



Making it Happen

Three Year Strategy and Work Plan Booklet 2004-2006

“A healthy watershed is our greatest legacy to our children and the key to our continued economic growth and future prosperity”



Rideau Valley Conservation Authority

Who We Are

The Rideau Valley Conservation Authority is the lead intermunicipal agency working to address river-related environmental issues and concerns within the Rideau Valley watershed.

It's our job to make sure that the water is looked after by everyone in today's society so that tomorrow's generations inherit a clean, healthy, functioning watershed.

Our work includes tackling flooding and erosion problems, helping people maintain healthy shorelines, researching water movement and use in the valley, providing advice on development-related issues, reporting to municipalities, colleague agencies and the public at large about watershed conditions and trends, providing public access to natural waterfront areas, improving fish and wildlife habitat, and reducing water pollution. In doing these things, we make a significant contribution to the outstanding quality of life enjoyed by the people of the Rideau Valley.

The Rideau Valley Conservation Authority is a partnership of municipalities within the Rideau Valley watershed created under the *Conservation Authorities Act* of Ontario to deliver a range of programs in watershed management and natural resource conservation.

Our proposed operating budget in 2004 is \$5.48 million. About half of this funding comes from income we raise through various fee schedules, admission charges, fundraising efforts and government grants. The other half is provided by the 18 member municipalities in the form of annual levy based on Current Value Assessment of the portion of each municipality within the watershed. We employ close to 50 people including many professionals in the areas of hydrology, engineering, forestry, planning, biology, and computer modeling. The Authority is directed by an appointed Board of Directors representing the interests of the member municipalities and residents of the Rideau Valley.

We are one of 36 Conservation Authorities in Ontario serving all of the major river valleys in southern Ontario and several major population centres in the north. "Conservation Ontario" represents the 36 Authorities in province-wide issues and discussions.





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To Our Member Municipalities

The Cities of Clarence-Rockland and of Ottawa, the Municipality of North Grenville, the Towns of Perth and Smiths Falls, the Townships of Athens, Augusta, Beckwith, Central Frontenac, Drummond/North Elmsley, Elizabethtown-Kitley, Montague, North Dundas, Rideau Lakes, South Frontenac, Tay Valley and the Villages of Merrickville-Wolford and Westport.

We are pleased to present the Rideau Valley Conservation Authority's Three Year Strategy and Work Plan for 2004 – 2006.

How municipalities benefit

We are grateful for the municipal support of the Conservation Authority (CA) budget last February, 2003 which signaled the start of an aggressive three year program to build CA capacity, competency and efficiency on behalf of our members. As the lead intermunicipal agency responsible for river-related issues and concerns, we undertake work that municipalities would find either financially or environmentally unreasonable to do on their own. We operate on a "watershed" basis. The "watershed" (the natural drainage basin of a river or group of rivers) is the most logical, cost-effective and widely-accepted standard in river management worldwide. It is our job to undertake studies, research and reporting on groundwater resources, river hydrology, water budget modeling for the watershed, and watershed planning. Municipalities share the cost of the projects and the results are then shared with the participating municipalities for local use. The job is done once, done well and at reasonable cost.

Our priorities

Over the period of this strategy, we will be tackling a growing agenda of deliverables related to the lasting environmental improvements set out in our detailed work plans.

Elaboration of these three year work plans has resulted in a rigorous review of all current work programs and the making of some hard choices in terms of what we can

and cannot afford to do. The pace at which we can deliver the full list of priorities while maintaining service levels in our baseline work areas has also been addressed.

A major priority is the need to gear up the organization in 2003/04 to deliver an enhanced watershed information system for municipalities and the general public. It is clear to all stakeholders that partial information, scattered across many different library locations, with incompatible operating systems, is not working well. We have focused efforts initially on getting our own information on water quality and quantity, water levels and flow, shoreline classifications, fauna, flora and groundwater available for everyone's use through the internet. We are committed to keeping this watershed database up-to-date and accessible and building its efficiency and ease of use. Eventually it will be the best and most respected one-stop river information shop in the watershed to support municipal decision-making, lake association priority-setting and media background sourcing.

At the same time, we will be implementing important new sampling and modeling programs to increase our understanding of how the watershed works. The most basic and urgently needed is an enhanced ability to make reasonable estimates of the water budget at any location in the watershed through numerical modelling. This long-awaited analytical tool will allow people in the valley to better understand how much water goes where and how the water reacts to different scenarios such as high or low precipitation, climate change and human use. This investment in watershed monitoring and numerical modelling is equipping the CA and its municipal partners with

information and tools necessary for watershed-based Source Protection Planning.

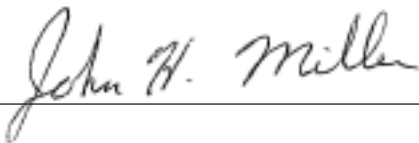
In addition to the above priorities, we are committed to producing the final two Watershed Plans (the Rideau Lakes area and the Middle Rideau area) and thus complete the first phase of the watershed management planning cycle on the six major watersheds in the valley. The Lower Rideau Watershed Strategy will be completed in 2004 and implementation of the Kemptville Creek, Jock River and Tay River watershed plans will be monitored and accomplished as resources permit.

This Three Year Strategy and Work Plan sets out in some detail the progress we plan to deliver in the

2004 – 2006 period. We have set out a number of key performance indicators to measure success in delivering our targets. At the end of each financial year, we will formally report on our performance in our published Annual Report.

Through the commitment and dedication of our appointed members and staff, we are confident that we can continue to make progress towards our goal of making lasting improvements to the quality of life in our valley.

We commend this Strategy and Work Plan to our member municipalities.



John H. Miller, Chair



Dell Hallett, General

photo: Chris Mikula, Ottawa Citizen used with permission



Achieving a Better Quality of Life in the Watershed

People's quality of life depends in large part on the quality of the environment in which they live.

We want people to have peace of mind knowing that they live in a clean, healthy environment, rich in wildlife and natural diversity, with safe and plentiful supplies of water and natural areas, which they will care for and can use, appreciate and enjoy. Environmental quality is the key underpinning for both social well being and economic growth. We are honoured to play a key role in delivering environmental quality in cooperation with our municipalities and at a shared cost well below what they would pay on their own.

Chart 1 shows how RVCA's environmental themes are achieved and supported by various on-the-ground program areas. The chart emphasizes the fully integrated approach being used to make progress towards sustainable environmental management through the delivery of real services and products to our municipalities, senior levels of government, colleagues, community organizations, families and individuals.

Focusing Our Work

Our work and resources are primarily aimed at achieving:

- 1 BETTER WATER QUALITY** – RVCA helps improve the quality of water in our streams, lakes, rivers and groundwater reserves. Improvements in water quality will continue through reduction or elimination of previous threats such as faulty septic systems, expanded monitoring programs, continuing incentive grants for rural residents and shoreline landowner information programs. This activity supports the outstanding quality of life in the watershed.
- 2 GOOD WATER SUPPLY** – Adequate, safe and sustainable water supply is crucial to economic growth and social well-being in the Rideau watershed. RVCA will ensure that source protection is emphasized in every watershed plan in the valley. This activity results in a better quality of life for all residents.
- 3 REDUCED FLOOD RISK** – RVCA will maintain and improve flood and erosion protection using a series of programs based on the protection of the natural flood plain. We will ensure that unnecessary costs and risks are not incurred by our municipal partners as a result of inappropriate development. We will improve the flood forecasting and warning system and increase awareness of flood risks so that people will enjoy a better quality of life in the watershed.
- 4 IMPROVED WATERSHED HABITATS** – We will continue to restore damaged habitat, protect threatened habitats and encourage stewardship of habitat on private land throughout the watershed, especially those related to or adjacent to shorelines. Improved habitats supports a better quality of life for people in the watershed. Sustainability is enhanced. Biodiversity is promoted.
- 5 CONSERVATION AREAS AND PROGRAMS** – RVCA will continue to accept and manage, using sound resource management principles, critical pieces of environmental land offered as gifts through the Rideau Valley Conservation Foundation. We will continue to offer recreational opportunities and conservation education programs contributing significantly to better quality of life for residents of the watershed.
- 6 BETTER WATERSHED INFORMATION** – We will continue improvements in reporting watershed conditions and trends to the people of the valley through our website, the Watershed Information Management System (WIMS) program and publications such as newsletters and lake reports. We will continue to provide experienced, objective opinions to municipalities, conservation groups, community associations and others through the provision of planning advice and consultation on water management issues. Accessible, credible and current watershed information provides comfort and

Chart 1 Integrated Approach to Environmental Themes

RVCA's Environmental Themes (Building Blocks to a Healthy Community)	Activities	watershed planning	watershed modelling	access to natural areas	flood forecasting and warning system	flow monitoring	outdoor education	reforestation	regulation enforcement	streamflow and precipitation monitoring	plan review	septic inspection	Watershed Watch	City Stream Watch	Rural Clean Water Program	water quality monitoring	biological monitoring	wetland protection	community monitoring	Watershed Information Management System	municipal reporting	public reporting	Landowner Resource Centre	groundwater monitoring	habitat protection	private land stewardship	shoreline naturalization
Better watershed information	■	●	■	■	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	■	■	■	●	●	●	●	●
Better water quality	■	■	○	●	●	●	■	■	■	■	●	■	●	■	■	■	■	●	●	■	■	■	●	●	●	●	
Improved watershed habitat for fish and wildlife	■	■	■	○	○	○	●	●	●	●	●	○	●	●	●	●	●	●	●	■	■	■	●	●	●	●	
Good water supply	■	■	○	■	■	■	■	○	■	●	●	○	○	○	○	○	○	■	●	■	■	■	●	●	○	●	
Reduced flood and erosion risk	■	■	○	■	■	■	●	■	○	■	■	○	○	○	○	○	○	●	●	■	■	■	●	●	●	●	
Conservation areas and programs	■	■	■	■	■	■	●	■	■	■	■	■	■	■	■	■	■	●	●	■	■	■	●	●	●	●	

- RVCA Lead role
- RVCA important supportive role
- RVCA contributory role

confidence in making decisions at the individual and family as well as the municipal level contributing to a better quality of life in the watershed.

Our work touches many parts of people's lives and is aimed at making the aquatic environment clean and safe, and managed in a sustainable way – for the benefit of the present generation, and for our children and future generations to inherit. The six integrated themes essentially determine people's perception of this environment.

We work in partnership to deliver a range of benefits from clean waterways and community awareness to protection against flooding and wise use of natural resources.

Some of our work involves planning and regulation. We review and comment on a range of development activities in the flood plain and other critical river-related areas to minimize their impact on the surface and groundwater system. We use science and the results obtained from our extensive monitoring program to make objective decisions and we ensure that our requirements are reasonable and appropriate taking due account of costs and benefits to the individuals involved and to society at large.

We recognize that in order to achieve our aims, we need to broaden our approach. Firstly, we appreciate the importance of informing and engaging shoreline landowners by building awareness of the benefits of a more sustainable approach to shoreline land use. We will renew efforts at developing innovative approaches that are much more about advising and enabling landowners so as to build understanding about the environment and people's impact on it. It is also clear that more inspection work needs to be done to ensure that conditions are adhered to. Despite recent

information that shows most landowners are satisfied with RVCA's performance in the shoreline regulation area, renewed efforts at firm and fair enforcement will go a long way to bolstering landowners general confidence in RVCA's planning and regulatory functions.

Building Partnerships

We cannot secure the environmental outcomes we want on our own. Municipalities, landowners, businesses, community organizations of many kinds, the public and government agencies at all levels have a significant role to play in achieving a better quality of life through a healthy environment. In recognition of this, we will, as a key part of our project strategy, work with others to understand how we and they can contribute to a better watershed environment within the framework of our wider goals.

Our priorities will be based on good scientific evidence, take due account of risk and be informed by our 37 years of practical experience and monitoring of the Rideau Valley watershed. We will use our collective understanding of wider economic and social policy issues to influence and inform government, business and others as to how their plans affect our goals. In delivering our projects, we aim to shift our contributions to where it can make the greatest difference in improving the watershed environment.

Measuring Progress

We have developed a series of measures that will help us to assess our progress towards environmental health. Although subject to many outside forces that are beyond our direct control, these performance indicators and annual milestones give us a roadmap of targets as we move through the months and years of this Strategy. At the end of each financial year, we will report on our performance in our published Annual Report.

Chart #2: Anticipated Accomplishments for 2004–2006

Environmental Themes	Key Areas of Progress	ANNUAL MILESTONES		
		2004	2005	2006
Better water quality	Watershed Planning	review and update Kemptville Creek	start Rideau Lakes Watershed Plan	start Middle Rideau Watershed Plan
	Monitoring Networks	network design continues	refinements (integration with partners)	continue
	Rural Clean Water Programs	develop new sources of funding	seek sustainable sources & implement	implementation
Good water supply	Numerical Modelling	complete	fine tune	widespread confidence & use by colleagues
	Regional Groundwater Studies	implementation plan for Renfrew-Miss-Rideau study	assist in implementation (lead role in information management)	assist in implementation
	Public Education	assist with workshops	well/septics education program	continue
Reduced flood and erosion risk	Numerical Modelling	complete	assess and fine tune	test low flow compatibility
	Beaver Management Pilot Project	Kemptville Creek – complete	evaluate	expand
	Flood Plain Regulations	review enforcement policy and capability	education program for public re floodplain regs	renew and extend flood plain mapping
Improved Watershed Habitat for Fish & Wildlife	Shoreline Classification	complete Rideau to Smith Falls	extend to Tay, Jock and Kemptville Creek	continue
	Wetlands	new prioritization of key wetlands to protect	develop mapping and invite public input	submit for provincial approval
	Plan Review	ensure that habitat needs are reviewed 100% of time	ongoing based on municipal need	ongoing
Conservation areas and programs	New Natural Areas	manage up to 2 new donations per year	up to 2 more donations	up to 2 more donations
	Conservation Area Programs	current maintenance & programming levels	continue	continue
Better Watershed Information	Watershed Information Management System (WIMS)	fully operational	minimum of one new dataset incorporated each year	complete SSMW Phase II
	Municipal Reporting	increase information flow to councillors & staff	implement LRWS start RLWS implementation	complete RLWS Start MRWS implementation
	Annual Watershed Report Cards	develop model and test	evaluate	continue

Better Water Quality for Everyone

Our long-term vision

Our rivers, lakes, streams, groundwater and wetlands will be clean and sustainable. The waters will support diverse and healthy ecosystems and contribute to thriving and healthy economies and communities by supporting domestic, industrial, commercial, recreational and tourist opportunities.

Currently

Most shoreline residents believe that water quality in the Rideau system is fair to pretty good. And we agree. The data on water quality collected in the last few years show a reasonably healthy river system except for the occasional outbreak of bacterial pollution and high levels of phosphorus. The phosphorus is partly responsible for the increasing problem with the abundance of aquatic plants and the problems people report with swimming and fishing. Some of the high phosphorus readings are natural and some are caused by runoff and seepage from adjoining land uses. The monitoring tells us that the tributaries are major conduits for phosphorus coming into the main Rideau corridor.

We are working in cooperation with several other monitoring agencies including the City of Ottawa, lake associations and Ministry of the Environment to monitor the trends in water quality in different areas of the watershed.

Priorities and milestones 2004 – 2006

- **RURAL INCENTIVE PROGRAMS** – we are working hard to develop new sources of sustainable funding to continue with the very effective Rural Clean Water Program. In only eighteen months, the program approved 73 on-the-ground projects and over \$335,000 of clean water projects with an incentive grant investment of just over \$135,000. Our long-standing tree planting program will continue and a new shoreline stewardship program is planned for 2005.

- **MONITORING NETWORK** – we are developing a network of monitoring stations across the watershed for everything from water quality and groundwater to aquatic insect and precipitation sampling. This observation network will enable us to detect long-term trends in water quality and to direct remedial efforts where they are most needed.
- **OFFICIAL PLANS** – we will continue to work with municipal officials to incorporate meaningful policies such as shoreline setbacks, storm water management, and source water protection into Official Plans and other planning documents. With the backing of official documents, landowners have a much higher degree of comfort and acceptance of standards knowing that public input was part of the approval process. Taking care of the environment they choose to live in is a shared responsibility between the landowner, the municipality and the Conservation Authority.

In addition, we will be undertaking several other major water quality initiatives in 2004 – 2006 in the areas of Watershed Planning, Surface Water Quality Monitoring, Aquatic and Terrestrial Habitat Monitoring, Site Specific Plan Review and Stewardship.

RVCA plans to continue with work on the Lower Rideau Watershed Strategy including a major component on water quality improvement. Work on implementation of recommendations from the Kemptville Creek and Tay River plans continues. The start of a watershed planning project in the Rideau Lakes area is scheduled for 2004. A new staff position will be filled in 2004 which will provide much needed support to community monitoring and watershed planning in general. Completion of the Rideau Lakes Watershed Management Plan and the start of the Middle Rideau Watershed Management Plan by 2006 will provide a complete framework of high level watershed planning documents for the entire Rideau River drainage basin

and the roadmap for more detailed water quality improvement and other projects over the watershed planning cycle.

New monitoring stations were added to the sampling network in 2003 and more are anticipated. Baseline stations and benthic invertebrate stations are being established in the lake country and on the Jock River and Kemptville Creek. RVCA now runs 28 sites in the Ontario Benthic Bio-Monitoring Network. Watershed Watch monitoring of lakes continues at the same level of effort as 2003 and the very successful City Stream Watch program is poised to complete another survey of three urban streams in 2004. Coordination with other sampling agencies (particularly the City of Ottawa) will produce efficiency gains. RVCA will continue its role in the Provincial Groundwater Monitoring Network and intends to be a key partner in implementation of the *Renfrew County-Mississippi-Rideau Groundwater Study* completed in 2003. We also will continue to support implementation of *Leeds and Grenville County Groundwater Management Study* (2001) as well as the City of Ottawa's *Aquifer Management Strategy*.

Source protection planning is a provincial priority following the Walkerton tragedy and a strategy is now being developed for protecting drinking water sources on a watershed basis with the strong support of Conservation Ontario. Conservation Authorities are identified as having a lead role in developing the watershed-based source protection plans. This will likely be well underway by 2005 and take several years of cooperative effort to complete and monitor.

Our plan review services significantly protect both water quantity and quality, property and lives by directing inappropriate development away from the flood plain and other hazardous lands. RVCA approval conditions often include provisions for appropriate setbacks from the shoreline and the retention of wide

natural buffers between the disturbed lot and the watercourse. Both site specific and non-site specific plan review services will continue at the current level of effort through 2006. Our regulations staff (in cooperation with other agencies) administer the *Conservation Authorities Act*, *the Fisheries Act* and the *Building Code Act* (Septic) regulations. Water quality problems are avoided before they occur. Staff will continue helping landowners move or improve their activities so that watercourse health is not impaired by spills, erosion or flood plain capacity reduction.

There are possible new partnerships evolving in the septic and well inspection and re-inspection areas that involve the Authority. These will be explored further in 2004 and may be in place in some parts of the watershed as early as 2005.

In the area of stewardship, RVCA provides an integrated menu of landowner assistance from reforestation to incentive programs for fencing cattle out of the creeks. Last year, 120,000 new native trees were planted and 73 rural clean water projects were undertaken on private land near the water. Each of these projects is another stitch in the environmental repair process and collectively adds up to a slow and steady removal of phosphorus and other pollutants from our streams. The Three Year Work Plan builds capacity to deliver land stewardship programs as recommended in the three completed watershed management plans.

As you can see from Chart 1, many of the environmental themes are inter-related and work on one theme produces side-benefits in other themes. Water quality is probably the prime example where virtually all of our program areas contribute eventually to cleaner water in our lakes and streams.

Good Water Supply for Everyone

Our long-term vision

Our rivers, lakes and groundwater reserves of water will be protected against overuse and from the threat of contamination. Adequate water supply is critical for human use, industrial and municipal purposes, recreational opportunities and in-stream ecological functions, all of which need to be considered when the resource is being authorized for use. People relying on these reserves for drinking water will be aware of how to protect them from problems and be vigilant in ensuring compliance with all source protection regulations and policies.

Currently

The amount and movement of water through the Rideau Valley watershed is a natural function powered by rain, snow, temperature and season. Water follows the "water cycle" of precipitation, runoff, evaporation and return as rain everywhere across the globe. It is important to know how much water enters the watershed, how it travels through the watershed and eventually, how much leaves the watershed. This information is known as a water budget. RVCA's main focus is to develop the analytical tools and expertise for undertaking water budget analyses when and where it is needed as part of the decision-making process on water resources management. Numerical watershed modelling (simulations of how water moves through the valley) will allow us to make reasonable estimates for the water budget at any location in the watershed.

Water for human drinking purposes is drawn from surface water (Towns of Perth and Smiths Falls) or from groundwater via wells drilled into below-ground aquifers. A second priority of RVCA is to investigate the interaction between surface water and groundwater in the valley. We know they are interrelated but how, where, by how much and in what manner is not clearly known. Understanding these connections is one of the fundamental building blocks for source protection. As

climate change and other factors start to influence water movement in the valley, it is possible that flooding and low flows, the two ends of the same spectrum, will become more difficult and recurrent problems than they have ever been in the recent past.

Priorities and milestones 2004 – 2006

- **WATER BUDGET ANALYSIS** – RVCA's priority for 2004 is to develop numerical modeling capability to simulate how water quantity in our lakes, rivers and groundwater reserves might vary with changes in land use, climate and other influences. Numerical watershed modelling will enable the CA to perform water budget analyses required to support sound, science-based water management decision-making throughout the Rideau Valley.
- **PUBLIC EDUCATION** – we will be holding repetitive workshops and community meetings about how to keep private wells and septic systems healthy. As climate change becomes apparent, we will be preparing people with information on water conservation.
- **SOURCE WATER PROTECTION** – we will be taking a coordinating role in the preparation of SWP plans in our watershed alongside many partners including municipalities, health units, ministries and landowners.
- **GROUNDWATER PROTECTION** – RVCA will assist our partners in implementing the recommendations from the recently-completed regional Groundwater Studies and Aquifer Management study in Ottawa, including integration with Source Protection Planning.

In addition, we will be undertaking several programs with a water supply benefit including watershed planning (as outlined in the last section), operation of water control structures in our control, improvements of habitat, plan review and regulation, stewardship and most notably, specific groundwater and surface water quantity programs.

Baseflow surveys have been started at 19 test sites in the upper Tay River and Jock River watersheds. These will be expanded to new sites in the Middle Rideau and Lower Rideau tributaries in 2004 and 2005.

Groundwater monitoring will continue throughout the period with a major emphasis on gathering, centralizing and processing the groundwater information on a watershed basis in the RVCA office. It makes good sense that one central, reliable database on groundwater be established and maintained at RVCA and available for use by all partners. The groundwater monitoring network in the watershed will be reviewed and modified as new information is available.

The Rideau Valley Rural Clean Water Program includes groundwater protection as an objective. The focus will be on finding new sources of funding to continue offering incentive grants for septic repairs, well upgrades and well decommissioning.



Reduced Flood and Erosion Risk

Our long-term vision

Financial losses, property damages and social disruption caused by flooding and erosion will decrease.

Currently

Problem flooding in the Rideau watershed is traditionally confined to some well-known flood damage centres which were built up in low-lying areas before the 1970s. Other low-lying natural areas do get flooded occasionally but there is no damage because the flood plain is not developed. RVCA has two major flood control structures in Ottawa to protect about 75 homes in old Ottawa South. The RVCA has undertaken several flood and erosion control projects in the past 30 years including on Graham and Stillwater Creek.

Flood plain maps are currently available for many populated shoreline areas of the Rideau watershed. A flood forecasting and warning system is in place and updated annually in order to advise municipalities of impending high water as quickly as possible.

RVCA's flood plain regulations help avoid future risk to life and property by directing inappropriate development away from the flood plain of the Rideau and its tributaries. The central pillar of our flood and erosion control program is that the flood plain must be available to take the natural surcharge of water during high water events and is really a natural and integral part of the river itself.

Priorities and Milestones 2004 – 2006

- FLOOD PLAIN REGULATIONS – we foresee continuing with the tried and true policy of flood plain regulations at a similar level of effort as 2003. We will continue to identify and delineate flood plain, unstable slopes and other hazardous lands and direct development away through the regulatory process.
- FLOOD FORECASTING AND WARNING – RVCA will operate the flood forecasting and warning system to maximize the effectiveness of flood response operations and minimize flood damages.

- WATERSHED MODELING – we will use the emerging watershed model to assess changes in flood magnitude or frequency resulting from human or natural influences and use it to develop improved flood forecasting capability.
- FLOOD AND EROSION CONTROL MEASURES – we will work with landowners and municipalities in the planning, construction and operation of cost-effective and ecologically-sound flood and erosion control measures.

We anticipate that the new watershed model being developed at RVCA will have positive effects on our ability to predict, react to and protect against floods and erosion problems in the future. The expanded monitoring system that is being put in place for other functions will have much useful information that will help us review and update our flood and erosion control program. The watershed plans for instance will provide a lot of new information on shoreline conditions, stewardship needs and water quantity problems already evident in the area. The baseflow surveys will add to our understanding of how floods develop and at what pace we could expect problems.

Updated or new flood plain maps are the basic tool in the RVCA strategy against flood damage. RVCA's flood plain mapping program continues in 2004 – 2006 with the acquisition of base mapping and flood plain updates. Funding support will define the level of effort in the future. Candidate areas for new/updated flood plain maps include Kemptville Creek, Rideau River between Burritts Rapids and Smiths Falls and the Tay River from Glen Tay to Bolingbroke.

Beaver can cause flooding and disruption to water flow. The CA started a Beaver Management Pilot Program on Kemptville Creek in 2003 and plans to continue with it throughout the work plan period.

Improved Watershed Habitats for Fish and Wildlife

Our long-term vision

The size and quality of habitats needed to support healthy populations of native plants and animals will be protected. Everyone will understand the importance of safeguarding biodiversity and protecting plants and animals.

Currently

It has become apparent that it is not effective to simply try and protect species. What is critical is a certain size and quality of habitat that, when present, allows the target species and hundreds of others to thrive. Biodiversity is an indicator of environmental health. Biodiversity is also important in its own right with many known and unknown links to human health and economic growth.

There are a number of fish and wildlife habitat partners with whom we interact to protect and enhance watershed habitats. We perform regulatory functions on behalf of the federal Department of Fisheries and Oceans, interact regularly with colleagues at the provincial Ministry of Natural Resources and undertake projects jointly with private conservation groups such as Ducks Unlimited Canada. We see this web of support and interaction as a strong alliance that delivers good habitat projects in our watershed.

Many of our current and anticipated watershed planning exercises have improved fish and wildlife habitat recommendations. Local communities, business people and lake associations often mention the importance of keeping a healthy local ecosystem as judged by the presence of birds, the fishing success, the chorus of frogs at night and other locally significant and important habitat-based indicators.

As in many of the other environmental themes, there are a lot of inter-relationships between this one and others. Good water quality often leads to better habitat. Reduced development on the flood plain

allows greater local biodiversity. Healthy fish and wildlife populations leads to more interest in them and more information being created to protect and encourage them. More water birds means more people taking an interest in the water environment that supports them, and so on.

Priorities and Milestones 2004 – 2006

- Prioritization of wetlands in the watershed with an eye to getting the most sensitive covered by RVCA or other regulation
- Assemble inventories of habitats on a watershed and subwatershed basis and establish a framework for monitoring and reporting change over time
- Address habitat needs through ongoing review of development plans and potential use of development controls
- Plan and deliver programs to promote and provide incentives for the renaturalization or restoration of degraded habitats.

In general, RVCA will continue to restore damaged habitats, protect threatened habitats and encourage stewardship of habitats on private lands throughout the watershed, especially those relate to or adjacent to shorelines, often in partnership with colleagues in government and community groups. Fish and wildlife habitat on public lands, such as RVCA Conservation Areas, are already protected by regulation, supervision and physical encouragements such as boardwalks.

The loss of wetlands in southern Ontario is ongoing. People sometimes don't understand the crucial role wetlands play in water regulation and filtration. RVCA is planning a wetland project whereby all major wetlands in the valley can be re-assessed for their critical ecological values so that the most valuable and/or most threatened ones can be brought under RVCA or other regulation in terms of destruction, draining and development.

We are already at work on a classification of shorelines on the Rideau River and need to continue this work throughout the tributaries and lake country. This important work gives us a baseline inventory of shoreline habitats that will be repeated at regular intervals (likely every 10 years) so that we can understand what is really happening along our rivers and lakes in terms of habitat loss, improvements or change.

The Municipal Drain Classification project will be tidied up in 2004 giving us another inventory of habitat (or lack of it) in the 200 drains stretching approximately 10,000 km through the watershed. The Macro Stream Assessments program will expand from 2003 levels to include new sites and new volunteers on the Tay River, Jock River, three urban streams and new sites in the Middle and Lower Rideau area. Once again, we gain valuable baseline information on stream characteristics and shoreline areas in advance of development and change.

The new Generic CA Regulations need to be analyzed with a view to defining the technical requirements needed to support policy decisions about expanding regulated areas to include wetlands, river and stream

valleys, and other areas as chosen by the Minister. RVCA will be simultaneously developing a strategic approach for the application of ecological land classification to watershed management in our valley. The acquisition of satellite imagery of the whole watershed will give us up-to-date information on the land cover in the valley using a provincially-recognized classification system. This will provide useful data for hydrologic and habitat "modelling" and establishes a benchmark in 2004 as to the presence and distribution of different landforms/vegetation communities in the watershed.

Community-based monitoring is a cost-effective way to get information and to include stakeholders in the day-to-day conservation of the valley. RVCA will assign staff to promote and accommodate community participation in watershed monitoring. We foresee an interesting cross-pollination between community monitoring and stewardship since many of the people doing the scientific work will be pre-disposed to undertake personal and community stewardship efforts back home.

All of this new information and background data will be lodged in the RVCA's Watershed Information Management System (WIMS) for public access and use.



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Conservation Areas and Programs for Everyone

Our long-term vision

Everyone in the watershed will have access to clean, safe, public waterfront lands for relaxation, education and contact with nature. Conservation education programs and workshops will help people re-connect with, understand and finally respect the beauty, function and need for clean water, abundant wildlife and green open spaces.

Currently

Many studies make the obvious link between the human and environmental health. The research shows clear evidence that many people feel better and cope better with daily stresses simply knowing that wild spaces exist with clean, green areas, fresh air and wild plants and animals. By actually visiting such places as your local Conservation Areas with native wildlife, access to shoreline and forest trails, people's ability to remain healthy and less stressed is strongly reinforced. It is as if contact with nature is a sort of boost to our natural immune systems.

RVCA will continue to provide close-to-home natural areas and programs so that the increasingly urbanized adults and children of the watershed will have a "wilderness" outlet that is accessible and affordable. We currently own and maintain a network of eight Conservation Areas with some level of visitor service (parking lot, signage, boardwalks, interpretive centres, education programs) and an additional 4,500 acres of environmental land to protect recharge areas, lake or river wetland or shoreland, or examples of natural forest and wilderness.

The only way we increase the stock of future conservation land is through donation of the land. Our partner, the Rideau Valley Conservation Foundation, is a registered charitable foundation which can help in the transfer of land to the public domain. In some cases, the Foundation retains ownership of the property.

We provide outdoor education lessons for organized school groups and associations at the Baxter and Folky Mountain Conservation Areas. Over 100,000 children have visited these two centres over the past 25 years.

Priorities and Milestones 2004 – 2006

- Accept an average of two new land donations each year
- Promote the new Conservation Land Endowment Fund to assist with the costs of maintaining and operating lands gifted to the Foundation
- Complete Phase II of the Sandi Slater Memorial Walk at the Meisel Woods Conservation Area
- Maintain all properties and services at the current level.

The Conservation Areas program is being maintained at current levels for the foreseeable future. Overall, staffing will continue to drop slightly through 2004. In 2005, RVCA plans to move away from reliance on fundraising and special employment programs to fund the core staffing/resource needs of our existing Conservation Area network. Special funding programs such as the Ice Storm Assistance Program have relieved our staff budget for several years. No new development proposals are foreseen at Conservation Areas through 2006. This status quo operation will allow RVCA to divert resources to the important Water Science and Engineering section which is seen as a priority by the Board of Directors.

We are just emerging from a busy three year build up to the opening of the beautiful Chapman Mills Conservation Area on the Rideau in the City of Ottawa. The first full year of operation was 2003.

Programming at Baxter is expected to increase slightly with the Eastern Ontario Children's Water Festival making Baxter its home, expanded day camp programs and an education partnership underway with Ducks Unlimited Canada.

The only capital spending will be on the privately-funded Sandi Slater Memorial Walk project at the Meisel Woods Conservation Area in Central Frontenac Township. That project will be completed as fundraising continues.

In spite of a three year hiatus, the current RVCA network of eight developed Conservation Areas is one

of the finest and largest offerings of public parks in Eastern Ontario. Most of the lands are on the Rideau River or the Rideau Lakes and all hold the stress antidotes and quality family memories that many citizens are looking for all year round.



photo: Chris Mikula, Ottawa Citizen used with permission

Better Watershed Information for Everyone

Our long-term vision

Citizens, municipal councilors and staff, media representatives, government colleagues, students and researchers will all turn to the RVCA Watershed Information Management System (WIMS) and website as the basic, top-of-mind source of current, objective information on the Rideau watershed environment. RVCA information as well as data from other sources will be readily available and accessible to everyone online.

Currently

The watershed community is looking for more reporting of river-related information. This is clear from Open Houses, focus groups, every completed watershed plan and questionnaires over the past three years. The difficulty is in supplying the right level of information for each need at the right time in the right format. For instance, some people are looking for general statements about the health of their lake while others want the detailed data tables and raw research numbers. Councilors may want a different type of information than their planning staff on the same subject.

In 2002, RVCA made the decision to work towards a master Watershed Information Management System (WIMS) which could act as a central accessible repository of watershed information. It can accommodate the several different levels of information required in tandem with our regular channels such the Around the Rideau newsletter, Annual Reports and printed materials through the LandOwner Resource Centre.

The Conservation Authority is the logical organization to provide the "repository" function and to serve as the main source of credible, objective watershed information and we have been working towards providing the public vehicle to access that information. The launch of WIMS is expected early in 2004.

Priorities and Milestones 2004 – 2006

- Watershed Information Management System available online in early 2004
- Increased flow of watershed information to municipal councilors and staff in support of ongoing daily environmental decisions being made
- Reporting on progress in watershed management through periodic updates of watershed plans and annual watershed report cards
- Provide current, one-stop information for landowners and individuals through RVCA's LandOwner Resource Centre on all aspects of the Rideau watershed including water, flood plain, regulations, septic systems, wells, conservation areas and workshops.

Reporting on watershed conditions and trends is recognized as one of the priority jobs of RVCA. We have some of the information now and we're collecting more with regular monitoring of all aspects of the Rideau environment from water levels to benthic organisms in rivers and streams to number of buildings on the shoreline. We will continue to make improvements in organization and accessibility of information and in reporting to the people of the valley through our website, our regular publications and especially our newest communications link, the Watershed Information Management System. WIMS is meant to serve many different levels of information need from current overviews of flood conditions to in-depth research into chemical results of water samples at one site over the past 10 years. WIMS will require constant attention to update and verify the information in the databases.

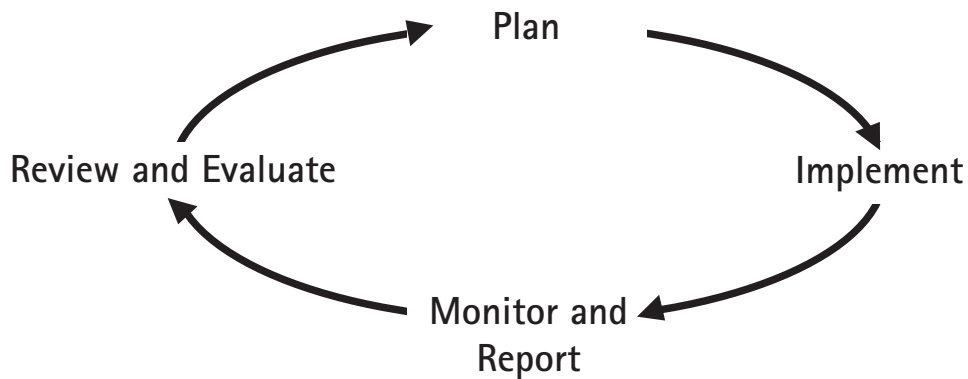
For many people, knowing WIMS is there and available is comforting. But they still want to talk to a real person. The RVCA's LandOwner Resource Centre in Manotick provides an essential community service by responding to all environmental enquires from forestry to flood plain permits to docks. The Information Specialists at LRC help people understand the process and the background information before passing them on to a professional in the field.

And for many other people, they don't want to talk to someone, they want to read something. RVCA will be a major supplier of environmental documents on topics of environmental interest over the strategy period.

Municipal councilors and staff are a special group of people needing information from RVCA. Their work and their decisions rely on the objective and current research and watershed trend information held at the Authority. We foresee an increase in environmental information directed at municipal people starting in 2004.

By 2006, RVCA will have completed five of the six watershed plans covering the entire valley. We will then be well into the watershed planning cycle wherein major changes or trends in watershed conditions will be captured in watershed plan updates on a five year rotation.

Watershed Planning Cycle



Managing Public Money

RVCA plans to spend \$5 million dollars on protecting, regulating, improving and reporting on the watershed environment in 2004. The charts below show where the

money comes from and how the money will be spent according to our 2004 budget documents. The final chart is a summary of current reserves.

Chart 3
How we are funded 2004

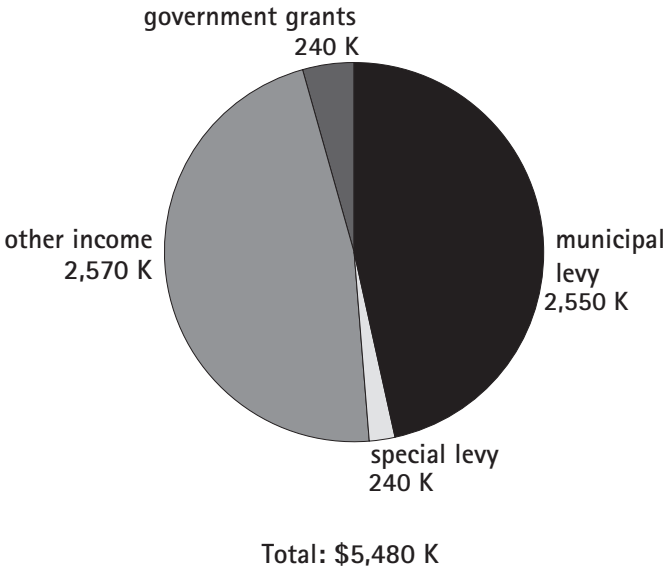
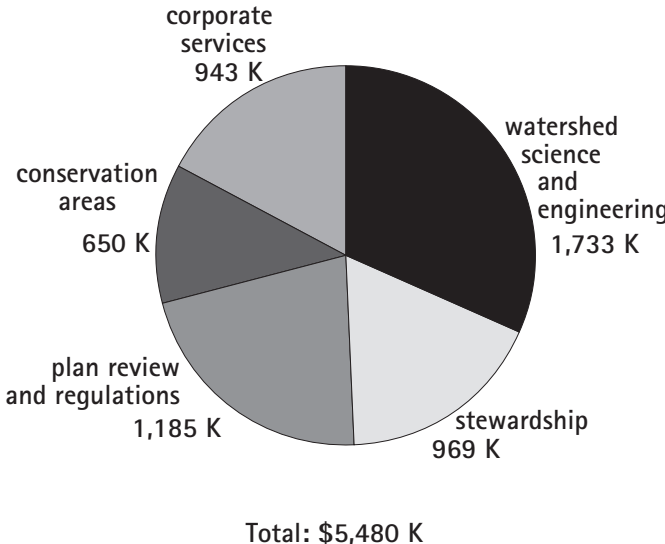


Chart 4
Putting the funds into action 2004



A significant increase in resources is required in 2004 in order to maintain the momentum achieved in the Watershed Science and Engineering program. This will enable further necessary enhancements to the monitoring programs, start of a Rideau Lakes Watershed Plan, watershed model development and significant development and refinement of the internet-based WIMS.

The 2004 budget will enable RVCA to provide the comprehensive review of all development proposals, technical reports and environmental assessments for the entire year. Similarly, regulations for which RVCA is responsible will be administered and enforced properly.

2004 will also bring RVCA closer to the desired state of having appropriate staff supported on a continuous basis to administer clean water and tree planting programs. Once these staff positions are in place, RVCA will be able to secure incentive grant money that is necessary to undertake environmental protection work on private property.

The Conservation Areas program is essentially status quo in 2004 and additional resources for Corporate Services will support necessary financial management and human resource functions.

Our sources of income

- Municipal levy
- Fees for service and other income
- Government grants

Chart 5 (on page 21) shows a summary of RVCA's overall three year program costs (as of December 2003). The original three year work plan (2003 – 2005) called for significant increases in resources for the RVCA, in all program areas, to be applied on a priority basis through to 2005. By then, we are looking to be at or very close to the mature organizational state capable of delivering an effective watershed management program and the better quality of life described in the work plan and approved by the RVCA Board of Directors. Levy increases in 2006 and beyond are expected to be in accordance with assessment growth and inflation.

Description

For 2004, the levy apportionment percentage for the City of Ottawa is 90.25%, up from 89.54% in 2003. If this trend continues (as expected), levies to rural municipalities in the watershed will begin to reduce in 2006 and beyond, even though overall levy increases are expected to be in accordance with assessment growth and inflation. In addition, once geo-referencing of assessment is done by MPAC, levies to the rural municipalities will dramatically reduce.

The approach taken to identify income from other sources has been deliberately conservative. During the next three years, between 2004 and 2006, we have forecasted a multiplier of 2:1. In other words, for every dollar of levy contributed through municipalities, the RVCA will generate an additional dollar from other sources. Historical performance for the RVCA has been to achieve a multiplier of 3:1, and there is no reason to believe that this won't be realized again in the near future. New staff will be able to attract new partners and money from a variety of sources to achieve ratio. The long term impact will be to reduce future pressure on levy increases to municipalities.



photo: Chris Mikula, Ottawa Citizen used with permission

Chart 5
Overall Three Year Program
Program Summary
(December 2003)

	Current Year (2003)		2004 Requirements		Projected 2005 Requirements		Projected 2006 Requirements	
	Total Spending (\$1,000's)	General Levy (\$1,000's)	Total Spending (\$1,000's)	General Levy (\$1,000's)	Total Spending (\$1,000's)	General Levy (\$1,000's)	Total Spending (\$1,000's)	General Levy (\$1,000's)
Watershed Planning, Monitoring and Reporting								
Program Management	0	0	136	116	141	121	144	124
Watershed Planning	238	78	137.4	97.4	152	152	156	156
Surface Water Quality	211	139	214	181	194	186	197	189
Streamflow and Precipitation	311	187	280	232	352	304	315	267
Groundwater	72	72	152	102	105	105	107	107
Aquatic and Terrestrial Habitat	92	82	236	165.6	208	158	211	161
Community-based Monitoring	29	29	16.4	16.4	42	42	43	43
Watershed Information System	110	110	97.8	97.8	101	101	103	103
Water Control Operations	312	53	463	38.8	299	39	320	60
Subtotal	1375	750	1732.6	1047	1594	1208	1596	1210
Planning Advisory Services								
Program Management	0	0	24.5	24.5	25.5	25.5	26	26
Site-Specific Plan Review	218	79	310	87	321.5	91.5	328	93
Non-Site-Specific Plan Input	106	84	77	67	78	66	80	67
Subtotal	324	163	411.5	178.5	425	183	434	186
Regulatory Services								
Section 28 Conservation Authorities Act	126	91	179.5	104.5	184	104	188	106
Section 35 Fisheries Act	94	42	63.5	42	65	63	66	64
Part VIII Building Code Act	388	0	395.2	0	417	0	429	0
Septic Re-inspection Program	70	0	52.3	0	54	0	55	0
Well Inspection Program	70	0	33.2	0	85	0	86	0
Subtotal	748	133	723.7	146.5	805	167	824	170
Stewardship Services								
Program Management	65	60	55	55	84.9	84.9	85.9	85.9
LRC Storefront/General Stewardship	120	75	130	120	154	138	181	151
LRC Production Centre	200	0	198	0	205	0	209	0
Private Land Forestry Assistance	200	25	218	40	240.5	79.9	244	99.2
Clean Water Program	220	35	154	59	239	119	248	103
Shoreline Stewardship Program	10	10	15	5	95.2	75.2	96.2	71
Beaver Management Pilot Project	10	0	13	13	23	23	29.9	29.9
Other	225	0	185.5	0	178	0	183	0
Subtotal	1050	205	968.5	292	1219.6	520	1277	540
Conservation Land Management								
Program Management	105	105	109	109	133	133	148	148
Land Donations	22	2	23	0	31	0	35	0
Baxter Conservation Area	155	70	162	77	202	115	236	141
Foley Mountain Conservation Area	110	60	117	67	136.6	86.5	155	95
Other Developed Conservation Areas	100	70	102	72	139	109	162	127
Other Conservation Lands	90	68	104	81	123	98	142	112
Workshop/Vehicle/Equipment *	35	0	39	0	55.5	0	59	0
Leases and Management Agreements	30	5	33	4	45	5.5	57	7
Subtotal	647	380	650	410	865.1	547	994	630
Corporate Services								
Management and Members	167	167	196.9	176.9	204	184	209	189
Financial Administration	227	162	139.8	114.8	145	120	148	123
Human Resources	0	0	65	45	68	47	69	49
Computer and Office Equipment *	165	0	102	0	106	0	110	0
Communications	89	74	141	138.3	146	143	149	146
Utilities and Maintenance *	150	0	150	0	160	0	190	0
Office Building	0	0	400	0	0	0	0	0
Subtotal	798	403	942.7	475	829	494	875	507
Overall Program Total	4942	2034	5479	2549	5737.7	3119	6000	3243

* internally generated revenue – should not be included in totals for budget purposes

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