Watershed-based Resource Management Strategy

Subsection 12 (4–9) of Ontario Regulations 686/21

Otonabee CONSERVATION

2024-11-21

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Conservation Authority Approval

Board Meeting Date 2024-09-19	Moved by Joe Taylor Seconded by Kevin Duguay
Resolution Number 058/24	*Resolved,* That Report Number 2024-042 titled "Draft Watershed-based Resource Management Strategy" be received for information; and *Resolved,* That the Board approve the Draft Watershed-based Resource Management Strategy for circulation and comment; and *Resolved,* That staff be authorized and directed to do all things necessary to give effect to these resolutions. Carried
Board Meeting Date 2024-11-21	Moved by Joe Taylor Seconded by Gary Baldwin
Resolution Number 077/24	*Resolved,* That Report Number 2024-056 titled "Watershed-based Resource Management Strategy" be received for information; and, *Resolved,* That the Board approve the Watershed-based Resource Management Strategy; and *Resolved,* That staff be authorized and directed to do all things necessary to give effect to these resolutions. Carried

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1.0 Introduction

The Watershed-based Resource Management Strategy (Strategy) was completed by Otonabee Conservation to ensure compliance with the *Conservation Authorities Act* (CA Act) and Ontario Regulation 686/21. The Strategy will provide guidance related to the ongoing delivery of programs and services and assess the effectiveness of these programs and services.

1.1 Purpose of Watershed-based Resource Management Strategy

The Strategy will support the Authority to improve the effectiveness related to mandatory programs as identified under Section 21.1 of the CA Act.

The implementation of the Strategy (mandatory programs and services) will assist in identifying emerging issues, mitigate risks, and set priorities which align to provincial directives.

The following documents were considered during the development of the strategy and reflect a variety of factors including watershed health and trends, program effectiveness, local issues and organizational priorities:

- 2022 Programs and Services Inventory
- 2023 Watershed Report Card
- 2024 Performance Objectives
- 2024-2027 Strategic Plan

1.2 The Otonabee Region Conservation Authority

The Otonabee Region Conservation Authority (Otonabee Conservation) was established under the *Conservation Authorities Act* of Ontario on July 9, 1959, as the Otonabee Valley Conservation Authority based on the watershed of the Otonabee River. At the request of its member municipalities, the jurisdiction was expanded to include the Indian River in February 1960, and the Ouse River in January 1961. These expansions resulted in the current jurisdiction of 1951 km^2. The Otonabee Region watershed is located on the treaty and traditional territory of the Mississauga Anishinaabe, including portions of Treaty 20 and Williams Treaty lands. Otonabee Conservation is a community-based, environmental organization working to ensure the conservation, restoration and responsible management of water, land, and natural habitats in the watershed. Through programs that balance human, environmental and economic needs, Otonabee Conservation works collaboratively with all levels of government, various organizations, and members of the community. Otonabee Conservation is one of 36 conservation authorities (CAs) in Ontario, and a member of Conservation Ontario.

1.3 Governance and Jurisdiction

Otonabee Conservation is governed by a Board of Directors comprised of 11 members representing eight participating municipalities as listed below. The jurisdiction of Otonabee Conservation under the *Conservation Authorities Act* is illustrated in the area outlined in red below in Figure 1.

- Township of Asphodel Norwood (1 Director)
- Township of Cavan Monaghan (1 Director)
- Township of Douro-Dummer (1 Director)
- Township of Otonabee-South Monaghan (1 Director)
- City of Peterborough (3 Directors)
- City of Kawartha Lakes (1 Director)
- Township of Selwyn (2 Directors)
- Municipality of Trent Hills (1 Director)

Under the *Clean Water Act*, 2006, the jurisdiction of Otonabee Conservation, acting as the Otonabee-Peterborough Source Protection Authority is expanded to include portions of the following four additional municipalities for a total of 15 Directors and is illustrated below in Figure 1.

- Township of North Kawartha (1 Director)
- Municipality of Trent Lakes (1 Director)
- Municipality of Highlands East (1 Director)
- Township of Havelock-Belmont-Methuen (1 Director)

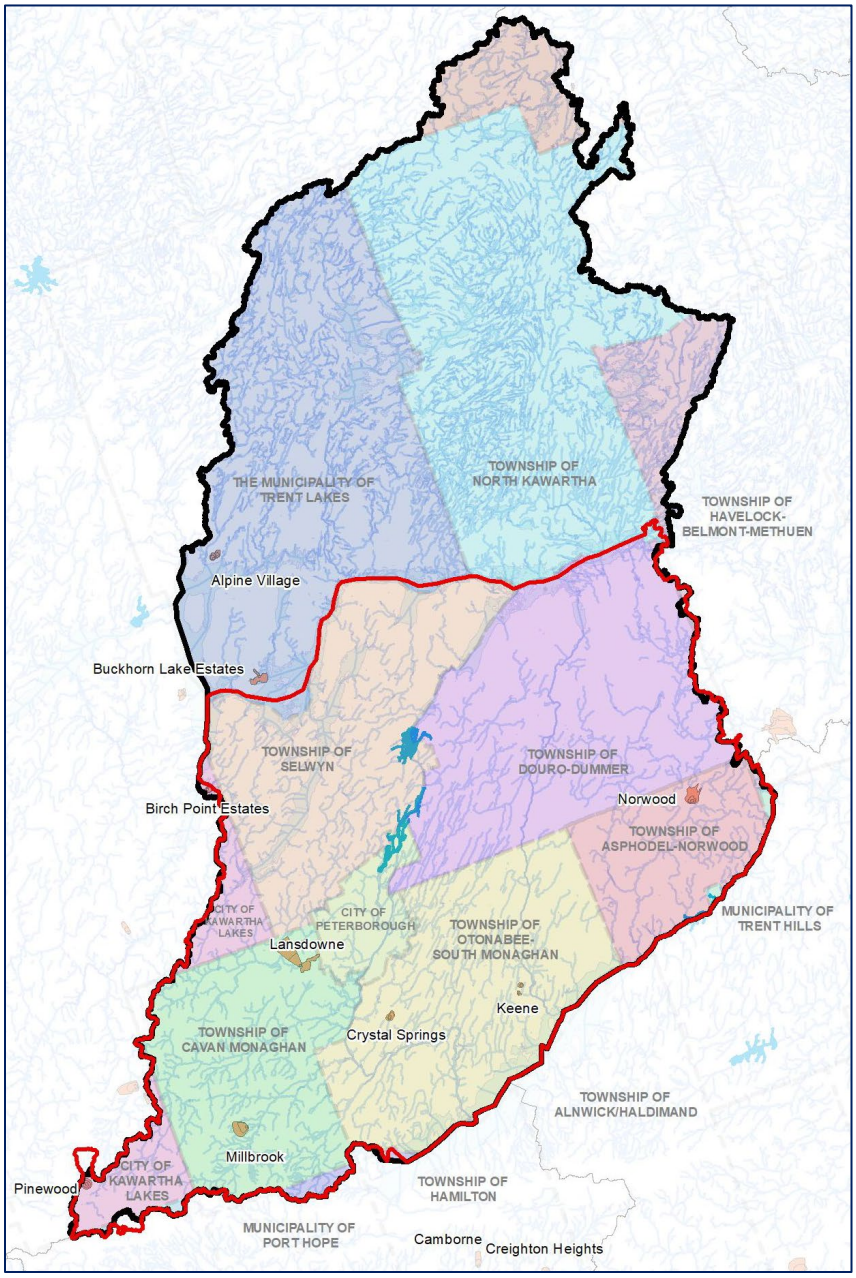

Figure 1. Jurisdiction of Otonabee Conservation (outlined in red) and Otonabee-Peterborough Source Protection Authority (outlined in red and black).

2.0 Strategic Direction

The 2024-2027 Strategic Plan articulates the goal, vision, mission, values and strategic priorities of Otonabee Conservation.

2.1 Vision

As guardians of our local water and natural environment, we promote resiliency to change, foster community stewardship and provide outdoor recreational opportunities to support healthy living.

2.2 Mission

- Protect people and property through informed decisions and actions, information sharing and facilitating solutions-based outcomes;
- Foster and encourage stewardship of the natural resources people rely on by learning from and working with our watershed community; and,
- Protect and manage conservation lands, trails, and services for public enjoyment and to promote activity that contributes to healthy living.

2.3 Strategic Priorities

The following strategic priorities are included in the 2024-2027 Strategic Plan to guide program and service delivery. Each strategic priority includes several goals and actions intended to guide the delivery of programs and services, and development of performance objectives and budgets.

- Collaborate with our community to develop and deliver focused programs and services;
- To be a recognized centre of knowledge and expertise while acting as a community builder;
- Ensure financial sustainability of the organization;
- Embrace and adapt to change and celebrate successes in our community.

2.4 Guiding Principles

The approach to watershed-based resource management and delivery of programs and services by Otonabee Conservation is guided by the following principles:

- The conservation, restoration, development, and management of natural resources is best implemented on a watershed basis.
- Water and other natural resources are vital natural assets, which provide critical functions and services such as buffering the impacts of climate change, mitigate natural hazards, filter contaminants, assimilate waste, sustain biodiversity, and provide green spaces for recreation, among other community benefits.
- The management of water and other natural resources is a shared responsibility among Conservation Authorities, Municipalities, government agencies and other stakeholders.

- Conservation lands are critical for the protection of natural heritage features, and provide environmental, economic, social, mental and physical health benefits.
- Programs are adaptable and responsive to changing conditions, pressures, vulnerabilities and priorities.
- To share information and data with our partners so decisions can be fully informed.

3.0 Watershed Characterization

The Otonabee Region Watershed covers an area of 1,951 km^2 with a population of over 100,000 people. The watershed environment includes wetlands, forests, and many lakes, rivers, and streams and encompasses the sub-watersheds of the Otonabee, Indian, and Ouse Rivers. This area lies within the Great Lakes-St. Lawrence Lowlands, an area that is characterized by limestone bedrock and areas of deep overburden and glacial till deposits that support agricultural land uses and settlement areas. A combination of mixed successional forests and wetlands are also found in this area.

The Otonabee Region Watershed is located entirely within the area subject to Treaty 20 (Rice Lake Purchase), signed on November 5, 1818. Portions of the Otonabee Region Watershed are also located within the area subject to the Williams Treaties, signed October 31 and November 15, 1923. The territory covered by the Williams Treaties stretched from the northern shore of Lake Ontario to Lake Nipissing, and together cover approximately 52,000 km^2. First Nations in the Otonabee Region Watershed include Curve Lake First Nation, Hiawatha First Nation and Islands in the Trent Waters.

3.1 The Landscape

The Oak Ridges Moraine and Peterborough Drumlin Field are the predominant physiographic features in this area, and karst topography is present in the Indian and Ouse watersheds. Land use includes rural and urban areas, along with agriculture and natural areas. The biophysical characteristics of the Otonabee Region watershed including the soils, geology, and the location and extent of natural areas within the watershed have determined how water moves through the landscape and how humans have used the land.

The Dummer Moraine and Norwood Esker in the eastern part of the watershed, and the Oak Ridges Moraine in the southern part of the watershed were deposited during glacial periods and have created a hilly landscape with large sand and gravel deposits. The development of aggregate extraction operations is visible in these portions of the watershed. The Peterborough Drumlin Field in the eastern portion of the watershed creates a distinct landscape of hills and valleys, interspersed with wetlands and watercourses.

Approximately 42% of the watershed is covered by forested areas which include upland forests, lowland swamps and forested riparian areas. Woodlands are most extensive in the north-

eastern and south-western portions of the watershed where development is limited. Wetlands cover 11% of the watershed, including over 60 Provincially Significant Wetlands. Otonabee Conservation owns over 2,500 hectares of wetland including 17 Provincially Significant Wetlands.

3.2 Water Resources

The Otonabee Region watershed includes the Dummer Moraine, Norwood Esker and portions of the Oak Ridges Moraine. These features have extensive sand and gravel deposits, and their overburden aquifers provide groundwater for municipal and private use.

Municipal and private well supplies, and the baseflows in cold water creeks and wetlands, are reliant upon groundwater recharge and discharge. Baxter, Cavan, Squirrel and Jackson Creeks originate on the Oak Ridges Moraine and support cold/cool water species in their headwaters. In the City of Peterborough, Harper and Byersville Creeks support cold water fisheries. Groundwater helps sustain cold water fish species such as native brook trout and non- native brown trout and rainbow trout, which are highly valued by the angling community. Important coldwater tributaries include Baxter Creek, Cavan Creek, and the headwaters of Jackson Creek, Squirrel Creek, Harper Creek and Byersville Creek.

The Otonabee Region watershed has an abundance of surface water including rivers, streams, and the Kawartha Lakes. These lakes also represent a portion of the Trent-Severn Waterway that links Lake Ontario with Georgian Bay via a 386-km inland waterway system. Water levels along the waterway are regulated by a series of dams and weirs for purposes of flood control and recreation; navigation through the waterway is made possible by a series of locks and canals. Streamflow is a result of runoff from precipitation (rainfall or snowmelt), discharges from storage features (wetlands, ponds and lakes) and groundwater discharge. Streams that are primarily runoff fed tend to be flashy with quick transitions from high flood flows to low baseflow, particularly in urban areas including the City of Peterborough. Streams that are primarily groundwater fed tend to be slower to respond during a flood event and maintain high baseflow throughout the year. The rivers and lakes in the Otonabee Region support a variety of aquatic species and are a popular destination for fishing and water-based recreation.

3.3 Flooding and Drought

Otonabee Conservation operates a Flood Forecasting and Warning Program in partnership with member municipalities, the province and other water management agencies to prevent loss of life and reduce damage to property. This is achieved through the early detection of increased water levels and potential for flooding, communications and notification to ensure municipal partners, residents and the province can prepare to respond.

Water management in Ontario is a shared responsibility of the provincial government, municipalities, conservation authorities and water users. The Ontario Low Water Response Program (OLWR) was developed by the province to support the preparation and coordination of local response plans to ensure that provincial and local authorities are prepared in the event of low water conditions or drought. As a partner in the Ontario Low Water Response Program, Otonabee Conservation coordinates the local Water Response Team (WRT). Otonabee Conservation undertakes the monitoring and analysis of local conditions to identify low water conditions and drought to inform the WRT and watershed community. The WRT facilitates information sharing between local organizations and agencies with an interest in water management and recommends actions in response to low water conditions.

3.4 Land Use

The primary land uses in the watershed are agriculture, forestry, recreation, and urban development. The Kawartha Lakes, many of which are part of the Trent-Severn Waterway, and numerous lakes, rivers, streams, and wetlands provide the area with a variety of recreational activities throughout the year. The relatively deep glacial till soils found south of the Kawartha Lakes support widespread agricultural land use that includes cultivated fields and pasturelands. Urban areas are characterized by higher population density and higher proportions of impervious surfaces; these factors result in a greater demand on water resources. The City of Peterborough, located in the approximate center of the watershed is the largest urban centre in the area followed by Lakefield, located to the north of the City of Peterborough. Other smaller urban areas are also scattered throughout the watershed and provide a variety of goods and services to the surrounding, largely agricultural communities including Keene, Millbrook, and Norwood. Other land use includes agriculture, industrial, rural residential and natural areas. Urban areas are expanding, and the population is increasing, resulting in impacts on infrastructure related to transportation, stormwater management, drinking water and wastewater. In rural areas, seasonal properties are being converted to permanent residences impacting transportation and other infrastructure. Increased population also creates additional pressure on natural areas such as parks, trails and conservation areas due to increased numbers of users.

4.0 Watershed Drivers and Stressors

Drivers of change and stressors in the Otonabee Region watershed were identified through a review of existing information and local knowledge and include changes to legislation and regulations, development and growth, advancements in technology and science, climate change, flooding and drought. These stressors and drivers of change can impact the health of communities in the watershed, and ecosystem functions and conditions. They will impact priorities and the delivery of programs and services and create opportunities that will enable the organization to be resilient, proactive and responsive.

4.1 Changes to Regulations and Legislation

Environmental and administrative legislation changes will require our programs and services to continuously evolve. Communication and collaboration with municipal partners and other stakeholders will support this transition and ensure effective program delivery.

4.2 Development and Growth

Increased development and population growth have impacts on infrastructure, land use and pressure on natural areas. Urbanization increases runoff which can exacerbate flooding, reduce or fragment habitat and impact biodiversity.

4.3 Advancements in Technology and Science

Changing technology brings new opportunities for communication, analysis and data sharing and will impact program and services delivery across the organization. Scientific advancements can change how we collect, analyze and interpret data to make more informed watershed management decisions.

4.4 Climate Change

Climate change is the most significant environmental challenge and can impact water quality and quantity, extreme weather and biodiversity. Local impacts including rising air temperatures, mid-winter melting, less winter snowpack, more winter rain, late spring and summer high flows have been observed. Future climate change impacts will affect water temperature, ice cover and the frequency and extent of flooding.

4.5 Flooding and Drought

Flooding can occur in all seasons, and there are 70 flood damage centres in the Otonabee Region watershed where properties are at a higher risk of flooding. It remains critical to regulate development in floodplains to protect life and property due to flooding and erosion. Low water conditions can also occur in the watershed and impact water quality and quantity. These impacts can result in decreases in water levels in watercourses, wetlands and impact sources of drinking water and availability of water for agricultural uses. Climate change has

resulted in more extreme weather events, more frequent high intensity storms, and different patterns of precipitation that impact flooding and drought.

5.0 Watershed-based Resource Management Strategy

The objectives of the Watershed-based Resource Management Strategy are listed below and reflect the legislated responsibilities of Otonabee Conservation. The objectives are also intended to facilitate the measurement of the effectiveness of the programs and services of Otonabee Conservation to meet the needs of the watershed community, municipalities and fulfil its legislated responsibilities. The objectives are aligned with the legislated scope of the Strategy, reflecting Category 1 programs and services.

Draft Performance Measures are included below and upon final approval of the Strategy, will be integrated into the Annual Performance Objectives of the Authority.

One of the underpinning goals of implementing the Strategy is to manage relevant data in a format that is useful to the Authority, municipalities and the County of Peterborough. Through recent discussions with partners, it has been determined that Geographic Information Systems (GIS) platforms such as ArcGIS is one of the best formats to disseminate and keep the data updated on a regular basis. This method will ensure the work of the Strategy does not become static but survives beyond the document itself and becomes integrated into future watershed planning and development.

5.1 Objectives and Performance Measures

- To avoid, reduce or mitigate potential risk to public health and safety, and property damage from flooding and other natural hazards and the impacts of climate change.
    - *Performance Measure: Deliver Flood Forecasting and Warning Program, Low Water Program, Floodplain Management, Permits and Mapping*
- To identify and understand watershed stressors and impacts including climate change.
    - *Performance Measure: Review watershed data including population change, amount of development, # of flood messages and low water conditions, and climate projections*
- To monitor indicators of watershed health and communicate findings.
    - *Performance Measure: Participate in provincial, local and other monitoring programs, and publish Watershed Report Cards*
    - *Performance Measure: to share data and information with our partners*
- To connect people to the environment through outdoor experiences and education.
    - *Performance Measure: Provide opportunities for outdoor recreation, environmental education and information about the watershed environment*

- To mitigate risks to municipal drinking water sources as specified by the Clean Water Act and promote sustainable and clean water for communities and ecosystems.
    - *Performance Measure: Administer Source Protection Authority, Implement Source Protection Plan Policies and enforce Clean Water Act*
- To encourage the protection and restoration of land and water resources through stewardship actions.
    - *Performance Measure: Deliver stewardship programs to undertake habitat enhancement, naturalization, tree planting and offer tree seedling sales*
- To manage the landholdings of Otonabee Conservation sustainably and responsibly.
    - *Performance Measure: Complete Management Plans for Conservation Areas*

5.2 Programs and Services

The programs and services delivered by Otonabee Conservation as summarized below, contribute to achieving the objectives identified above. These programs and services and align with the Program and Service Inventory, V3, June 2022 for consistency and compliance with O. Reg. 686/21.

Additional information including technical studies, monitoring data and program guidance documents is included in Appendix A.

5.2.1 Natural Hazards Protection Program

The purpose of the Natural Hazards Protection Program is to protect people and property from flooding and other natural hazards. This is achieved through the delivery of programs and services to manage risks related to natural hazards, including flooding, drought, erosion, wetlands, and other hazardous sites and lands. The Natural Hazards Protection Program fulfills the regulatory requirement to develop plans and policies to support the delivery of programs and services to manage the risks related to natural hazards with the watershed jurisdiction.

Plan Review and Permitting Services includes performing the duties, functions, and responsibilities to administer and enforce Sections 28, 28.0.1, 30.1 and regulations made under section 28 of the CA Act and provide timely customer service. In addition, staff perform functions and responsibilities on behalf of the province, or as a public body under the Planning Act to ensure decisions are consistent with the provincial natural hazard policies. Currently, updates to internal guidance documents are underway to better align this program to recent legislative changes and new regulations.

Natural Hazards Mapping activities include studies, acquisition and management of information to delineate and map natural hazard areas including floodplains and regulated areas.

Flood and Drought Monitoring activities include the operate a flood forecasting and warning program to ensure that residents, municipalities and agencies are aware of potential flood related events in a timely manner. In addition, staff monitor watershed conditions to detect low water conditions to ensure that residents, municipalities and agencies are aware of drought and low water conditions and deliver water safety and natural hazard related education and outreach activities. The authority also operates two ice management structures, and two snow courses.

Dam Operations include the operation and maintenance of 7 dams and one weir.

Natural Hazards Capital includes undertaking major repairs, refurbishments and replacement of water and ice control infrastructure and replacement of hydrometeorological monitoring equipment as required.

5.2.2 Conservation Lands Program

The Conservation Lands Program manages, and conserves lands owned by the Authority for the protection of natural heritage features and values, and to provide opportunities for outdoor recreation. The landholdings of the authority include 10,346 acres, 14 Conservation Areas with active recreation opportunities and for passive use that do not include any facilities.

Conservation Lands Operation activities include the prepares and maintenance of a land inventory and conservation area strategy, development of policies for land acquisition and disposition and maintenance of eligibility for lands in CLTIP and MFTIP programs. Additional activities include making applications or comments under the Planning Act on matters that may impact lands owned or controlled by the Authority and preventing unlawful use and entry by administering regulations under Section 29 of the Act. Activities that include tree planting to conserve, protect, and rehabilitate natural heritage features are also undertaken, and staff operate and maintain amenities and infrastructure that support public access and passive recreational activities.

Campground Operations include the operation of the Warsaw Caves, Beavermead and Lakefield campgrounds including public and seasonal camping, canoe rentals and retail sales.

Conservation Lands Management and Infrastructure activities include repairs, refurbishments and replacement of infrastructure and amenities that support public access and passive recreational activities

5.2.3 Drinking Water Source Protection

The Otonabee-Peterborough Source Protection Authority (SPA) is one of five conservation authorities in the Trent Conservation Coalition Source Protection Region. Activities include performing duties, functions and responsibilities of the SPA, including liaison with Trent Conservation Source Protection Committee. Activities also include supporting municipalities to implement the Trent Source Protection Plan and ensure compliance with the Clean Water Act.

Through agreements with municipalities, Otonabee Conservation provides the services of the Risk Management Official and Inspector which include the enforcement of Part IV of the *Clean Water Act.*

5.2.4 Other Water Program

Provincial Water Quality Monitoring Network includes the measurement of surface water quality is measured at 16 sites across the watershed in partnership with Ministry of the Environment Conservation and Parks.

Provincial Groundwater Monitoring Network includes the measurement of groundwater quality and quantity. Groundwater levels are measured at 11 wells, and groundwater quality is measured at 6 wells across the watershed.

Watershed Health Monitoring and Reporting includes the measurement of surface water quality at 4 sites in addition to those included in the PWQMN. Data collected through other water monitoring programs is utilized for publication of Watershed Report Cards every 5 years.

5.2.5 Natural Resource Conservation Program

Climate Change activities include the implementation of the Authority's climate change strategy. Activities include the enhancing and sharing information to better understand climate change impacts in the watershed.

Land Stewardship activities include providing advice and technical support for stewardship and restoration activities on public and private land including project implementation and a tree seedling sales program.

Environmental and Conservation Education and Outreach activities include providing information at events, delivering presentations and curriculum linked experiential education programs at schools and other locations. Other activities include the development and distribution of information that fosters awareness of the watershed environment and watershed health.

5.2.6 Corporate Services

Board Governance and Operations support the Board of Directors to exercise their governance responsibilities and meet legislated responsibilities.

Administrative and Support Services provide administrative and support services to ensure efficient and effective operations.

Communications and Marketing Services provide communications & marketing services using a range of platforms to support delivery of programs and services.

Tangible Capital Assets purchase and replace equipment, furniture, vehicles, computers and undertake major repairs to administrative buildings to support efficient and effective operations.

5.3 Consultation

The draft Watershed-based Resources Management Strategy will be posted on the Authority's website, sent to member municipalities, Curve Lake First Nation and Hiawatha First Nation and the County of Peterborough for consultation.

Upon request, Authority staff will meet with stakeholders to discuss the Strategy.

5.5 Review of Mandatory Programs and Services and Updates to the Strategy

Ontario Regulation 686/21 requires the identification of a process for the periodic review and updating of the Watershed-based Resource Management Strategy including procedures to ensure stakeholders and the public are consulted during the review and update process.

The Watershed-based Resource Management Strategy will be reviewed within one year of the appointment of a new Board of Directors. This timing will ensure the document reflects current priorities and emerging issues and aligns with the municipal election cycle in Ontario.

The review will also include changes to provincial directives which impact Mandatory Programs and Services.

Stakeholder and public consultation will be undertaken during the above noted review periods to ensure awareness and transparency regarding the Watershed-based Resource Management Strategy.

5.6 Resources

1. Conservation Authorities Act - https://www.ontario.ca/laws/statute/90c27
2. Ontario Regulation 686/21 - https://www.ontario.ca/laws/regulation/210686
3. Otonabee Conservation Strategic Plan 2017-2020
4. Otonabee Conservation Strategic Plan 2024-2027
5. 2023 Watershed Report Card
6. Otonabee Conservation Program and Service Inventory, June 2022
7. Trent Assessment Report and Source Protection Plan
8. Watersheds 2000, Otonabee Conservation
9. Conservation 1959-1964, Otonabee Conservation
10. Otonabee Region Conservation Report, 1964, Department of Energy and Resources Management, Conservation Authorities Branch

Appendix A: Summary of Technical Studies, Monitoring Programs and Guidance Documents for Implementation of Programs and Services

Program	Description	Program Guidance and Supporting Documents
Natural Hazards Protection Program	Plan Review and Permitting Services	a. CA Act b. O. Regulation 41/24 c. Planning Act d. Provincial Policy Statement 2020 – soon to be replaced with Provincial Planning Statement 2024 e. Oak Ridges Moraine Act f. A Place to Grow (soon to be removed) g. Watershed Planning and Regulations Policy Manual (2015) h. Technical Guide River & Stream System: Flood Hazard Limit, Ontario , 2002. i. Technical Guide River & Stream System: Erosion Hazard Limit, Ontario , 2002. j. Stormwater Management Planning & Design Manual– Ministry of the Environment March 2003 k. Low Impact Development Stormwater Management Planning and Design Guide (TRCA/CVC – 2010) l. Geospatial Data m. Oak Ridges Moraine Groundwater Program (www.oakridgeswater.ca)
	Natural Hazards Mapping	a. Technical Guide River & Stream System: Flood Hazard Limit, Ontario , 2002. b. Technical Guide River & Stream System: Erosion Hazard Limit, Ontario , 2002. c. Federal Flood Mapping Framework Version 2.0 (Natural Resources Canada, 2018b) d. Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation (Natural Resources Canada, 2019) e. Case Studies on Climate Change in Floodplain Mapping (Natural Resources Canada, 2018a) f. Technical Guidelines for Flood Hazard Mapping (Environmental Water Resources Group Ltd., 2017).

Program	Description	Program Guidance and Supporting Documents
Natural Hazards Protection Program	Flood and Drought Monitoring Operations	a. Provincial Flood Forecasting and Warning Program Implementation Guidelines, Ontario, 2023. b. Ontario Low Water Response Program Guidance c. Data/information about precipitation receipts, water levels and flows, weather forecasts, soil infiltration capacity are obtained from Ministry of Natural Resources, Parks Canada Ontario Waterways Trent-Severn Waterway, Environment and Climate Change Canada (ECCC) Meteorological Service, ECCC Water Survey of Canada, City of Peterborough, CoCoRaHS, and other sources d. Data from two (2)snow courses e. Geospatial data f. floodplain mapping g. Flood Forecasting and Warning Operations Manual and Contingency Plan h. Ice Management Plan
	Dam Operations	a. Annual Visual Inspections of Dams b. Dam Safety Reviews/Assessments c. Public Safety Risk Assessments d. Public Safety Management Plans e. Annual Visual Inspections of Physical Public Safety Control Measures
Conservation Lands Program	Conservation Lands Operations	a. Conservation Area Strategy b. Forest Management Plan (MFTIP, CLTIP) c. Ecological Land Classification, Hazard Tree Database and other Geospatial data e. Property-specific management plans and master plans f. Land acquisition/disposition policies g. Beavermead Agreement h. Lakefield Agreement
	Conservation Lands Management & Infrastructure	a. Asset Management Plan b. CA Act
	Campground Services	a. Beavermead Agreement b. Lakefield Agreement c. Safe Drinking Water Act d. Peterborough Public Health

Program	Description	Program Guidance and Supporting Documents
Drinking Water Source Protection Program	SPA	a. Clean Water Act and associated regulations b. Trent Source Protection Plan and Assessment Report c. Geospatial Data d. Provincial Guidance Documents including Table of Circumstances, Risk Management Measures Catalogue, Directors Technical Rules 2021
	RMO	a. Clean Water Act and associated regulations b. Trent Source Protection Plan and Assessment Report c. Geospatial Data d. Provincial Guidance Documents including Table of Circumstances, Risk Management Measures Catalogue, Directors Technical Rules 2021 e. Agreements with municipalities for enforcement of Part IV under Clean Water Act
Other Water (Water Monitoring)	Provincial Water Monitoring	a. PWQMN and PGMN Program Information b. Provincial Stream Monitoring Program, Purpose, Functions and Responsibilities, Ontario January 1, 2022 c. Provincial Groundwater Monitoring Program Purpose, Functions and Responsibilities, January 1, 2022 d. Oak Ridges Moraine Groundwater Program (www.oakridgeswater.ca)
	Local Water Monitoring	a. Guide to Developing 2023 Conservation Authority Watershed Report Cards, August 2022 b. Ontario Benthos Biomonitoring Network Manual c. Ontario Stream Assessment Protocol d. City of Peterborough Watershed Plan & Implementation Plan (draft) e. Harper Creek Sub-watershed Plan (draft)
Natural Resources Conservation	Climate Change	a. Otonabee Conservation Climate Change Strategy, 2021 b. United Nations Sustainable Development Goal 13 - Climate Action Information c. City of Peterborough Community Climate Change Resiliency Strategy d. Preserving and Protecting our Environment for Future Generations, A Made-in-Ontario Plan, MECP, 2018 e. Climate Vulnerability and Risk Assessment for Natural Resource Management and Guide to Integrate Climate Adaptation into Policy, MNRF, 2018 f. Climate Change Vulnerability Assessment, Peterborough Public Health, 2023

Program	Description	Program Guidance and Supporting Documents
Natural Resources Conservation	Land Stewardship Services	a. Geospatial data b. Afforestation Guide for Southern Ontario, MNRF, 2019 c. Resources related to invasive species, species at risk native species
	Environmental & Conservation Education & Outreach	a. Ontario Curriculum b. Pathway to Stewardship Landmarks c. AODA
Corporate Services	Governance	a. Otonabee Region Conservation Authority Letters Patent b. Conservation Authorities Act c. Governance Bylaw d. Clean Water Act e. Strategic Plan
	Admin	a. Corporate Policies and Procedures b. Revenue Canada Rules and Procedures c. MFIPPA d. Charitable Status Documentation
	Communications and Marketing	a. AODA b. MFIPPA
	Capital Assets	a. Asset Management Strategy b. Conservation Authorities Act