



Essex Region Conservation
the *place* for life

2019



Annual
Report



“ Our programs and services are critically important to addressing serious challenges in the region. ”

A Message From The Vice Chair

There's no question that 2019 was a year of unprecedented challenges. We were under an extended flood watch from April until October, and communities across our region felt the devastating impacts of 12 separate flood events. ERCA staff worked vigilantly – in some cases around the clock – to monitor conditions, provide warnings and assist in flood responses.

During this very difficult time, the Province of Ontario cut the funding allocation toward flood and erosion protection by 50%. Despite this significant cut, ERCA's longstanding role in protecting the citizens of Windsor, Essex County and Pelee Island continued to prove crucial to the safety of our region's residents.

Our programs and services are critically important to addressing serious challenges in the region – land degradation, natural

area coverage, water quality, phosphorous and harmful algal blooms, climate adaptation, and sustainable communities. The conservation areas, greenways and trails ERCA provides are key to our tourism industry, economic development and most importantly, the livability of our community.

As municipalities, we collectively identify the priority projects required within our watershed region through our strategic planning, sustainability planning and annual budgeting processes. Our Board and Administration follow the core principle of the *Conservation Authorities Act*: that people living close to the problems are required to solve them; that an Authority only undertakes programs and projects it could face economically, culturally and democratically. Indeed, a conservation authority like ERCA flourishes because

our residents and communities recognize the critical need for the programs and services we deliver within our watershed region.

On behalf of the Board of Directors, I'd like to extend my heartfelt appreciation to all of the partners, volunteers, residents and stakeholders who have come together this year to help create a more resilient and sustainable future for our region.

It is only by moving forward together, that we can improve our resiliency to climate change and ensure our region is the Place for Life.

Sincerely,

A handwritten signature in black ink that reads "Tania Jobin". The signature is fluid and cursive.

Tania Jobin
ERCA Vice Chair



“ *The Conservation Authority model is more relevant today than ever.* ”

A Message From The General Manager

In the 1940s, forestry, agricultural, naturalist and sportsmen's groups began expressing concern that much of Ontario's natural resources were in an 'unhealthy state' as a result of poor land, water and forestry practices. Though the responsibility for managing natural resources lay with the province, these groups argued that the scale of the problem required a new approach.

The province listened, and in 1946, the *Conservation Authorities Act* was passed, creating a tool that enabled municipalities, in partnership with the Province, to establish a Conservation Authority with a mandate "to provide, in the area over which it has jurisdiction, programs and services designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals". Importantly, the legislation recognized that the

problems and their solutions are integrated, that decisions are best made by those living closest to the problem, and demanded that action be taken on a watershed basis.

Today, we are facing challenges of a similar scale and scope as a result of changes to our landscape. In fact, at a time when Canada is warming nearly twice as fast as the global average, and when we are experiencing catastrophic flooding throughout the region, the effective and efficient integrated watershed management approach taken by ERCA and all Conservation Authorities is more important than ever before.

Solutions to these problems are interconnected and need to be delivered on a watershed basis. Indeed, tree planting and restoration, agricultural stewardship, protecting and monitoring the health of our Great Lakes, a coordinated

approach to addressing climate change, and robust education and outreach programs are all critical to building a healthy and sustainable community that is resilient to change.

This year, in response to changes to the *Conservation Authorities Act* and the structure of program delivery, our Board of Directors, our municipal partners and the community were clear: the Conservation Authority model is more relevant today than ever; and the integrated watershed management approach is vitally important to the future of our region, the health of our residents and the Province of Ontario.

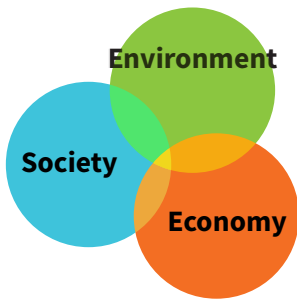
Yours in Conservation,

Richard J. H. Wyma
General Manager / Secretary Treasurer

Integrated Watershed Management

Integrated Watershed Management manages human activities and natural resources on a watershed basis, taking into account social, economic and environmental issues, as well as local community interests. It is the most effective way of managing environmental impacts and our changing climate, and is the approach used by Conservation Authorities across the province.

Integrated Watershed Management:



1. Is watershed-based, informed by science
2. Requires us to manage natural resources and human activities together
3. Considers the interests and needs of not just the environment but also the economy and society because they are connected and impact each other in good and bad ways
4. Relies on an adaptive management approach which establishes a plan, implements the plan, monitors and reports, and then re-evaluates and updates the plan, if necessary
5. Needs collaborative governance at many levels for shared decision-making and priority setting



Watershed Highlights

In 2019, we continued to implement the priorities identified in our Strategic Plan. Our programs and services are delivered using an integrated watershed management approach – recognizing that all elements of the environment, our economy, and our region’s well-being are interconnected and critical to the sustainability of our region. The following highlights are a snapshot of the projects and programs implemented this year to enrich and sustain the Essex Region as *the Place for Life*.



Climate Change

Our region experienced the impacts of our changing climate, perhaps more profoundly than any other in Ontario.

Following a Flood Watch that extended for more than six months, and 12 separate flood events, there's no question that the need to change our actions to reduce greenhouse gas emissions, slow climate change and adapt to its impacts, is more urgent than ever before. This year, in taking action to address our changing climate, we:

Initiated the Windsor Essex Climate Change Collaborative (WEC3) which includes sector-based implementation teams, including Human Health, the Built Environment, Natural Hazards, Agriculture, Nature & Ecosystems, and Energy; and developed a framework for assessing climate change impacts for these sectors.

Monitored record high lake levels and weather conditions resulting in 48 Watershed Condition days, 147 Flood Watch days and 25 Flood Warning days.

Hosted four High Water Information Workshops in Lakeshore, Windsor, Kingsville and LaSalle, facilitating knowledge exchange with over 1,500 residents.

Monitored 30 Climate Stations, including 18 within the City of Windsor. Initiated discussions with Lakeshore and Essex regarding siting and integrating 6 additional stations.

Created a Climate Change Communications Strategy to help stakeholders at all levels understand local impacts of climate change and actions that can be taken toward mitigation and adaptation.

Initiated a project to review tree species choices and utilization of genetic diversity via local or non-local seed, in partnership with the Forest Gene Conservation Association.

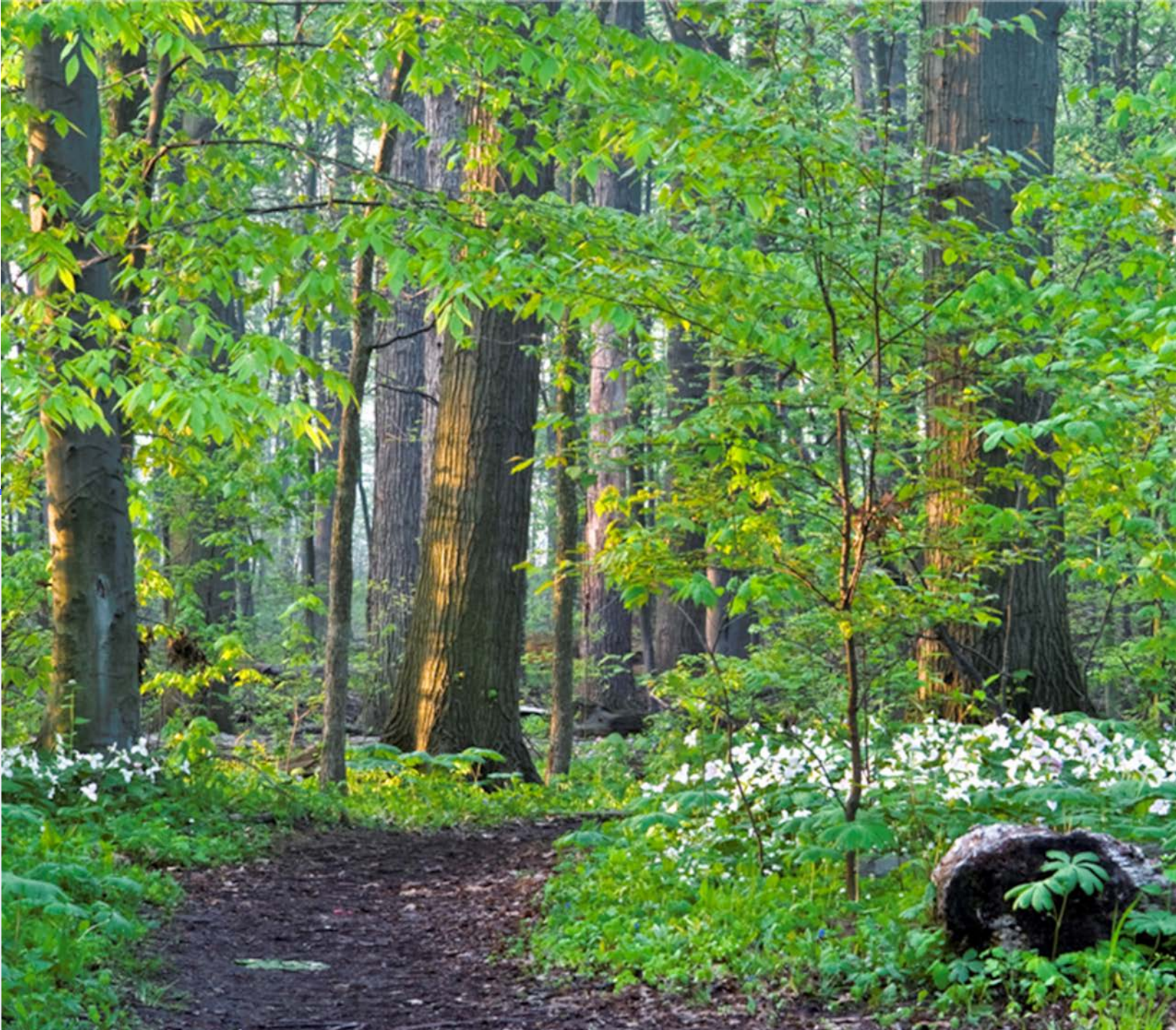
Worked collaboratively with the County of Essex and its seven municipalities to secure funding for a County-wide Community Energy Plan to help advance regional energy conservation priorities and lower emissions.

Hosted a Climate Action Symposium to begin to identify implementation actions and barriers from various sectors impacting and being impacted by Climate Change including municipal energy, natural heritage, and infrastructure.

Responded to high water and clean up after severe storm events at Holiday Beach and along ERCA's Greenways, including the removal of over 500 hazardous trees. High water levels required closure of Tremblay Beach Conservation Area, and areas within Holiday Beach, Hillman Marsh.

Met with Provincial Flood Advisor, and participated in South West Ontario Regional meetings regarding flood management, flood protection and emergency response. Flood Advisor's report includes the recommendation that ERCA and Lower Thames Valley Conservation Authorities work with Windsor-Essex municipalities, Chatham-Kent, and the Provincial and Federal Government to develop a short- and long-term plan to address flooding and shoreline/infrastructure issues in Lake Erie/Lake St. Clair/Detroit River.





“ When I see the projections for what our climate will be like in 2050 and 2080, I think of my daughter, and what it will be like for her. Will the Windsor-Essex community still be her ‘Place for Life’?



I think we can all make a difference, but we need to take urgent climate action and significantly reduce our own impacts, as well as asking our elected officials to put real plans in place to reduce greenhouse gas emissions. This year was a tipping point in awareness, with climate emergency declarations, the devastating spring storms and resulting flooding, and the County of Essex’s leadership in initiating Community Energy Plans. In 2019, there was significant growth in awareness, education and commitment to action that we must continue to build on – with urgency – in the coming years.”

- Claire Sanders, Climate Change Specialist

Great Lakes

The Great Lakes are our most significant natural resource.

Land uses, invasive species, and our changing climate continue to negatively impact the health of our Lakes. Our 2012 – 2017 Watershed Report Card identified failing grades for surface water quality in virtually every watershed. More must be done at all levels to protect and improve water quality. This year, to help protect and improve Great Lakes water quality, we:

Monitored surface water quality at 61 sites and groundwater quality at 8 sites across the region. In total, more than 2,500 water quality samples were collected to evaluate watershed health, and calculate nutrient and phosphorous concentrations and loads in partnership with Federal and Provincial Ministries of Environment.

Initiated a Phosphorous Management Plan with support from Environment and Climate Change Canada.

Monitored phosphorous levels impacting Lake Erie at the innovative 10 acre University of Windsor Alumni Association Wetland at Hillman Marsh, in partnership with the University of Windsor Biochemistry department.

Partnered with municipal and provincial implementing bodies to implement 50 policies designed to protect our sources of drinking water.

Completed 28 Risk Management Plans to address Significant Drinking Water Threats on behalf of municipalities.

Initiated required updates to the Essex Region Source Protection Plan and Assessment Report to ensure that our sources of drinking water are protected using the most current information available.

Completed over 25 agricultural Best Management Practices (BMPs) such as cover crops, nutrient management plans and buffer strips on over 500 hectares of land, with support from Environment and Climate Change Canada, as part of the Lake Erie Action Plan to meet phosphorous reduction targets.





“ One of the biggest factors affecting the health of our Great lakes is climate change.



As well, more frequent storm events in the spring are increasing the amount of runoff into our lakes from fields and our landscape. These nutrients feed the algal biomass that we see annually now each summer. It's a massive international problem, and we all have to do our part to be mindful of phosphate-free lifestyles. Using the 4 R's – right time, right rate, right source and right place, as well as implementing best management practices such as cover crops, can reduce the phosphorus running off into our lakes and streams. Phosphorus outputs from municipalities and greenhouses also have to be managed. It's important that we all do our part when it comes to keeping our lakes great.”

- Dr. Katie Stammler, Water Quality Scientist

Landscapes And Habitats

Our landscapes and habitats are among the most significant in Canada.

While we have planted more than 6.5 million trees and increased natural areas coverage from 3.5% to 8.5%, we need to significantly increase the scope and scale of this work to reach our 12% target and to urgently take climate action. This year, ERCA:

Planted almost 60,000 trees on public and private lands, creating an additional 13.5 hectares (35 acres) of new forest habitat despite the rainiest season on record.

Monitored 50 restoration sites demonstrating 85% tree survival rates.

Welcomed more than 100,000 visitors to our conservation areas and greenways to enjoy the outdoor natural and cultural experiences that contribute to community-wide health and well-being.

Introduced 'Greenway Etiquette Guidelines' to promote harmonious shared use of this important trail system.

Hosted 32 outreach events that engaged more than 4,200 regional residents in conservation programs and activities, including creating the Rotary Legacy Forest and the Solcz Family Foundation Forest.

Undertook a Holiday Beach Conservation Area Capital Investment Feasibility Study with Southwest Ontario Tourism Corporation and Tourism Windsor Essex Pelee Island.

Built new boardwalks, resurfaced the road, and began construction of the Enbridge Natural Playground and the University of Windsor Alumni Association Outdoor Classroom at Holiday Beach Conservation Area.

Undertook a shoreline engineering study to identify options to protect the historic John R. Park Homestead buildings.

Strengthened partnerships with First Nations, in order to work more collaboratively and achieve mutual goals.

Continued to monitor for Oak Wilt Disease.

Created new wetland habitat at the Collavino Wetland.

Finalized the Peche Island permitting processes with regulatory agencies.

Continued control of invasive species at Spring Garden Natural Area.

Enhanced Citizen Science Programs included Project Purple, Seed Collection, Garlic Mustard Pulls and Tree Monitoring and Assessment

Revitalized the Youth Engagement Ambassador (YEA) Team and How-To Crew, providing community volunteers with an advanced level of training to assist with proper tree planting techniques during large-scale outreach events.





“ Spring 2019 is the planting season that all foresters and farmers in Southern Ontario want to forget. We received a heavy rainfall each week that prevented the fields from ever drying sufficiently to achieve planting conditions.



As a result, we were unable to plant 20,000 trees that would have created 25 acres of new forest habitat. To try to adapt to these increasingly wet springs, we need to find innovative solutions.

This past fall, we planted 31 acres of planned restoration project lands with cover crops. This will provide traction for our tractors and much needed soil aeration, which will allow us to begin planting trees earlier in spring 2020, regardless of the weather. Ensuring we can carry out our planned tree planting programs is critically important in our region, where we have only 8.5% natural areas. Trees are identified as the most significant ‘natural solution’ to climate change, and so restoration is one of the most important things we can do to take climate action, create habitat and help to mitigate flooding.”

- Rob Davies, Forester

Sustainable Communities

As stated in the Climate Change Emergency declared by the City of Windsor, County of Essex, and many regional municipalities, ‘permanent and robust changes’ to the way we plan our communities are urgently required.

ERCA will need to continue to work with all partners to collaboratively plan sustainable communities that reduce urban sprawl, are walkable, incorporate green infrastructure and are resilient to the impacts of our changing climate. This year, we:

Evaluated 1,305 applications and issued 1,158 permits, including 305 for shoreline maintenance as a result of record high water levels in Lake St. Clair and Lake Erie.

Responded to over 1,300 Miscellaneous Development (MD) inquiries related to questions about property matters, or from prospective purchasers with questions concerning a potential property purchase.

Implemented new Client-centric service standards for high growth area Conservation Authorities and reaffirmed ERCAs Client Services Standards Policy to align with Conservation Ontario Client Services Standards guidelines.

Reviewed 13 Official Plans and secondary plans to ensure local planning decisions address provincial delegated authority responsibilities relative to natural hazards. Continued to advise local municipalities on natural heritage matters.

Reviewed over 800 planning applications under the *Planning Act* (Zoning By-Law amendments, minor variances, consents, etc.). The review of these applications assists landowners and municipalities in reducing risks associated with flooding and erosion and protecting natural heritage, and ensures best practices for sustainable communities are being incorporated into planning and development.

Finalized Environmental Impact Assessment (EIA) Guidelines with municipal partners to ensure regional consistency.

Finalized Stormwater Management Guidelines with municipalities to ensure a consistent set of standards for managing stormwater designs and submissions.

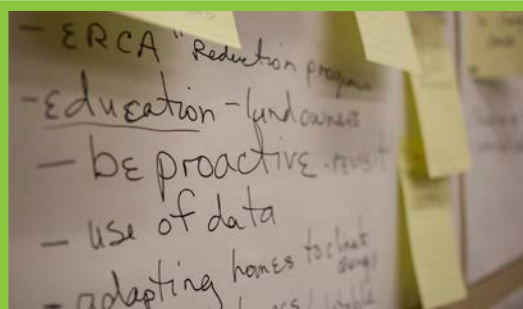
Provided curriculum-based outdoor education for nearly 15,000 elementary and secondary school students, including delivery of Special High Skills Major Certifications.

Improved our web-based permit application process to facilitate development reviews.

Expanded French-language human and natural heritage programs, and created a new interpretive Monarch Life Cycle education program.

Introduced a new pilot Indigenous Education program which was profiled amongst Conservation Authority educators across the Province.

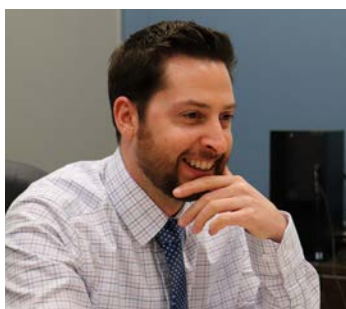
Responded to Province of Ontario's Environmental Registry policy consultations, including the Made-in-Ontario Environment Plan, 10-Year Review of Endangered Species Act, Bill 66 (*Restoring Ontario's Competitiveness Act*, 2018), proposed changes to Conservation Authority permitting and programs and services under Bill 108 (*More Homes, More Choice Act*, 2019), updates to the Canada-Ontario Agreement, and changes to the Provincial Policy Statement, among others.





“ 2019 brought record high water levels to our region that will have lasting impacts on our communities.

For the entire year, we were on guard around the clock, continuously checking water levels, wind direction, short-range and long-range forecasts to alert our municipalities about flood potential. People experienced significant flooding, erosion, financial losses and emotional hardship. Luckily, we were not hit with the 1% chance storm this year, or the results could have been far more catastrophic.



One of the most important outcomes is the growing awareness of what's at stake if we don't all make changes to the way we plan our communities. Climate change projections tell us to expect higher highs and lower lows, which brings about challenges that could be far worse than what we experienced this year. Working to avoid flood related impacts is multi-faceted and we are working closely with our member municipalities on Municipal Flooding Emergency Response Plans, updating Floodplain Maps, Shoreline Management Plans, and various other natural hazard mitigation projects. There is still a lot to do, but we're on the right track.”

- James Bryant, Water Resources Engineer

A Strong, Resilient Organization

ERCA is a sustainable, resilient and valued agency.

Since 1973, ERCA has been striving to achieve a state of sustainability for the Essex Region. We are continually evaluating our programs and services to ensure they are delivered in a streamlined and efficient manner. This year, to further improve our organization's practices, we:

Trained 35 staff in Indigenous Relationship Building to improve consultation, collaboration and partnerships with Indigenous communities.

Implemented a number of mechanisms to ensure that programs and services are transparent to member municipalities and watershed residents and align with the proposed provincial mandatory programs and services.

Formalized policies for Customer Service Standards and Social Media.

Implemented new comprehensive Corporate Administration By-Laws as legislated under the 2017 Amendments to the *Conservation Authorities Act*.

Collaborated provincially on a communications strategy demonstrating the critical importance of Conservation Authorities in protecting the people of Ontario from the impacts of our changing climate.

Implemented significant improvements to our digital media platforms to streamline customer service for a variety of service areas, including permit applications.

Completed update of municipal drains dataset for Pelee Island.

Introduced new Annual Work Plan/Performance Review and Professional Development standards for all staff.

Updated Geocortex with 2019 Aerial photography in partnership with County of Essex and municipalities.

Implemented actions identified in the Employee Engagement Survey.

Continued to support the Essex Region Conservation Foundation in achieving the \$1 million fundraising goal of the Place for Life Campaign.

Advocated for the Essex Region on 56 local, regional, provincial, national and international boards and committees to ensure the unique needs of our region are represented.

Connected with more than 8,500 people through social media outreach.





“ This year we really focused on engagement with our staff.



We have an incredibly dedicated team who are addressing extreme workloads and in many cases, racing the clock to implement environmental protection and restoration priorities and provide exceptional customer service. Tools like our Employee Engagement Strategy, Annual Work Plans and Performance Reviews enabled us to recognize the many accomplishments of our staff while identifying areas of opportunity that allow us to plan for future organizational sustainability. Finding ways to streamline workflows and business processes improves our ability to serve our customers and helps to alleviate stress levels associated with the crucial work our team is undertaking every day.”

- Nicole Kupnicki, HR Manager

ERCA Accountability

The following provides a three-year 'by-the-numbers' comparison of achievements. This report follows the priorities identified in our Strategic Plan, and these actions help ensure Windsor-Essex County-Peel Island is the Place for Life.

Climate Change

		2017	2018	2019
Permits Requested		1,042	1,113	1,305
Permits Issued		1,005	992	1158
Clearances Issued		135	179	225
Request for Information Letters Issued		392	273	281
Permits to Take Water Applications		5	3	3
Appeals		10	18	22
Appeals in CA Favour		10	18	22
Violations Issued		34	25	38
Average Response Time for Permits (days)	Minor Development	9.13	9	15
	Major Development	34	12	10
	Alteration to Waterways	8.2	12	6
Number of Structures Located in Floodplain		10,000	10,000	10,000
Kilometres of Watercourses with Floodplain Mapping Completed		609	609	609
Hectares (area) digitally mapped delineating the CA Regulation Limit		38,304	38,304	38,304
Hectares (area) digitally mapped delineating the flooding hazard limit (flood plains)		38,304	38,304	38,304
Metres of shoreline protected from flooding and erosion		250	0	0
\$ Value of Water/Infrastructure Contributions to Municipalities		120,000	10,000	0
Flood Messages / Days	Watershed Conditions	13	17	15 / 48 days
	Flood Watches	11	20	24 / 147 days
	Flood Warnings	4	8	12 / 25 days
	Wind Warnings	1	0	7



Great Lakes

		2017	2018	2019
Water Quality Improvement Projects Implemented	Agriculture/Other (total)	28	30	80
	Detroit River Watersheds	10	3	7
	Lake Erie Watersheds	13	21	66
	Lake St. Clair Watersheds	5	2	7
Number of wells decommissioned		5	4	3
Number of landowners participating		23	20	16
Number of surface water quality monitoring stations		58	61	61
Number of ground water quality monitoring stations		8	8	8
Number of benthos monitoring stations		20	15	10



Landscapes & Habitats

	2017	2018	2019
Total Landholdings (Hectares)	1,735	1,742	1,740
Hectares of recreational land owned and managed	1,056.8	1056.8	1056.8
Total hectares under forest management plans	44.39	44.39	44.39
Total Taxes for CA Landholdings	\$66,661	\$70,227	\$92,186
Land Acquisition in Reporting Year (in acres)	160	7	0
Value of acquisitions (Fair Market Value)	\$1,562,250	\$426,000	N/A
Total Acres of Habitat Restored	92.5	143	31
Number and Acres of Trees	92,500 trees 70 acres	109,105 trees 96 acres	57,560 30 acres
Number and Acres of Wetlands	6 wetlands 15 acres	6 wetlands 31 acres	1 wetland 0.6 acres
Number and Acres of Prairie	5 sites 7.5 acres	5 sites 16 acres	0
Number of landowners involved in restoration	222	191	217
Trees planted by volunteers	2,973	3,259	6,217
Native plants planted by volunteers	1,610	1,600	30



Sustainable Communities

	2017	2018	2019
Planning Services—transactions/year	822	850	811
Kilometres of Trails owned, managed & developed	98	98	98
Number of volunteers	2,064	2,185	2,057
Number of outreach events	19	30	32
Number of schoolyard naturalization projects	2	2	1
ERCA hosted special events	29	24	22
Number of schools	71	72	75
Number of unique education programs	434	256	307
Number of students	12,224	9,958	14,588
Number of public meetings/workshops	31	22	28
Day Use Visitors to JRPH (estimated)	11,830	11,910	11,625
Day Use Visitors to HBCA (estimated)	12,588	9,600	10,800
Number of seasonal campsites purchased	67	72	72

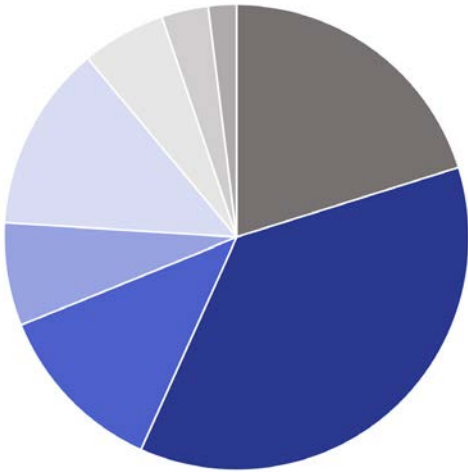
A Strong, Resilient Organization

	2017	2018	2019
Area of CA Jurisdiction	1,681.3 km ²	1,681.3 km ²	1,681.3 km ²
Watershed Population	325,351	323,793	322,715
Staff—Permanent and Long-Term Contract	36	39	38
Staff—Special Grant and Short-Term Full-Time Equivalent Contract	10	12	10
Average Full Time Staff Length of Service	12	9	10
Number of Local Committees, Boards and Advisory Panels with ERCA representation	29	28	24
Number of Provincial Committees, Boards and Advisory Panels with ERCA representation	28	28	26
Number of research studies with ERCA involvement	8	12	7
Number of unique visitors to our website	70,997	65,528*	71,918
Number of Facebook followers	2,948	3,168	4,011
Number of Twitter followers	2,676	2,896	3,159
Number of Instagram followers (launched October 2016)	225	1,061	1,313
Number of Youtube video views	2,550 views 4,893 min	2,400 views 4,500 min	3,500 views 7,854 min

*Some data unavailable due to website changeover.

2019 Financial Review

Projected Use of Funds by Function \$7.24M



Conservation Services	\$2,648,031
-----------------------	-------------

Watershed Research Services	\$877,558
-----------------------------	-----------

Community Outreach Services	\$515,498
-----------------------------	-----------

Corporate and Shared Services	\$937,245
-------------------------------	-----------

Capital Projects	\$423,202
------------------	-----------

Transfer to 2020 Activities/Projects	\$235,993
--------------------------------------	-----------

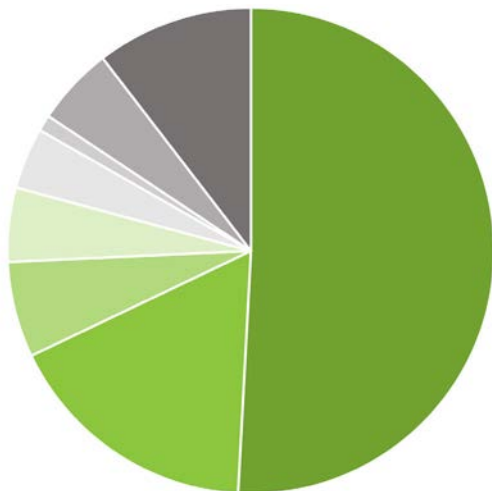
Transfer to Reserves	\$141,550
----------------------	-----------

Watershed Management Services	\$1,459,879
-------------------------------	-------------



Projected Use of Funds by Expense

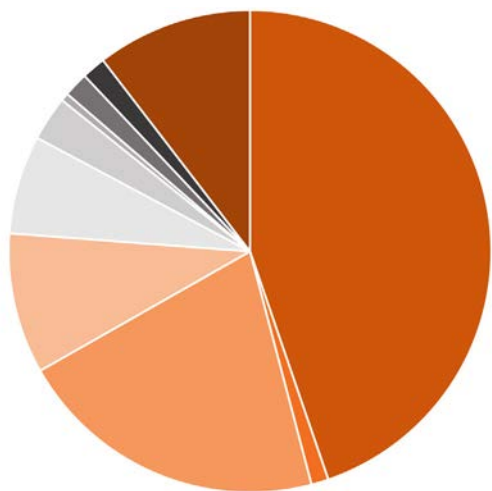
\$7.24M



Compensation	\$3,680,855
Program Materials & Supplies	\$1,234,743
Construction Contracts	\$461,370
Rent, Taxes, Utilities & Insurance	\$356,100
Contracted & Prof Services	\$295,244
Vehicle/Equipment Replacement	\$78,000
Transfer to Reserves & Future Years	\$377,543
Internal chargebacks & recoveries	\$755,100

Projected Funding by Source

\$7.24M



Internal chargebacks/recoveries	\$755,100
Municipal levies	\$3,238,666
Municipal special project contributions	\$83,508
Fee for service	\$1,510,997
Other/ERCF grants	\$682,800
Federal grants	\$478,340
Provincial transfer payments	\$215,976
Provincial special project grants	\$39,000
Prior year's surplus	\$119,568
Interest/in kind/sundry	\$115,000

2019 At A Glance

79

Surface, ground and benthos water quality sites **monitored**.



172

Days under **flood watch or warning**—a record in this changing climate.



15 days

Average **permit response time** for minor developments.



83

Events and workshops hosted to connect people with the Place for Life.



31

Acres of forest and wetlands restored.



57,560

Trees planted to increase green space.



80

Projects implemented to improve **water quality**.



14,588

Students educated through outdoor education programs.



1,305

Permits requested and reviewed to ensure landowner protection.



2,057

Awesome **volunteers** helped enrich & sustain the Place for Life.





facebook.com/**EssexRegionConservation**



@**EssexRegionConservation**



@**EssexRegionCA**



youtube.com/**TheEssexRegionCA**

Contact Us

360 Fairview Avenue West, Suite 311
Essex, Ontario, N8M 1Y6

P: 519-776-5209

F: 519-776-8688

W: essexregionconservation.ca