



RVCA Work In

Ottawa

The strength and resiliency of our local communities rely on the Rideau River and its surrounding watershed. Without lakes, rivers, streams, forests, wetlands, floodplains, natural shorelines and groundwater aquifers, we wouldn't have air to breathe, water to drink, places to boat, swim and fish, water and soil to support agriculture and industry or green spaces to explore and relax in. Simply put, natural areas sustain life. They also support economic development and property values, reduce flood, erosion and drought impacts and they are the best defense against climate change.

Since people and the natural environment are interconnected and interdependent, the Rideau Valley Conservation Authority (RVCA) works closely with local municipalities, residents and other partners to deliver programs and services that protect, restore and enhance the Rideau watershed. RVCA's work also protects people and property from natural hazards like flooding and erosion.

Serving your City

It's hard to find a municipal service that RVCA's programs don't support either directly or indirectly. We provide watershed knowledge and expertise that guides municipal decision-making, assists with emergency management and ensures sustainable development.

Our programs also support local economic development, tourism and recreation and we provide these programs in a consistent cost-effective manner across the watershed.

- **Source water protection** — develop and implement local policies to protect sources of municipal drinking water and regional groundwater
- **Flood protection and warning** — reduce the threat of loss of life and property damage, helping municipalities prepare and deal with potential flooding and flood emergencies
- **Low water response** — enable communication amongst water management agencies and water consumers and facilitate optimal management when resources are scarce
- **Development regulations** — regulate development on hazard lands (floodplains, steep slopes, unstable soil) and in environmentally sensitive areas (wetlands, shorelines and valley lands) under *Ontario Regulation 174/06 — Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation*
- **Planning services** — provide professional, technical review of planning proposals within or adjacent to natural hazards and environmentally sensitive areas for member municipalities regarding official plan amendments, zoning by-law amendments, plans of subdivision, site plans, consents/severances and minor variances
- **Septic approvals and re-inspections** — provide inspection and approval services for new or replacement septic systems under the *Ontario Building Code* and provide re-inspection services for existing septic systems to ensure they function properly, especially around lakes
- **Watershed monitoring** — collect data to better understand watershed health and pursue targeted remediation efforts for maximum benefit
- **Subwatershed and catchment reporting** — present municipalities with science-based information that allows for the adoption and implementation of policies and programs that ensure the health of watersheds and the achievement of long-term watershed management goals
- **Conservation lands** — manage 3,000+ hectares of sensitive, natural land for strategic protection of vulnerable habitats and valuable local resources

Serving Your City

Watershed Science and Engineering Services

- Policy interpretation, implementation tools and other support was provided to Ottawa municipal staff regarding the *Mississippi-Rideau Source Protection Plan*, which focuses on policies to protect municipal sources of drinking water and is required under the *Clean Water Act*. Specially trained Risk Management Inspectors worked with the City of Ottawa's Risk Management Official to address fuel storage and agricultural threats in the Villages of Munster, Richmond and Carp. Source Protection staff collaborated with the City of Ottawa to submit a Source Protection Plan and Assessment Report amendment to revise the Dense Non-Aqueous Phase Liquids policies.
- RVCA continues with long-term management of the flood control system at Britannia Village. RVCA to investigate and undertake repairs as a result of the spring 2019 flood event.
- RVCA continues operation and maintenance of erosion control works at various locations on Graham Creek, Stillwater Creek, Sawmill Creek and Bilberry Creek.
- RVCA, in collaboration with the City of Ottawa, continues to update old mapping and create new hazard mapping. In 2019, the RVCA completed the mapping of **25** kilometres on Becketts Creek, **6** kilometres on Bilberry Creek and **12.5** kilometres on Mud Creek.
- Additional flood plain mapping products were completed for City of Ottawa along Hobbs Drain; delineation of the **1:5** year, **1:25** year, **1:50** year and **1:350** year flood lines; development of map files showing the depth of flooding for the **1:5** year, **1:20** year, **1:50** year, **1:100** year and **1:350** year flood lines; inventory of buildings and flooded roads within flood vulnerable areas.
- Provided technical review services for the City's Hydrogeological Assessment Guidelines.
- Successful completion of the three-year Hydrogeological Harvester Information Geodatabase (OHHIG) Project which captures important historical hydrogeological information for reference by the City of Ottawa in their policy and decision-making processes and by the Conservation Authority partner in their provision of technical advice.
- The *Middle Rideau Subwatershed Report* was released in 2016 along with detailed data reports for the 10 catchments that flow into the river. The *Lower Rideau Subwatershed Report* was released in 2013 along with detailed reports for the 16 catchments that flow into the river.
- The *Jock River Subwatershed Report* was released in 2017 along with detailed reports for the 12 catchments that flow into the river. This report follows as an update to the first Jock River report that was released in 2011.
- All **6** subwatershed and **66** catchment reports are available online at watersheds.rvca.ca.
- **18** flood forecasting messages for the Rideau River watershed and **17** flood messages for the Ottawa River watershed were issued in 2019; **3** low water response messages were issued; **19** sites monitored for water levels, **10** monitored for precipitation and 6 sites monitored for snowpack.
- RVCA monitors **11** wells at eight locations in Ottawa as part of the Provincial Groundwater Monitoring Network (PGMN). Groundwater level and temperature are recorded hourly in each well. Barometric pressure is recorded hourly at two locations. Manual groundwater level measurements are recorded periodically. Groundwater quality analyses are available for all monitoring wells. Approximately **50** groundwater quality parameters, including general chemistry, metals and nutrients are analysed regularly at nine monitoring wells.
- **2,980** shoreline classification surveys completed along the Rideau River from Hogs Back Falls to the Lower Rideau Lake.
- The City Stream Watch Program samples **25** streams in the Rideau watershed on a six-year cycle. Since 2003, the partnership program has involved **3,512** volunteers that have provided **16,403** hours of time completing **4,353** stream surveys, **637** fish sampling events, **90** stream garbage clean-ups and **72** invasive species removals, **3** wetland restoration sites.
- In 2019, **1,307** hours of volunteer work was completed by **315** volunteers for the City Stream Watch Program. This resulted in:
 - **3,678** m² cleared during **12** invasive species removal events on Baxter ALS Pond, Black Rapids Creek Wetland, Hunt Club Creek, Jock River, Pinecrest Creek, Ramsay Creek, Rideau River, Sawmill Creek and Taylor Creek.
 - **94** headwater drainage feature locations on Borthwick Creek, Brassils Creek, Cranberry Creek, Hunt Club Creek, Mosquito Creek, Mud Creek, Ramsay Creek, Sawmill Creek and Stevens Creek; **34** headwater drainage features sample locations on the Lower Rideau Rideau and **9** headwater drainage feature sample locations on the Rideau River.
 - **20.2** km of stream surveys completed on Borthwick Creek, Cranberry Creek, Hunt Club Creek and Ramsay Creek.
 - **16** fish sampling sites on Borthwick Creek, Cranberry Creek, Hunt Club Creek and Ramsay Creek.

- **13** temperature probes installed on 3,678 m² cleared during **12** invasive species removal events on Borthwick Creek, Cranberry Creek, Hunt Club Creek and Ramsay Creek.
- **1** invasive species workshop and **5** other training and outdoor demonstration workshops
- RVCA samples **16** stream sites annually in the spring and fall for the Ontario Benthic Biomonitoring Network (Barrhaven Creek, Black Rapids Creek, Brassils Creek, Cranberry Creek, Flowing Creek, Jock River (four sites), Hobbs Drain, Kings Creek, Nichols Creek, Mosquito Creek, Mud Creek, Nepean Creek and Sawmill Creek). An additional **29** sites sampled in the upper watershed areas.
- Five stream water quality sites sampled in Ottawa as part of the Provincial Water Quality Monitoring Network and **47** stream water quality sites are sampled as part of the Ottawa Baseline Monitoring Program.
- Continued partnership with the City of Ottawa to monitor tributaries within Ottawa (ongoing from 2017, Ottawa Baseline Monitoring Program).
- Year **3** of post-effectiveness monitoring completed at Black Rapids Wetland Restoration Project with monthly observations on water levels, species monitoring, vegetation survival assessment.
- Year **1** of post-effectiveness monitoring completed at Stillwater Creek Slope Stabilization Project.

Planning and Advisory Services

- **314** severances, **307** minor variances, **115** site plan control reviews, **89** zoning by-law amendments, **38** pre-consultations, **18** condominium reviews, **14** Official Plan amendments, **14** lifting of **30** cm reserve, **13** subdivision reviews, **5** part lot control, **3** *Environmental Assessment Act* reviews, **3** lifting of holding bylaw, **2** utility clearances, **1** aggregate resource review.

Conservation Land Management Services

- RVCA protects **16** natural areas (**158** hectares) in Ottawa; species at risk monitoring occurring at two of these areas, fish habitat enhancement occurring in one area and capital improvements occurring at three of these conservation areas.

Serving your Residents

RVCA works closely with watershed residents to provide friendly, technical guidance and support to help landowners develop their property in a sustainable manner. We also provide support and financial assistance to help property owners undertake stewardship projects that benefit the watershed. At our popular conservation areas, the RVCA also provides outdoor recreation opportunities and looks to educate the next generation of conservationists. By investing in our watershed — the land and the people — we are creating healthy, resilient communities.

- **Stewardship programs** — work with landowners to restore and improve our watershed through tree planting and shoreline naturalization projects; provide technical advice and assistance for on-the-ground efforts
- **Grant programs** — help landowners complete projects that improve water quality, wildlife habitat and overall ecosystem health
- **Education programs** — provide high quality curriculum-based environmental education programs and summer day camps to watershed children — creating our future watershed guardians
- **Conservation areas** — offer 11 developed conservation areas for public use and enjoyment; inexpensive, outdoor, recreational experiences including trails, boat launches, beaches, picnic shelters, education programs for schools and community groups and summer day camps
- **Property & environmental information and resources** — create and distribute environmental information; support real estate transactions with property-specific information regarding natural hazards and environmentally sensitive areas; provide peace-of-mind through septic approvals and re-inspections that systems are constructed and working properly

Serving You Residents

Conservation Areas

- Ottawa residents have access to outdoor recreation and education programs at developed conservation areas including:
 - Chapman Mills (**8+** hectares) — picnic shelter, scenic lookouts, walkways and boardwalks, interpretive signs, habitat features including a new structure for barn swallows (a species at risk); new accessible dock and observation platform installed.
 - Baxter (**75+** hectares) — offers year-round education programs, trails, rental facilities, picnic area and beach. In 2019, education programs were offered to **8,507** children. We also welcomed **183** children to our week-long conservation day camps and **4,301** people to our rental facilities.
 - Richmond (**2.5+** hectares) — picnic area, dock to launch canoes and kayaks
 - W.A. Taylor (**6.5+** hectares) — boat launch, picnic tables
- RVCA has annual management agreements to maintain two City of Ottawa parks.
- RVCA continues with extensive trail enhancements at Chapman Mills Conservation Area to improve accessibility for users.
- RVCA is working with the Nature for All Committee to improve accessibility features at Baxter Conservation Area.

Planning and Advisory Services

- **411** property inquiries, **208** applications, **130** clearance letters, **58** complaints and **9** violations processed regarding Section 28 of the *Conservation Authorities Act*.
- **637** applications for new or replacement septic systems were inspected and approved in Ottawa through the Ottawa Septic System Office (partnership between Mississippi, Rideau and South Nation Conservation Authorities); **231** file search requests for septic systems in Ottawa; **74** septic renovation and alteration applications and **11** complaints were received and investigated.
- **10** Risk Management Plans established under the *Clean Water Act*.

Stewardship Services

- Partnership with City of Ottawa and Riverside South Community Association to plant **520** trees and shrubs at two sites on Mosquito Creek.
- TD Tree Day event held in Richmond Village to plant **150** trees along the Jock River.
- **4,300** trees and shrubs planted along Carp River as part of subdivision agreement planting requirements.
- **1,000** trees and shrubs planted in Arlington Wood, Graham Creek ravine following trees lost due to tornado.
- **750** trees and shrubs planted along Bilberry Creek as part of erosion control project.
- **3.17+** million trees planted in the City of Ottawa since 1984.
- **1,858,427** trees planted in Ottawa through the Green Acres program; in 2019, **52,850** trees (**39** projects) planted — **\$71,590** fundraised with a project value of **\$114,398**; the program averages **94,554** trees a year.
- **5,630** butternut seedlings planted in Ottawa through the Butternut Recovery Program since 2007.
- **229** Shoreline Naturalization Program projects have been completed in Ottawa since 2008. More than **63,950** native trees and shrubs have been planted along over **19+** kilometres of Ottawa creeks and rivers with **\$570,303** funding towards projects valued at **\$853,799**; in 2019, **26** projects completed with **10,532** trees and shrubs planted along **2+** kilometres of shoreline with **\$106,764** funding towards projects valued at **\$139,486**.
- **107** Rural Clean Water projects were approved outside the City of Ottawa in 2019 — **\$182,100** was allocated to projects valued at **\$492,016**; from 2002–2018 there have been **1,006** projects approved outside Ottawa — **\$2.8+** million has been allocated to projects valued at **\$5.7+** million. Although these projects are outside of Ottawa, they are located upstream and aid in protecting the City's water quality.
- **38** Ottawa Rural Clean Water Program projects were approved in 2019 — **\$203,690** was allocated to projects valued at **\$459,802**; from 2005–2018, **624** projects have been approved — **\$1.3+** million has been allocated to projects valued at **\$6.9+** million.

Dollars and Cents

The RVCA's 2020 budget is \$10.74 million. Levy requests amount to just over half of our revenue meaning another \$4.7 million is coming from other sources such as fundraising, grants, user fees, the province and special levies.

This means at the RVCA, every \$1 from our member municipalities translates into \$2 being invested into the Rideau watershed for all. The RVCA is able to maximize valuable

watershed programs and services through diverse funding sources and creative partnerships — work that could not be achieved without our many important partners.

Ottawa 2020 levy = \$5,490,111.87

Questions?

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