeting Details Verbal Update

Staff reminded the Board the Annual General Meeting would be held on Thursday, February 17th. The agenda will include the presentation of the 2022 budget for approval, recognition of service awards and the presentation of one Conservation Award, along with other regular business items.

9. 2022 Elections

The Chair requested a motion to nominate Grant Inglis as Acting Chair for the purpose of conducting the 2022 elections.

Mover: S.Levin
Seconder: N.Manning
THAT G.Inglis be nominated as Acting Chair for the purpose of conducting the 2022 elections.
Carried.

G.Inglis outlined the procedures for electing all available positions as specified in the Conservation Authorities Act and the UTRCA Board of Directors' Administrative By-Law.

i) Chair

G.Inglis called for nominations for the position of Chair of the UTRCA Board of Directors for 2022.

S.Levin nominated A.Dale for the position of Chair of the UTRCA Board of Directors for 2022.

G.Inglis called twice more for further nominations. A.Dale stated he would allow his name to stand.

Mover: P.Mitchell
Seconder: A.Hopkins
THAT nominations for the position of Chair be closed.
Carried.

Alan Dale was declared to be elected by acclamation to the position of Authority Chair for 2022.

ii) Vice-Chair

G.Inglis called for nominations for the position of Vice-Chair of the UTRCA Board of Directors for 2022.

S.Levin nominated B.Petrie for the position of Vice-Chair of the UTRCA Board of Directors for 2022.

G.Inglis called twice more for further nominations. B.Petrie stated he would allow his name to stand.

Mover: J.Reffle
Seconder: J.Salter
THAT nominations for the position of Vice-Chair be closed.
Carried.

Brian Petrie was declared to be elected by acclamation to the position of Authority Vice-Chair for 2022.

iii) Hearings Committee (2 positions)

G.Inglis noted that the Hearing Committee consists of the Authority Chair, Vice-Chair, past Chair, and two additional Authority members.

G.Inglis called for nominations for the two positions on the 2022 Hearings Committee.

H.McDermid nominated T.Jackson to be a member of the Hearing Committee for 2022.

B.Petrie nominated M.Blosh to be a member of the Hearing Committee for 2022.

G.Inglis called twice more for further nominations.

Both nominees agreed to let their names stand for the positions on the Hearing Committee for 2022.

Mover: A.Hopkins
Seconded: B.Petrie
THAT nominations for the positions on the Hearing Committee be closed.
Carried.

Tony Jackson and Marie Blosh were declared to be elected by acclamation to the Hearing Committee for 2022.

iv) Finance and Audit Committee (2-4 positions)

G.Inglis noted that the Finance and Audit Committee consists of the Authority Chair, plus two to four additional Authority members.

G.Inglis called for nominations for the positions on the 2022 Finance and Audit Committee.

J.Salter nominated J.Reffle to be a member of the Finance and Audit Committee for 2022.

S.Levin nominated A.Murray to be a member of the Finance and Audit Committee for 2022.

A.Dale nominated S.Levin to be a member of the Finance and Audit Committee for 2022.

G.Inglis called a second time for nomination.

P.Mitchell nominated B.Petrie to be a member of the Finance and Audit Committee for 2022.

G.Ingis called a third time for nominations.

All three nominees present agreed to let their names stand for the positions on the Finance and Audit Committee for 2022. A.Murray agreed to let her name stand for a position on the Finance and Audit Committee through written notice to staff prior to the election.

Mover: N.Manning
Seconder: A.Hopkins
THAT nominations for the positions on the Finance and Audit Committee be closed.
Carried.

Jim Reffle, Brian Petrie, Annamarie Murray and Sandy Levin were declared to be elected by acclamation to the 2022 Finance and Audit Committee.

v) Source Protection Striking Committee/Committee Liaison (1 position)

G.Inglis called for nominations for the position on the Source Protection Striking Committee and Committee Liaison.

J.Reffle nominated J.Salter to be the Source Protection Striking Committee Member and Committee Liaison.

G.Inglis called twice more for further nominations.

J.Salter agreed to let his name stand.

Mover: B.Petrie
Seconder: N.Manning
THAT nominations for the position of Source Protection Striking Committee Member and Committee Liaison be closed.
Carried.

Joe Salter was declared to be elected by acclamation as the Source Protection Striking Committee Member and Committee Liaison.

With the conclusion of the 2022 Elections, G.Inglis relinquished the Chair to A.Dale. The Chair congratulated all newly elected members and thanked them for stepping forward into those roles.

10. January 2022 For Your Information Report

The January FYI was presented for the member's information.

11. Other Business (Including Chair and General Manager's Concluding Remarks)

The Chair spoke to his re-election.

A.Westman left the meeting at 12:12pm.

12. Closed Session – In Camera

The Chair confirmed the mover and seconder were willing to let their names stand.

Mover: M.Blosh
Seconder: S.Levin
THAT the Board of Directors adjourn to Closed Session – In Camera, in accordance with Section C.13 of the UTRCA Administrative By-Law, to discuss litigation or potential litigation, including matters before administrative tribunals affecting the Authority.
Carried.

12.1. Litigation Affecting the Authority

Moved by: T.Jackson
Seconded by: A.Hopkins
THAT the Board of Directors Rise and Report progress.
Carried.

Mover: M.Lupton
Seconder: S.Levin
THAT the Board of Directors receive the report, as presented in closed session, for information.
Carried.

13. Adjournment

The Chair confirmed the mover was willing to let their name stand. There being no further business, the meeting was adjourned at 12:21 pm on a motion by N.Manning.

Tracy Annett, General Manager
Att.

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: UTRCA Board of Directors
From: Brad Glasman, Manager, Integrated Watershed Management
Date: January 18, 2022
Filename: Admin #4400
Agenda #: 4.1
Subject: Bypasses and Overflows in the Upper Thames Watershed

Recommendation

That the Board receives the report for information.

Background

Protection and improvement of the water quality in the Thames River is a key responsibility and priority of the UTRCA, shared with municipalities and other agencies and partners in the watershed. The UTRCA's role has focused on implementing programs to understand and address the large contribution of non-point source pollution (nutrients, bacteria, sediment, other contaminants) that comes from runoff across the landscape and enters the river. Programs include services in rural and agricultural stewardship (eg. Clean Water Program, cover crop promotion, and soil erosion control) and urban stewardship (eg. Low Impact Development, erosion control). Point sources in the watershed, including wastewater treatment plant (WWTP) discharge, bypasses and overflows, are addressed by municipalities and the Ministry of Environment and Climate Change (MECP). As requested by the Board, this report summarizes information related to bypasses and overflows in the watershed. The attached correspondence (December 24, 2021) from Chair Alan Dale to the mayor of St. Marys includes three City of London reports with thorough information on London's bypass and overflow issues and outlines extensive work being undertaken to make improvements. This report will summarize this bypass and overflow information, MECP's role, bypass/overflows in the watershed, and watershed studies and plans related this issue.

Bypasses and Overflows

The following includes information from bypass and overflow reports to the City of London Civic Works Committee, April 20, September 21, December 14, 2021.

Overflows are the release of untreated wastewater to the environment and can occur in the sewer system, at pump stations, or treatment facilities. Bypasses are a diversion of wastewater around part of the wastewater treatment process most often within a wastewater treatment plant. Both are most commonly caused by stormwater entering the sanitary sewer system and increasing flows beyond the capacity of the sewer. Overflows and bypasses happen most often during heavy rainfall events and snowmelts, when extra water enters the sanitary system. 'Unwanted' water that

contributes to overflows and bypasses comes from inflow of stormwater into the sanitary sewer via a direct connection, e.g. combined sewers, or weeping tiles connected to partially combined sewers. Another source is the infiltration/seepage of groundwater into the sanitary sewer, through cracks and breaks in aging sewer pipes, during sustained rainfall events. Reduction of unwanted water from inflow and infiltration is a key priority.

City of London's actions on bypasses and overflows

There are a number of plans and initiatives underway requiring multiple approaches to address the multiple areas of need in the system.

Pollution Prevention Control Plan (PPCP) is a multi-year master planning project to provide long-term solutions to address conveyance system sewer overflows and bypasses. It identifies the highest priority overflow points for management based on frequency and volume of overflows. Recommendations of the PPCP included considerations for climate change, data management, capital works, and removal of inflow and infiltration at the source. Implementation of PPCP has included: updates to storm data used for modeling to account for higher intensity storms experienced due to climate change; data management updates such as continuous updates to GIS, sewer modelling, and flow monitoring program; sewer separation projects; and inflow and infiltration reduction projects, e.g. weeping tile disconnections. An update to the PPCP will be required in 2023.

Wastewater Treatment Master Plan was initiated April 2021 to develop a strategy for collection and treatment of wastewater in London over the next 50 years. This will provide a long term plan for wastewater infrastructure including treatment plants and pumping stations. Minimizing bypasses and overflows at these facilities will be a key consideration in developing this plan. London operates five WWTPs and thirty-eight pumping stations.

Sewer Separation Program has a goal to separate 80% of the combined sewer system by 2025. This equates to 17km of sewer separation. There have been 7.65 km removed by the end of 2021, including many sewers in the downtown that contribute to priority overflows identified in the PPCP.

Weeping Tile Disconnection to address approximately 50,000 weeping tile connections. There is a Basement Flooding Grant Program for homeowners with a subsidy of 90% of costs to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves. There is a budget of $1 M annually to target high priority neighbourhoods.

Other Recent Work:

- Greenway WWTP Expansion ($40M) to increase treatment capacity, add wet weather treatment and storage capacity
- Dingman Creek ($25M) project to increase capacity in southeast London and increase ability to partially treat extreme flow events (2022)
- Adelaide WWTP Upgrades to recover treatment capacity and construct wet weather storage tanks (2022)
- Pottersburg-Vauxhall System Optimization - Interconnection forcemain (2020) to allow full use of available treatment capacity, and a wet weather treatment and storage facility (2022)

- Flood Protection at Greenway and Adelaide WWTP ($49M) project to protect WWTPs from floods and enable full treatment to occur up to 100 year flood elevation (complete by 2025)

MECP role in WWTP and bypasses and overflow

The Ontario Ministry of the Environment and Climate Change (MECP) has Effluent Monitoring and Effluent Limits Regulations—and other legal instruments such as Certificates of Approval and Environmental Compliance Approvals (ECA) —under the Environmental Protection Act of Ontario and the Ontario Water Resources Act. MECP requires designated dischargers of wastewater (including municipal WWTPs) who discharge directly to water bodies in Ontario to sample and analyze their wastewater discharge and report data to the ministry. As well they must ensure that the quality and quantity of wastewater discharge comply with the regulated limit, as specified in their ECA.

Some WWTPs are currently required to report incidents of bypasses and overflows to the MECP, as stipulated in their ECA. They are not required to sample or report for quality. The MECP determines which WWTPs are required to report bypasses based on locations of priority including significant discharge volumes. However, going forward, MECP Approvals now has standard requirements in all ECAs for WWTP's/sewage works that include notifying the MECP Spills Action Centre and the local Medical Officer of Health for any bypasses or overflows. Reporting must include level of bypass treatment and reason for bypass or overflow. Monitoring the event is required and must include: duration, bypass and overflow volumes, collecting samples of the effluent quality through the event, and analysing for all effluent parameters. These standard requirements will now be part of all updated/amended ECAs required when there is an upgrade or change to a municipal WWTP.

Summary of WWTPs in Upper Thames watershed, bypass/overflow data

There are 21 municipal wastewater treatment plants in the Upper Thames River watershed. WWTP bypass and overflow data for the watershed was provided by the MECP for the years 2016 to 2018 for WWTPs required, in their ECA, to report bypasses and overflows. These 12 include: London (Greenway, Adelaide, Oxford, Pottersburg, Vauxhall), Stratford, Woodstock, Ingersoll, Dorchester, St. Marys, Thamesford, Mount Brydges. The following table summarizes the data for the reported bypass or overflow incidents (6 WWTPs did not report an event for 2016, 2017 or 2018):

Bypass and Overflow Reported Incidents (2016 – 2018)

WWTP Name	Receiving water	Discharge Volume total (m^3)	Number of bypasses	Number of overflows
Adelaide	N Branch Thames R., Thames R	*81,703	6	0
Greenway	Dingman Creek, Medway CreekThames R.	873,654	52	20
Oxford	Thames R.	*739	1	1
Pottersburg	Potters Creek, Thames R.	93,539	6	10

Stratford	Avon R., Thames R	*1,157,166	9	6
Vauxhall	Thames R.	*12,439	15	12
TOTALS:		**2,219,240**	**89**	**49**

*missing discharge volume from one incident

Bypasses and outflows had varying levels of treatment (untreated, primary, secondary), as is necessary to ensure the plant is not jeopardized and can continue to function properly for wastewater treatment.

Watershed Studies and Plans that Address Water Quality, Bypasses and Overflows

The Thames River watershed has a history of nutrient issues locally and has been identified as a priority Canadian watershed to reduce, by 40%, phosphorus loadings impacting algae in Lake St. Clair and Lake Erie. Significant long term improvements have been made in Thames River water quality (including phosphorus loadings) since the 1970's through actions such as improvements at WWTPs. However more reductions are needed to approach healthy river and lake conditions.

In 2015, a study was completed assessing long term water quality in the entire Thames watershed to determine phosphorus and sediment sources and loadings. The goal was to inform implementation strategies needed for the watershed and the Lake Erie basin (Freshwater Research, 2015). All data was evaluated including 83 water quality monitoring stations, 26 flow gauges, and the 30 wastewater treatment plants in the watershed. Findings showed the majority of phosphorous load (87%) coming from rural and urban overland runoff (non-point sources) and the remainder (13%) contributed by point sources (WWTP discharge), with more contributions from higher volume WWTPs. Water quality data was not available to assess bypass or overflow nutrient loading contributions.

Information in the Canada-Ontario Lake Erie Action Plan (LEAP) has similar findings to the Thames study for the entire Lake Erie basin: The relative contribution from urban point sources, including municipal wastewater treatment plants, combined sewer overflows (CSOs) and industrial direct discharges, is estimated to be only 10 to 15 per cent of the Canadian total phosphorus load across the Lake Erie basin, with a smaller portion of this from bypasses and overflows (Canada-Ontario Lake Erie Action Plan, February 2018). It is estimated that the total phosphorus loads contributed by CSOs and wastewater treatment plant bypasses basin-wide are equivalent to 10 to 15 per cent of the Canadian total phosphorus load coming from the treatment plants. In certain municipalities, however, the size of these wet weather sources may be much greater. There are very few direct discharges of phosphorus to Lake Erie from industrial facilities in Ontario. Most commercial and industrial plants discharge into municipal sewer systems (Canada-Ontario Lake Erie Action Plan, February 2018).

The Canada-Ontario Lake Erie Action Plan was developed with multiple agencies and partners including Conservation Authorities and municipalities. Each provided commitments and actions to reduce phosphorus loadings in the Lake Erie basin. In the Plan, City of London has made specific commitments to actions to address CSO's, bypasses, and WWTP treatment (see actions as listed earlier in this report under 'London's actions on WWTPs, bypasses and overflows').

Thames Watershed Plans

The **Thames River Clear Water Revival (TRCWR)** brings together all levels of government, Conservation Authorities, First Nations and the local community to achieve the common goal of a healthy and vital Thames River. The first step was the development the watershed plan, *Thames River (Deshkan Ziibi) Shared Waters Approach to Water Quality & Quantity (2019)* which outlines key recommendations from all partners to address water quality and quantity. The implementation phase has started with each partner focusing on their part of the plan's recommended actions. Municipalities (City of London), First Nations, and MECP each include recommendations and planned actions related to WWTP, bypasses and overflows. The UTRCA and LTVCA actions focus on implementation related to non-point source pollution. The priority of water quality improvement in the Thames is also a key part the UTRCA Environmental Targets Strategic Plan (2016) with set targets and actions to make measureable environmental improvements across the watershed.

Improving both non-point source and point source pollution will require the work of many partners in the watershed. Climate change predictions for increased frequency and magnitude of storm events will continue to impact the challenge, and will determine the scale of action needed in making improvements to the river into the future. The UTRCA will continue to monitor water quality and aquatic health across the watershed to understand conditions and issues, and inform local and provincial partners. Work will continue with our municipalities to advocate for environmental protection, and further the actions needed to improve water quality throughout the Upper Thames Watershed.

Recommended by:
Brad Glasman, Manager, Integrated Watershed Management

Prepared by:
Karen Maaskant, Water Quality Specialist

UPPER THAMES RIVER
CONSERVATION AUTHORITY

"Inspiring a Healthy Environment"

Thames
Canadian Heritage River

December 24, 2021

Attention: Mayor Strathdee

Subject: Correspondence regarding dumping of untreated and partially treated sewage into the Thames River

Thank you for your concerns related to the dumping of untreated and partially treated sewage into the Thames River. We appreciate your recognition of the work the Upper Thames River Conservation Authority has done to educate watershed partners about the impacts from phosphorus and other contaminants. During our last meeting our Board discussed your concerns. City of London board representatives have reached out to City staff to determine what plans were in place for the City related to this issue. Scott Mathers, Director of Water, Wastewater, and Stormwater for the City of London was able to provide the following:

"The City of London has an Environmental Compliance Approval (formerly called a Certificate of Approval) for each of our Wastewater Treatment Plants. The operation of Wastewater Treatment plants is not included in the mandate of the Conservation Authorities. They are regulated by the Ministry of Environment, Parks, and Conservation".

Recent reports regarding the City of London's efforts to address this issue have been attached:

- April 2021 report regarding overflows to the Thames River;
- September 2021 provided a plan for dealing with London's illegal cross-connection; and
- December 2021 CWC meeting that will discuss the topic of the "unwanted water" responsible for sewage overflows and bypasses.

In addition, Scott Mathers offered the City's Pollution Prevention and Control plan that can be provided by request.

The UTRCA also leads the Steering Committee of The Thames River Shared Waters Approach to Water Quality and Quantity . The report recognized both point sources, as identified in reporting requirements, but also non-point sources of pollution and we all have a part to play. The *Municipal and Conservation Authority Shared Waters Approach/ Thames River Clear Water Revival subcommittee* would welcome a representative to participate from Town of St. Marys.

Sincerely,

Alan Dale

Alan Dale
Chair, Board of Directors
Cc. Brian Petrie
Tony Jackson
Brent Kittmer
Jenna McCartney
Michelle Viglianti
Tracy Annett
Encl

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services and City Engineer
Subject: **Sewage Overflows and Bypasses Into the Thames River**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following report on Sewage Overflows and Bypasses Into the Thames River, **BE RECEIVED** for information.

Executive Summary

Purpose

This purpose of this report is to provide Council with an overview of the causes of sewer system overflows and bypasses and provide an update on the various initiatives underway to reduce them.

Context

Overflows and bypasses occur in the sanitary collection system when excess flows push the sewer beyond its capacity. The most frequent cause of this is stormwater entering the sanitary system during heavy rainfall events. Sewer system overflows that exist in the sewer system were originally built to provide sewer system relief during these wet weather events, thus protecting homes from basement flooding. Bypasses at wastewater treatment facilities are to protect the facility from being inundated with flows that exceed its treatment capacity.

The City has a number of different programs and initiatives underway to help deal with unwanted water in the sanitary collection system and protect waterways, which are discussed in further detail below.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
  - London’s infrastructure is built, maintained, and operated to meet the long-term needs of our community
  - Protect and enhance waterways, wetlands, and natural areas

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

September 26, 2017 – Civic Works Committee – Domestic Action Plan (DAP): London – Proposal Update

November 21, 2017 – Civic Works Committee – Pollution Prevention Control Plan Update

September 24, 2019 – Civic Works Committee – Wastewater Treatment Operations Environmental Assessment – Master Plan Study Initiation

2.0 Discussion and Considerations

2.1 Overflows and Bypasses

An overflow is the release of untreated wastewater to the environment, whereas a bypass is the diversion of wastewater around part of the wastewater treatment process, sometimes resulting in the release of untreated or partially treated wastewater. Overflows and bypasses are primarily caused by excess flows during wet weather events. Overflows can occur in sewer systems, while either overflows or bypasses can occur at pump stations and treatment facilities. Answers to frequently asked questions regarding London's bypasses and overflows are provided as Appendix 'A' Frequently Asked Questions.

The most common type of sewer that experiences overflows are called combined sewers. Combined sewer systems were designed to convey both storm and sanitary flows to the treatment plant. During large rainfall events, additional storm flows can cause the sewer to be over capacity so they were designed with overflow points to protect properties from basement flooding. Some pump stations also use emergency overflows to prevent basement flooding in the event of an equipment failure or a significant rainfall event that exceeds the capacity of the pump station. Wastewater treatment facilities may also experience overflows if the flow reaching the facility exceeds its capacity.

Sewers may also be partially combined. This means that there are separate sanitary and storm sewers; however, some rainwater is still directed to the sanitary sewer. This occurs in areas of the City where homes were constructed with their weeping tiles connected to the City's sanitary sewer system. During large storms, rainwater overwhelms the sanitary sewer system and causes basement flooding. More information on weeping tiles is provided in section 2.5 of this report.

Over the past ten years, the percentage of flows that bypassed the treatment plants with no treatment at all averaged of 0.17% of the volume of treated wastewater flow. All bypasses are monitored and reported to the Ministry of Environment, Conservation and Parks. Appendix 'B' "Annual Bypass Summary" provides a summary table of London's total annual bypass volumes as reported to the MECP since 2002.

There are six overflow points in the wastewater collection system that outlet directly to the Thames River and are monitored and reported on to the MECP annually. The flows vary dramatically every year as they are dependent on rainfall events.

2.2 Pollution Prevention Control Plan

London's Pollution Prevention and Control Plan (PPCP) is a multi-year master planning project designed to provide a long-term solution to address conveyance system sewer overflows and bypasses, and to mitigate the associated impacts of these discharges on receiving watercourses, including the Thames River, Pottersburg Creek, Medway

Creek, the Coves and Dingman Creek. Recommendations of the PPCP included considerations for climate change, data management, capital works, and removal of inflow and infiltration at the source.

The City has undertaken a number of initiatives that will help achieve the desired outcomes of the PPCP. These include:

- updates to storm data used for modeling to account for higher intensity storms that we experience due to climate change;
- data management updates such as continuous updates to GIS, sewer modelling, and flow monitoring program;
- sewer separation projects; and,
- inflow and infiltration reduction projects, e.g. weeping tile disconnections.

An update to the PPCP will be required in 2023. There is budget allotted in 2022 to retain a consulting engineering firm to complete this work.

2.3 Wastewater Treatment Master Plan

The Wastewater Treatment Operations Division is currently undertaking a Master Plan in order to develop a strategy for the collection and treatment of wastewater in London over the next fifty years. The City operates five wastewater treatment plants and thirty-eight pumping stations throughout the City and, even though the occurrence of overflows or bypasses is generally rare, the potential for them to occur exists in some form at each of them. The reliable and effective operation of each facility is therefore paramount to meeting the City's goals for environmental stewardship and the protection of the Thames River and other waterbodies, while also protecting the health of the City's residents, visitors and neighbours.

The Master Plan will provide a long term plan for the City's wastewater infrastructure, including treatment plants and pumping stations. Minimizing bypasses and overflows at these facilities will be a key consideration in developing this plan.

2.4 Lake Erie Domestic Action Plan

The Domestic Action Plan (DAP): London – A Proposal for Phosphorus Reduction highlights projects completed by the City that have reduced the discharge of phosphorous into the Thames River. It also highlights works currently identified with the 20-year plan to further reduce that phosphorous in the Thames River.

Because sanitary sewer overflows contribute to phosphorous loading in receiving waterbodies, a number of the actions identified relate to overflow reduction. Included are the replacement of combined sewers (discussed further below) and the development and circulation of an implementation plan for managing the highest priority sanitary sewer overflows as identified in the Pollution Prevention Control Plan.

2.3 Sewer Separation Program

One of the municipal actions identified in the Domestic Action Plan (DAP) for Phosphorus Reduction is the separation of combined sewers. The DAP states,

> “The City of London will accelerate plans to separate combined sewers, including the design and construction of necessary stormwater outlets, with the target of separating 80 per cent (17 kilometres) of its combined sewer system by 2025.”

This target for combined sewer replacement is contingent on federal and provincial funding. To date 6.2 kilometres of combined sewer has been removed and an additional 1.45 kilometres will be removed in 2021.

2.4 Unwanted Water: Inflow and Infiltration Reduction

Unwanted water entering the City's sewer system is the primary cause of sewer overloading during wet weather events. This unwanted water comes from two sources called inflow and infiltration. Inflow is the flow of stormwater into a sanitary sewer through a direct connection and infiltration is the seepage of groundwater into a sanitary sewer through leaks or cracks in the sewer. Infiltration is impacted by the condition of the sewers and can be addressed through long term management, rehabilitation, or replacement of sewers. Inflow, however, must be addressed in a different manner and should be minimized as much as possible through design and policy, since it has the potential to contribute very large volumes of extraneous flow.

The unwanted water from inflow and infiltration has a significant impact on London's collection system because it causes high flows of rainwater in the sewer system during large rain or snow melt events. The presence of this excess water leads to an increased risk of basement sewer backups and increases the probability that emergency discharges of untreated or partially treated sewage to the Thames River will be required to protect the City's residents and infrastructure from flooding.

A recent study completed in 2018 by KPMG quantified this problem further and found that the City of London receives approximately two and a half times more unwanted water than comparably sized municipalities in Southern Ontario. This analysis concluded that this unwanted water costs approximately $1 million per year in operational costs to treat.

A program led by staff to identify opportunities to reduce unwanted water in our sanitary sewer system is ongoing. This initiative, titled "Unwanted Water", will include alternatives for design and development standards, programs, enforcement, and bylaw changes with the goal of keeping unwanted water out of London's sewer system. The first report related to the Unwanted Water program will be submitted to Civic Works Committee Q3 2021 and lay out a series of initiatives for committee discussion and direction.

2.5 Weeping Tile Disconnection

Weeping tile connections are a leading cause of sanitary sewer overloading during heavy rainfall events that result in basement flooding. A weeping tile is a buried porous pipe that collects rainwater from along the bottom edge of a building's basement foundation. The pipe collects any rain or groundwater from along the bottom of the foundation wall preventing water from seeping into the building's basement. Homes generally built between the 1920s and 1980s are likely to have weeping tiles connected to the City's sanitary sewer collection system. Subdivisions built post-1985 have sump pits and sump pumps in basements addressing weeping tile flow, which consists of natural ground water, rainwater and snowmelt. There are an estimated 50,000 weeping tile connections contributing unwanted water to the City's sanitary collection system.

The current budget for the Basement Flooding Grant Program is $500,000 annually. This program provides homeowners with a 90% subsidy to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves. This protects the individual property from basement flooding and eliminates some unwanted water from the sanitary system. The Targeted Weeping Tile Disconnection Program is a City-led program that separates weeping tiles from the sanitary sewer in targeted

neighbourhoods in order to realize a noticeable reduction in unwanted water in the sanitary system and produce a neighbourhood-wide benefit. This program has an annual budget of $1 million which is sufficient to disconnect the weeping tile of approximately 30 homes each year.

3.0 Financial Impact/Considerations

There is no financial impact from this report.

Conclusion

Overflows and bypasses occur most frequently in the sanitary collection system when unwanted water enters the system during heavy rainfall events. The City has a number of initiatives underway to address the various causes of overflows and bypasses in order to reduce the number of occurrences and protect the health of our waterways.

Prepared by:	**Ashley Rammeloo, MMSc, P.Eng, Division Manager, Sewer Engineering**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water And Wastewater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC Managing Director, Environmental and Engineering Services and City Engineer**

CC: K. Oudekerk, S. Chambers

Appendix A

Bypasses and Overflows: Frequently Asked Questions

What are overflows and bypasses?

An overflow is the release of untreated wastewater to the environment. A bypass is the diversion of wastewater around part of the wastewater treatment process.

What causes overflows and bypasses?

They are caused by there being more water in the sewer than the sewer can carry. This is most often caused by extra water entering the system during rainstorms.

When do they usually happen?

Overflows and bypasses happen most often during heavy rainfall events and snowmelts, when extra water enters the sanitary system.

Where do they occur?

Bypasses occur at wastewater treatment facilities, which are located along the Thames River. Overflows happen in the sanitary sewer system at points where the sanitary sewer was connected to the storm sewer, or where there is an overflow release point in a combined sewer system.

Could you swim in the Thames River if we stopped overflows?

Action taken on reducing overflows will continue to improve water quality in the Thames River immediately following heavy rainfalls. There are, however, many other sources of water pollution. E. coli levels are measured in the river upstream of London and are too high to allow swimming. This is before the water even reaches the city and is influenced by our overflows. Thus, removing overflows will not make it safe to swim in the Thames River.

Why can’t we stop them now?

Although the City is actively separating combined sewers, every construction project consumes considerable time and money. Therefore, it is not feasible to eliminate them all at once. We also cannot force property owners to disconnect weeping tiles from the sanitary sewer, which is a large source of unwanted water in the sanitary system. Upsizing the sanitary sewers to accommodate those flows would be extremely costly. Simply blocking off overflow points without removing the source of the unwanted water would risk flooding basements with sewage.

Is this a problem only experienced in London?

No. It is a problem that exists in most major cities around the world.

How nasty is water discharged during a sewage bypass or overflow?

The water discharged during a bypass or overflow is highly diluted by rainwater compared with sewage direct from a residential home; however, even though it’s diluted it is still sewage and it’s our goal to eliminate releases of sewage into the Thames Rivers.

What are some recent project completed to reduce the number and severity of overflows and bypasses?

> In 2019 and 2020, combined sewers on York Street and Richmond Street, which contribute to the largest overflow point in the city, were separated. Sewer separation work continues in 2021, with an additional 1.45km of combined sewer being removed. Upgrades at wastewater treatment plants, such as the recent project at Greenway Pollution Control Centre, reduce the number and severity of bypasses.

When will London be free of overflows and bypasses?

> Although the City has a plan in place to remove combined sewers and we continue to encourage property owners to disconnect weeping tiles and offer grants to do so, changing weather patterns due to Climate Change make future extreme rainfall events difficult to predict. This means that completely removing overflows and bypasses is difficult to guarantee, since they are highly linked with extreme weather, an effect of climate change.

Appendix B

Annual Bypass Summary

	Treated (ML)	Raw Bypass		Secondary Bypass		Total		% of raw bypasses to treated flow	Rainfall yearly total (mm)
		ML	#	ML	#	ML	#		
2002	75,150	225	32	567	11	792	43	0.30%	861
2003	74,385	285	99	365	40	650	139	0.38%	985
2004	77,304	375	106	679	47	1054	153	0.48%	964
2005	75,150	225	74	566	26	791	100	0.30%	868
2006	83,075	201	99	862	33	1063	132	0.24%	1,202
2007	71,874	24	36	227	19	251	55	0.03%	771
2008	78,979	219	70	1,033	38	1252	108	0.28%	1,094
2009	74,557	158	60	901	22	1059	82	0.21%	931
2010	70,426	47	38	123	17	170	55	0.07%	931
2011	84,793	375	94	1,630	31	2005	125	0.44%	1,165
2012	67,865	4	6	41	6	45	12	0.01%	660
2013	76,160	249	55	765	20	1014	75	0.33%	1,075
2014	72,351	72	39	142	13	214	52	0.10%	956
2015	65,709	56	40	208	11	264	51	0.08%	687
2016	70,786	67	40	148	16	215	56	0.10%	929
2017	72,427	50	27	248	16	298	43	0.07%	914
2018	70,994	266	32	482	10	748	42	0.37%	975
2019	72,434	26	10	10	3	36	13	0.04%	1,037
2020	71,094	122.6	24	137.9	8	260.5	32	0.17%	999
Average		160	52	481	20	641.1	72		

Sewage Bypasses and Overflows into the Thames River

Why are we highlighting overflows and bypasses?

- Questions about overflows of sewage often come up during budget deliberations and during committee debate.
- This report and presentation is an opportunity to provide further background on this important issue and inform Council about what we are doing to reduce sewage overflows to the Thames river
- Today we will provide information regarding the current problem and discuss the various programs underway to address it.

Definitions

Overflows:

- release of untreated wastewater to the environment
- can occur in our sewer system, at pump stations, or treatment facilities

Bypasses:

- diversion of wastewater around part of the wastewater treatment process most often within a wastewater treatment plant.

What Causes Overflows and Bypasses?

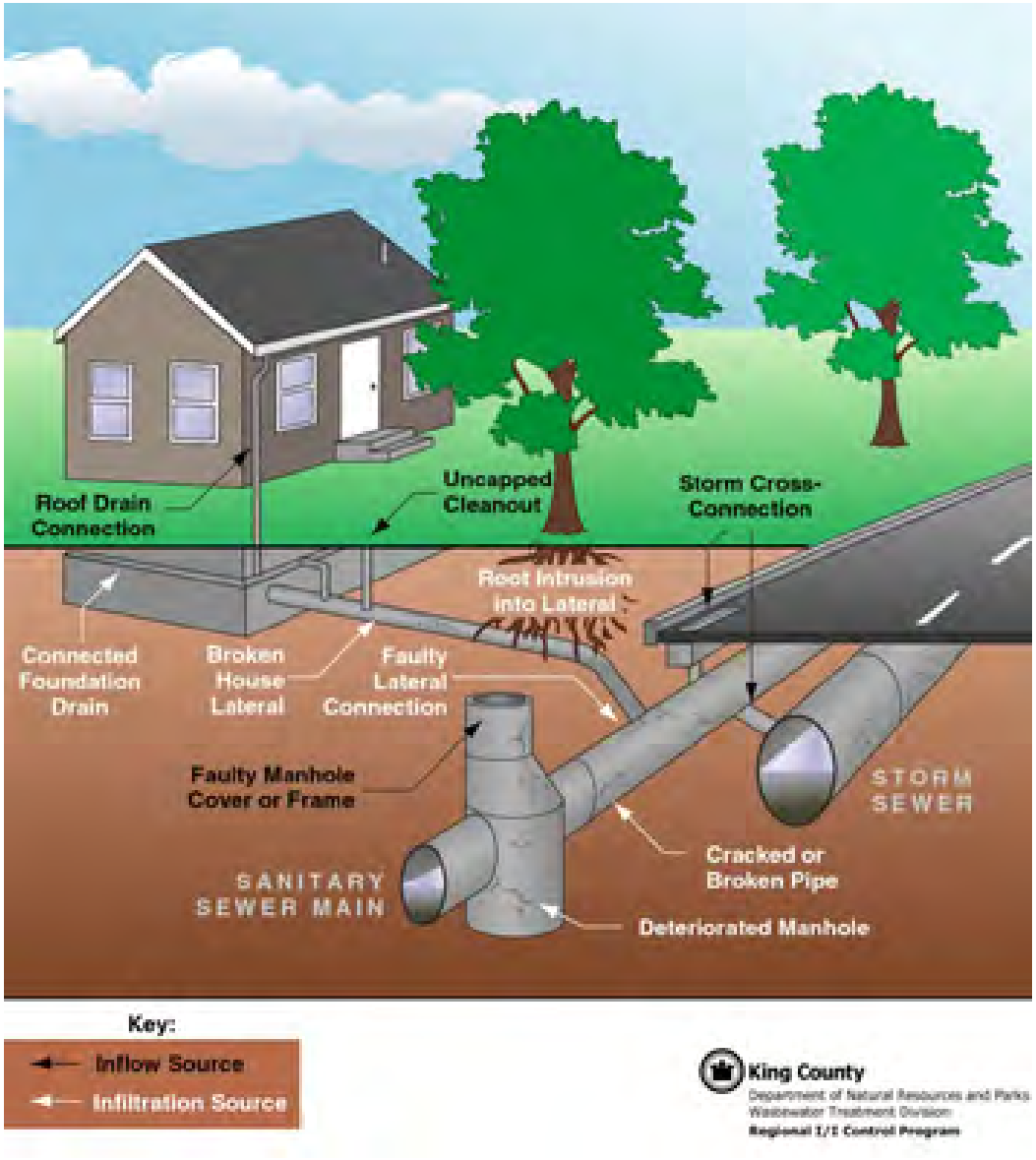
Both are most commonly caused by stormwater entering the sanitary sewer system, increasing flows beyond the capacity of the sewer.

Inflow: flow of stormwater into the sanitary sewer via a direct connection, e.g. combined sewers, or weeping tiles connected to partially combined sewers

Infiltration: seepage of groundwater into the sanitary sewer

- This is **unwanted water** in our sanitary sewer system
- Reduction of unwanted water from inflow and infiltration is key!

Inflow and Infiltration



What Are We Doing?

- Because there are multiple sources of this unwanted water, multiple approaches are needed

- Many of the plans and initiatives are interconnected

Pollution Prevention Control Plan (PPCP)

- Multi-year master planning project to provide long-term solutions to address conveyance system sewer overflows and bypasses
- Identifies highest priority overflow points for management based on frequency and volume of overflows
- Recommendations of the PPCP included considerations for climate change, data management, capital works, and removal of inflow and infiltration at the source.

Implementation of PPCP

The City has undertaken a number of initiatives that will help achieve the desired outcomes of the PPCP. These include:

- updates to storm data used for modeling to account for higher intensity storms that we experience due to climate change;
- data management updates such as continuous updates to GIS, sewer modelling, and flow monitoring program;
- sewer separation projects; and,
- inflow and infiltration reduction projects, e.g. weeping tile disconnections.

An update to the PPCP will be required in 2023. There is budget allotted in 2022 to retain a consulting engineering firm to complete this work.

Domestic Action Plan

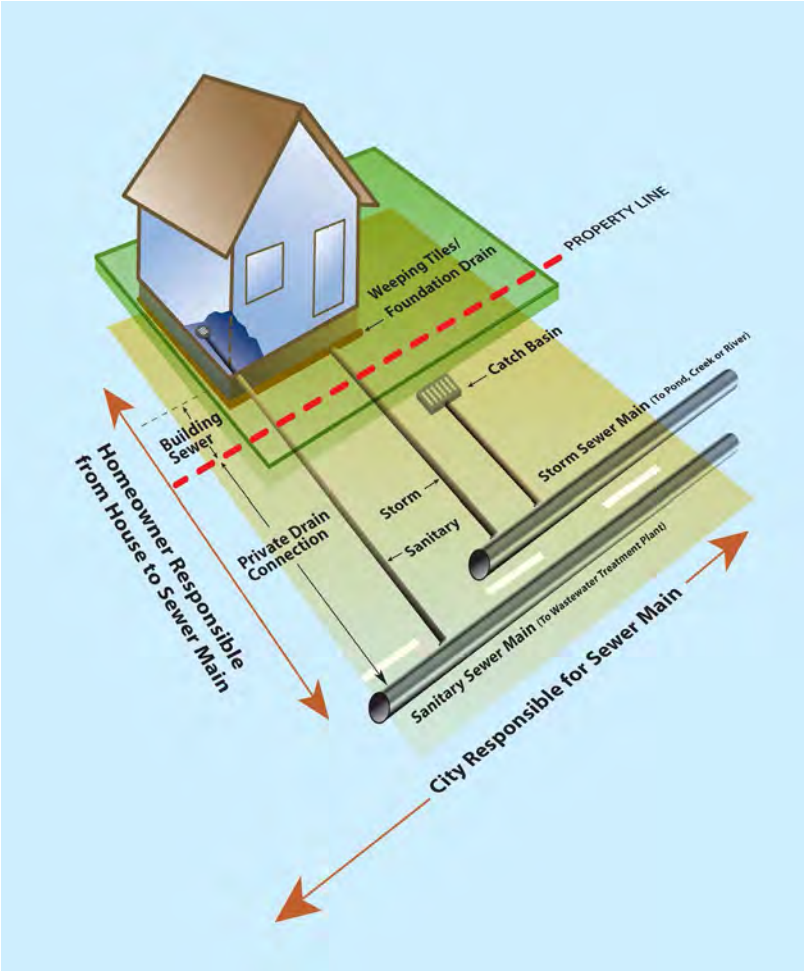
- Highlights projects completed that reduce discharge of phosophorous to the Thames River as well as projects in the 20 year plan
- Sewer overflows contribute to phosphorous loading
- One of the objectives is the replacement of combined sewers and managing the highest priority overflows as identified in PPCP

Sewer Separation Program

- DAP goal is to separate 80% of the combined sewer system by 2025
- This equates to 17km of sewer separation
- 6.2km removed, and another 1.45km will be removed in 2021
- This included many sewers in the downtown that contribute to priority overflows identified in the PPCP

Inflow Source: Weeping Tiles

- Weeping tiles were connected to sanitary sewer between the 1920s and 1980s
- That makes these sanitary sewers “partially combined” as the weeping tiles are a point of inflow
- Leading cause of basement flooding
- Approximately 50,000 weeping tile connections



Weeping Tile Disconnection

Basement Flooding Grant Program

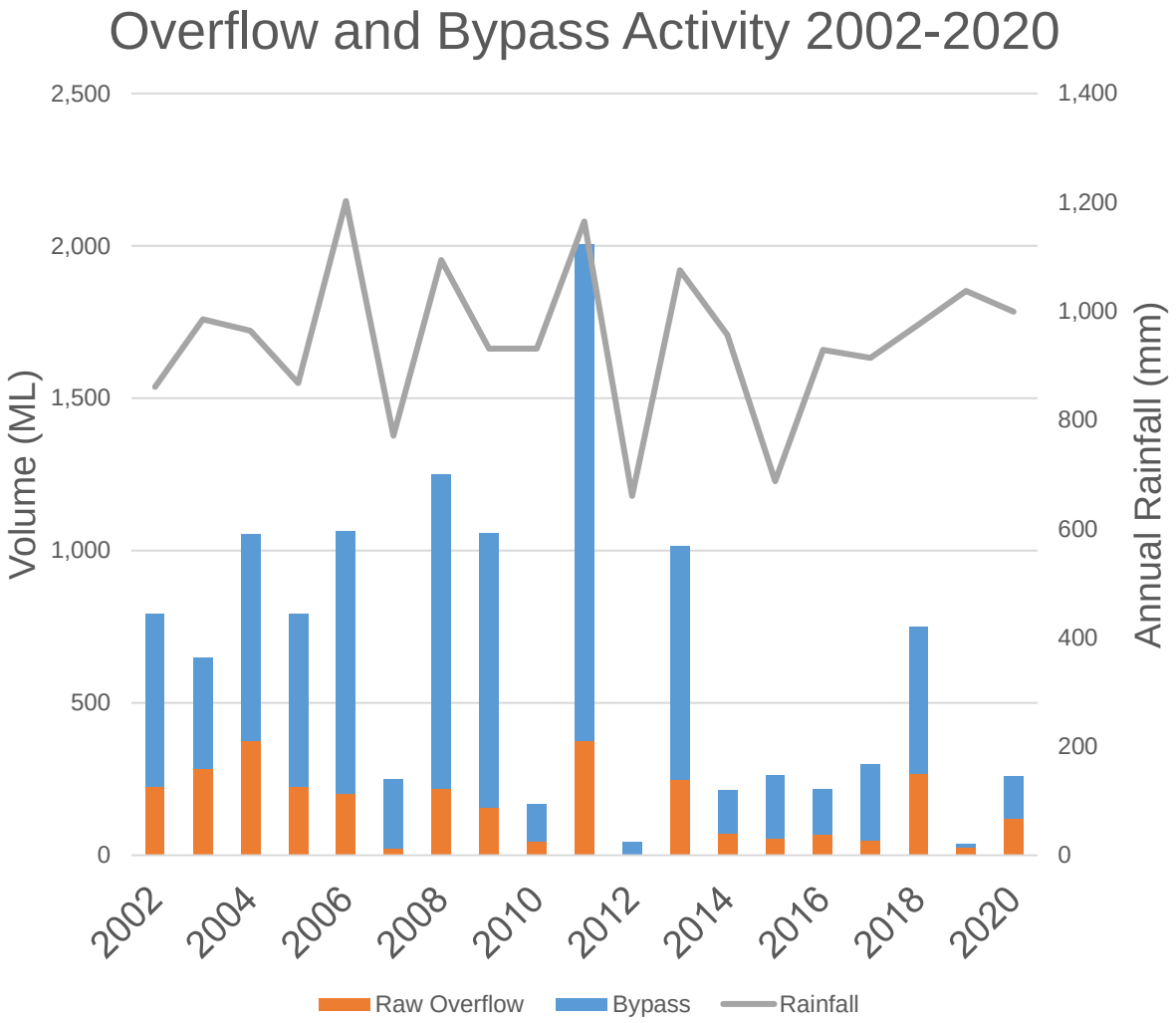
- Subsidy of 90% of costs to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves
- Applied for by individual homeowners
- Average of over 60 grants approved each year

Targeted weeping tile disconnection program

- City initiated projects to target neighbourhoods for overall system benefit
- Budget of $1 million annually which is sufficient to disconnect approximately 30 homes

Historical Bypasses and Overflows

- Raw overflow volume < 0.17% of total wastewater treated
- 2018 stands out
  - Multiple intense rain events with snow melt
  - 75% of raw bypass before end of February
  - Greenway upgrade not complete



Recent Work

- Greenway Expansion
  - $40M to increase treatment capacity, add wet weather treatment and storage capacity
- Dingman Creek PS
  - $25M project to increase capacity in southeast London and increase ability to partially treat extreme flow events (2022)
- Adelaide WWTP Upgrades
  - Project to recover treatment capacity and construct wet weather storage tanks (2022)
- Pottersburg-Vauxhall System Optimization
  - Interconnection forcemain (2020) to allow full use of available treatment capacity
  - Wet weather treatment and storage facility (2022)
- Flood Protection at Greenway and Adelaide WWTP
  - $49M project to protect WWTPs from floods and enable full treatment to occur up to 100 year flood elevation (complete by 2025)

Wastewater Treatment Master Plan

- Wastewater Treatment Master Plan initiated
  - First Public Meeting April 22, 2021
- Develop strategy for collection and treatment of wastewater in London over the next 50 years
- Provide long term plan for wastewater infrastructure including treatment plants and pumping stations
- Minimizing bypasses and overflows at these facilities will be a key consideration in developing this plan

New Initiative: Unwanted Water

- The goal of this initiative is to give Committee and Council options for reducing sewage releases into the Thames River
- The focus will be to identify projects, policies, or programs that will reduce the amount of unwanted water getting into our wastewater collection system
- Additional benefit is that removing unwanted water also reduces the risk of basement flooding.
- Will include a series of reports with the next report brought to committee Q3 2021

Conclusions

- Unwanted water has many sources
- Multi-faceted approach required to address the various causes
- Ultimate goal is to protect properties from flooding and our environment from overflows and bypasses

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Unwanted Water: Quantifying Inflow and Infiltration in London's Wastewater Sewer System**
Date: **December 14, 2021**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following report on quantifying the impacts of the City's unwanted water issues **BE RECEIVED** for information.

Executive Summary

Purpose

The purpose of this report is to provide more detail to Council on the unwanted rain and groundwater entering the City's wastewater collection system. This unwanted water is the primary cause of sewage bypasses and overflows to the Thames River and residential basement flooding. This is the third of a series of reports on the problem of unwanted water in the City's sewer system.

Context

The City's wastewater sewer system is intended to collect household sewage (showers, sinks, and toilets), commercial sewage (restaurants, offices, retailers), and industrial sewage (large and small industries). Wastewater flows from a building and are conveyed through a network of sewers to a wastewater treatment plant. The wastewater treatment plant treats the water which is then discharged to the Thames River. All other water, for example rainwater and groundwater, is not intended to enter the sewer system. In the field of civil engineering these unwanted sources of water are referred to as "inflow and infiltration", but for the purposes of this initiative, the term "unwanted water" is used to describe any water that is not intended to be collected by the wastewater sewer system. Unwanted water is the primary cause of overflows and bypasses of wastewater into the Thames River and the primary cause of basement flooding.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development; and
    - Protect and enhance waterways, wetlands, and natural areas.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – Sept 21, 2021 – Agenda Item #2.3: Sewage Overflows and Bypasses Into the Thames River – Sanitary Cross Connections

- Civic Works Committee – April 20, 2021 – Agenda Item #2.3: Sewage Overflows and Bypasses Into the Thames River

- Civic Works Committee – April 17, 2018 - Agenda Item # 2.5: London Pollution Prevention and Control Plan - Final Master Plan

2.0 Discussion and Considerations

2.1 Where does unwanted water come from?

All wastewater collection systems servicing large Cities across North America experience some degree of unwanted water. The sources of unwanted water in the City of London's wastewater collection system have been studied in detail in the City of London for many years and are well understood. These sources can be grouped into four categories: combined sewers; weeping tile and downspout connections; an aging sewer system; and illegal connections in areas built in the 1980-2020s. The following sections will describe these sources in further detail.

Combined Sewers

A major contributor of unwanted water in London historically has been combined sewers. Combined sewers were constructed up until the early 1960s and were designed to carry both wastewater and stormwater in the same pipe. Rather than the stormwater traveling to a stormwater treatment pond or the river, the stormwater was sent to the wastewater treatment plant. Over the last 20 years, the City has been aggressively replacing combined sewers with modern sanitary and storm sewer systems. Currently, only 1% of the City of London's sewer system are combined sewers.

Weeping Tile and Downspout Connections

Currently the largest sources of unwanted water in London's sewer system are weeping tile and downspout connections. Prior to 1984, the building code allowed connection of a home's weeping tiles to the City's sanitary sewer system allowing in large amounts of rain and groundwater. There are an estimated 50,000 weeping tile connections contributing unwanted water to the City's sanitary collection system.

The Basement Flooding Grant Program provides a 90% subsidy to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves. This protects the individual property from basement flooding and eliminates some unwanted water from the sanitary system. The Targeted Weeping Tile Disconnection Program is a City-led program that separates weeping tiles from the sanitary sewer in targeted neighbourhoods to realize a noticeable reduction in unwanted water in the sanitary system and produce a neighbourhood-wide benefit.

An Aging Sewer System

As sewer pipes age they eventually start to deteriorate. This results in cracks, breaks, and open joints between pipe sections and connections. Groundwater can then infiltrate through these small cracks and open joints. Sewer video inspections often find locations where the amount of groundwater flowing into a sewer is similar to the flow of water from a household sink faucet. When there are heavy or sustained rainfall events, the groundwater level will rise and infiltration increases in pipes, adding to the unwanted water in the wastewater collection system. This problem has historically been addressed by either replacing sewers through the City's Infrastructure Renewal Program or relining sewers through the City's Sewer Lining Program. New technologies are emerging that are also capable of lining sewer maintenance holes which could eliminate additional sources of unwanted water.

Illegal connections in Areas Built in the 1980-2020s

Large quantities of unwanted water can also be observed in newer areas of the city constructed between the 1980s and 2020s. Although new sewers are constructed to minimize unwanted water, there are situations where illegal connections are made to the sewer system without the City's approval. Examples include:

- Post-construction sump pump connections – sump pumps that have either been connected to the main sewer vent or directed to a laundry tub,
- Clean out caps being left off the sanitary sewer clean out, which turns the sanitary drain into a weeping tile, and
- Draining of rainwater from open basements during new home construction.

2.2 How much unwanted water does the City of London experience?

A 2018 study completed by KPMG identified that the City of London, when compared with neighbouring municipalities of similar size, experienced approximately 2.5 times the amount of inflow and infiltration into our wastewater collection systems as other similar municipalities. Using a high-level approach, KPMG estimated that in 2017 these extraneous flows imposed an additional operational cost of $1 million on the City's wastewater treatment plants. However, this cost estimate only considered the operational cost of wastewater treatment facilities, and likely significantly underestimates the true cost to the City associated with this issue.

As a follow-up to the KPMG study, City Staff have undertaken a more detailed review to quantify the amount of unwanted water treated at our wastewater treatment plants. The review of City data suggests that the KPMG estimate of unwanted water is low. In 2019 the proportion of unwanted water treated at London's treatment plants was 44%. Figure 1 provides a historical representation of the inflow and infiltration rate.

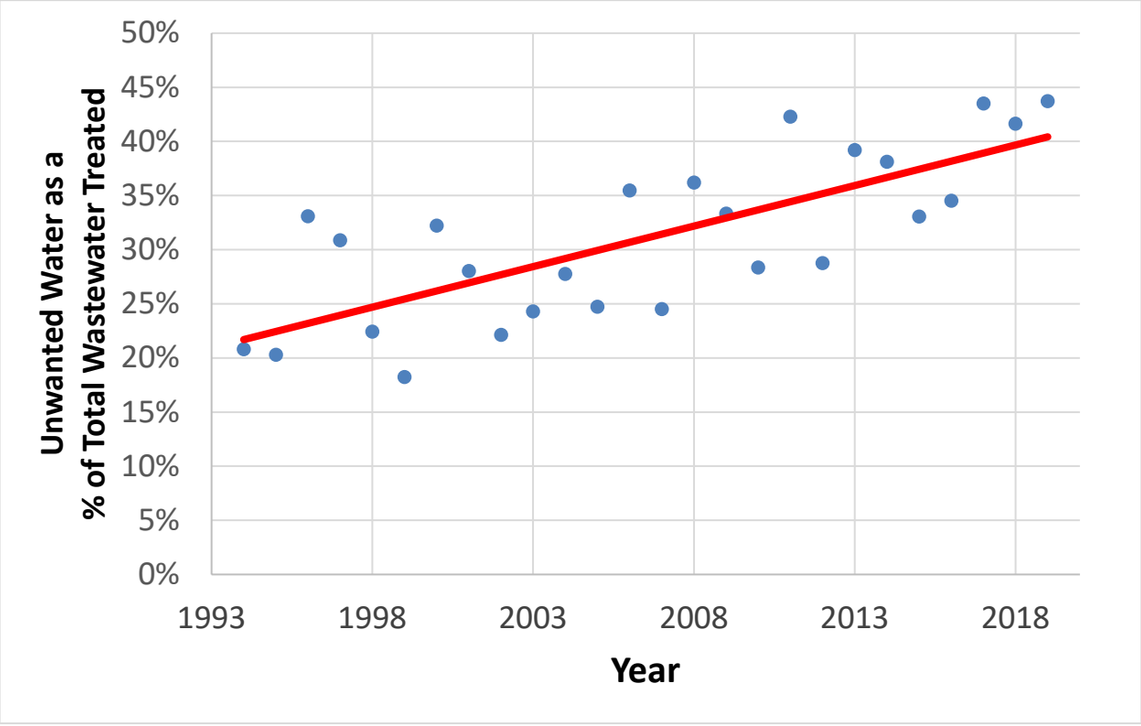


Figure 1: Unwanted water treated as a percentage of total wastewater volume.

Several factors may be responsible for the observed trend, which has increased over time:

- The elimination of some overflow locations from the sewer system, as was recommended by the 2018 Pollution Prevention Control Plan, has resulted in less flow discharged to the environment, but more flows conveyed to wastewater facilities.

- Climate change has been identified as increasing the severity of storm events experienced in the City. Western Researchers recently reported that a 100-year-flood in London is now occurring every 30 years. This may be increasing the amount of extraneous flow entering our sewers.
- Ongoing deterioration of sewers, allowing greater potential for infiltration.

2.3 Operational Impacts from I/I

KPMG estimated that unwanted water results in additional operating costs at the City's wastewater treatment plants of $1 Million per year. Although the methodology of determining this number was not provided, based on our estimates of reduced energy and chemical costs, a $1 Million per year savings is a reasonable estimate at this preliminary stage of the investigation. Based on an evaluation of 2018 potable water and wastewater data, unwanted water is estimated to account for an additional cost of $400,0000 per year in additional energy to power the City’s wastewater pumping stations. Thus, at a high level it imposes an additional annual operational cost of $1.4 Million.

2.4 Environmental Impacts of Unwanted Water

Unwanted water and the associated high wet-weather flows result in basement flooding as well as the overflow and bypass of untreated wastewater into the environment. These impacts present a health risk to the public and our environment. With the City pursuing the removal of overflows from the wastewater collection system, our wastewater treatment plants are being pushed harder and occasional bypasses and overflows are the result. Making efforts to reduce the wet weather flows that produce these events can improve our performance. Addressing unwanted water is the most effective way of achieving these results.

The City continues to monitor the quantity of overflows and bypasses, both at the wastewater treatment plants as well as at direct overflow points in the collection system. As well, the Thames River is sampled on a regular basis as part of a monitoring program at ten locations. Water quality in the Thames River has improved significantly since river monitoring was initiated in 1963. The dissolved oxygen levels have increased. Wastewater treatment has improved from 90% efficiency in the 1960's to the present where 99% of the Biological Oxygen Demand (BOD) is removed. London's plants perform better than typical wastewater secondary treatment processes that have a removal efficiency of between 85% and 95% for BOD.

3.0 A Strategy for Reducing Unwanted Water

Staff propose to undertake a detailed investigation into all the sources of unwanted water in London in order to provide recommended solutions for Council’s consideration. The goals of strategy are to both reduce the risk of basement flooding and reduce and eliminate sewage bypasses and overflows.

Phases of this work will include:

1. Provide a detailed evaluation of each of the following sources of unwanted water:
    a. Combined sewers,
    b. Weeping tile and downspout connections,
    c. An aging sewer system, and
    d. Illegal connections in Areas Built in the 1980-2020s.

2. Develop a working list of policies, projects, and programs to address each source of unwanted water,

3. Evaluate possible solutions to address the unwanted water problem, and

4. Establish a plan of recommended solutions for reducing unwanted water in the City of London.

The evaluation of these options will follow a process similar to an Environmental Assessment in which the risks, opportunities, and impacts of each option are considered against multiple criteria including:

- social impact,
- environmental benefit,
- technical feasibility and risk,
- cost and administrative difficulty, and
- potential for reduction of unwanted water.

The results of the analysis will be brought back to committee as a series of reports. The intention is to complete this analysis so that any resulting projects can be incorporated into the next multi-year budget process.

Conclusion

Unwanted water has been an issue associated with London's wastewater collection systems for many years. While recent progress has been made to remove combined sewers, the volume of unwanted water remains high causing overflows and bypasses to the Thames River and causing residential basement flooding. It is recommended that the strategy outlined in this report be implemented with the intention of incorporating the results into the next multi-year budget submission.

Prepared by:	**Ashley Rammeloo, MMSc., P.Eng., Division Manager, Sewer Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: K. Murray (Wastewater Treatment), K. Oudekirk, C. Liu

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Sewage Overflows and Bypasses into the Thames River – Sanitary Cross Connections**
Date: **September 21, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following report on Sewage Overflows and Bypasses into the Thames River – Sanitary Cross Connections, **BE RECEIVED** for information.

Executive Summary

Purpose

The purpose of this report is to provide Council with an overview of sanitary cross connections. Sanitary cross connections cause overflows of wastewater and contravene the City's Waste Discharge and Drainage By-law's and have the potential to adversely impact the natural environment.

Context

Household wastewater comes from toilets, sinks, showers, washing machines and other drains and is directed through a pipe to the sewer collection system to be ultimately treated at a wastewater treatment plant. A sanitary cross connection exists when a pipe or the home's internal plumbing is mistakenly tied into the stormwater system releasing sewage into the natural environment. Sanitary cross connections are rare in the City and are most often associated with residential properties. A sanitary cross connection is often the result of a plumbing or construction error and are typically discovered unexpectedly. Municipalities across North America continue to address the issues associated with sanitary cross connections and London is not immune to the challenges they present.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

1. Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community
    - Protect and enhance waterways, wetlands, and natural areas

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

September 26, 2017 – Civic Works Committee – Domestic Action Plan (DAP): London – Proposal Update

April 17, 2018 – Civic Works Committee – London Pollution Prevention and Control Plan Final Master Plan

September 24, 2019 – Civic Works Committee – Wastewater Treatment Operations Environmental Assessment – Master Plan Study Initiation

April 20, 2021 – Civic Works Committee – Sewage Overflows and Bypasses Into the Thames River

2.0 Discussion and Considerations

2.1 Sanitary Lateral Cross Connections

2.1.1 What is a Sanitary Lateral Cross Connection?

A sanitary cross connection is an illegal connection to a municipal storm sewer that conveys wastewater from a building, most commonly a residential home. They are often discovered unexpectedly through the City's Close Circuit Television (CCTV) program. Another indicator of a sanitary cross connection is the discovery of wastewater material at a municipal storm sewer outlet.

A properly configured property is illustrated by the diagram provided in Appendix 'A'.

2.1.2 Sanitary Cross Connection Types

There are two primary types of sanitary cross connections:

- Partial Sanitary Cross Connection – one or more, but not all plumbing fixtures within a dwelling are contributing wastewater flows to a municipal storm sewer.

- Complete Sanitary Cross Connection – all plumbing fixtures within the dwelling are contributing wastewater flows to a municipal storm sewer.

The type of sanitary cross connection can be determined through dye testing of each plumbing fixture within a dwelling such as a sink, toilet, or shower. A complete cross connection may be confirmed outside the dwelling provided that suitable access is available.

Correcting a partial sanitary cross connection may be accomplished through the reconfiguration of existing plumbing inside a dwelling, ensuring that wastewater flows from all internal fixtures are conveyed to a municipal sanitary sewer.

Sometimes a complete sanitary cross connection can be corrected outside the dwelling and within the City's road allowance by intercepting and confirming the existing sanitary private drain connection (PDC) and redirecting wastewater flows through it and into the municipal sanitary sewer servicing the street.

2.1.3 Survey of Several Ontario Municipalities

As previously mentioned, sanitary cross connections are not unique to the City of London. To gain a better understanding for what municipalities are doing to address

sanitary cross connections, City staff conducted a survey of other municipalities. The following are key take-aways based on these discussions:

- Municipalities struggle with residents who are reluctant to allow the City to confirm a suspected sanitary cross connection on their property through a simple dye testing process;
- None of the municipalities contacted have gone to the extreme of conducting a dye test under a search warrant through provisions of the Provincial Offences Act;
- Municipalities struggle to persuade residents to correct a sanitary cross connection when one is confirmed despite their understanding of the negative and continuous impact on the natural environment;
- Of the municipalities surveyed, none have successfully implemented a grant program to address sewer cross connections;
- Of the municipalities surveyed, all are correcting “complete” sanitary cross connections within the municipal right-of-way (where feasible), at no cost to property owners;
- Municipalities are sharing information regarding known sanitary cross connections with the Ministry of the Environment, Conservation and Parks (MECP); and
- At least two of the municipalities surveyed are publicly reporting the number of existing sanitary cross connections.

Sanitary lateral cross connections are a problem that is not unique to the City of London. They represent a sewer system overflow, with significant environmental impacts, and are problematic for municipalities to resolve with property owners.

2.1.4 London’s Sanitary Lateral Cross Connections

Through annual maintenance and capital programs, and sometimes citizen observations, City staff continue to confirm and document sanitary and storm cross connections. Cross connections involving sanitary sources leading to the City’s storm sewer system are of particular focus due to their negative and continuous impacts to the natural environment. Cross connections involving storm sources leading to the City’s sanitary sewer system also raise concerns as they contribute undesirable flows during significant wet weather events.

Confirmed sanitary cross connections are based on evidence of sanitary waste in existing storm sewers and outlets through visual observation, sampling and/or sewer camera/video (CCTV) inspection. Upon the permission of the property owner, a dye testing process is generally conducted to confirm the specific plumbing fixtures contributing to the illegal discharge. At the conclusion of the dye testing, the cross connection can be properly classified as either “partial” or “complete”.

The City maintains a list of properties that have confirmed/suspected storm or sanitary cross connections. In 2011, the City initiated an extensive campaign, reaching out to property owners with either confirmed or suspected sanitary cross connections. Due to the challenges and complexities associated with property owner cooperation, the campaign was only marginally successful.

As at July, 2021 the City has a total of 37 confirmed/suspected sanitary cross connections on record, representing approximately 0.03% of the total number of private drain connections in the City of London. Of this total, 23 are confirmed. Seventeen of the confirmed locations are considered ‘complete’ and 6 are identified as ‘partial’. Fourteen suspected cross connections require the property owner’s permission to enter their home to conduct a dye test.

Finally, of the 37 confirmed/suspected sanitary cross connections, 35 are single residential homes and 2 are identified as commercial.

The City of London strives to correct confirmed sanitary cross connections on a proactive basis and has realized some recent successes this year where City staff have worked in partnership with the property owners.

In 2011, a Disconnection of Sewer Cross Connection Loan Program was established, providing financial assistance to property owners who are often confronted with considerable expenses to rectify a sanitary cross connection. The structure of this loan program is similar to the City's Lead Water Service Replacement Program. Despite the financial assistance available to the property owners, the City has realized poor uptake to date.

2.2 Strategy to Address London's Sanitary Lateral Cross Connections

The following strategy is proposed in attempt to accelerate the elimination of cross-connections:

1. Notify the London office of the Ministry of the Environment, Conservation and Parks (MECP), to make them aware of the number of confirmed sanitary lateral cross connections in the hope of highlighting the severity of this issue with the Province.
2. Reach out again to the 37 identified property owners regarding their sanitary lateral cross connections to:
    - gain the cooperation of property owners to allow City staff to undertake dye testing of the building/property;
    - encourage property owners to rectify confirmed sanitary cross connections on their property; and
    - introduce/remind property owners of the City's Disconnection of Sewer Cross Connection Loan Program.
3. Undertake at the City's expense the disconnection of any cross-connection that can be completed within the right-of-way.

The City will continue to work cooperatively with the MECP, property owners, and licensed plumbers/drainage contractors to reach an appropriate solution specific to each property to resolve sanitary cross connection. Documentation of these confirmed/suspected locations and future locations will be appropriately tracked to demonstrate the City's due diligence.

3.0 Financial Impact/Considerations

The current estimate to rectify the cross-connections within the municipal right-of-way is $300,000. Funding is currently available in the Council approved Water and Wastewater & Treatment multi-year budget that can be applied to correcting cross-connections.

Conclusion

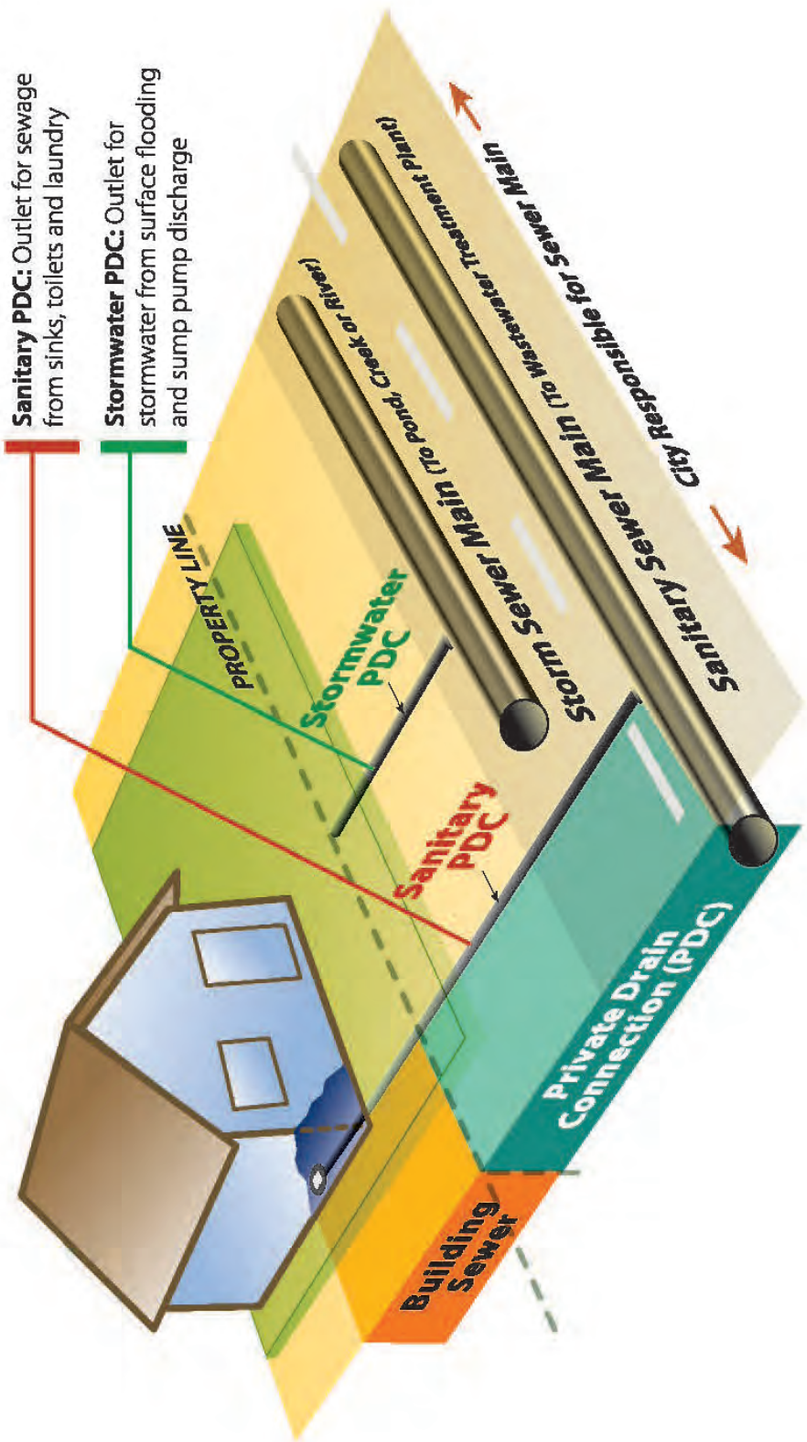
Municipalities across North America continue to deal with the challenges of sanitary cross-connections and the City of London is not immune to this complex issue. Sanitary cross connections are illegal and negatively impact the natural environment. Despite the host of challenges associated with this chronic issue, the City of London continues to be proactive in resolving each case while working in partnership with private property owners to gain their cooperation in an effort to protect and maintain a healthy natural environment.

Prepared by:	**Rick Pedlow, C.E.T., Division Manager, Sewer Operations**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water, Wastewater & Stormwater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC** **Deputy City Manager, Environment & Infrastructure**

CC: K. Oudekerk, S. Chambers, M. McKillop

Appendix ‘A’	Diagram of Building Sewer and Private Drain Connection (PDC) Details

Appendix ‘A’
Diagram of Building Sewer and Private Drain Connection (PDC) Details



Ministry of Northern Development, Mines, Natural Resources and Forestry

Office of the Minister

99 Wellesley Street West
Room 6630, Whitney Block
Toronto ON M7A 1W3
Tel: 416-314-2301

Ministère du Développement du Nord, des Mines, des Richesses naturelles et des Forêts

Bureau du ministre

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Bureau 6630, Édifice Whitney
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Tél.: 416 314-2301

Ontario

January 5, 2022

Andy Mitchell
Chair
Conservation Ontario
amitchell@selwyntownship.ca
and
Kim Gavine
General Manager
Conservation Ontario
kgavine@conservationontario.ca

Dear Andy Mitchell and Kim Gavine:

I am writing to express my sincere appreciation for the support shown by conservation authorities in responding to British Columbia's state of emergency due to flooding. The flooding in British Columbia has devastated people and property and disrupted the flow of goods and services across the country. While the storm event has come to an end, additional rain continues to make recovery a challenge.

The expertise within conservation authorities is well acknowledged across the country, recognized most recently by a call for support from British Columbia with their flood monitoring and response efforts. I am pleased to see this reputation acknowledged and commend conservation authorities for their leadership in responding to this request.

The effects of this significant weather event are a solemn reminder of the widespread flooding that occurred throughout much of southern Ontario in 2019. Ontarians pulled together to support those impacted and identified the important work all levels of government play in flood management, as well as that of water management partners like conservation authorities.

Thank you again for your commitment to supporting British Columbia in their time of need.

Sincerely,

The Honourable Greg Rickford
Minister of Northern Development, Mines, Natural Resources and Forestry

c: The Honourable David Piccini, Minister of the Environment, Conservation and Parks

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: UTRCA Board of Directors
From: Tracy Annett, General Manager
Date: January 17, 2022
Filename: #125147
Agenda #: 7.1
Subject: Species at Risk Stewardship Program Funding Concern – Letter to Minister, Environment, Conservation and Parks

Recommendation:
It is recommended that the UTRCA Board of Directors send the attached letter to the Honourable David Piccini, Minister of the Environment, Conservation and Parks, expressing concern over recent Species at Risk Stewardship program funding decisions.

Background
The UTRCA's Species at Risk (SAR) Program is one of the longest running and most successful reptile research and recovery programs in Canada, with staff and volunteers that are unparalleled in their experience with SAR reptiles. The UTRCA has consistently received funding from the Province's Ontario Species at Risk Stewardship program (SARSP) since the program first became available in 2007, and the UTRCA's efforts have always demonstrated the positive benefits of provincial funding for SAR as well as all other necessary criteria.

In February 9, 2021, the UTRCA Species at Risk Program applied for multi-year funding under SARSP. This program is currently being administered by the Ministry of Environment, Conservation and Parks (MECP). Prior to 2021, the program was administered by the Ministry of Natural Resources and Forestry (MNRF). ***It is important to note that Conservation Authorities were clearly listed as eligible applicants in the SARSP Guidelines***.

On November 3, 2021, almost nine months after our application was submitted, and long after the field season ended, the MECP advised the UTRCA that our application was not selected for funding. This news was stunning and upsetting. The 2021/2022 SARSP priorities aligned perfectly with the UTRCA SAR program and were, in fact, the closest fit since the program has been available. The UTRCA submission clearly detailed how the UTRCA program meets the SARSP priorities -- species (Spiny Softshell Turtle) and habitat (Coastal Wetland) -- and requirements, and summarized the UTRCA's successful, ground-breaking work for SAR in Ontario, long-term partnerships, and effective use of funding. The letter received from MECP stated the following: "Applications were evaluated based on many criteria, including how effectively they addressed priority categories and how strongly they met recovery needs for species at risk."

In previous years, Ministry contacts have informed UTRCA staff that all proposals are ranked on their merits, as well as yearly priorities, and the ranked applications are then sent to the Minister's office.

On November 5th, UTRCA staff sent a letter to the MECP Program Advisor requesting a detailed review of our proposal, and how the UTRCA's submission scored in relation to other proposals, including specifics as to why the application was refused funding. This information was requested to help UTRCA staff understand where our submission was deficit. The letter also noted that, "If there were any other reasons why we did not receive funding, we hope that you will inform us so we are not left in such a precarious position so late in the program year again."

On November 26, the UTRCA received correspondence from the Director of MECP's Species at Risk branch. The UTRCA asked for a meeting with the Director, which subsequently took place on December 6. At this meeting, staff were told that there were no issues with the UTRCA's application, but that the MECP had decided to award the funding to other applicants. When UTRCA staff inquired about the UTRCA's application ranking during initial reviews, they were told there were no rankings available and proposal acceptance was not based on rankings. This is a significant departure from what the UTRCA has been told in the past. UTRCA staff informed the Director that they had heard anecdotal information that the province declined the UTRCA's proposal because it was submitted from a Conservation Authority. UTRCA staff first indirectly and then directly asked if the proposal was declined because it originated from a Conservation Authority. Each time the question was asked, it was deflected and then the Director stated she refused to answer the question.

Implications for UTRCA SAR Program

The UTRCA's reptile recovery program is funded by outside sources including SARSP, Habitat Stewardship Program, private donations, small business donations, and volunteers, but SARSP funding has been instrumental as a main funding source. Without SARSP funding, the program is at high risk of ending permanently. This would be a significant blow to Species At Risk and also to countless community members, partners, volunteers, educators, land managers, planners, students, technicians, and biologists that depend on this work to continue. While the program is funded by outside sources, it is also an important educational tool to inform the community about the UTRCA's mandated programs. In return, the reptiles at risk program has benefitted from the reputation and support of the Conservation Authority in our local communities.

While the SARSP funding is vitally important, it is only a portion of what goes into making this program successful. UTRCA SAR Biologist Scott Gillingwater has dedicated his life to these species and their recovery. Working with a handful of staff and many volunteers, they've changed the trajectory for some of the most at-risk species in Canada. In order to have these great successes, funding is necessary for at least Scott and one part time technician. At this point, the UTRCA is now forced to decide if there is sufficient funding to carry the program through to the spring. Plans are underway to reach out to the media to let community members and the public at large know about this issue and to attempt to address this funding gap. We have one of the most influential and most publicized SAR programs in the province, but it is now hanging on by a thread due to the province's late notice and rejection of our funding application.

Recommended by: Tracy Annett, General Manager
Prepared by: Scott Gillingwater, Species At Risk Biologist

UPPER THAMES RIVER
CONSERVATION AUTHORITY

"Inspiring a Healthy Environment"

Thames
Canadian Heritage River

January 17, 2022

Honourable Minister David Piccini
Minister, Environment, Conservation and Parks
College Park 5th Flr, 777 Bay St.
Toronto, Ontario
M7A 2J3

Dear Minister:

The Upper Thames River Conservation Authority (UTRCA) is writing to express concern over the recent awarding of funding from the Province's Species at Risk Stewardship Program (SARSP). The UTRCA is concerned that its funding application was denied simply because it was submitted by a Conservation Authority, even though Conservation Authorities were clearly listed as eligible applicants in the SARSP Guidelines.

The UTRCA has one of Canada's longest running and most successful reptile research and recovery programs, with staff and volunteers that are unparalleled in their experience with Species At Risk (SAR) reptiles. The SAR program's efforts have always demonstrated the positive benefits of provincial funding for Species At Risk, and showcased the success of the provincial Species At Risk Stewardship Program. The UTRCA has consistently received funding from the Province since 2007 when the SARSP became available.

The 2021/2022 SARSP priorities aligned so precisely with the UTRCA Species At Risk (SAR) program that staff considered it one of the closest fits since the program has been available. Staff provided a funding application that detailed the SARSP priorities (species [Spiny Softshell Turtle] and habitat [Coastal Wetland]) and requirements, and summarized the UTRCA's successful, ground-breaking work for SAR in Ontario, long-term partnerships, and effective use of funding.

On November 3, 2021 the MECP advised the UTRCA that our application was not selected for funding, almost nine months after the application was submitted and long after the 2021 field season for Species At Risk work. Dedicated organizations such as ours incur costs and complete the SAR work assuming that the expenses will be reimbursed. This is exactly what has occurred as successful applicants are being reimbursed for expenses incurred since April 1, 2021.

Without SARSP funding, the UTRCA's Species At Risk program is at high risk of ending permanently. This will be a significant blow to these at risk species, as well as to countless community members, partners, volunteers, educators, land managers, planners, students, technicians, and biologists that depend on this work to continue.

Communication between the Authority and MECP staff regarding how funding decisions were made has been troubling. In previous years, UTRCA staff were informed that all proposals were ranked on their merits as well as yearly priorities, and the ranked applications were then sent to the Minister's office. However, when UTRCA staff asked for clarification regarding the funding decisions, they were told that funding proposal acceptance was not based on rankings. We request clarification of the funding approval process, to re-establish transparency and faith in the process.

While the SARSP funding is vitally important, it is only a portion of what goes into making this program successful. Working with a handful of staff and many volunteers, the UTRCA SAR program has changed the trajectory for some of the most at-risk species in Canada. We have one of the most influential and publicized

SAR programs in Ontario, but it is now hanging on by a thread due to the Province's late notice and rejection of our funding application.

Any assistance that you can provide to improve this situation and clarify the recent funding decisions would be very much appreciated.

_____

Alan Dale
Chair
Upper Thames River Conservation Authority

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: UTRCA Board of Directors
From: Jenna Allain, Manager, Environmental Planning and Regulations
Date: January 18, 2022
Filename: ENVP #11349-1
Agenda #: 8.1
Subject: Administration and Enforcement – Section 28 Status Report – *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (O.Reg157/06)*

Section 28 Report:
The attached tables are provided to the Board as a summary of staff activity related to the Conservation Authority's *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation* (Ontario Regulation 157/06 made pursuant to Section 28 of the Conservation Authorities Act). The summary covers reports for November 1, 2021 to December 31, 2021.

Recommended by:
Jenna Allain, Manager, Environmental Planning and Regulations

Prepared by:
Jessica Schnaithmann, Land Use Regulations Officer
Karen Winfield, Land Use Regulations Officer
Ben Dafoe, Land Use Regulations Officer
Cari Ramsey, Land Use Regulations Officer
Sarbjit Singh, Environmental Regulations Assistant

UPPER THAMES RIVER CONSERVATION AUTHORITY

SECTION 28 STATUS REPORT
SUMMARY OF APPLICATIONS FOR 2021

Thames Canadian Heritage River

DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINE AND WATERCOURSES REGULATION
ONTARIO REGULATION 157/06

Report Date: November and December 2021

Client Service Standards for Conservation Authority Plan and Permit Review (CO, Dec 2019)

Permit #	Municipality	Location/Address	Category	Application Type	Project Description	Application Received	Notification of Complete Application	Permit Required By	Permit Issued On	Comply with Timelines	Staff
27-20	Perth South	Line 29, West of Perth Road 125	Major	Municipal Drain	Proposed enclosure of approximatley 2.3 km of a currently open watercourse was subject to a full Hearing for review and approval before the UTRCA Hearings Committee due to the size of the enclosure. Approved by the UTRCA Hearings Committee on March 18, 2021 but permit not issued until December 8, 2021 following receipt of final engineer's report and addendum.	23-Dec-2019	26-Nov-2021	24-Dec-2021	8-Dec-2021	YES	Winfield
117-21	Perth South	145 Bolger Road	Major	Development	Proposed Tear Down and Rebuild of Single Family Residence, Attached Garage and Septic System	31-Mar-2021	12-Nov-2021	10-Dec-2021	30-Nov-2021	YES	Schnaithmann
148-21	London	102 Wilson Avenue	Minor	Development	Construction of a Single Storey Addition to Rear of Existing Residence on Piers	27-Sep-2021	3-Nov-2021	24-Nov-2021	22-Nov-2021	YES	Schnaithmann

Permit #	Municipality	Location/Address	Category	Application Type	Project Description	Application Received	Notification of Complete Application	Permit Required By	Permit Issued On	Comply with Timelines	Staff
158-21	Stratford	379 Romeo Street North	Major	Development	Proposed Construction of Three Residential Condominium Buildings and Associated Site Works	30-Sep-2021	21-Dec-2021	18-Jan-2022	22-Dec-2021	YES	Schnaithmann
161-21	Perth South	Line 5 and Perth Road 139	Routine	Municipal Project	Emergency Culvert Work (repair/cleanout and replacement)	6-Oct-2021	6-Oct-2021	20-Oct-2021	11-Nov-2021	NO	Dafoe
162-21	Perth South	4350 Line 15	Major	Development	Tear Down Existing House and Rebuild New House	26-Oct-2021	26-Oct-2021	23-Nov-2021	2-Nov-2021	YES	Dafoe
164-21	Middlesex Centr	244 Edgewater Boulevard	Major	Development	Proposed Single Family Residence & Attached Garage	15-Sep-2021	17-Sep-2021	15-Oct-2021	18-Nov-2021	NO	Winfield
166-21	Perth South	Perth Rd. 113 and Perth Line 29	Minor	Utility Corridor	Fibre Line-Directional Boaring	18-Oct-2021	4-Nov-2021	25-Nov-2021	4-Nov-2021	YES	Dafoe
170-21	Middlesex Centr	174 Edgewater Boulevard	Major	Development	Proposed Single Family Residence, Attached Garage & Accessory Structure	1-Oct-2021	5-Nov-2021	3-Dec-2021	5-Nov-2021	YES	Winfield
172-21	London	1390 Wellington Road	Routine	Development	Proposed Installation of Electric Vehicle Charging Posts and Signage	8-Nov-2021	18-Nov-2021	2-Dec-2021	19-Nov-2021	YES	Schnaithmann
173-21	London	Blackwater Rd. & Grenfell Dr.	Major	Utility Corridor	Conduit Installation across two watercourses	9-Nov-2021	16-Nov-2021	14-Dec-2021	17-Nov-2021	YES	Singh
176-21	Perth South	2263 Perth Rd 163	Major	Development	Constructuion of Pack Barn and Storage Barn	27-Aug-2021	11-Nov-2021	9-Dec-2021	24-Nov-2021	YES	Dafoe
180-21	London	370 Huron Street	Minor	Development	Installation of a Modular Office Building	11-Nov-2021	23-Nov-2021	14-Dec-2021	20-Dec-2021	NO	Singh
181-21	Middlesex Centr	Burton Avenue, West of Adelaide Road	Routine	Utility Corridor	Proposed Sun Canadian Pipeline Integrity Dig	17-Sep-2021	17-Sep-2021	1-Oct-2021	9-Dec-2021	NO	Winfield
182-21	London	20 Argyle Street	Routine	Development	Emergency Replacement of Foundation Wall	25-Nov-2021	25-Nov-2021	9-Dec-2021	30-Nov-2021	YES	Singh

Permit #	Municipality	Location/Address	Category	Application Type	Project Description	Application Received	Notification of Complete Application	Permit Required By	Permit Issued On	Comply with Timelines	Staff
189-21	Ingersoll	274 Bell St.	Major	Development	SFR Construction	30-Sep-2021	13-Dec-2021	10-Jan-2022	16-Dec-2021	YES	Dafoe
191-21	Thames Centre	Cromarty/Crompton Rd.	Routine	Utility Corridor	Fibre Directional Drill	17-Jun-2021	17-Dec-2021	31-Dec-2021	17-Dec-2021	YES	Dafoe
192-21	Perth East	Line 34/Huron Rd (Sebringville)	Routine	Utility Corridor	Fibre Directional Drill	20-Aug-2021	17-Dec-2021	31-Dec-2021	17-Dec-2021	YES	Dafoe
194-21	EZ Tavistock	595446 Highway 59	Routine	Utility Corridor	Integrety Dig-SCPL	29-Nov-2021	20-Dec-2021	3-Jan-2022	20-Dec-2021	YES	Dafoe
195-21	Middlesex Centr	7 Sir Robert Place	Routine	Development	Proposed house and septic rebuild	5-Aug-2021	16-Dec-2021	30-Dec-2021	23-Dec-2021	YES	Ramsey
196-21	SW Oxford	293490 Culloden Line	Minor	Restoration/ Creation	Pond Clean out	12-Dec-2021	22-Dec-2021	12-Jan-2022	23-Dec-2021	YES	Dafoe
197-21	London	1 Rogers Ave	Major	Development	Addition to existing residence	20-Dec-2021	20-Dec-2021	17-Jan-2022	20-Dec-2021	YES	Singh
199-21	SW Oxford	Dodge Line at Sweaburg Road	Minor	Municipal Project	Csp culvert replacement	18-Oct-2021	18-Oct-2021	8-Nov-2021	23-Dec-2021	NO	Ramsey

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: UTRCA Board of Directors
From: Tracy Annett, General Manager
Date: January 18, 2022
Filename: Admin #4399
Agenda #: 8.2
Subject: Draft Budget Municipal Feedback

The UTRCA 2022 Draft Budget was circulated to member municipalities for comment on December 23, 2021. No written feedback has yet been received. Staff have provided a council presentation to the Town of St. Marys and another presentation is scheduled with the Municipality of West Perth on February 7, 2022. A summary of the feedback is provided below:

St. Marys:

- Mayor Strathdee recognized the Conservation Authority encourages and engages municipalities but still feels they are asking municipalities to put more pressure on themselves. It was acknowledged that the letter regarding by-passes in London was received from the Chair but disappointed that targets funding is not increasing. In the mayors opinion the City is the largest polluter in the watershed, and as such should be paying more. The general manager thanked the mayor for the letter as it has raised the discussion of the topic with our Board.

- The mayor appreciates the representation on the Board by Tony Jackson, but identified that the Town's CVA has grown more that the surrounding Municipalities who share the representative. It was explained that the Town has a different perspective as an upper tier municipality than the municipalities who share the representative on the board. The general manager responded that the Conservation Authorities Act does not identify funding as a consideration for appointments; instead the representation is by population. It was also offered that the last change to the composition of the Board was at the request of the province to reduce the size of the Board.

- A councillor asked about the future of Glengowan lands and whether or not the UTRCA was considering selling land as a means of generating needed revenue. The general manager noted the Authority had applied to allow for land severances through an Official Plan Amendment and the application was appealed. Other options, including land sales, are being considered.

- A councilor was concerned about 'industrial farms' causing runoff of manure and nutrients into watercourses and the impacts on water quality. The general manager noted that manure application is regulated under the Nutrient Management Act. It was explained that the UTRCA provides technical knowledge to engage with the agricultural sector for methods to reduce runoff. As well, nutrients are resources that are best used by crops and the demonstration farm

in Thorndale provides an opportunity for further research and education to the farm community and partners. Programs to encourage cover crops further support the improvement of water quality.

- A councillor asked if, when considering the budget change, a list of tasks that were duplicated by regulations was created. The general manager suggested that the Province considered the role of conservation authorities through the development of these regulations with a goal to avoid duplication. It was also noted that further regulatory amendments, specifically Section 28 Regulations, are still anticipated.

Prepared by:
Tracy Annett, General Manager

Encl: 2022 UTRCA Draft Budget

2022
Draft Budget

November 2021

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UPPER THAMES RIVER
CONSERVATION AUTHORITY

UTRCA 2022 Draft Budget

Overview

The Upper Thames River Conservation Authority's (UTRCA) 2022 Draft Budget forecasts expenditures of $19,154,354. This total includes operating ($17,411,797) and capital expenses ($1,742,557).

The Draft Budget has been developed as we continue to navigate the pandemic that has impacted our service delivery levels and the corresponding budgets. With pandemic wage subsidy programs out of reach, vacant staff positions were not filled and Environmental Targets work was postponed in 2020 and for much of 2021. The 2022 Draft Budget foregoes implementation of the final phase of Environmental Targets funding, and represents an effort to regain service delivery levels, particularly in the areas of environmental planning and hazard mapping, while recognizing the work required to achieve initial stages of compliance with the new provincial regulations.

Key influences on the 2022 Draft Budget include the following.

1. Changes to the Conservation Authorities Act and related regulations

The Province released the Phase 1 Regulations in October 2021. Significant administrative and technical staff effort will be required to undertake or update components of the regulations, which include:

- Watershed-Based Resource Management Strategy,
- Conservation Authority Land Strategy and Land Inventories,
- Natural Hazards Infrastructure Operational Management Plan, and
- Natural Hazards Infrastructure Asset Management Plan.

The full extent of these impacts has not been included in this Draft Budget. Preliminary review of the regulations indicates significant additional capacity may be required to fulfill the requirements over the next two years. Additional administrative effort will also be required to produce the required Inventory of Programs and Services, including funding sources and estimated annual costs, and to develop and negotiate MOUs/cost apportioning agreements for non-mandatory programs and services requiring levy.

2. Uncontrollable Expenses

An inflationary increase of 3.5% has been applied to the 2022 Draft Budget, where not otherwise known as higher. Just the increased cost of insurance programs is an additional expense of approximately $65,000.

3. Organization Modernization and Compensation Review

Modernization of the UTRCA's programs and services is underway. This reorganization is designed to incorporate the requirements of the new regulations, consider the retirement of many long-term staff, and increase the organization's effectiveness.

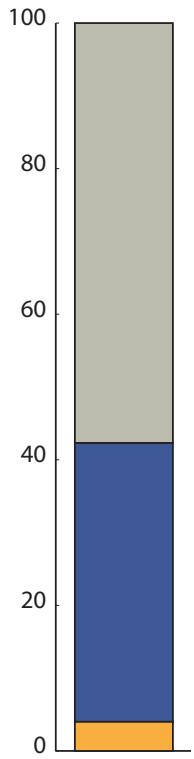
Staff retention is a key UTRCA management priority. Reduced staff turn-over benefits the organization through employment of experienced staff, return on investment in staff training, and fewer disruptions to work flow. The last formal salary review was completed in 2006 and, while the organizational structure has been tweaked over time, there are also structural barriers to staff growth and advancement. Both issues have been recognized during the past few years but have recently become a priority as staff retention is being affected.

A compensation review by ML Consulting is underway. An estimated 5% increase to the salary grid has been included in the Draft Budget as a first step to account for the costs of implementing the recommendations of this review. The review recommendations may have additional financial and organizational implications for the UTRCA.

In summary, the UTRCA is presenting a combined (operating and capital) Draft Budget with a projected deficit of $834,435, more than half of which is planned to be absorbed by Flood Control reserves. This forecast includes a conservative estimate of "soft revenue," which is typical contract revenue that is expected during the year from programs that have not yet been announced. The municipal levy increase is 3.5% for operating purposes, of which 55% is driven by flood control needs with the remainder supporting general levy. Provincial funding remains inadequate for the mandatory responsibilities delegated to the UTRCA.

We remain proud of our staff's effort and commitment to leverage our member municipalities' investment and deliver programs that improve watershed health and contribute to building resilient communities in the face of a changing climate, through these challenging times.

Draft Budget: Summary



Total combined Budget Revenue ($18,319,921)

57.7% - Self-Generated
(fees, donations, sponsorships, contracts)

38.3% - Total Municipal Levies

4.0% - Province of Ontario
(drinking water source protection, flood protection)

Municipality	% of CVA for Part of Levy	Total 2022 Levy
County of Oxford	16.8428	$1,046,256
City of London	64.2416	$4,771,651
Township of Lucan Biddulph	0.3468	$18,056
Municipality of Thames Centre	3.1857	$171,162
Muncipality of Middlesex Centre	2.3789	$123,856
City of Stratford	7.2417	$417,9454
Township of Perth East	1.4232	$76,699
Township of West Perth	1.4873	$145,153
Town of St. Marys	1.4482	$143,332
Township of Perth South	1.2009	$62,524
Municipality of South Huron	0.2028	$10,557
Townships of Zorra	0	$15,000 *
Township of South-West Oxford	0	$5,610 *
TOTAL	**100%**	**$7,007,811**

* The dam levy is applied directly as these municipalities are the sole beneficiaries of the structures.

The formula that determines each municipality's share (percentage) of the levy reflects, in part, the assessed value of each municipality's land within the watershed, as set out in the Conservation Authorities Act. The Province provides these assessed values (Current Value Assessment or CVA) annually.

The remainder of the levy reflects the specific benefiting percentage each municipality derives from the flood control structures. These percentages are identified in the table titled "Dam and Flood Control Levy - Details" (see last page of this budget). For example, the City of London benefits 100% from Fanshawe Dam and, therefore, is the only municipality levied for operating and maintaining that structure. Wildwood and Pittock Dams use unique benefiting formulas.

The municipal levy is the most important funding received by the Conservation Authority as this investment allows the Authority to obtain and retain staff expertise. Staff leverage the municipal share by applying for grants from foundations, generating funds from user fees, entering into contracts, and obtaining sponsorships from the private sector.

In the draft budget, the UTRCA leverages the 38.3% funded by municipalities into another 57.7% of funding to support a broad range of services for watershed residents, as directed by the Board of Directors.

Draft Operating Budget

	Final 2021 Budget	Draft 2022 Budget	% Change between Years	Notes
REVENUES				
New Levy Funding				
Municipal General Levy	4,154,463	4,245,898	2.20%	
Dam and Flood Control Levies	1,591,062	1,703,866	7.09%	
Operating Reserve Levy	34,014	34,692	1.99%	
	5,779,539	5,984,456	3.55%	Overall increase to member muncipalities
Amortized Levy from previous years				
Municipal General Levy	560,214	410,932	-26.65%	Less funding deferred in 2021 than 2020 due to COVID
Flood Control Levies	119,786	201,386	68.12%	From previously funded capital projects
Capital Maintenance Levy	54,457	84,968	56.03%	From previously deferred maintenance levies
	734,457	697,286	-5.06%	
MNRF Transfer Payment	181,213	181,213	0.00%	
Contracts and Grants				
Municipal within Watershed	996,200	1,054,028	5.80%	
Municipal outside Watershed	132,176	157,402	19.09%	
Provincial	1,152,224	877,636	-23.83%	Grants expected to decline still
Federal	635,075	332,038	-47.72%	Grants expected to decline still
All Other	1,845,487	1,816,095	-1.59%	
	4,761,161	4,237,199	-11.00%	
User Fees and Other Revenues				
Conservation Areas	3,455,733	3,873,302	12.08%	
Planning and Permit Fees	355,000	580,000	63.38%	
Education Fees	55,000	95,000	72.73%	
Landowner tree sales, cost recoveries	229,193	228,943	-0.11%	
	4,094,926	4,777,245	16.66%	New fee schedules anticipated
Other Revenues				
From deferred revenues	538,297	684,873	27.23%	
Donations, interest and gains	77,206	391,520	407.11%	Expected recognition of investment gains $300K
	615,503	1,076,393	74.88%	
Funding required from Flood Reserves	285,576	321,950	12.74%	
TOTAL REVENUES	**16,452,375**	**17,275,742**	**5.00%**	
EXPENDITURES				
Mission Cost Centres				
Community Partnerships	1,765,700	1,534,305	-13.11%	
Water and Information Management	3,000,802	3,240,256	7.98%	
Environmental Planning and Regulations	2,218,022	2,521,671	13.69%	
Conservation Services	1,914,209	1,915,209	0.05%	
Watershed Planning, Research and Monitoring	1,150,060	1,150,682	0.05%	
Conservation Areas	4,238,181	4,712,154	11.18%	
Lands and Facilities	1,724,133	1,870,499	8.49%	
Service Cost Centres	155,657	467,021	200.03%	Direct costs not allocated (covered primarily from investment gains)
Program Operating Expenditures	16,166,763	17,411,797	7.70%	
Desired transfers to Flood Reserves	254,014	28,400	-88.82%	Eliminated transfers for HR, WCC, and operating reserve
TOTAL EXPENDITURES	**16,420,777**	**17,440,197**	**6.21%**	
NET SURPLUS (DEFICIT)	31,598	(164,455)		
Depreciation Expense	1,148,343	1,162,263	1.21%	
CASH SURPLUS (DEFICIT)	**1,179,941**	**997,809**	**-15.44%**	

Draft Capital Budget

	Final 2021 Approved Budget	Draft 2022 Budget	Notes
FLOOD CONTROL			
Capital Funding			
Flood Control Capital levy	1,844,248	730,000	
Federal Funding	1,028,976	160,000	
Provincial - Water and Erosion Control Infrastructure	81,371	277,500	
Funding Deferred	(6,687)	-	
Total Current Year Funding	**2,947,908**	**1,167,500**	
Capital Projects			
Fanshawe Dam	40,230	202,232	
Wildwood Dam	80,319	-	
Pittock Dam	52,091	105,562	
London Dykes	2,618,561	449,596	
RT Orr Dam	-	125,408	
Mitchell Dam	36,760	40,000	
Small Dams	64,267	79,396	
Erosion Control Structures	-	300,363	Includes City of London request
Total Spending	**2,892,228**	**1,302,557**	Dependent on WECI approvals
Surplus (Deficit) from Flood Control Capital	**55,680**	**(135,057)**	
Funding Required from Reserves	**(54,666)**	**137,000**	From Flood Control reserve
Balance Surplus (Deficit) Capital Flood Activities	**1,014**	**1,943**	
OTHER CAPITAL NEEDS			
Capital Funding			
Current Capital Maintenance Levy	178,626	183,627	
Land Grant	-	15,000	Applied for grant
Capital Expenditures			
Land	-	25,000	
Infrastructure	194,000	150,000	Electrical Infrastructure Improvement Project
Vehicles and Equipment	-	195,000	3 pickup trucks, tire changer
Technology Equipment	-	70,000	Computers, electrofisher
Total Spending	**194,000**	**440,000**	
Surplus (Deficit) from other Organizational Capital	**(15,374)**	**(241,373)**	
Funding Required from Reserves	**-**	**150,000**	From Conservation Area reserve
Balance Surplus (Deficit) other Organizational Capital	**(15,374)**	**(91,373)**	
Total Capital Budgets Surplus (Deficit)	**(14,360)**	**(89,430)**	

List of Acronyms

WCC - Watershed Conservation Centre

WECI - Water and Erosion Control Infrastructure

Draft Budget: All Units, All Activities

	Year to Date Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes (see page 4 for list of acronyms)
Funding					
Municipal Levies	4,154,463	4,154,463	4,245,898	2.2%	
Dam and Flood Control Levy	1,625,294	1,591,062	1,703,866	7.1%	
Operating Reserve Levy	34,014	34,014	34,692	2.0%	
Flood Control Capital Levy	1,181,071	1,868,892	839,726	-55.1%	Project list subject to WECI funding
Capital Maintenance Reserve Levy	-	178,626	183,627	2.8%	
Government Transfer Payments	181,213	181,213	181,213	0.0%	
Contracts	5,516,279	5,789,508	4,599,699	-20.6%	Reflects Flood Control capital spending plans
User Fees	4,043,969	4,176,926	4,867,245	16.5%	
All other incl. Deferred Revenues	1,488,757	1,318,629	1,663,953	26.2%	Increase to investment gains included
Total Funding	**18,225,060**	**19,293,333**	**18,319,919**	**-5.0%**	
Expenditures					
Wages, Benefits, Per Diems	9,039,559	10,130,400	11,373,834	12.3%	Staffing and grid adjustments
Training, PPE, Travel Reimbursements	113,496	199,710	194,110	-2.8%	
Legal, Audit, Insurance, Banking	446,459	433,874	506,969	16.8%	Insurance expected to rise 22%
Advertising and Promotion	34,066	54,255	52,350	-3.5%	
Consulting and Services	756,319	1,094,304	1,322,419	20.8%	
Computers and Communications	283,510	364,156	309,655	-15.0%	
Property, Utilities, Security	1,046,432	1,240,493	1,379,211	11.2%	
Contracted Services, incl. Flood Control	2,255,193	2,977,102	1,035,412	-65.2%	
Supplies	563,480	1,279,696	1,171,482	-8.5%	
Flow Through Expenses	66,666	136,650	204,650	49.8%	
Depreciation Expense	976,991	1,148,343	1,162,263	1.2%	
Unallocated Costs	-	7	1,999	28457.1%	
Mission Centre Capital Costs	3,643	395,000	440,000	11.4%	Electrical Infrastructure Improvement Project, trucks, computers, electrofisher
Total Expenditures	**15,585,814**	**19,453,990**	**19,154,354**	**-1.5%**	
Surplus (Deficit) from these budgets	**2,639,247**	**(160,657)**	**(834,435)**		Expected deficit to apply to all reserves

Draft Flood Control Capital Levy

The UTRCA operates and manages a number of water and erosion control structures on behalf of its member municipalities. The operation and maintenance costs for these structures are apportioned to municipalities on a beneficiary pays basis. The UTRCA also maintains and operates a number of recreation dams on behalf of member municipalities. The benefiting municipality for these recreational structures is the municipality within which they are located. Capital maintenance of all of these structures is funded in the same proportions as operating, as shown in the table below.

The UTRCA Board of Directors has approved a 20 Year Capital Maintenance Plan for Water and Erosion Control Structures. This long term plan has been developed to coordinate the timing and financing of major capital repairs to the water and erosion control structures. The plan is reviewed and updated annually, to maintain a rolling 20 year estimate for planning and financing purposes.

With the plan in place, the UTRCA is able to leverage the municipal contributions to pursue senior government funding support for specific projects. The long term cost projections are also used to lobby senior levels of government to continue providing major capital repair grant programs, such as Ontario's Water and Erosion Control Infrastructure (WECI) program.

The UTRCA continues to receive funding from the federal Disaster Mitigation and Adaptation Fund for the West London Dyke Reconstruction Project, which is in place until March 2028. Funding from WECI is not generally confirmed until May/June.

The amounts for the annual fixed contributions from the affected municipalities are calculated based on long term flood control capital repair estimates. The 20 Year Capital Maintenance Plan includes provisions for reviews and for adjusting the municipal contributions, depending on updated studies and cost estimates. The 2022 Draft Flood Control Capital Levy is described in the following table.

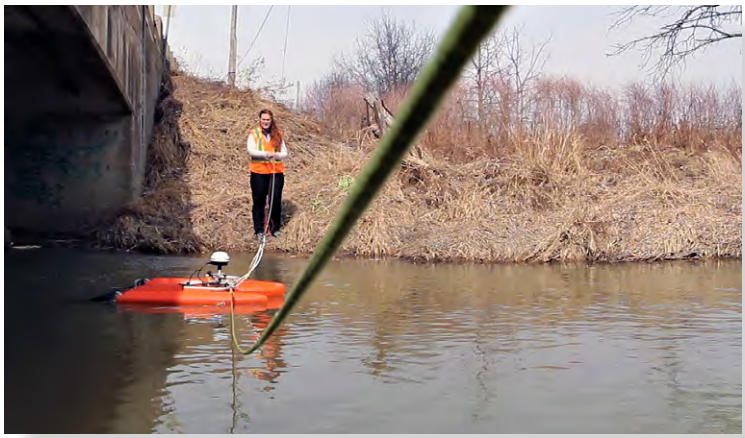
Flood Control Capital Levy Summary

Municipality	Structure	Apportionment	2022 FC Capital Levy Total
Oxford County	Wildwood Dam	1.01%	$29,879
	Pittock Dam	62.11%	
	Ingersoll Channel	100.00%	
City of London	Fanshawe Dam	100.00%	$733,348
	Wildwood Dam	83.85%	
	Pittock Dam	36.75%	
	London Dykes and Erosion Control Structures	100.00%	
	Springbank Dam	100.00%	
Town of St. Marys	St. Marys Floodwall	100.00%	$45,000
	Wildwood Dam	14.09%	
City of Stratford	RT Orr Dam and Channel	100.00%	--
Municipality of West Perth	Fullarton Dam	100.00%	$5,000
	Mitchell Dam	100.00%	$20,000
Township of Zorra	Embro Dam	100.00%	$1,500
	Harrington Dam	100.00%	$5,000
Total Flood Control Capital Levy			**$839,727**

Protecting People and Property, and Supporting Sustainable Development

Mission Cost Centre Budgets
Water and Information Management

What We Do



- Reduce the risk of property damage and loss of lives due to flooding by providing watershed municipalities with flood forecasting and warning services and low water response.
- Operate and maintain water control structures (dams, dykes, channels, floodwalls), constructed in partnership with municipalities, to control flood flows and augment stream flow during dry periods.
- Operate and maintain recreational water control structures on behalf of municipalities.
- Comply with legislative requirements and guidelines at the local level.

Examples

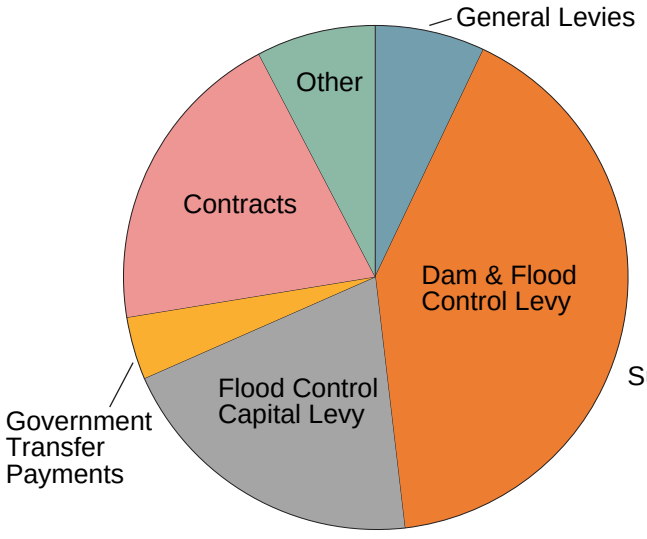
- Provide and maintain flood situation emergency plans and a flood warning system
- Continually monitor stream flow, reservoirs, and watershed conditions at 31 surface water monitoring stations, 23 precipitation stations , and 13 snow survey stations
- Forecast floods, issue flood bulletins, and collect and maintain flood damage information and historical flooding data
- Maintain and expand stream gauge network in order to improve stream flow, climatic and water quality monitoring
- Improve and calibrate flood forecasting models
- Coordinate, maintain, and improve stream flow through flow augmentation reservoirs
- Coordinate the upper Thames River watershed Low Water Response Team, which plans for drought response to meet the needs of watershed residents and business while protecting natural systems and human health
- Operate, inspect, and maintain flood control dams, dyke systems, channels, and erosion control structures, as well as medium sized municipal recreation dams and Conservation Area dams
- Undertake major maintenance projects on water and erosion control structures, and assess municipal erosion control works
- Secure capital maintenance funding for water and erosion control infrastructure, as well as senior government funding support for flood hazard mitigation
- Undertake dam safety studies and improve public safety around dams
- Update operation and maintenance manuals
- Provide technical expertise to identify natural hazards (such as flood plains and steep slopes) with the goal of protecting people and property from these natural hazards
- Host annual meeting with municipal flood coordinators
- Map and model flood plains and update hazard modelling and mapping in support of UTRCA Environmental Planning and Regulations unit

2022 Draft Budget

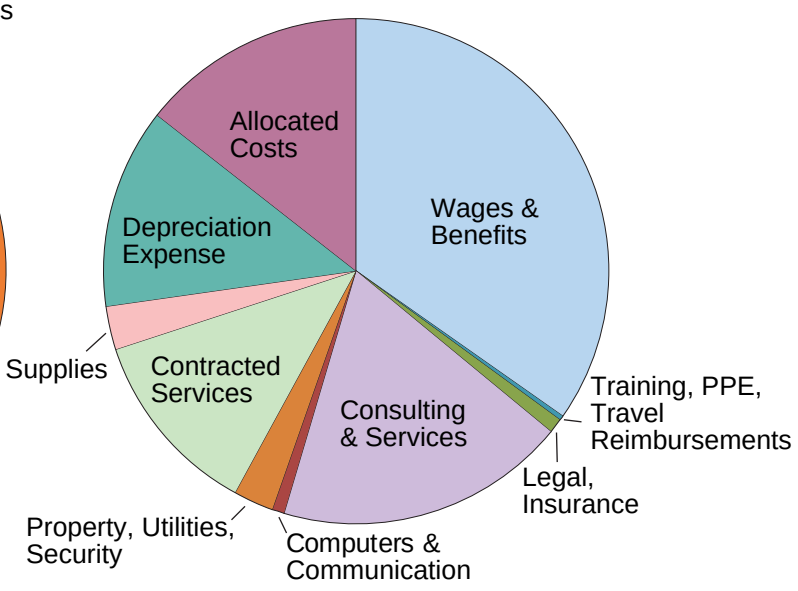
Draft Budget Water and Information Management

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes (see page 4 for list of acronyms)
Funding					
General Levies	199,339	287,037	292,491	1.9%	
Dam and Flood Control Levy	1,625,294	1,591,062	1,703,866	7.1%	
Flood Control Capital Levy	1,181,071	1,868,892	839,726	-55.1%	Dependent on approved WECI projects
Government Transfer Payments	166,270	166,270	166,270	0.0%	
Contracts	1,386,161	1,648,596	824,174	-50.0%	WECI approvals estimated
User Fees	50	-	-	0.0%	
All other incl. Deferred Revenues	400,207	293,403	318,311	8.5%	
Total Funding	**4,958,390**	**5,855,260**	**4,144,838**	**-29.2%**	
Expenditures					
Wages and Benefits	1,214,847	1,356,140	1,577,368	16.3%	
Training, PPE, Travel Reimbursements	7,255	13,600	13,400	-1.5%	
Legal, Audit, Insurance, Banking	29,924	34,300	43,806	27.7%	
Consulting and Services	310,018	465,095	847,000	82.1%	
Computers and Communications	32,066	36,950	34,750	-6.0%	
Property, Utilities, Security	89,425	102,125	115,700	13.3%	
Contracted Services, incl. Flood Control	2,001,264	2,502,825	548,000	-78.1%	
Supplies	(165,296)	111,250	125,250	12.6%	
Depreciation Expense	487,697	588,903	582,871	-1.0%	
Allocated Costs	500,715	681,841	654,668	-4.0%	
Total Expenditures	**4,507,915**	**5,893,029**	**4,542,813**	**-22.9%**	
Surplus (Deficit) from these budgets	**450,476**	**(37,769)**	**(397,975)**		

FUNDING



EXPENDITURES



Protecting People and Property, and Supporting Sustainable Development

Environmental Planning and Regulations

What We Do

- Reduce the risk to life and property from natural hazards such as flooding and unstable slopes, and support safe development.
- Promote the maintenance and enhancement of natural heritage features and areas such as woodlands, wetlands, and threatened species, and protect groundwater resources and promote their wise use.
- Comply with legislative requirements under the Conservation Authorities Act.
- Assist municipalities with fulfilling their Planning Act responsibilities by identifying natural hazard areas and natural heritage features, and providing policy support.

Examples

- Review construction and approve projects in and around watercourses, flood plains, valley slopes, and wetlands to ensure development is safe for individuals and the community
- Provide land use planning advisory services to identify planning concerns related to natural hazards, natural heritage, development servicing, water quality, and natural resources
- Provide comments to assist municipalities with processing Official Plan and zoning by-law amendments, severances, variances and plans of subdivision
- Provide municipalities with access to policy and technical experts in various disciplines, including hydrology, hydrogeology, ecology, fisheries, engineering, bioengineering, stream morphology, and land use planning.
- Answer questions from the public regarding environmental aspects of land use planning
- Respond to property inquiries and mapping requests (legal, real estate, and general information)
- Administer approvals and investigate violations related to regulations made pursuant to Section 28 of the Conservation Authorities Act
- Increase implementation of green infrastructure (Low Impact Development) through pilot projects and professional development opportunities

Protecting People and Property, and Supporting Sustainable Development

Source Protection Planning

(Included in Environmental Planning and Regulations Budget)

What We Do

- Deliver programs and services related to the conservation authority's duties, functions and responsibilities as a source protection authority under the Clean Water Act, 2006.
- Maintain local governance and capacity to facilitate and coordinate source protection initiatives for the Thames-Sydenham and Region.
- Engage local and regional stakeholders, provide source protection expertise, and coordinate local activities that support the implementation and updating of the Thames-Sydenham and Region Source Protection Plan.
- Monitor and report on Source Protection Plan implementation progress within the Thames-Sydenham and Region in accordance with requirements set out in the Act.
- Provide maintenance and operation of an informed and engaged local, multi-stakeholder Source Protection Committee for the Thames-Sydenham and Region to guide the local planning process.

Examples

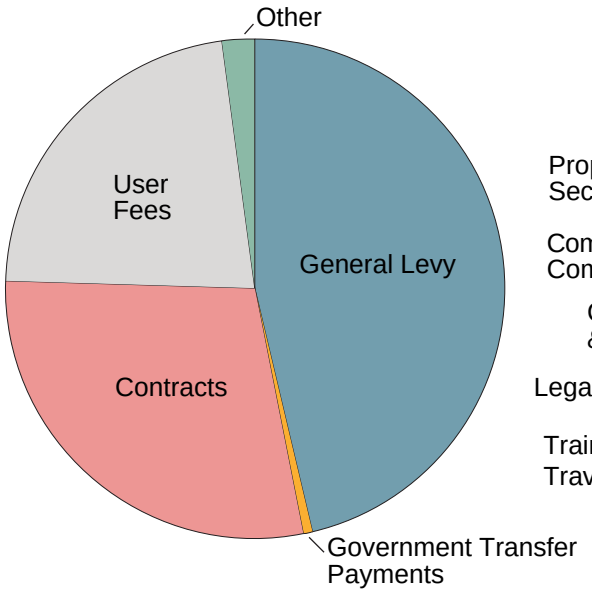
- Undertake work to update the Assessment Reports and Source Protection Plan (SPP) to protect human health and municipal drinking water sources (quality and quantity) by addressing implementation challenges, adding new scientific or technical information, or when a new drinking water system is added or changed.
- Receive and maintain information related to the monitoring policy summaries from municipalities and other implementing bodies, including analyzing and interpreting the information received to report on implementation progress to local stakeholders and the Province.
- Issue confirmation notices to municipal drinking water system owners, as required under the Act, for new and changing municipal residential drinking water systems.
- Provide advice to stakeholders on the review of local applications, planning proposals, or decisions in vulnerable areas to ensure SPP policies are considered.
- Provide Risk Management Services to assist participating municipalities in implementing the SPP through risk management, prohibition, and restricted land use policies. Education and outreach are key policy priorities to deliver an effective program.
- Collaborate with municipalities and conservation authorities to develop and operate the Local Source Water Information Management System to assist municipalities in meeting their obligations under the Clean Water Act and Source Protection Plans.

2022 Draft Budget

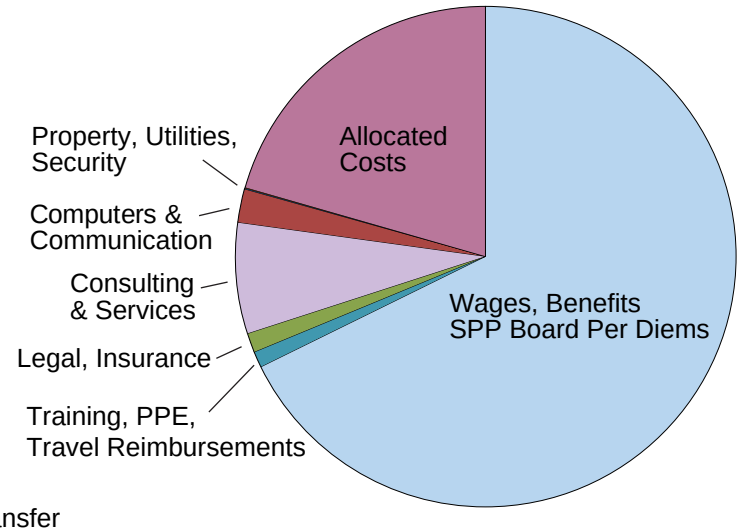
Draft Budget Environmental Planning and Regulations

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
General Levies	1,013,393	1,049,114	1,202,260	14.6%	
Government Transfer Payments	14,943	14,943	14,943	0.0%	
Contracts	560,362	720,439	743,530	3.2%	
User Fees	371,863	345,000	580,000	68.1%	Anticipated fee changes included
All other incl. Deferred Revenues	(0)	31,324	55,646	77.6%	
Total Funding	**1,960,560**	**2,160,820**	**2,596,379**	**20.2%**	
Expenditures					
Wages, Benefits, Per Diems	1,174,932	1,401,467	1,708,042	21.9%	Additional staffing required
Training, PPE, Travel Reimbursements	10,584	25,900	25,900	0.0%	
Legal, Audit, Insurance, Banking	66,198	31,800	32,228	1.3%	
Advertising and Promotion	407	-	-	0.0%	
Consulting and Services	180,837	189,560	180,519	-4.8%	
Computers and Communications	40,510	54,350	54,350	0.0%	
Property, Utilities, Security	316	1,700	1,700	0.0%	
Supplies	-	900	900	0.0%	
Allocated Costs	425,058	512,345	518,032	1.1%	
Total Expenditures	**1,898,842**	**2,218,022**	**2,521,671**	**13.7%**	
Surplus (Deficit) from these budgets	**61,719**	**(57,202)**	**74,708**		

FUNDING



EXPENDITURES



Making Science-Based Decisions

Watershed Planning, Research and Monitoring

What We Do

- Undertake environmental monitoring including collecting, analyzing, and reporting on data for surface water and groundwater quality, stream health, fisheries, habitat, and species at risk.
- Compile and maintain a comprehensive environmental monitoring database that is integrated and available to watershed partners, and is commonly accessed by development proponents in watershed municipalities when undertaking technical studies or assessments associated with land development activities.
- Produce concise state of the environment reporting every 5 years in a Watershed Report Card document, to understand current local (subwatershed) health and emerging trends as a basis for setting environmental management priorities and inspiring local environmental action.
- Develop and maintain watershed, subwatershed, and property specific management plans in cooperation with government agencies, municipalities, and community groups.
- Implement research studies to fill resource information gaps and develop innovative methods of protecting and enhancing watershed resources, including natural heritage systems studies, water quality assessments, and management plans.

Examples

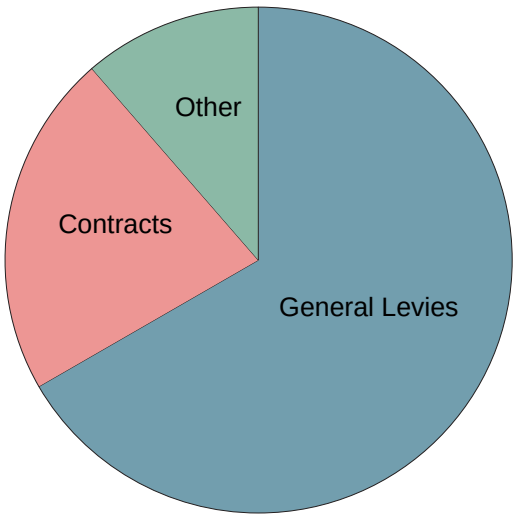
- Monitor groundwater at 24 sites as part of the Provincial Groundwater Monitoring Information System in partnership with the Ministry of the Environment, Conservation and Parks (MECP)
- Collect and analyze surface water samples at 24 sites as part of the Provincial Water Quality Monitoring Network in partnership with the MECP and local Health Units
- Undertake expanded water quality and stream health monitoring, in support of efforts identified in the UTRCA Strategic Plan and in partnership with member municipalities
- Monitor aquatic community health including benthic invertebrates, fisheries, and species at risk to identify priority areas for implementation of best management practices and stewardship
- Participate in senior government working groups related to development of a Domestic Action Plan to reduce phosphorus loads to Lake Erie
- Develop and maintain Geographic Information System (GIS) databases, performing spatial analysis and producing mapping and GIS tools to support watershed planning initiatives, assist in property management, and support regulatory activities
- Develop land management plans for UTRCA properties, such as the Cade Tract, Dorchester Swamp, and conservation area lands, in partnership with the Conservation Areas and Lands and Facilities units
- Provide technical support and review for applications related to planning advisory services
- Study species at risk and their habitat requirements that are indicators of watershed health
- Develop natural heritage system studies to determine significance, spatially quantify gains and losses, and identify areas of concern as well as areas with potential for enhancement.
- Work with a broad range of stakeholders, including municipalities, First Nations and senior government, in the Thames River Clear Water Revival collaborative, to implement *The Thames River (Deshkan Ziibi) Shared Waters Approach to Water Quality and Quantity*, which focuses shared water management objectives and supports efforts to address local and Great Lake water quality and quantity issues.
- Gather long term data and create information to measure outcomes related to the UTRCA Environmental Targets Strategic Plan and to guide work to improve environmental health
- Develop strategies for clean water and natural heritage feature protection and restoration in the watershed, as identified in UTRCA Environmental Targets

2022 Draft Budget

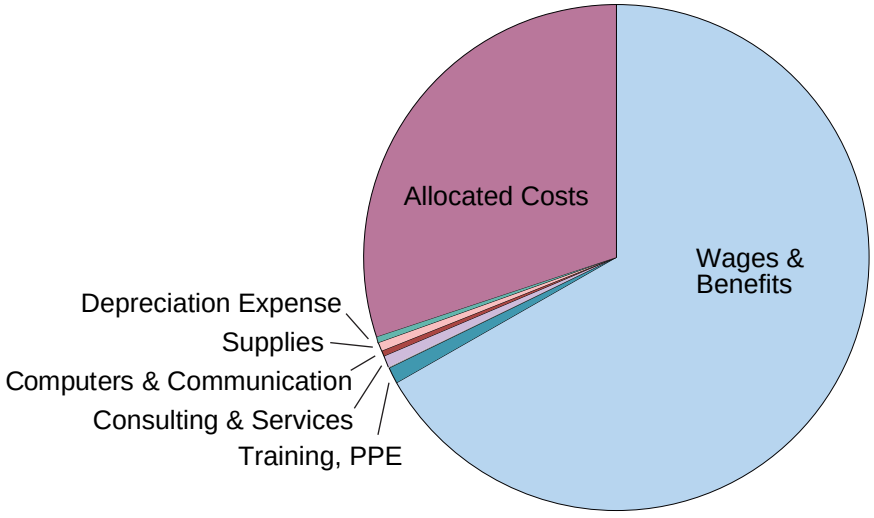
Draft Budget Watershed Planning, Research and Monitoring

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
General Levies	693,900	629,064	592,618	-5.8%	
Contracts	292,867	239,150	195,000	-18.5%	Reduced contracts available
User Fees	349	10,000	-	0.0%	
All other incl. Deferred Revenues	2,867	111,107	101,340	-8.8%	
Total Funding	**989,983**	**989,321**	**888,958**	**-10.1%**	
Expenditures					
Wages and Benefits	641,469	697,543	768,365	10.2%	
Training, PPE, Travel Reimbursements	2,345	10,450	12,200	16.7%	
Advertising and Promotion	-	100	100	0.0%	
Consulting and Services	38,218	65,000	9,000	-86.2%	
Computers and Communications	3,827	3,662	4,200	14.7%	
Contracted Services	-	5,525	-	0.0%	
Supplies	8,924	11,000	6,500	-40.9%	
Depreciation Expense	1,202	1,442	4,299	198.1%	Adding electrofisher equipment
Allocated Costs	263,912	355,338	346,018	-2.6%	
Total Expenditures	**959,896**	**1,150,060**	**1,150,682**	**0.1%**	
Surplus (Deficit) from these budgets	**30,087**	**(160,739)**	**(261,724)**		

FUNDING



EXPENDITURES



Fostering Landowner Stewardship

Conservation Services

What We Do

- Address soil and water quality concerns by providing comprehensive face-to-face in-field and in-stream conservation planning services, technical services, and engineering planning and design.
- Address locally identified water quality and wildlife habitat impairment issues.
- Improve water quality and habitat for fish and wildlife, and reestablish natural aquatic linkages.
- Offer a range of tree planting and woodlot management services, and increase natural cover to improve water quality, provide wildlife and pollinator habitat, and build climate change resiliency.
- Deliver the Clean Water Program (CWP), which provides a one-window service for rural landowners to access technical assistance and financial incentives for implementing best management practices (BMPs) that improve surface water and groundwater quality and soil health, and contribute to sustainable agricultural operations. The CWP is funded by the Counties of Oxford, Middlesex and Perth, Town of St. Marys, and Cities of Stratford and London, with additional funding leveraged from industry, government, foundations, and donations.

Examples

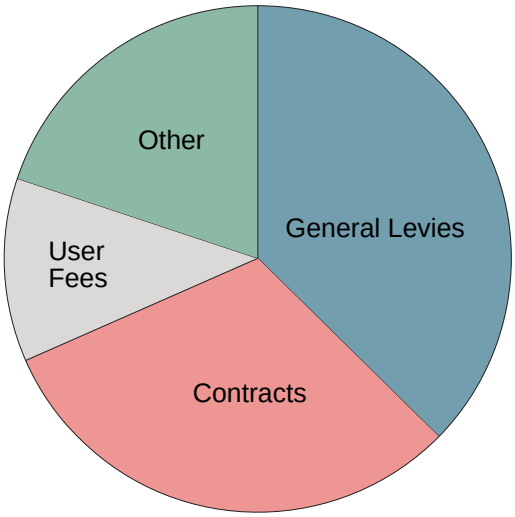
- Deliver a wide range of BMPs through the CWP, which provides more than $240,000 in grants to an average of 150 projects annually, approved by the local CWP committee. The CWP has completed over 46500 projects since 2001, including 33700 projects cost shared (over $11 million in capital project value plus landowner inputs of $54.6 million).
- Deliver Medway Creek watershed phosphorus reduction research and demonstration projects partnering with Environment and Climate Change Canada (ECCC) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Lead cutting-edge research and demonstration projects focused on agricultural stewardship efforts to reduce nutrients in the Thames River and improve the health of Lakes St. Clair and Erie. Projects bring additional investment into the watershed and offset costs to municipalities (e.g., $300,000/3 years from ECCC; $280,000/3 years from Agriculture and Agri-Food Canada (AAFC)).
- Lead information sharing and coordinate innovation through research, demonstration projects, workshops, and field tours, in partnership with landowners, agencies, academia, and private sector. Examples include Living Labs, ONFARM, controlled drainage, engineered vegetated filter strips, saturated buffers, constructed wetlands, on-farm stormwater management, slag filters to remove phosphorus from barnyard and silage leachate runoff and from tile drainage systems, edge-of-field research to monitor phosphorus movement on cropland, and biofilters. Project partners include University of Waterloo, University of Guelph, Western University, Great Lakes and St. Lawrence Cities Initiative on the Thames River Phosphorus Reduction Collaborative, OMAFRA, AAFC, OSCIA and others.
- Recently created a UTRCA Demonstration Farm to showcase progressive agricultural BMPs to area landowners, extension staff and the private sector. Several industry partners along with ECCC and OMAFRA contributed to its creation.
- Partner with ECCC to establish and monitor water quality from agriculture-based subwatersheds
- Provide forestry services such as tree planting plans, woodlot management, invasive species control, planning and auditing for the Managed Forest Tax Incentive Program, and help source alternate funding to offset tree planting costs for landowners
- Implement naturalization projects through the Communities for Nature program, which gives 5,000 students and community members each year a hands-on educational experience and creates opportunity for private sector (e.g., TD, DANCOR, 3M Canada, Dillon Consulting, DANCOR, Home Hardware, Columbia Sportswear), service clubs, and donors to provide lands and/or financial support
- Coordinate Memorial Forest programs, in partnership with local funeral homes
- Plant over 2,800,000 trees across the watershed since 1990 (approximately 2000 hectares)
- Partner with London Hydro to offer "Tree Power" program that sells 600 trees to London homeowners each year, as well as launching similar programs in 2021 in Stratford (Festival Hydro) and in Perth South
- Participate in forest health research partnership with Canadian Forestry Service and Ministry of Northern Development, Mines, Natural Resources and Forestry (e.g., Emerald Ash Borer, Oak Wilt Disease, Beech Leaf Disease), and work with partners to preserve the genetics of native butternut trees

2022 Draft Budget

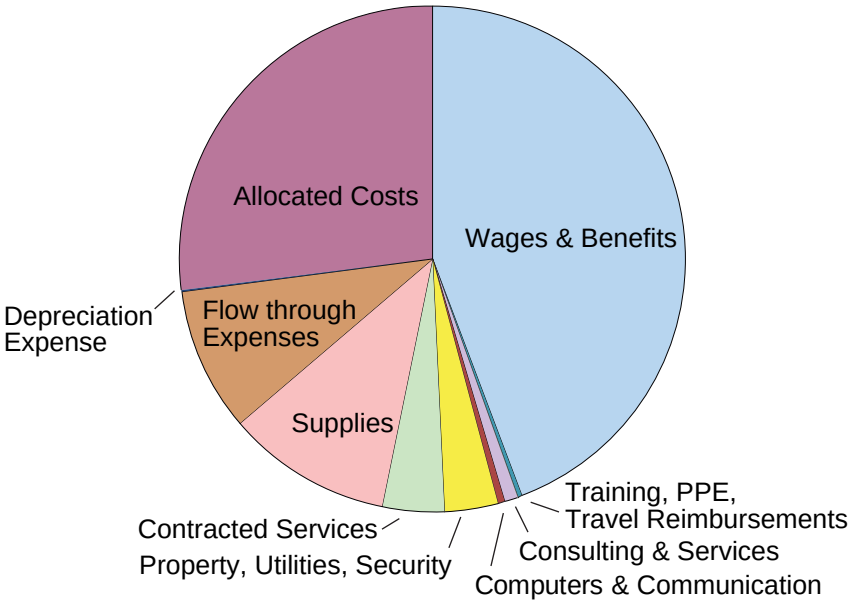
Draft Budget Conservation Services

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
General Levies	590,781	602,564	725,337	20.4%	
Contracts	898,943	978,764	603,250	-38.4%	
User Fees	181,389	227,443	227,443	0.0%	
All other incl. Deferred Revenues	83,738	144,520	385,986	167.1%	Plan to clear deferrals from earlier years
Total Funding	**1,754,850**	**1,953,291**	**1,942,016**	**-0.6%**	
Expenditures					
Wages and Benefits	669,940	750,685	847,615	12.9%	
Training, PPE, Travel Reimbursements	3,494	5,250	5,400	2.9%	
Legal, Audit, Insurance, Banking	222	-	324	100.0%	
Advertising and Promotion	631	-	-	0.0%	
Consulting and Services	3,326	16,700	16,700	0.0%	
Computers and Communications	5,990	4,705	7,905	68.0%	
Property, Utilities, Security	28,342	25,350	65,350	157.8%	
Contracted Services	101,427	151,000	76,000	-49.7%	
Supplies	176,264	331,014	201,700	-39.1%	
Flow through Expenses	66,716	127,550	175,550	37.6%	Grants anticipated higher in 2022
Depreciation Expense	2,002	2,403	2,402	-0.0%	
Allocated Costs	377,014	499,552	516,263	3.3%	
Total Expenditures	**1,435,368**	**1,914,209**	**1,915,209**	**0.1%**	
Surplus (Deficit) from these budgets	**319,482**	**39,082**	**26,807**		

FUNDING



EXPENDITURES



Providing Natural Spaces and Recreational Opportunities

Lands and Facilities

What We Do

- Create value for the environment by providing safe access to UTRCA-owned/managed lands and permitted outdoor recreational opportunities.
- Work in partnership with the community to ensure the long-term protection of natural areas, such as woodlands and wetlands. Hazard lands and wetlands were acquired for flood risk reduction and recreation, and contribute to natural heritage conservation and water quality protection (surface water and groundwater).
- Lease structures and properties to clubs, community groups, individuals, and municipalities for activities that complement the UTRCA's programs and services.
- Negotiate land management agreements with municipalities to permit free access to day use facilities.
- Land acquisition and disposition.

Examples

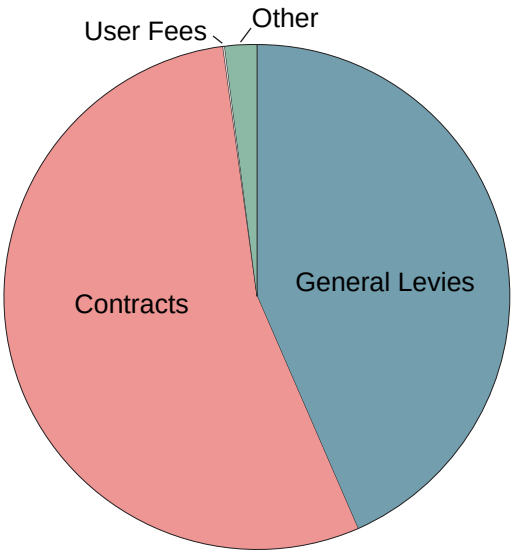
- Own 1900 hectares of rural properties to ensure the long-term protection of natural areas, such as woodlands and wetlands, and provide a variety of passive recreational opportunities.
- Manage 12 Environmentally Significant Areas (ESAs) covering 778.3 hectares, under in an agreement with the City of London
- Work with the local community to implement ESA Conservation Master Plans, in partnership with the City of London
- Initiate asset management plan as per the UTRCA Strategic Plan
- Initiate or assist with capital development projects
- Manage UTRCA fleet vehicles and equipment system
- Manage/maintain Watershed Conservation Centre (LEED Platinum designation)
- Work with the local community to implement the Ellice and Gads Hill Swamps Management Strategy
- Perform comprehensive risk management and safety inspections on UTRCA-owned properties
- Assess hunting opportunities on UTRCA-owned properties and, where appropriate, implement a controlled hunting program
- Respond to infringement and encroachment related issues on UTRCA-owned properties
- Maintain a range of lease agreements for properties and structures, including:
  - 7 community-based groups that manage and maintain our rural conservation areas
  - More than 20 clubs that engage in recreational activities at Fanshawe, Wildwood, and Pittock Conservation Areas
  - 80 cottages at two locations
- When acquiring lands for development of the reservoirs, the UTRCA was obliged to purchase entire holdings (farms); some of these lands are not needed to support the UTRCA's flood management and recreational programs, and are leased by community members, including:
  - 24 UTRCA-owned agricultural properties totalling approximately 475 hectares
  - Manage/maintain 7 storage buildings located throughout the watershed
- Partner with municipalities to control invasive species

2022 Draft Budget

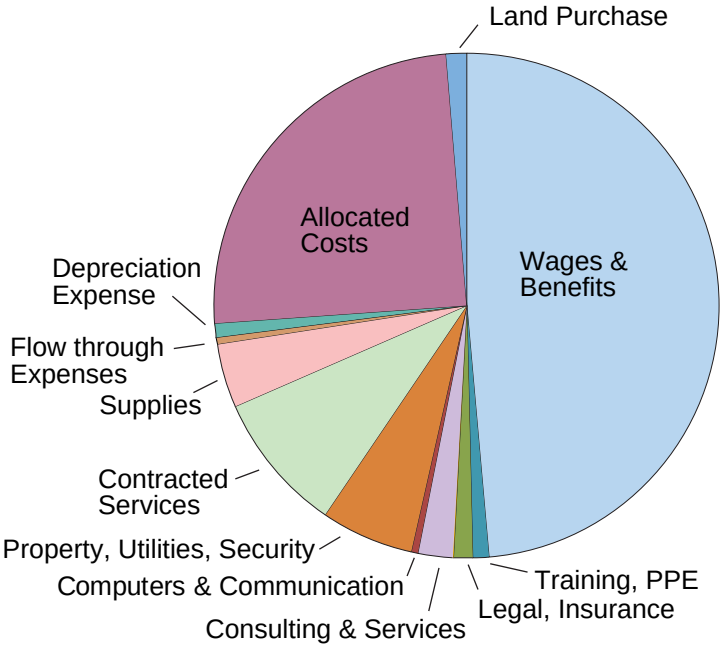
Draft Budget Lands and Facilities

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
General Levies	708,507	739,238	804,831	8.9%	
Contracts	948,617	872,157	1,006,400	15.4%	
User Fees	8,352	2,000	2,000	0.0%	
All other incl. Deferred Revenues	110,000	44,639	37,911	-15.1%	
Total Funding	**1,775,476**	**1,658,034**	**1,851,142**	**11.6%**	
Expenditures					
Wages and Benefits	788,029	875,458	921,360	5.2%	
Training, PPE, Travel Reimbursements	10,220	19,200	19,200	0.0%	
Legal, Audit, Insurance, Banking	24,208	19,825	23,090	16.5%	
Advertising and Promotion	2,105	1,350	1,350	0.0%	
Consulting and Services	8,823	42,000	42,000	0.0%	
Computers and Communications	4,690	7,800	7,800	0.0%	
Property, Utilities, Security	73,085	112,600	112,600	0.0%	
Contracted Services	20,580	70,000	170,000	142.9%	Includes lands assessement costs
Supplies	62,324	77,600	77,600	0.0%	
Flow through Expenses	-	8,000	8,000	0.0%	
Depreciation Expense	14,643	17,572	17,572	0.0%	
Allocated Costs	355,655	472,728	469,927	-0.6%	
Land Purchase	-	-	25,000	100.0%	Dorchester area parcel
Total Expenditures	**1,364,361**	**1,724,133**	**1,895,499**	**9.9%**	
Surplus (Deficit) from these budgets	**411,115**	**(66,099)**	**(44,357)**		

FUNDING

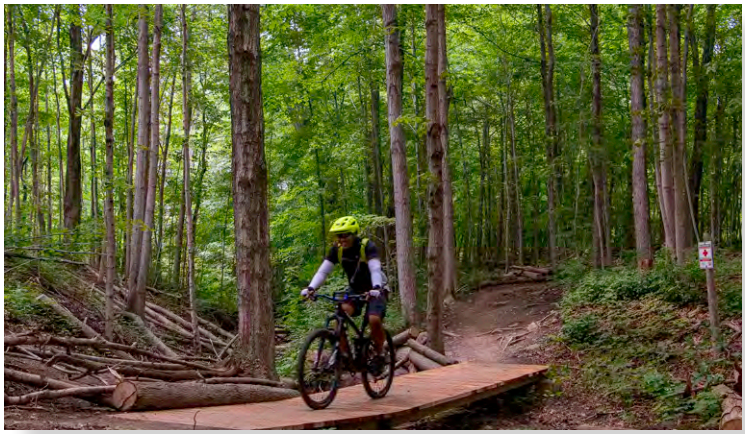


EXPENDITURES



Providing Natural Spaces and Recreational Opportunities

Conservation Areas



What We Do

- Create value for the environment by providing recreational opportunities and facilities on 3200 hectares of conservation lands at Fanshawe, Wildwood and Pittock Conservation Areas for 650,000 visitors annually. These lands were acquired for the development of flood control reservoirs and also serve as multi-purpose recreational facilities.
- Provide safe access to UTRCA-owned lands and permitted activities, and improved access to facilities such as docks, boat launches, and trails.
- Participate in local job fairs and employ 60 seasonal staff annually to operate the recreational areas.

Examples

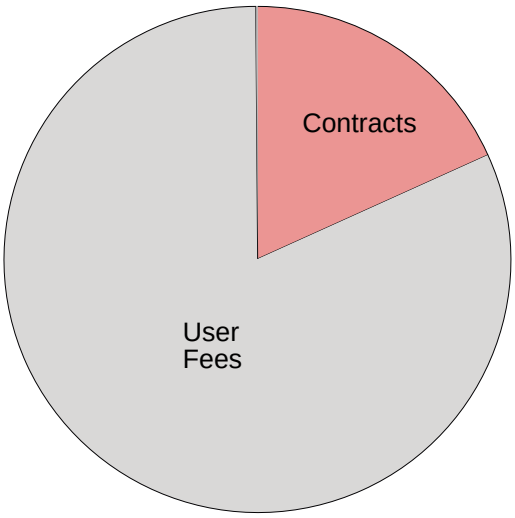
- Provide more than 1300 seasonal and nightly camping sites, including back country camp sites
- Maintain more than 50 km of trail systems for biking, hiking and nature appreciation
- Provide water-based recreational opportunities including rental equipment
- Offer a variety of special events and environmental programs in partnership with local organizations
- Day use opportunities including picnic areas, playgrounds and pavilion rentals, disc golf, geocaching, sand volleyball, yoga classes
- Oversee and administer lease agreements for properties and structures, including:
  - More than 20 clubs that engage in recreational activities at Fanshawe, Wildwood, and Pittock Conservation Areas
  - 80 cottages at two locations
- Assistance with the delivering of the recreational hunting program with Lands and Facilities Unit
- Assist with a range of other UTRCA activities and programs, including:
  - Flood control operations and snow course readings
  - Providing and maintaining land base for Community Education programs
  - Grounds maintenance and snow removal for the Watershed Conservation Centre
  - Tree storage and pick up locations for tree planting programs
  - Memorial forests and dedication services
- Land Management Agreement with the City of Woodstock for portions of the north shore and the entire south shore of Pittock Reservoir as well as the walkway across Pittock Dam
- Use our conservation areas as demonstration sites for other programs and services offered by the UTRCA (e.g., green infrastructure rain garden, fish habitat creation, shoreline erosion solutions)
- Ensure conservation area lands comply with applicable legislation
- Set annual goals and implement strategies to continue improving and expanding services and opportunities

2022 Draft Budget

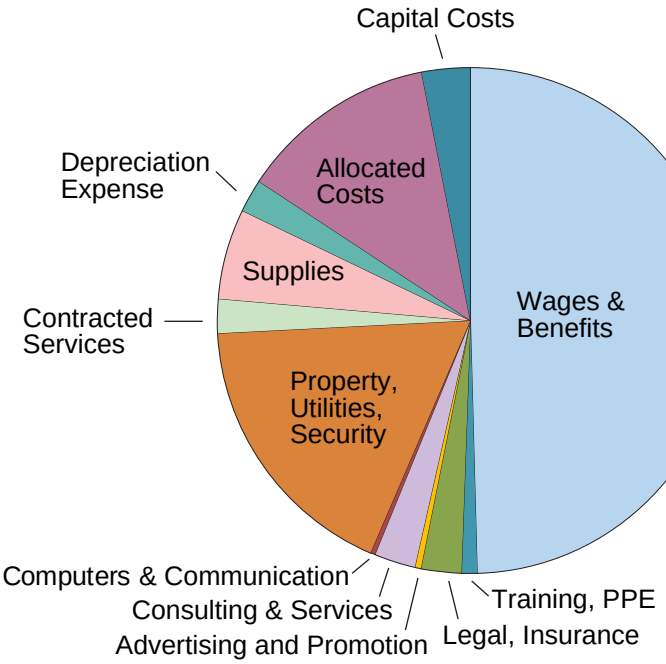
Draft Budget Conservation Areas

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
Contracts	867,417	806,148	863,845	7.2%	
User Fees	3,330,675	3,453,733	3,871,302	12.1%	Fees increase included
All other incl. Deferred Revenues	10,530	-	5,840	100.0%	
Total Funding	**4,208,621**	**4,259,881**	**4,740,987**	**11.3%**	
Expenditures					
Wages and Benefits	1,921,643	2,053,172	2,408,916	17.3%	Planned staffing to return to pre-Covid levels
Training, PPE, Travel Reimbursements	40,731	46,200	49,700	7.6%	
Legal, Audit, Insurance, Banking	111,824	100,100	124,379	24.3%	Legal and insurance expected higher in 2022
Advertising and Promotion	26,695	24,809	18,700	-24.6%	
Consulting and Services	135,138	131,000	130,000	-0.8%	
Computers and Communications	13,269	15,289	14,900	-2.5%	
Property, Utilities, Security	716,231	787,822	860,265	9.2%	
Contracted Services	97,340	105,000	107,000	1.9%	
Supplies	207,584	264,300	280,300	6.1%	
Depreciation Expense	93,311	85,601	102,815	20.1%	Reflects replacement vehicles
Allocated Costs	597,083	624,888	615,179	-1.6%	
Mission Centre Capital Costs	-	194,000	150,000	-22.7%	Electrical Infrastructure Improvement Project
Total Expenditures	**3,960,849**	**4,432,181**	**4,862,154**	**9.7%**	
Surplus (Deficit) from these budgets	**247,772**	**(172,300)**	**(121,167)**		

FUNDING



EXPENDITURES



Empowering Communities and Youth

Community Partnerships

What We Do

- Create value for a healthy environment by providing opportunities to experience and learn about conservation.
- Motivate watershed residents to adopt stewardship actions that protect and restore the environment, by facilitating access to environmental and conservation information, and involvement in stewardship activities.
- Build capacity in local communities by providing hands-on learning opportunities to address local environmental concerns.

Examples

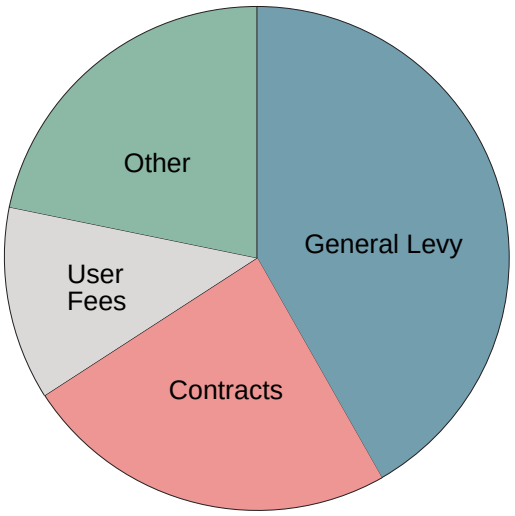
- Motivate watershed residents to adopt stewardship actions that mitigate the impacts of Climate Change by facilitating access to environmental and conservation information, and involvement in stewardship activities
- Facilitate watershed "Friends of" groups, NGOs, community and neighbourhood groups, and service clubs in addressing local environmental concerns, planning and implementing enhancement projects, and building resiliency. Ongoing partnerships in the Medway, Cedar, Ingersoll Corridor, Stoney, and Forks watersheds, as well as the Dorchester Mill Pond, create wetlands and trails, restore streams, and plant thousands of trees with hundreds of community volunteers each year.
- Help landowners, community groups, and municipalities access funding for environmental projects
- Facilitate involvement of the community, industry, and corporations in environmental clean ups and community events
- Provide a range of curriculum-based environmental education programs and hands-on resource management opportunities in local natural areas, in class, and virtually to over 20,000 students and community groups each year (e.g., stream health monitoring, stream rehabilitation, Watershed Report Card program, Nature School, Wetlands Education program)
- Partner with watershed school boards to develop and offer curriculum-based environmental education programs, including focus on flooding, storm water, and water safety programs, secondary school environmental program certifications, as well as installing Low Impact Development (LID) projects at local schools
- Partner with the private sector (e.g., Toyota, Start.ca, GM, Cargill Cares, Ontario Power Generation, service clubs) to offer programs such as GREEN Leaders Program, Watershed Report Card, Wetlands Education, and River Safety
- Build partnerships with First Nation communities and integrate Traditional Ecological Knowledge into programming
- Partner with service clubs and community funders to offer accessible programming, River Safety education programs, and Nature Nearby family hikes in local natural areas
- Assist communities in learning about and implementing low impact development (LID) for storm water projects, including hosting professional development and training and offering the Stream of Dreams storm water education program
- Partner with the City of Woodstock to re-naturalize Burgess Park and restore the Brick Ponds Wetland Complex
- As a member of the Oxford County Trails Council, assist with developing and promoting trails throughout Oxford County, while protecting and enhancing natural heritage within trail corridors
- Coordinate the 2021 Perth County and the 2022 Oxford County Children's Water Festivals

2022 Draft Budget

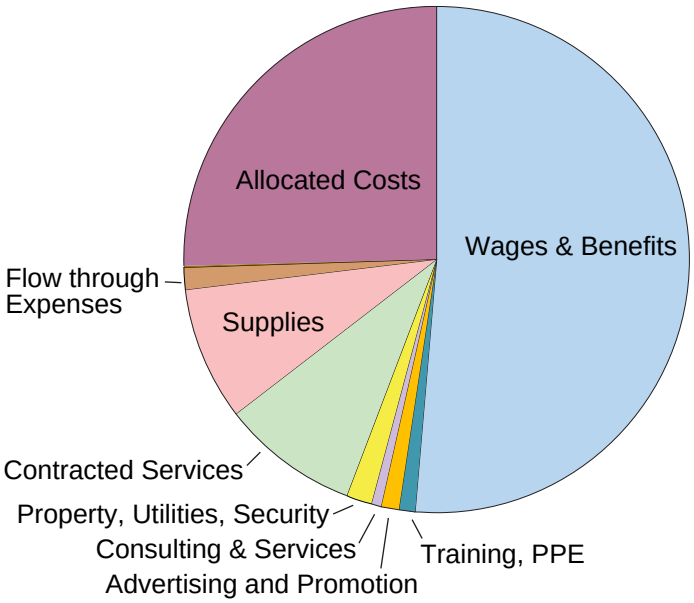
Draft Budget Community Partnerships

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
General Levies	899,584	847,446	628,361	-25.9%	
Contracts	555,515	523,754	363,000	-30.7%	
User Fees	151,292	138,750	186,500	34.4%	
All other incl. Deferred Revenues	377,855	518,479	327,091	-36.9%	Includes some Targets Levy
Total Funding	**1,984,247**	**2,028,429**	**1,504,952**	**-25.8%**	
Expenditures					
Wages and Benefits	668,674	835,809	788,033	-5.7%	
Training, PPE, Travel Reimbursements	21,038	35,500	15,900	-55.2%	
Advertising and Promotion	869	17,681	17,200	-2.7%	
Consulting and Services	24,266	76,950	10,200	-86.7%	
Computers and Communications	4,037	16,500		0.0%	
Property, Utilities, Security	300	25,500	24,900	-2.4%	
Contracted Services	34,582	142,752	134,412	-5.8%	
Supplies	46,581	156,100	131,300	-15.9%	
Flow through Expenses	(50)	1,100	21,100	1818.2%	
Depreciation Expense	1,202	1,442	1,442	0.0%	
Allocated Costs	336,339	456,366	389,818	-14.6%	
Total Expenditures	**1,137,838**	**1,765,700**	**1,534,305**	**-13.1%**	
Surplus (Deficit) from these budgets	**846,409**	**262,729**	**(29,353)**		

FUNDING

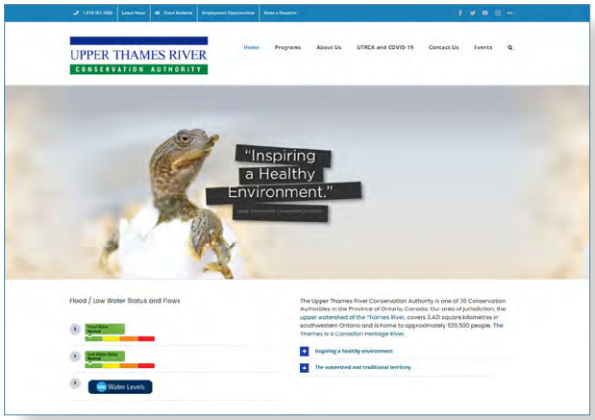


EXPENDITURES



Providing Corporate and Communications Support to Programs, Staff and Directors

Service Cost Centre Budget
Corporate and Support Services



What We Do

- Provide finance, human resources, administrative, and marketing, and communications support for the UTRCA's staff, Board of Directors, and programs. Corporate Services costs are allocated among the programs of the UTRCA.
- Ensure cost-effective programs and accountability to the community, partners, and municipal and senior governments.
- Inform staff, members, stakeholders, and the public of the UTRCA's programs and policies.
- Maintain competent, highly trained, safe, and motivated staff to implement the UTRCA's programs.
- Maintain efficient systems and equipment to support the organization.

Examples

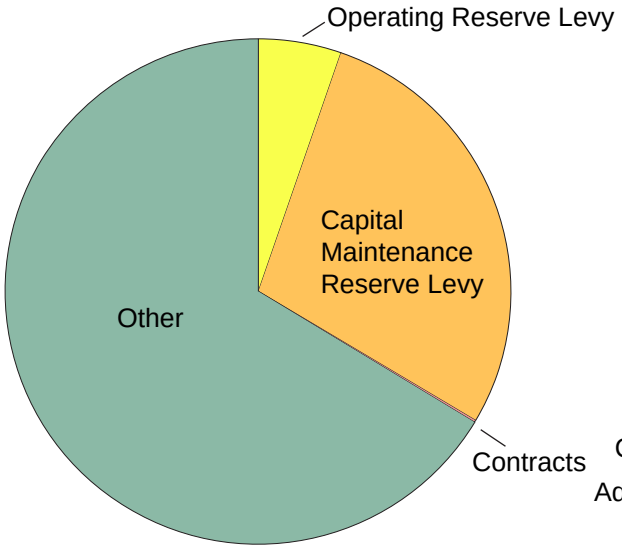
- Corporate and strategic planning, governance policy development, and implementation
- Financial control support including development of procedures, systems integration, and efficiency projects such as internal audit practices
- Human resources administration, benefits administration
- Payroll and health and safety initiatives
- Implementing recommendations from the Workplace Violence Risk Assessment
- Administrative, clerical, systems, communications, and graphic design support
- Engage communities of interest through interactive social media channels
- Assess community needs and opportunities through communications and marketing
- Provide information products including websites, GIS mapping, Geoportal, and printed materials to watershed residents, the Board of Directors, and staff
- Professional development opportunities
- Coordinate community volunteers

2022 Draft Budget

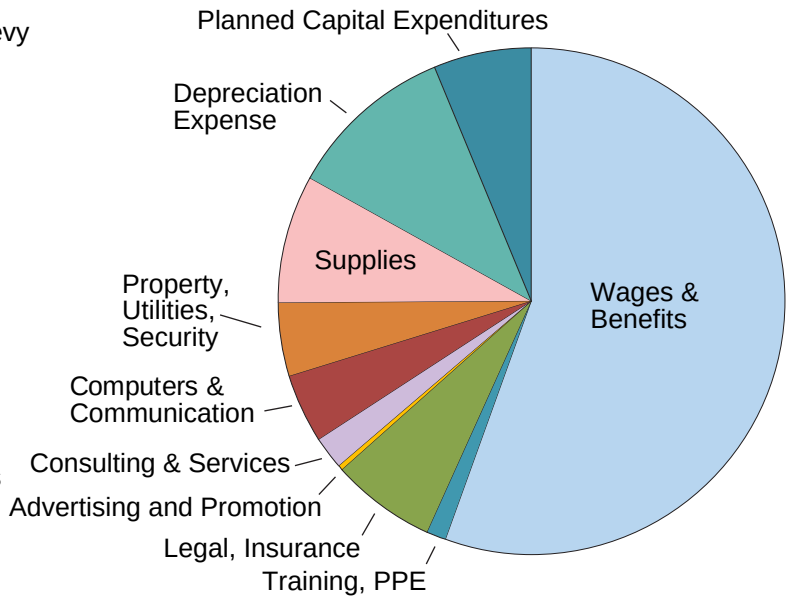
Draft Budget Corporate and Support Services

	YTD Actual 30-Nov-21	Approved 2021 Budget	Draft 2022 Budget	% Change from Final 2021 Budget	Notes
Funding					
General Levies	48,960	-	-	0.0%	
Operating Reserve Levy	34,014	34,014	34,692	2.0%	
Capital Maintenance Reserve Levy	-	178,626	183,627	2.8%	
Contracts	6,398	500	500	0.0%	
All other incl. Deferred Revenues	503,561	175,157	431,828	146.5%	Includes $300K investment gains
Total Funding	**592,933**	**388,297**	**650,647**	**67.6%**	
Expenditures					
Wages, Benefits, Per Diems	1,960,025	2,160,126	2,354,135	9.0%	Some FTE transferred from Lands and Facilities
Training, PPE, Travel Reimbursements	17,830	43,610	52,410	20.2%	
Legal, Audit, Insurance, Banking	214,083	247,849	283,142	14.2%	Includes 22% insurance increase
Advertising and Promotion	3,360	10,315	15,000	45.4%	
Consulting and Services	55,694	108,000	87,000	-19.4%	
Computers and Communications	179,121	224,900	185,750	-17.4%	
Property, Utilities, Security	138,733	185,396	198,696	7.2%	
Supplies	227,099	327,532	347,932	6.2%	
Depreciation Expense	376,934	450,980	450,862	-0.0%	
Allocated Costs	(2,855,776)	(3,603,051)	(3,507,906)	0.0%	
Planned Capital Expenditures	3,643	201,000	265,000	31.8%	Vehicles, computers, electrofisher
Total Expenditures	**320,746**	**356,657**	**732,021**	**105.2%**	
Surplus (Deficit) from these budgets	**272,187**	**31,640**	**(81,374)**		

FUNDING



EXPENDITURES



Draft Budget: Municipal Levy

			Current Year Operations												Capital Investments													
			General Levy		Operating Reserve Levy		Dam and Flood Control Levy		Specific Project Funding		Total Municipal Operational Funding		Year over Year Increase		Capital Maintenance		Flood Control Capital Levy			Total Municipal Capital Funding		Year over Year Increase		Total Municipal Funding for Operations and Capital		Year over Year Increase	
Municipality	2021 CVA	2022 CVA	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	$	%	2021	2022	Structure	2021	2022	2021	2022	$	%	2021	2022	$	%
Oxford County	16.7232	16.8428	677,025	696,731	5,688	5,843	260,785	282,875			943,498	985,449	41,951	4.4%	29,872	30,928	Pittock Dam, Ingersoll Channel	100,000	29,879	129,872	60,807	(69,065)	-53.2%	1,073,370	1,046,256	(27,114)	-2.5%
London	64.2139	64.2416	2,599,644	2,657,463	21,842	22,288	1,060,981	1,131,355	106,050	109,232	3,788,517	3,920,337	131,820	3.5%	114,704	117,966	Total Structures[1]	381,156	733,348	495,860	851,314	355,454	71.7%	4,284,377	4,771,651	487,274	11.4%
Lucan Biddulph	0.3434	0.3468	13,902	14,346	117	120	2,587	2,953			16,606	17,419	813	4.9%	613	637				613	637	24	3.9%	17,219	18,056	837	4.9%
Thames Centre	3.2227	3.1857	130,468	131,782	1,096	1,105	29,576	32,425			161,140	165,312	4,172	2.6%	5,757	5,850				5,757	5,850	93	1.6%	166,897	171,162	4,265	2.6%
Middlesex Centre	2.3789	2.3789	96,308	98,407	809	825	17,919	20,256			115,036	119,488	4,452	3.9%	4,249	4,368				4,249	4,368	119	2.8%	119,285	123,856	4,571	3.8%
Stratford	7.2867	7.2417	294,996	299,565	2,478	2,512	94,456	102,579			391,930	404,656	12,726	3.2%	13,016	13,298	RT Orr Dam		-	13,016	13,298	282	2.2%	404,946	417,954	13,008	3.2%
Perth East	1.4489	1.4232	58,658	58,873	493	494	13,514	14,719			72,665	74,086	1,421	2.0%	2,588	2,613				2,588	2,613	25	1.0%	75,253	76,699	1,446	1.9%
West Perth	1.4898	1.4873	60,313	61,525	507	516	52,583	55,381			113,403	117,422	4,019	3.5%	2,661	2,731	Mitchell $20K Fullarton $5K	19,500	25,000	22,161	27,731	5,570	25.1%	135,564	145,153	9,589	7.1%
St. Marys	1.458	1.4482	59,026	59,907	496	502	33,744	35,264			93,266	95,673	2,407	2.6%	2,604	2,659	Wildwood Dam	30,723	45,000	33,327	47,659	14,332	43.0%	126,593	143,332	16,739	13.2%
Perth South	1.2295	1.2009	49,775	49,677	418	417	9,261	10,225			59,454	60,319	865	1.5%	2,196	2,205				2,196	2,205	9	0.4%	61,650	62,524	874	1.4%
South Huron	0.205	0.2028	8,299	8,389	70	70	1,544	1,726			9,913	10,185	272	2.7%	366	372				366	372	6	1.6%	10,279	10,557	278	2.7%
Zorra	0	0	-	-	-	-	8,500	8,500			8,500	8,500	-	0.0%		-	Harrington $5K Embro $1.5K	6,500	6,500	6,500	6,500	-	0.0%	15,000	15,000	-	0.0%
Southwest Oxford	0	0	-	-	-	-	5,610	5,610			5,610	5,610	-	0.0%		-				-	-	-		5,610	5,610	-	0.0%
TOTAL	100	100	4,048,414	4,136,665	34,014	34,692	1,591,060	1,703,868	106,050	109,232	5,779,538	5,984,457	204,919	3.5%	178,626	183,627		537,879	839,727	716,505	1,023,354	306,849	42.8%	6,496,043	7,007,811	511,768	7.9%
Contribution to increase				43%		-		55%		2%																		

[1]**Total Structures - City of London:**

Structure	$ 2021	$ 2022
Fanshawe Dam	25,000	87,500
Wildwood & Pittock Dams	100,000	80,848
Erosion Control	-	300,000
London Dykes	256,156	265,000
Total London Structures	**381,156**	**733,348**

Draft Budget: Dam & Flood Control Levy - Details

Municipality	CVA Rates						Special Benefitting Rates										
			Forecasting, Planning & Technical Studies		Small Holdings		Wildwood Dam			Pittock Dam			100% Structures and Projects			Total Dam and Flood Control Levy	
	2021	2022	2021	2022	2021	2022	%	2021	2022	%	2021	2022		2021	2022	2021	2022
Oxford County	16.7232	16.8428	121,574	138,866	1,146	1,194	1.01	1,416	1,439	62.11	113,649	117,641	Ingersoll Channel	23,000	23,735	260,785	282,875
London	64.2139	64.2416	466,822	529,660	4,399	4,555	83.85	118,362	119,385	36.75	67,258	69,615	Total Structures[2]	404,140	408,140	1,060,981	1,131,355
Lucan Biddulph	0.3434	0.3468	2,496	2,859	24	25	0.02	29	30	0.02	38	39				2,587	2,953
Thames Centre	3.2227	3.1857	23,428	26,265	221	226	0.19	273	272	0.19	354	362	Dorchester Mill Pond and CA Dams ($2,650 ea)	5,300	5,300	29,576	32,425
Middlesex Centre	2.3789	2.3789	17,294	19,614	163	169	0.14	201	203	0.14	261	270				17,919	20,256
Stratford	7.2867	7.2417	52,973	59,706	499	514	0.43	617	619	0.43	800	823	RT Orr Dam ($37,329) and Channel ($2,588)	39,567	40,917	94,456	102,579
Perth East	1.4489	1.4232	10,533	11,734	99	101	0.09	123	122	0.09	159	162	Shakespeare Dam	2,600	2,600	13,514	14,719
West Perth	1.4898	1.4873	10,831	12,263	102	105	0.09	126	127	0.09	164	169	Mitchell Dam ($40,117), Fullarton Dam ($2600)	41,360	42,717	52,583	55,381
St. Marys	1.458	1.4482	10,599	11,940	100	103	14.09	19,885	20,056	0.09	160	165	St. Marys Floodwall	3,000	3,000	33,744	35,264
Perth South	1.2295	1.2009	8,938	9,901	84	85	0.07	104	103	0.07	135	136				9,261	10,225
South Huron	0.205	0.2028	1,490	1,672	14	14	0.01	17	17	0.01	23	23				1,544	1,726
Zorra				-		-			-			-	Harrington & Embro Dams	8,500	8,500	8,500	8,500
Southwest Oxford				-		-			-			-	Centreville Dam	5,610	5,610	5,610	5,610
TOTAL	100	100	726,978	824,480	6,851	7,091	100	141,153	142,373	100	183,001	189,405		533,077	540,519	1,591,060	1,703,868

[2]**Total Structures - City of London:**

Structure	$ 2021	$ 2022
Fanshawe Dam	356,140	356,140
Springbank Dam	10,000	10,000
London Dykes/ Erosion Control	38,000	42,000
Total London	**404,140**	**408,140**

2022
Draft Budget
November 2021

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: UTRCA Board of Directors
From: Chris Tasker
Date: January 17, 2022
Filename: FC #2139
Agenda #: 8.3
Subject: Harrington and Embro Conservation Areas Heritage Studies and other updates

Recommendation
That the Board receives the report.

Background
Environmental Assessments (EA) were initiated by UTRCA to address dam safety concerns at Harrington and Embro Dams. Dam Safety Assessments, completed in 2007, identified hydraulic capacity and embankment stability concerns with both dams. The EAs were nearing completion in 2017 when concerns were raised that cultural heritage studies were not completed and that a Community Liaison Committee (CLC) was not offered. The EAs remain posted on the UTRCA web site along with all of the background information. The current draft of the heritage studies have now been added to the EA web page. (https://thamesriver.on.ca/water-management/recreational-dams/classea-harrington-embro-dams/)

Toward the end of the EA work multiple proposals for new programs and activities were identified related to Harrington Conservation Area. As a result a master planning process (MP) was suggested to allow these proposals to be properly vetted and documented so that the EA could consider the intended future uses of the Conservation Area. The concept of the MP was discussed with HACA in late 2017. The MP would also allow an opportunity to engage the community and other stakeholders in a creating a plan for the CA and provide an opportunity to participate in a Community Liaison Committee which could also see the EA through to completion.

Updates
The purpose of this report is to provide the board with an update on Harrington and Embro CAs, specifically on the heritage studies which are being completed for both CAs. It also discussed how the heritage studies and MP fit into the future completion of the EA. This update is also intended to discuss other initiatives related to Harrington CA.

In proceeding with the heritage studies, the consultant was requested to engage the local organizations directly involved with the operation and maintenance of the CAs. Harrington Area Community Association (HACA) and Embro Pond Association (EPA) were contacted. Considerable interest was expressed by HACA in the studies. This

attention brought up questions on how the heritage studies fit in with the EA being undertaken by the UTRCA and other programs and proposals HACA have been working on. This update is separated into sections on the various related initiatives.

Harrington and Embro CA Heritage Studies

Through the EA process it was identified that heritage studies needed to be completed. Funding for heritage studies was received from WECI in 2021. Proposals were received from 3 consultants and the work was awarded to Timmins Martelle Heritage Consultants Inc (TMHC) whose proposal presented the best value. UTRCA engaged TMHC to produce a Cultural Heritage Evaluation Report (CHER) for each of Harrington and Embro. Due to the expectation that there may be heritage impacts at Harrington, TMHC was also engaged to undertake a Heritage Impact Assessment (HIA) for Harrington. This part of the report would identify potential heritage impacts and recommend mitigation measures for any future changes that may occur to the Harrington Dam deriving from recommendations emerging from the EA.

The consultant was requested to engage HACA and EPA. These associations were requested to complete a survey so that information they may have on the heritage of the site may be incorporated into TMHC's reports. This was intended to augment the normal sources of information proposed by the consultant. As a result of the questions asked by HACA, the consultant met virtually with representatives from HACA to explain the heritage studies and visited the mill in addition to the site visits conducted to both CAs.

HACA expressed a desire to more broadly engage members and the community. Staff have since met with members of HACA to discuss this work and how it fits into the proposed MP, the EA and other things related to Harrington CA. We committed to provide HACA with the draft report (now that it is posted on our web site). Further information provided by HACA can be incorporated into the heritage reports or into the EA which will provide an opportunity for broader consultation on all of the background work informing the EAs.

A copy of the draft reports is available on the website on this page (https://thamesriver.on.ca/water-management/recreational-dams/classea-harrington-embro-dams/) with the other information related to the EA. As there were many other initiatives that HACA is interested in pursuing at the CA, staff were invited to present to the general membership meeting of HACA on January 10, 2022. A copy of that presentation is available on our website on the same page.

Harrington

The Harrington report indicates that the following general mitigation measures have been recommended for the proposed alternatives whereby the safety issues of the dam can be addressed while providing appropriate conservation of the Subject Site's heritage (copied from the recommendation section of the report):

1. Documentation of the Subject Site, with particular attention to dam structure, through drawings and/or photographs should be produced prior its demolition and made available to future researchers through the Oxford County and Perth County archives. This CHER and HIA, subsequently accompanied by images of the chosen alternative, an architectural plan and profile of the dam and mapped extent of the pond, photographic key plan, and any available schematics of the original structures, represent sufficient documentation.3

2. UTRCA has indicated they intend to develop a Master Plan for the site as part of or prior to the completion of the EA process. This plan should consider the function of the mill, general use of the site (including recreation), and the relation between heritage attributes on the site. After the EA and Master Plan process, UTRCA should also consider undertaking a Strategic Conservation Plan in order to manage and conserve the specific heritage values, attributes, and integrity of the Subject Site through policy and strategy.

3. The functionality of the mill should be considered as part of the aforementioned Master Plan exercise, noting that the most faithful restoration of the mill's functionality for demonstration purposes would be hydraulic power, but recognizing that this may not be feasible. Alternative means of powering the mill should be considered. Furthermore, a mitigation strategy should be proposed to maintain views and access points throughout the Subject Site, including the maintenance of an east-west connection along the northern part of the property so as not to disassociate the mill from its surroundings.

4. If the current dam is altered, removed or rebuilt, after undertaking a heritage interpretation design plan, interpretive signage should be installed near the former location of the dam and spillway, sluice and raceway, and along parts of the former pond. This signage should communicate the past industrial and recent recreational uses of the Subject Site while also maintaining a level of association between the mill and the Subject Site. If feasible, the retention in situ of the spillway and one or both of the associated wing walls should considered as a commemorative salvage strategy. Consideration may also be given to incorporating the spillway and one or both of the associated wing walls into the new landscaping.

5. Discussion with the Zorra Township, including the Zorra Heritage Committee, and the Harrington and Area Community Association is recommended to gauge the desirability of the resulting mitigation strategy.

6. A Stage 1 archaeological assessment was conducted in 2015 by ARA Ltd. and identified areas of archaeological potential within the Conservation Area. The report recommended "that all areas of archaeological potential that could be impacted by the project be subject to a Stage 2 property assessment in advance of construction." Based on the report's mapping, as shown in Appendix B, the impacts from Alternatives 2-7 fall within areas of archaeological potential. As such the work must be preceded by a Stage 2 archaeological assessment.

7. Finally, it is recommended that the UTRCA consider ways to indicate its support to Zorra Township and Oxford County in formally designating the Harrington Conservation Area under Part IV of the OHA.

The successful implementation of these recommendations would result in appropriate conservation of the of the identified heritage values should the UTRCA proceed with the proposed alternatives.

Embro

The Embro heritage report conclusions are copied below:

The Embro Conservation Area's dam and pond are proposed for rehabilitation due to a progressive state of deterioration. This CHER provided a heritage evaluation of the eastern parcel of the Embro Conservation Area including the dam against the criteria set out by the OHA's O.Reg. 9/06. Based on the research and analysis summarized in this CHER, the Subject Site was found to not meet the O.Reg. 9/06 criteria. Despite not rising to the level of the O.Reg. 9/06 criteria, it may be of interest to consider interpretive signage that demonstrates the evolution of the property including its previous connections to the industrial history of Embro.

Harrington and Embro Dams Environmental Assessments (EA)

EAs were launched due to significant concerns with the structural integrity and hydraulic capacity of the dams. The objective of the EA process is to identify, evaluate, and recommend alternatives that will allow UTRCA to remediate safety concerns for both the dams. Consultation remains an important part of the EA. In addition to 3 public information sessions for each EA, many meetings occurred with representatives of HACA.

The EAs for Harrington and Embro looked at the following alternatives.

Embro Dam

1. Do Nothing
2. Repair Dam
3. **Remove Dam and Establish Natural Channel**
4. Remove Dam and Construct One or More Offline Ponds/Wetlands with a Natural Channel

Harrington Dam

1. Do Nothing
2. Remove Dam and Install Rocky Ramp
3. Remove Dam and Construct Natural Channel
4. Remove Dam and Construct One or More Offline Ponds/Wetlands with a Natural Channel
5. **Replace Dam with a New Structure Downstream of the Existing Dam**
6. Lower the Dam Crest with Natural Channel
7. Reconstruct the Existing Dam in its Current Location and Configuration with New Materials
8. Partially Remove Dam, Lower Crest and Naturalize the Remaining Perimeter

The draft report posted on the web site, recommended the alternatives highlighted in bold above. These preferred alternatives, although presented to Zorra council and UTRCA board, were not adopted by the board until the concerns can be considered and incorporated into the EA.

EAs at both Harrington and Embro were stalled in 2017 when concerns were identified with the Harrington EA. Those concerns included not offering to form a CLC and not undertaking heritage studies. While cultural heritage was discussed in the background reports, a heritage consultant was not engaged to prepare a Cultural Heritage Evaluation Report.

It was determined that a consultant should be engaged to complete the heritage reports and applications were submitted to WECI for funding. When funding was received in 2021 through WECI, the consultant was engaged as described above. Once the reports are completed, the EA project file can be updated to include the information and recommendations from the Heritage Reports. The EAs will also have to be reviewed to determine what other information needs to be updated due to the time since the background reports were undertaken. It is expected that there will need to be some other information updated. Also, before the final posting of the EAs, it will be important to include information from the MP discussed in more detail below.

Embro

For the Embro EA, The heritage studies and any other updates to the EA should be considered prior to finalizing the preferred alternatives. As such it may be possible to move forward with the Embro EA once the project file has been updated to include the results from the heritage studies and any other necessary updates. Once the reports are reviewed to determine the scope of the information to be updated we will be able to determine how soon the EA can proceed.

Harrington

For the Harrington EA, the heritage studies, the MP and any other updates to the EA should be considered prior to finalizing the preferred alternatives. Given the time it will take to complete the MP for Harrington CA, it will not be possible to move forward with the EA until 2025 or 2026 at the earliest.

Harrington CA Master Planning Process (MP)

The Master Planning Process was proposed as an opportunity for the UTRCA to work together with HACA, the municipality, the broader community and other stakeholders to document the future use of the CA. This would allow this common understanding of the activities encouraged or discouraged at the CA to be considered in the EA. It was partially proposed in response to the number and variety of programs and activities proposed for Harrington CA during the later stages of the EA. It would allow these, and proposals brought forward since, to be considered in the EA and in confirming the preferred alternative.

While it was hoped that the master planning process would have been initiated before now, the work on the heritage studies have brought the MP into better focus. The momentum gained through discussing the heritage studies could be used to move the master planning forward, however, the Conservation Authorities Act review has identified the need to undertake a Conservation Areas Strategy (CAS). It is expected that it would set the overall objectives that would inform decision making related to the lands owned and controlled by the UTRCA. It is also expected that a CAS would identify the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the UTRCA. As such it would be important to have this strategy before the detail related to a specific CA could be established through master

planning processes such as the one proposed at Harrington CA. As the CAS is required to be completed by December of 2024, it would be expected that the master planning process for Harrington CA could be initiated soon after.

Community and Stakeholder involvement would be a very important component of this master planning process which could be facilitated through a community liaison committee (CLC). The CLC would not only assist with the development and consultation on a master plan for Harrington CA, but also in completing the EA. It is important that the EA waits until this master planning process can be completed to the point where it can inform the alternatives being considered in the EA.

Harrington Education Program

2017 to 2020

HACA approached the Authority in 2017 regarding the possibility of the UTRCA partnering with HACA to start an education program at the Harrington CA to showcase the mill and history of the area (HACA portion) and water quality of Harrington Creek using benthic samples (UTRCA portion). HACA approached the UTRCA because of our contacts with schools and experience in environmental education. UTRCA staff helped HACA with designing the program to align with the Grade 3 Pioneer Studies curriculum. UTRCA Lands and Facilities staff assisted in arranging for a risk assessment of the mill and HACA funded this assessment. Modifications were made to the Mill as a result of the risk assessment and HACA and UTRCA staff designed the program and logistics. HACA was responsible for the Mill Heritage portion of the program and the UTRCA with the environmental education portion. Significant resources were provided by the Authority to support the education program request of HACA. The program was piloted in the Fall of 2019 with 4 classes (116 students) at no charge with HACA covering busing costs. There was positive feedback from teachers and the UTRCA agreed to post the Harrington Mill program on the UTRCA Education webpage as an off-site program. The plan was to offer the program again in the spring of 2020. Programming was halted due to the pandemic.

2021-Present

In July of 2021 the HACA President sent the UTRCA GM an email informing the Authority that HACA was proceeding with an education program. The email noted that HACA would be “resuming our children’s conservation education programming”, and it was assumed that this was in reference to the programs developed cooperatively prior to the pandemic. Later in the month, UTRCA education staff were contacted by some HACA members who wanted to talk about restarting the education programs. Over a series of meetings with different UTRCA staff it became clear that HACA was not interested in restarting the heritage education program but wanted permission from the Authority to allow the Coyote Nature School to operate at Harrington CA. Staff were opposed to this proposal as the operation of a Nature School would be in direct competition with the Nature School operated by the Authority at Wildwood CA.

During the development of the Conservation Areas Strategy required under Regulation 686/21, objectives will be established to inform decision- making on lands such as Harrington Conservation Area. The strategy will allow a consistent approach to agreements with groups such as HACA and clearly identify activities that are and are not permitted on Authority lands. On an annual basis and until the strategy is completed, HACA will be permitted to host a Nature School, with proceeds to be used

for continued stewardship of the property. HACA understands that this in no way ensures this activity will become a permitted activity in the future.

Harrington CA Loop Trail Connection

The loop trail around the pond at Harrington CA lost access to its upstream connection across the watercourse when the adjacent property changed hands. The previous water crossing is just upstream of the extent of the CA property and its owner has closed it to public access. HACA has made a request to the UTRCA to install a new crossing at the upper end of the UTRCA property to reconnect the loop trail around the pond.

Preliminary indication from UTRCA regulations suggested this was premature pending confirmation of the preferred alternative from the EA. However, given delays in being able to complete the EA, it may not be appropriate to delay a trail crossing until the future of a pond, and details on its extent and location is better defined.

Upon further consideration, is felt there is limited risk that a crossing at the extreme upstream end of the property would be significantly impacted by the implementation the alternatives considered in the EA. If necessary, modifications could be made as part of implementing the preferred alternative. Through recent meetings with HACA we have communicated a willingness to consider solutions which have flexibility to be adapted to EA outcomes. We have also offered assistance to evaluate solutions that might work under the circumstances. Options considered may focus on more natural crossings (such as stepping stones) or simple bridge structures which may facilitate future modifications/relocation as part of the EA implementation. We have had previous experience with some of these solutions on other trails. It will be important that all understand that the crossing may need to be modified as part of the implementation of the EA. No matter what solution is used to complete the crossing, it will be important that it meet our normal regulatory requirements, even if the solution may be seen as somewhat temporary.

Other Initiatives at Harrington CA

HACA is a very active group and has many other initiatives which have been discussed. Some examples are listed below. While some have been previously considered, the MP will be an opportunity to consider what activities should be considered at Harrington CA in the future.

1. Historically a fishing derby was held in the pond after stocking it with rainbow trout. The stocking of the pond is no longer supported.
2. There was a suggestion of having a fish hatchery on site.
3. There was interest expressed in dredging the pond and local proponents looked for more economical means to dredge and dewater the silt. Should the dam be repaired or replaced, this could be a consideration as the pond could be expected to continue to silt up. Dredging would not be necessary for many of the other alternatives being considered, including the proposed preferred alternative.
4. There have been discussions about using water power to turn the equipment in the mill for demonstration purposes. UTRCA requested a water budget be developed to define the flow needed and available. Efforts were initiated by HACA to define water demand, but this has not been completed and little work was started on considering water supply. We understand they are also considering other ways of powering the equipment.

5. There have been discussions about washroom facilities at Harrington CA.
6. Dam Safety Review will need to be considered in the next few years. UTRCA has initiated reviews of Dam Safety Assessments for Fanshawe and Pittock; and is planning for the review of Wildwood Dam to start this year. Due to the condition and safety concerns with Harrington, it may be one of the priority dams considered in the next phase (beyond 2022). If Embro EA can proceed sooner it may not be necessary to review its Dam Safety Assessment.

Next Steps

The following is a brief summary of the steps toward implementing the EAs for Harrington and Embro Dams. The Conservation Areas Strategy (Item 3) is to be completed by the end of 2024. Because of the potential impacts on the wide variety of programs discussed at Harrington CA this will set the schedule for the completion of the Harrington Dam EA. It is not likely that the EA would move forward until 2025 or 2026. As discussed above it may be possible to move forward with the Embro Dam EA sooner given the more typical use of the CA.

Harrington CA

1. Finish heritage reports and Incorporate into EA project file
2. Review EA to determine what other aspects will need to be updated
3. Complete Conservation Areas Strategy (Dec 2024 completion)
4. Harrington CA master planning process
    4.1. Identify stakeholders
    4.2. Form CLC
    4.3. Scope the MP
    4.4. Determine resources necessary for the MP
    4.5. Engage stakeholders
    4.6. Complete the MP
    4.7. Consult on MP
5. Update EA to reflect MP and other necessary updates
6. Engage Council, Board on EA prior to final posting
7. Post EA for final review and comment
8. Budget and secure funding
9. Implement EA preferred alternative

Embro CA

1. Finish heritage reports and Incorporate into EA project file
2. Review EA to determine what other aspects will need to be updated
3. Update EA to reflect heritage reports and other necessary updates
4. Engage Council, Board on EA prior to final posting
5. Post EA for final review and comment
6. Budget and secure funding
7. Implement EA preferred alternative

Recommended and prepared by:
Chris Tasker, Manager Water & Information Management
Teresa Hollingsworth, Manager Community and Corporate Services

With support from: Regulations, Lands and Facilities, Community Education, and General Manager

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: UTRCA Board of Directors
From: Tracy Annett, General Manager
Date: January 3, 2022
Filename: Admin # 4384
Agenda #: 9
Subject: 2022 UTRCA Elections Preparation - Revised

January 3, 2022 REVISION: The following report was included as part of the November 2021 Board Agenda. It is again being included in this month's package as a reminder of the elected positions available and the process to follow, if interested. Elections will be held as part of the January 25th, 2022 meeting.

Also note these elections will be conducted electronically. Staff have prepared a system to enable confidential voting however the Board's patience may be required as staff prepare ballots and tabulate votes.

As required by the *Conservation Authorities Act*, the Upper Thames River Conservation Authority Board of Directors conducts elections each year. Nominations for the following positions will be accepted verbally during the January 25, 2022 meeting:

- Board Chair (to be nominated and elected)
- Board Vice-Chair (to be nominated and elected)
- Five (5) positions on the Hearing Committee:
  - Past Chair (Appointed, if applicable. If there is no Past Chair, a 3rd "at large" member is to be nominated and elected)
  - Current Chair (appointed)
  - Current Vice- Chair (appointed)
  - Two (2) members elected at large (to be nominated and elected)
- Three (3) to five (5) positions on the Finance and Audit Committee:
  - Current Chair (appointed)
  - Two (2) to four (4) additional members elected at large (to be nominated and elected).
- Source Protection Striking Committee Member/ Committee Liaison

All Board members are eligible for any of the available positions. All appointments are for a one year term. As per the amendments to the Conservation Authorities Act proclaimed on February 2nd, Section 17:

(1.1), a chair or vice-chair appointed under subsection (1) shall hold office for a term of one year and shall serve for no more than two consecutive terms.

(1.2) An authority in respect of which more than one participating municipality has been designated shall appoint chairs and vice-chairs from among the members appointed to the authority by each participating municipality on a rotating basis so as to ensure that a member appointed to the authority by a particular participating municipality cannot be appointed to succeed an outgoing chair or vice-chair appointed to the authority by the same participating municipality. 2020, c. 36, Sched. 6, s. 4.

Exception

(1.3) Despite subsections (1.1) and (1.2), upon application by an authority or a participating municipality, the Minister may grant permission to the authority or participating municipality to, subject to such conditions or restrictions as the Minister considers appropriate,

(a) appoint a chair or vice-chair for a term of more than one year or to hold office for more than two consecutive terms; or

(b) appoint as chair or vice-chair of the authority a member who was appointed to the authority by the same participating municipality that appointed the outgoing chair or vice-chair. 2020, c. 36, Sched. 6, s. 4.

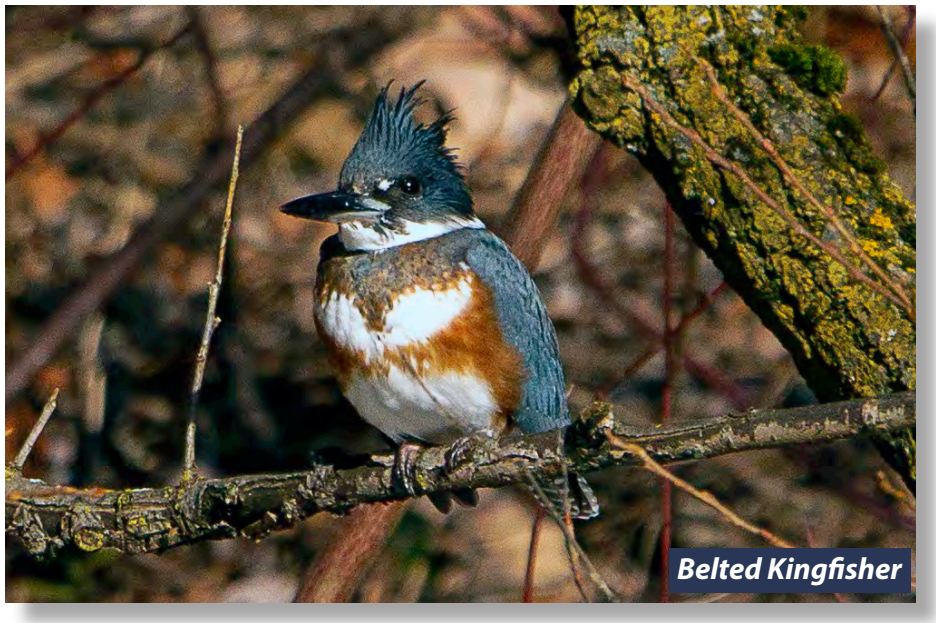
Election procedures and position descriptions are outlined in the Administrative By-Laws, Appendix 3 and Section II.B.2 respectively.

Members interested in any of these available positions are encouraged to communicate with their fellow board members to secure a nomination and support prior to the January meeting. Past practice has included calls and/or emails to fellow directors in an effort to secure support. In the event of more than one candidate seeking an individual position, elections will be held according to Robert's Rules of Order. Those interested in positions should be prepared to speak to their nomination and qualifications during the January meeting.

To ensure staff are properly prepared for the elections could you please advise either Michelle Viglianti at vigliantim@thamesriver.on.ca or Tracy Annett at annettt@thamesriver.on.ca you are planning to put your name forward for any of the above listed positions.

Prepared by:
Tracy Annett, General Manager
Michelle Viglianti, Administrative Assistant

UPPER THAMES RIVER
CONSERVATION AUTHORITY
fyi
January 2022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Protecting Conservation Area Infrastructure

UTRCA Conservation Services staff carried out a small project in mid-November to protect the Munro Pedestrian Bridge at Wildwood Conservation Area (CA). Park staff had noticed that bank erosion had undercut adjacent trees and was impacting the bridge abutment.

To help stabilize the severely eroded and undercut stream bank, several tonnes of river stone were placed upstream of and under the bridge. A step-pool sequence was also constructed along the reach, due its dynamic characteristics and steep grade. The bank is now shaped to a gentler slope with a stone and filter cloth underlay.


Upstream of the bridge (before): Bank erosion was undercutting trees and impacting the bridge abutment.


Downstream of the bridge (after): The bank has been shaped to a gentler slope and stone with filter cloth underlay was added.

This work will improve the area for visitors as well as the stream itself. Some further hand-shuffling of the rock steps may be carried out next spring to best fit the stream's needs.

Contact: Brad Glasman, Manager, Conservation Services/Watershed Planning, Research and Monitoring

Specialized Tool Required to Measure Extreme Flows

In the Upper Medway Creek subwatershed, a late September 2021 rainfall event of 75 mm produced higher-than-normal stream flows for the time of year. UTRCA Conservation Services staff are monitoring the creek as part of a **targeted subwatershed project** that is studying the impacts of Best Management Practices, such as **cover crops**, on water quality.

To calculate the amount of nutrient runoff from the watershed, staff need to take measurements to correlate water levels to flow rates under a range of conditions. This level-flow relationship is called a rating curve, and is site-specific.

Typically, staff are able to wade into the creek and measure flow using a handheld unit. However, when streams rise to the levels seen in September, a different method is needed to safely measure flows. In these conditions, an Acoustic Doppler Current Profiler (ADCP) boat is pulled back-and-forth across the watercourse to capture a flow profile.

During high flows, the ADCP boat is used to capture flow data when stream levels are too high to safely enter the water.

It is crucial to capture accurate data during high flow events, as they are important drivers of annual nutrient losses from farming watersheds. Check out the **photos** and **video** from the September 2021 event.

Monitoring in the Upper Medway subwatershed is funded in part by the On-Farm Applied Research and Monitoring (ONFARM) program, a four-year, applied research initiative that began in 2019, which supports soil health and water quality research on farms across Ontario. The ONFARM program is funded by the Canadian Agricultural Partnership, a five-year federal-provincial-territorial initiative. The project was also undertaken with the financial support of the Government of Canada through the federal Department of Environment and Climate Change.

Contact: Mike Funk, Agricultural Soil and Water Quality Technician

Seeding Cover Crops by Helicopter in a Wet Fall

Cover cropping is gaining popularity in the region but, just like in the rest of farming, Mother Nature can sometimes throw a curve ball. Wet weather last fall prevented the timely planting of cover crop seed, which is important for the plants to get established before the winter. Traditional seeding methods with a planter or spreader can cause soil compaction when the fields are wet. To avoid damage, one farmer near London was able to spread his cover crop seed using a helicopter.

Cover crop seed was applied by helicopter this fall to avoid driving on wet soils

This site is a part of the On-Farm Applied Research and Monitoring (ONFARM) project, where side-by-side trials are comparing the soil health benefits of cover crops, along with the water quality implications. This program is funded by the Canadian Agricultural Partnership, a five-year federal-provincial-territorial initiative.
Contact: Mike Funk, Agricultural Soil and Water Quality Technician
See more photos.

Climate Change Challenges UTRCA Reforestation Efforts

UTRCA's Jay Ebel applies herbicide over seedlings on November 24 at the Wilson Property north of London. Note how well the Wilson's have mowed between the rows of seedlings in the background.

While spring tree planting activities often get all the attention, summer and fall maintenance is just as important to ensure newly planted trees survive. Planting a seedling is just the start — vegetation control over the next two to three years is critical to ensure planting success. With tree and planting costs on the rise, maintenance becomes that much more important. Each year, UTRCA forestry staff work closely with landowners to ensure this happens.

If vegetation control isn't done after planting, newly planted seedlings would not survive. Vegetation growing over top of seedlings can smother the young trees, robbing them of sunlight, moisture, and nutrients. To assist with vegetation control, the UTRCA applies herbicide at the time of planting and again in the fall of the first year. The fall application provides vegetation control into the second growing season.

The landowner's contribution is to mow between the rows of seedlings, three to four times a year for the first few years. This makes it easier for staff to find the rows for the fall herbicide application, and reduces cover for rodents such as mice and voles, which will girdle hardwood seedlings during the winter.

Over the past years, our window of opportunity for the fall application of herbicide has been shrinking due to climate change. For the fall application of herbicide to be effective, we need to ensure the seedlings are dormant and the temperatures warm enough for the herbicide to work. The issue is our fall seasons are now warmer, preventing the seedlings from entering dormancy in a timely manner and, by the time

This bur oak seedling is only beginning to show signs of going into fall dormancy on November 9. The lack of fall frosts in 2021 really prolonged the growing season for tree seedlings.

they do, we are into winter conditions. Thirty years ago we would have completed all of our fall herbicide work by November 4, at the very latest. In 2021, species such as bur oak, white oak, swamp white oak, and tamarack remained green and active until the third week of November, which is a month longer than they would have three decades ago. As a result, our last available day to apply herbicide was November 24 and we still did not get to all of the sites. We will be watching closely next spring to see how effective the herbicide was when applied this late in the season.

Contact: John Enright, Forester

Applications of Survey123 for Data Collection

On December 14, UTRCA Agricultural Soil and Water Quality Technician, Craig Irwin, was invited to present as part of a virtual two-day Geographic Information Systems (GIS) professional development workshop for Masters of Environment and Sustainability (MES) students at Western University. The workshop organizers, Western Libraries, reached out to the UTRCA to showcase real-life GIS data collection applications through a conservation and environmental lens.

The 43 students enrolled in the MES workshop learned how the Survey123 and Field Maps mobile applications have been integrated into data collection workflows to increase efficiency and decrease data entry errors. UTRCA staff use the mobile GIS collection apps to collect agricultural and land use data for various projects.

Contact: Craig Irwin, Agricultural Soil and Water Quality Technician

Nature Nearby

Collecting ingredients for "soup."

Wildwood Community Education staff are excited to share a new program called Nature Nearby, which aims to provide families with opportunities to spend time together in-and-with nature in their local community. Using the principles of Forest and Nature School, all sessions are planned to include seasonally appropriate activities and explorations of the natural world, while allowing for flexibility to support participant inspired learning and direction.

Thanks to the generous financial support of the Rotary Club of Mitchell, Rotary Club of St. Marys, and Rotary Club of Festival City (Stratford), Nature Nearby is being offered several times throughout the year. These opportunities are being provided in natural spaces in each community, encouraging residents to access and experience more of where they live.

After several successful fall offerings, staff are looking forward to spending time outside this winter and spring, with families from across the north end of the watershed!

Contact: Maranda MacKean, Community Education Specialist (Wildwood)

Forest and Nature School Practitioners Course

In the fall of 2020, UTRCA Community Education staff began discussions with the Child and Nature Alliance of Canada (Forest School Canada) to host a year-long Forest and Nature School Practitioners course at Wildwood CA. Due to increasing demand in the area for this type of programming, it seemed like the right time to take this Professional Development course.

The participants learn about story time during the in-person session.

After working out the logistics, the course was opened up to the public and sold out in two minutes! As a result of the pandemic, course work moved on-line from May to September. On-line sessions included topics such as the relationship to land, trust, risky play, story, power, and the role of the Educator.

The four day in-person session was held at Wildwood CA in October 2021 with 25 participants enjoying the facilities of Campground C and the surrounding forest. We were joined throughout the in-person session by Indigenous Knowledge Keeper Patsy Ann Day, for teachings about Haudenosaunee culture and the land that Wildwood sits upon.

It was a wonderful experience to bring our on-line sessions to life and to spend four days with like-minded peers and colleagues. By the spring of 2022, all UTRCA education staff will be certified Forest and Nature School Practitioners after completing the final course work and assignments. We look forward to incorporating our learning into the Wildwood and Fanshawe Nature Schools!

Find out more about **Forest and Nature School**.

Contact: Erin Dolmage, Community Education Technician (Wildwood)

Seasonal Family Fun

The UTRCA got into the spirit of the season by offering free family events on Saturday, December 4 at both Fanshawe and Wildwood CAs. "Let's Get Ready for Winter!" at Fanshawe saw families enjoy feeding birds from their hands, building shelters for stuffed animal friends, reading a story, and roasting marshmallows by the fire.

Marshmallow time at the Fanshawe winter program.

"Sharing Christmas with the Animals" at Wildwood invited families to share seeds with the birds, leave natural presents for the animals, enjoy a story by the fire, and take home their own present from the Candy Cane Tree.

Contact: Maranda MacKean, Community Education Specialist (Wildwood)

Stream of Dreams is back!

UTRCA staff were excited to be able to be back in schools and deliver the Stream of Dreams program to students at AJ Baker Public School on November 26. This was the first Stream of Dreams program held since the pandemic began.

Big thanks go out to the Thames Valley District School Board for supporting this project and to the staff and students at the school!

Contact: Linda Smith, Community Partnership Specialist

Fanshawe Community Education Updates

Fanshawe Nature School

Fanshawe Community Education staff were thrilled to be able to run our first session of Nature School out of Fanshawe Conservation Area last October and November. We offered the Owls and Owlets program for children ages 2-5 years and their caregivers, along with the Sparrows program for 5-8 year olds.

Nature School took place in a beautiful forest with spruce and pine trees, where we could hear black-capped chickadees and watch red squirrels. Staff created different areas such as a "Gathering Spot" with a firebowl, where we had Opening and Closing Circles, sang songs, listened to stories, and shared gratitude around a fire.

Our other free play areas included an outdoor kitchen, an obstacle course made out of logs and rocks, a natural loose parts area, an area for the creation of nature-inspired art, and "The Nest"- a cozy shelter with blankets and books.

Each day we add a few new invitations for the children, bringing in items such as nature storybooks, craft materials, story stones, puppets, magnifying glasses, and ropes to spark curiosity. What actually happened each day was child-directed and changed day-to-day based on the participants' curiosity and what was happening in nature. We also spent time observing our surroundings and went on many exploratory hikes. At the end of each session, we had a Closing Circle around the campfire to share what we enjoyed about the day and discussed what we might want to do the next time we were together.

Nature School is land-based education that is centred on giving children access to the same outdoor space over an extended period of time so that they can build a relationship with the land. Children have the opportunity to learn and grow through play and exploration outdoors with educators who support inquiry-based learning led and inspired by the children.

The three pillars of Nature School are Trust, Reciprocal Relationships, and Freedom. Our goals for Fanshawe Nature School include providing a space for children to deepen their connection with nature, nurturing their healthy development and improving their well-being, as well as hopefully inspiring them to engage in a lifetime of environmental stewardship.

We are very thankful to Wildwood Community Education staff for not only starting Wildwood Nature School first but for generously sharing their Nature School knowledge and experience with us as we started our own. We would also like to extend a huge thank you to all the Fanshawe CA staff who helped us with the preparation and site maintenance for this new exciting program.

Winter School Programs

In December, Fanshawe Community Education staff were very excited to be one of the first external guests invited and permitted to enter Thames Valley District School Board (TVDSB) schools and schoolyards again.

We were able to teach an in-person Winter for the Animals school program for nearly 400 K-1 students before the holiday season. This program included playing active games in the schoolyard to learn all about the winter adaptations of local animals, followed by a session in the school

library where students had the opportunity to interact with nature artifacts, listen to a story, and sing a song.

Community Education staff also led virtual versions of our Winter for the Animals and Christmas for the Animals school programs for the London District Catholic School Board (LDCSB) in December. We reached over 1100 K-1 students virtually with these seasonal and engaging, curriculum-based virtual sessions.

WIN Innovation Award

We are very pleased to share that Community Education staff are the recipients of this year's Watershed Interpreters' Network (WIN) Innovation Award! WIN brings together interpreters from Conservation Authorities across Ontario and organizes an annual Rekindle the Sparks Conference, which was held virtually on November 25.

The 2021 Innovation Award had a focus on accessibility and we received it based on developing and delivering programs such as our recent accessible birding event, virtual programming for Community Living London and adults with developmental disabilities, interpretive hike for the CNIB Deafblind Community Services community, and summer programs for English Language Learners, along with our participation in UTRCA Team for Inclusion, Diversity and Equity (TIDE).

Thank you to our Conservation Authority colleagues for this honour and for the beautiful bird-themed award, which will be displayed at the WCC!

Contact: Julie Read, Community Education Supervisor (acting, Fanshawe)

On the Agenda

The next UTRCA Board of Directors meeting will be held virtually on January 25, 2022. The following items are on the draft agenda:

- By-Passes and Overflows in the Upper Thames River Watershed
- Letter of Thanks from Minister Rickford Regarding Flooding in British Columbia
- Species at Risk Stewardship Program Funding Concern - Letter to the Minister of the Environment, Conservation and Parks
- Administration and Enforcement - Section 28 Status Report
- 2022 Draft Budget and Municipal Feedback
- Harrington and Embro Conservation Areas Heritage Studies and Other Updates
- Inventory of Programs and Services Presentation
- Annual Meeting Details Verbal Update
- 2022 Elections - Chair, Vice-Chair, Hearings Committee (2 positions), Finance and Audit Committee (2-4 positions), Source Protection Striking Committee/Committee Liaison (1 position)

Please visit the "Board Agendas & Minutes" page at **www.thamesriver.on.ca** for agendas, reports, audio/video links and recordings, and minutes.

Contact: Michelle Viglianti, Administrative Assistant