



# Ottawa Rural Clean Water Grants Program

## 2011-2015 Program Review and Renewal

August 27, 2015



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## 1. Background

### 1.1. Purpose of the Review

The Ottawa Rural Clean Water Grants Program ([RCWP](#)) provides cost-share grants to farmers and other landowners in the rural area for projects that protect surface and ground water. The program has operated since 2000 through a partnership with the South Nation, Rideau Valley and Mississippi Valley Conservation Authorities and the Ontario Soil and Crop Improvement Association. The [2011-2015 Program](#) was renewed in 2010 at \$200,000 per year ending in 2015.

A Program Review was undertaken to determine:

1. How well did the Ottawa RCWP meet the directions set by Council for 2011-2015 including to:
  - Streamline approval processes,
  - Focus on priority environmental projects, and
  - Enhance promotion?
2. Should the Ottawa RCWP be further changed or improved, and if so, how?

This report shares the findings of the review and proposes recommendations for a renewed Program for 2016-2020.

### 1.2. History and Overview of the Ottawa RCWP

The Ottawa Rural Clean Water Grants Program was established in 2000 and renewed in 2004 and 2010 following Program Reviews. The 2011-2015 Program is delivered in partnership with the South Nation, Rideau Valley and Mississippi Valley Conservation Authorities and the Ontario Soil and Crop Improvement Association. The Program is funded through an annual \$200,000 levy to South Nation, as the lead administrator.



The Ottawa RCWP offers grants of up to \$15,000 to 16 project types that include agricultural best management practices, erosion control and well decommissioning (Table 1).

Table 1: Eligible RCWP Projects 2011-2015

<b>Eligible Projects</b>	<b>Maximum Grant</b>	
Buffer strips*	90%	\$7,500
Chemical and fuel storage	50%	\$1,000
Clean water diversion	50%	\$5,000
Controlled tile drainage	50%	\$1,000
Educational initiatives	75%	\$5,000
Grassed waterways*	90%	\$7,500
Land retirement*	90%	\$7,500
Livestock restrictions from watercourses	90%	\$7,500
Manure storage and treatment	50%	\$15,000
Milkhouse washwater treatment	50%	\$5,000
Natural windbreaks	75%	\$6,000
Nutrient/ turf management plan	50%	\$1,000
Precision farming	50%	\$1,000
Streambank stabilization	90%	\$7,500
Tile outlet protection	75%	\$2,500
Well decommissioning	90%	\$3,000

\*Performance Incentives of \$150 per acre per year are also provided

Grants are available to:

- Any farm property (City-wide)
- Any property in the rural area (outside of the urban boundary) including villages
- Any landowner for well decommissioning (City-wide)

The 2011-2015 Program included the following changes:

- Focus on projects which directly improve water quality – grants were increased for buffers, land retirement, grassed waterways and streambank stabilization; controlled tile drains were added; and repairs and upgrades to wells and septic systems were discontinued.
- Enhance promotion to rural landowners who have not participated in the Program, including small farm operators, non-farm property owners and other rural residents with large property holdings.
- Streamline delivery through partnerships with the Ontario Soil and Crop Improvement Association (OSICA), Green Acres and Rideau Valley Conservation Authority’s Shoreline Naturalization program.

### 1.3. Methodology

A Project Charter detailing the methodology for the Program Review was approved in October 2014, taking into consideration the City's Grants and Contributions Policy.

The Review was led by the City of Ottawa, working closely with South Nation Conservation (lead delivery partner) and Rideau Valley and Mississippi Valley Conservation Authorities, and with input from the Program Committee (Annex 1) and an Internal Working Group comprised of staff from Environmental Services, Planning and Growth Management and Public Works departments.

The Review focused on:

- *Confirmation of the Program Goals*: review of the current goals taking into consideration the 2015-2018 Term of Council Priorities and other relevant municipal, provincial, and federal policies and programs;
- *Situational Analysis*: review of 2011-2015 projects and participants; demographic profile of rural Ottawa; and review of other stewardship programs across Ontario;
- *SWOB Analysis*: identification of strengths/ weaknesses/ opportunities/ barriers including possible new project types;
- *Delivery Mechanisms*: assessment of promotion and communication tools and analysis of best delivery mechanisms;
- *Governance*: review of the roles and responsibilities of delivery partners, the Program Committee and the City; and
- *Integrated Analysis and Program Recommendations*: building on the above, development of recommended program goals and objectives, project types, delivery system, and monitoring and reporting processes.

Key tasks included:

- Review of 23 other Clean Water Stewardship Programs across Ontario as well as provincial and federal programs for landowners;
- Interviews with Program Committee members, Conservation Authority staff, local experts and relevant City Programs;
- Survey of past participants; and
- Focus Groups with the rural community.

## **2. Program Review Findings**

The following sections examine:

- Program outcomes
- Situational analysis, including a review of policy and program trends as well as other clean water stewardship programs in Ontario
- Program goals and objectives
- Completed projects and participation across the City
- Program delivery, including partners, promotion and expenditure
- Program governance, monitoring and reporting

A summary of the strengths, weaknesses, opportunities and barriers is provided in Section 2.7.

### **2.1. Program Outcomes**

Since 2011, the Program has supported 207 grants totalling \$636,937 (Table 2). The most common projects were well decommissioning, streambank stabilization, precision farming and buffer strips. Most grant funds were allocated to streambank stabilization, manure storage, well decommissioning and buffer strips. Few or no projects were completed in controlled tile drains, education, grassed waterways, milkhouse washwater or watercourse fencing (livestock restriction). While no new well upgrades and septic system projects were approved after 2010, previously approved projects were completed in 2011.

Many projects reflect considerable investment by landowners; in 2011-2015 landowners contributed more than \$1.6 million for a total project value of close to \$2.3 million dollars. For further detail, including a map of completed projects, see Annex 2.

Table 2 – Projects Completed or Underway (2011-2015)

<i>Project Type</i>	<i>Number of grants</i>	<i>Grant amount</i>	<i>Total Project Cost</i>
Buffer strips and windbreaks	33	\$54,920	\$206,371
Chemical and fuel storage	5	\$6,000	\$122,318
Clean water diversion	5	\$15,843	\$31,687
Controlled tile drains	0	\$0	\$0
Education initiatives	0	\$0	\$0
Grassed waterways	0	\$0	\$0
Land retirement	16	\$8,365	\$25,709
Livestock restriction	4	\$19,202	\$22,903
Manure storage and treatment	11	\$153,082	\$970,543
Milkhouse washwater treatment	3	\$9,704	\$19,915
Nutrient management plans	5	\$4,488	\$9,075
Precision farming	28	\$26,442	\$300,208
Septic repair/ replacement*	8	\$16,000	\$136,088
Streambank stabilization/ erosion control	38	\$256,481	\$367,241
Tile outlet protection	4	\$8,932	\$13,169
Well decommissioning	43	\$55,563	\$61,898
Well upgrades*	4	\$1,915	\$9,165
<b>TOTAL</b>	<b>207</b>	<b>\$636,937</b>	<b>\$2,296,290</b>

\*completed in 2011 only

As a result of projects completed between 2011-2014:

- More than 145,000 trees and shrubs have been planted along watercourse buffers and windbreaks (33 projects)
- 61 hectares have been “retired” from agricultural production (9 projects)
- 1,400 m of streambanks have been protected from erosion (22 projects)
- 40 sheep have been kept out of watercourses by fencing and alternative water sources (1 project)
- Improved manure storage for 1,400 cattle and improved treatment of milkhouse washwater has reduced nutrient runoff into local watercourses - more than 2,200 kg of phosphorus in 8 projects and 144 kg of phosphorus in 2 projects respectively.

Nutrient reductions are calculated through a formula developed by South Nation Conservation as part of its Phosphorus Trading Program.

## 2.2. Situational Analysis

A scan of key trends was undertaken to assess the ongoing relevance of the Ottawa Rural Clean Water Program and identify opportunities for improvement.

### *Policy and Program Directions*

Several recent provincial and municipal policy and program changes are pertinent:

- Significant changes in [Growing Forward 2](#) (federal/ provincial agriculture program) with: revised grants; limited eligibility for Ottawa farmers (prioritized watersheds and Source Protection areas); complex merit-based application process; and reduced technical assistance in the application process.
- The [Mississippi-Rideau](#) and [Raisin-South Nation](#) Source Protection Plans came into effect in 2015; the City's Risk Management Office is being established to address significant threats in Well Head Protection Areas (WHPAs) and Intake Protection Zones (IPZ) such as fuel and septic systems.
- The importance of private land stewardship and agricultural best management practices to protect the health of watersheds and reduce algal blooms ([Great Lakes Strategy](#) (2012) and Draft Act ([Bill 66](#)), City of Ottawa's [Water Environment Strategy Phase 1 \(2014\)](#)).
- The importance of natural shoreline areas to reduce runoff and protect water quality ([2014 Provincial Policy Statement](#), Great Lakes Strategy and Draft Act (Bill 66)).
- The need to consider the potential impacts of climate change, including support to farmers to adopt best practices and mitigate the increased risk of soil erosion during intense storms (2014 Provincial Policy Statement, [Ontario's Climate Adaptation Strategy and Action Plan \(2014\)](#), Great Lakes Strategy).
- The importance of protecting natural areas, forests and wetlands to mitigate the impacts of climate change, and protect water quality and quantity (2014 Provincial Policy Statement, Great Lakes Strategy, Ontario's Climate Strategy and Action Plan, City of Ottawa's [Air Quality and Climate Change Management Plan \(2014\)](#) and Water Environment Strategy Phase 1).
- Nutrient Management Act [regulations](#) will come into effect in 2016 requiring dairy operators to comply with milkhouse washwater disposal standards.

For more detail, see Annex 3.



### **Ottawa's Rural Landscape**

Approximately 90% of Ottawa's area lies outside of the urban boundary, yet only 10% of Ottawa's population lives in these areas. The majority of Ottawa's rural residents live in 26 communities, on properties of less than half an acre.

Agriculture plays a significant role in our land use and economy: 39% of Ottawa's land is designated as agricultural lands (220,000 acres), and gross farm receipts exceeded \$200 million dollars in 2011<sup>1</sup>.

Streams and creeks also figure prominently in the rural landscape. Of the close to 4,700 km of watercourses in Ottawa, 3,500 are natural and 1,200 km are Municipal Drains. More than 80% of these watercourses are in the rural villages and areas, and of these 88% run through private property (Annex 4).

Yet the rural landscape is changing. The following key trends were identified through analysis of Agriculture Census data (2001, 2006 and 2011), City of Ottawa land use and parcel data<sup>2</sup> and discussions with local experts. For more details see Annex 4.

- There are fewer farms – the total number of farm businesses in Ottawa dropped to 1,128 in 2011 from 1267 farms in 2006 and 1318 in 2001. This is a loss of almost 15% of farm businesses in 10 years. However there has not been a significant loss in total area in agricultural production since 2006.
- Farms in Ottawa range in size from small (less than 10 acres) to very large (greater than 3,500 acres), with the majority of farms between 10 to 129 acres. As seen across Ontario, many Ottawa farms are getting larger through consolidation.
- Over the last 10 years, there has been a significant shift from animal to crop production; animal production has declined by 15% (and notably cattle with a 52% drop in 10 years), whereas crop production has risen by 10% (with a 40% increase oilseed and grain).
- There is continued loss of woodlots and hedgerows.

### **Water Quality and Natural Shorelines**

As mentioned above, Ottawa has extensive watercourses. The City's [Water Environment Protection Program](#) monitors water quality in forty creeks, four lakes and six rivers across the City. Each sample is analysed for 44 different parameters or water quality attributes which are then assessed using provincial and federal guidelines<sup>3</sup>.

Overall, the City has many healthy creeks and rivers, and water quality tends to improve as the size of the watercourse increases. A general increase in water quality index

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<sup>1</sup> Agriculture Census of Canada (2011) <http://www5.statcan.gc.ca/cansim/a26>

<sup>2</sup> The City of Ottawa parcel and landowner dataset replaces names with unique identifiers for anonymity.

<sup>3</sup> Provincial Water Quality Objectives (PWQO), the Canadian Water Quality Guidelines (CWQG) for the Protection of Aquatic Life, and the Canadian Council of Ministers of the Environment (CCME) Water Quality Index.

values has been noted over the last five years, suggesting water quality may be improving across most watercourses within Ottawa.

That said, with the exception of the main channels of the Ottawa and Mississippi Rivers and naturalized areas such as forests or wetlands upstream of the urban area, phosphorus is a concern in all the City's rivers and streams as average concentrations exceed water quality targets (See Annex 5 for details).

Riparian buffers are another indicator of watershed health. A riparian buffer is a vegetated area near a stream that shades the stream and protects water quality. Based on preliminary analysis of 2008 aerial photography, the percentage of naturally vegetated riparian buffers in Ottawa was well below the threshold recommended by Environment Canada. Environment Canada recommends a 15m buffer in agricultural areas and 30m buffer for all other watercourses<sup>4</sup>. Ottawa is at 35% compared to the recommended 75% for the 30m buffer and only 1% of Ottawa watercourses in agricultural areas met the buffer of 15m<sup>5</sup>.

Many factors contribute to water quality and watershed health. Working with landowners to reduce erosion, maintain natural shorelines and manage nutrients through agricultural best management practices are well established ways to continue to protect and improve water quality and overall watershed health.

### ***Other Programs across Ontario***

Many municipalities across Ontario offer similar Clean Water Programs. A review of 23 Programs was undertaken to learn from these Programs and identify possible areas of improvement for the Ottawa RCWP (see details in Annex 6).

Key findings from the Review include:

- Most programs offer a similar range of grants to protect water quality (e.g. watercourse buffers, land retirement, stream bank stabilization, livestock restrictions, natural windbreaks), agricultural best management practices (e.g. precision farming, manure storage, milkhouse washwater, chemical storage, clean water diversion, controlled tile drains, tile outlet protection) and well decommissioning.
- Projects offered by other programs that are not offered by Ottawa RCWP include: wetland and habitat restoration (14 programs); well upgrades (11 programs); septic system replacement (10 programs); and other agricultural projects such as cover crops (6 programs).
- Key changes to other programs since 2009 include the addition of cover crops, wetland and wildlife habitat, education and projects for urban areas such as rain gardens. Several programs increased their funding allocations and cost sharing.

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<sup>4</sup> Environment Canada, 2004 *How Much Habitat is Enough?*

<sup>5</sup> City of Ottawa *Report on Balanced Scorecard*. July 2013

- With the exception of one program, all programs are delivered by Conservation Authorities.
- When funding is offered to farms, 10 programs required an Environmental Farm Plan (EFP). Three programs required a non-farm landowner to complete a Healthy Homes Guidebook.

### 2.3. Program Goals and Objectives

Although not stated as an explicit goal, the aim of the Ottawa Rural Clean Water Program is to protect the quality of ground water and surface water as reflected in the following Objectives<sup>6</sup>:

- To maintain and improve water quality by managing non-point source discharges to surface water and groundwater within the City of Ottawa;
- To focus on priority Best Management Practices (BMPs) that directly protect and enhance surface water and groundwater quality for recreation, livestock watering, irrigation, aquatic habitat and drinking water supplies;
- To foster an increased awareness and positive attitude toward water quality protection in the City of Ottawa that will continue to encourage the voluntary adoption of BMPs;
- To provide education and awareness activities to the residents of the City of Ottawa on non-point source reduction;
- To monitor the improvements in water quality as a result of the Ottawa Rural Clean Water Program initiatives;
- To offer concise program material and streamline the application process by partnering with other cost-sharing programs, when appropriate; and
- To provide services in both official languages (English and French).

These objectives have been in place since the Program's inception in 2000, with the addition of protecting groundwater quality in 2004.

Protecting the quality of surface water and groundwater remains a relevant program goal. Forests, wetlands and shorelines protect and improve water quality and contribute to water quantity and flow, biodiversity and mitigating the effects of climate change. The Ottawa RCWP mitigates non-point sources of pollution such as nutrient runoff, and reduces erosion. Key provincial policy directions (*2014 Provincial Policy Statement, 2012 Great Lakes Strategy, 2014 Ontario Climate Adaptation Strategy*) emphasize the importance of private stewardship of natural areas.

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<sup>6</sup> Ottawa RCWP Terms of Reference (2010)

## 2.4. Project Uptake and Participation across the City

### Completed Projects

An aim of the 2011-2015 Program was to focus on priority projects that directly improve water quality, including watercourse buffers, fragile land retirement, erosion control, grassed waterways, precision farming and education. In 2011 grant rates were increased up to 90% for many of these projects to facilitate uptake.

Since the Ottawa RCWP began in 2000, more than 1,000 projects have been supported with more than \$1.8 million in grants. Landowners contributed an additional \$8.4 million towards those projects at an average rate of \$4.6 for every dollar granted by the City (Annex 2).

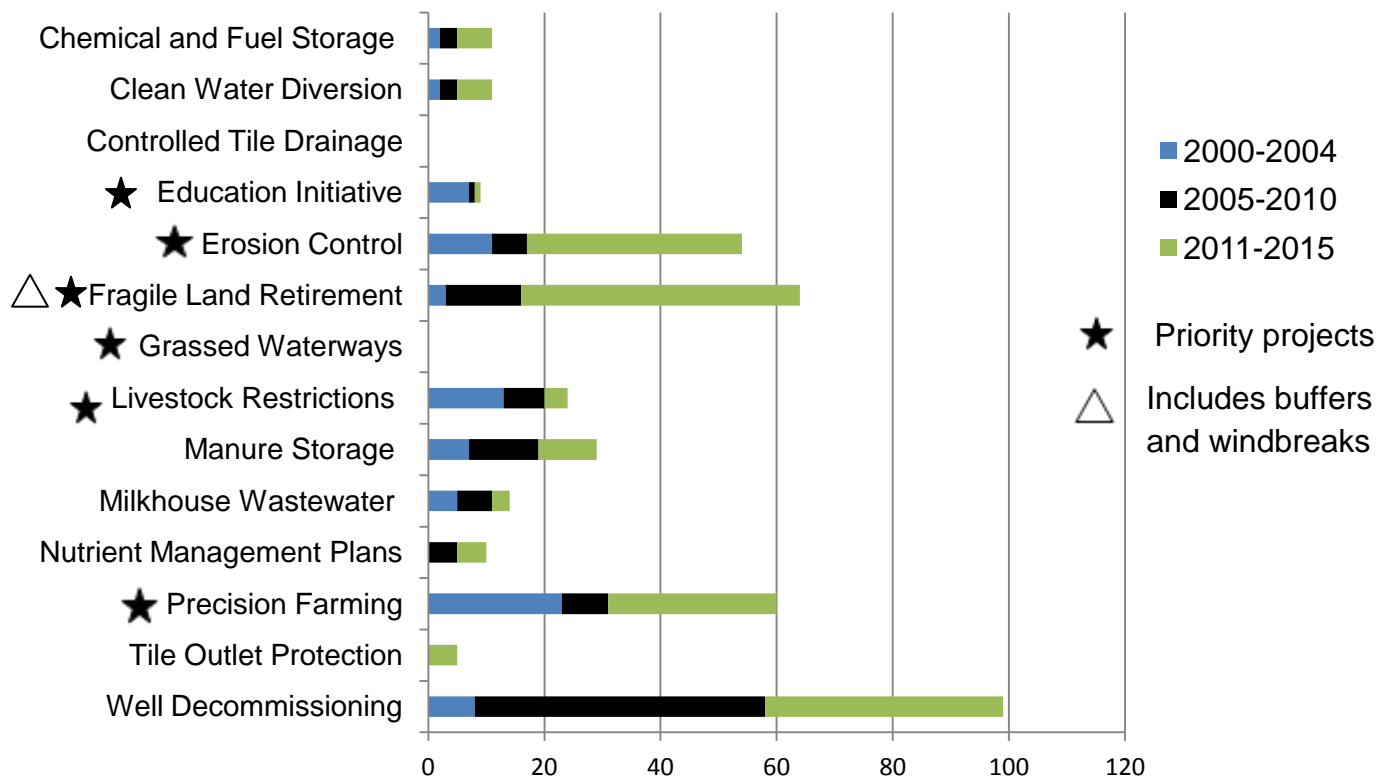
As shown in Figure 1, there has been a marked increase in most priority projects since 2011 including streambank stabilization, fragile land retirement (includes watercourse buffers) and precision farming. These projects comprise 57% of the total projects supported since 2011. Together with manure storage, these projects have also received the majority of grant funds (see Annex 2).

There has been no uptake in grassed waterways, education and controlled tile drainage projects. The lack of uptake of grassed waterway projects is likely due to the fact that much of Ottawa's terrain is less suitable for this project type. As the only eligible project to non-profit organizations, education initiatives require targeted promotion and an adjustment of eligible matching funds.

Tile drain control structures are a relatively new technology. While research led by Agriculture and Agri-Food Canada demonstrates the increased yield and environmental benefits ([see www.agr.gc.ca](http://www.agr.gc.ca)), farmers may be hesitant to install these structures because of the required maintenance or until they are a more common practice. The current grant amount may also be insufficient to offset the costs of multiple structures or headers.



Figure 1: Number of Projects Completed since 2000 (current eligible projects only)



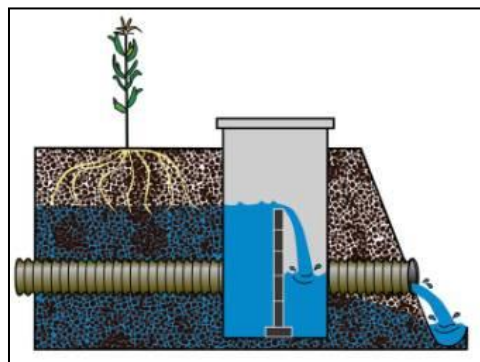
The priority projects identified in 2010 were confirmed during interviews and discussions with the Program Committee and Internal Working Group. The eligible project list was reviewed in detail in 2009 and grant rates were modified accordingly. Moving forward, the Program should continue to support uptake of these projects, due to their direct contribution to protecting water quality.

Several opportunities were identified to continue to reduce barriers and increase uptake for priority projects such as:

- Modifying the eligibility for several projects, including increasing the grant amount for Controlled Tile Drain Structures.
- Continuing to simplify the application process where possible – for example, providing a simple rebate for straightforward low-costs grants such as GPS units for farmers that attend a course on the environmental benefits of precision farming, or accepting Canadian Organic Standards certification in place of an Environmental Farm Plan for relevant projects.
- Offering a “full-service” approach to planning and installing shoreline plantings and watercourse buffers to reduce the up-front costs borne by the landowner.

Several new project ideas were gathered through discussions with the rural and agricultural community and based on program trends across Ontario:

- Cover crops - non-harvested, non-grazed crops that reduce soil erosion and nutrient runoff especially in extreme weather events.
- Land restoration and stewardship – to support the management and restoration of forests, shorelines and wetlands in recognition of their role in protecting water quality and quantity, and restoring natural ecological functions.
- Reducing runoff from all types of washwater including from fruits and vegetables, greenhouses and horticulture in addition to milkhouses.
- Demonstration projects - to encourage learning and uptake of new technologies such as tile drain control structures, strip tillage or targeted nutrient application. There are relatively few demonstration projects in Eastern Ontario.
- Many additional project ideas were identified in the focus groups and interviews (see Annex 7), suggesting a need for the program to be able to respond to innovative ideas that clearly protect and improve water quality.



The Review also examined the merits of reintroducing support to well upgrades and septic systems. These projects were discontinued in 2011 to prioritize Program resources to projects that protect water quality for the greatest public benefit. There were diverse views expressed during the review, including:

- Offer no support for either well upgrades or septic systems due to the pressure on the Program budget (30,000 households are on private septic systems).
- Reintroduce support to well upgrades to protect private wells and reduce potential risks to aquifers. As per the City's 2014 Infrastructure Master Plan, the City is to investigate the possibility of a well inspection program to ensure that all wells conform to regulations and conditions of approval.
- Enhance awareness of proper maintenance and operation of wells and private sewage systems. This can be undertaken through the current Education project, although past workshops have been poorly attended by residents.
- Reintroduce modest support to septic repairs or replacements in priority areas (e.g. immediate vicinity of surface water), up to a maximum Program amount.

- Support septic system inspections to encourage proper maintenance and operation. Inspections are currently most commonly done as part of a property sale. As required by Source Protection Plans, the City will support the re-inspection of septic systems in Well Head Protection Areas (WHPAs) for 2 years. Rideau Valley Conservation Authority is piloting a program to provide free effluent filters to lake area landowners outside of Ottawa to increase uptake of voluntary inspections.

### Program Participation

Projects have been undertaken across the City (see Table 3).

Not surprisingly, most farm projects have been completed in the City’s fertile agricultural lands. A closer analysis of project distribution shows the alignment of cropland and livestock projects in the areas of greatest crop and livestock farming.

Many erosion control projects (a non-farm project type) have occurred along the Rideau River from downstream of Manotick. 9 projects have been completed within the City’s urban boundary, including 7 well decommissioning projects and 2 farm projects.

See details in Annex 2.

Table 3: RCWP projects completed by City of Ottawa ward

Ward	Agricultural projects	Erosion Control/ Streambank	Well Decommissioning*	Total
<b>Cumberland</b>				
No. of Projects	7	0	3	10
Grants Paid	\$25,559	\$0	\$5,386	\$30,945
<b>Osgoode</b>				
No. of Projects	23	18	16	57
Grants Paid	\$28,946	\$113,125	\$23,520	\$165,591
<b>Rideau Goulbourn</b>				
No. of Projects	51	17	22	90
Grants Paid	\$129,292	\$127,201	\$24,540	\$281,033
<b>West Carleton-March</b>				
No. of Projects	24	2	3	29
Grants Paid	\$85,504	\$8,656	\$6,875	\$101,035
<b>Other Wards</b>				
No. of Projects	9	1	11	21
Grants Paid	\$37,676	\$7,500	\$13,157	\$58,333
<b>Total</b>				
No. of Projects	114	38	55	207
Grants Paid	\$306,977	\$256,482	\$73,478	\$636,937

\*includes well and septic upgrades in 2011

An objective of the 2011-2015 Program was to increase participation by all rural landowners, including small farm operators and people with large non-farm properties.

The program database does not record the type of property where a project has been completed. However project types can be used as a proxy for property type. Non-farm projects include erosion control (streambank stabilization) and well decommissioning. Historically the Ottawa RCWP also supported well upgrades and septic systems. Although farm businesses also complete non-farm project types, it was assumed that the majority of these project types have been completed by landowners without farm businesses.

Of the 207 projects supported since 2011 (Section 2.1), 114 were farm projects and 93 were non-farm project types. This is an increased proportion of farm projects when compared to earlier years of the Ottawa RCWP, and in particular 2004-2010 when many well and septic upgrade projects were supported (Annex 2).

Since 2000, 155 farms have completed 234 farm projects, representing about 15% of farms businesses in Ottawa, and 650 landowners have completed 689 non-farm projects, about 2% of Ottawa's rural community. 35 farm businesses have undertaken more than one project, indicating satisfaction with the Program.

The Review also examined the size of properties where projects have been completed. Landowners of all property sizes have completed projects (for both farm and non-farm properties), reflecting the range of property sizes across the City (Annex 2). Most non-farm projects have been completed on properties less than 1 acre, and most farm projects have been completed on farms less than 130 acres.

Finally, the Review examined participation by properties containing or near a watercourse. There are 7,300 residential parcels within 30m of a watercourse, more than half of which are smaller than 2.5 acres. Most of the 3,700 agricultural parcels containing or near watercourses are between 2.5 and 125 acres. Projects have been completed on all sizes of residential and agricultural properties near watercourses (See Annex 2 for more details).

While the Program has successfully engaged a diversity of farm and non-farm property owners, the Review identified ways to overcome potential barriers to participation by:

- Continuing to simplify and streamline the application process where possible – for example, accepting Canadian Organic Standards certification as an alternate to an Environmental Farm Plan for nutrient management and cover crop projects.
- Targeting outreach to farm producer groups such as smaller or part-time farms.
- Working with City Stream Watch Programs to identify potential projects in watercourse properties.



- Assisting landowners who are unclear about what projects can be undertaken on their property – especially for new farmers, or property owners with woodlands, wetlands or streams.

## **2.5. Program Delivery**

### ***Delivery Partners***

The Ottawa Rural Clean Water Grants Program is delivered by the South Nation, Rideau Valley and Mississippi Valley Conservation Authorities. Interested landowners contact the Landowner Resource Centre to determine their eligibility and to be directed to the appropriate Conservation Authority. Following an initial screening and site visit, Project Review Committees, comprised of local farmers and landowners in each Conservation Authority, review and approve applications. These Committees also review and approve applications for Rideau Valley and South Nation's programs delivered outside of the City boundary.

As per the streamlined delivery approach introduced in 2011, projects are also identified and administered through partnerships with the Ontario Soil and Crop Improvement Association (OSCIA), Green Acres (the City of Ottawa's rural tree planting program) and RVCA's Shoreline Naturalization Program (see Annex 8 for details).

The OSCIA administered the Canada-Ontario Farm Stewardship Program until its closure in March 2013. In 2011 and 2012, OSCIA delivered 36 Ottawa RCWP projects with close to \$120,000 in grants, meeting the 40% target set by the Program. The renewed Growing Forward 2 (GF2) Program was announced in the fall of 2013, with considerable changes to its grants and eligibility. As per the revised eligibility, there was insufficient overlap between GF2 and the Ottawa RCWP to renew a 'top-up' agreement. Although OSCIA continued to share information about the Ottawa RCWP in its Environmental Farm Plan workshops, the Program lost a critical delivery method. Starting in 2013 the budget was not fully allocated in May, and another call for applications occurred in the fall.

28 projects were completed through Green Acres between 2011 and 2014. The Ottawa RCWP provides top-ups to streambank stabilization, watercourse buffer and windbreak projects identified through Green Acres. Streambank and buffer projects often require greater site preparation than other tree planting, and Ottawa RCWP and external funds complement funds supported through Green Acres. No projects were undertaken with RVCA's Shoreline Naturalization Program because it was fully funded by external sources.

The partnership between the City of Ottawa and the OSCIA was a cost-effective and streamlined way to support Ottawa farmers to undertake projects that improve water quality. With the changes in provincial and federal funding, the Ottawa RCWP fills an

important gap for farmers no longer eligible for provincial funding under Growing Forward 2.

Working with Green Acres and the Shoreline Naturalization Program enables City resources to leverage external private, provincial and federal funding sources. The Program should have the flexibility to collaborate, as feasible, with complementary rural stewardship programs.

### ***Feedback from Past Participants***

A survey was sent to all 2011-2014 participants to seek feedback on their experience with the Program, motivations, benefits and suggestions for improvement. 56 participants responded (a 38% response rate), including farm and non-farm property owners.

The feedback was overwhelmingly positive with 94% of respondents “satisfied” or “completely satisfied” with the program administration and services. The program’s administration is also seen as simple and straight forward - over 80% of survey respondents said the program was “flexible or very flexible, with little ‘red tape’”.

The majority of comments said that the program is successful and should continue. The most common suggestion for improvement was to increase promotion. Respondents also suggested an online application process.

For a summary of key findings from the Survey see Annex 8.

### ***Promotion and Outreach***

The Program is promoted using a range of methods including: ads in community and agricultural papers; booths at agricultural fairs, events and markets; announcements through Rural Affairs and Councillor newsletters; and presentations on specific project types (e.g. Controlled Tile Drains to tile drain contractors). Postcards of the City’s Rural Clean Water and Green Acres Programs were delivered to 20,000 rural and village homes in 2014 and 2015 and made available at agricultural stores and community centres. Project profiles were developed to share the experience of participants. The City and Conservation Authorities coordinate outreach events.

Promotion and outreach is challenging given the extent of the City and the diversity of landowners. While local producer groups and community associations can share information with their members on relevant project grants, not all landowners are affiliated with a group. This is particularly true for smaller or part-time farm operators, or those with large non-farm properties who may not be aware of the Program.

Encouraging uptake may be more effective through:

- Increased peer-to-peer contact – for example presentations on a specific project type by past participants or Program Committee members at meetings of local farm producers or community associations.
- Project signs – that encourage neighbour-to-neighbour discussion.
- Demonstration sites – that proactively educate newer technologies or projects with less uptake.

### **Program Budget and Expenditures**

Total Ottawa RCWP funding for 2011 to 2015 was \$1,082,385 including an annual \$200,000 special levy to South Nation Conservation, \$32,385 carried-over from 2010 and an additional one-time \$50,000 to support well decommissioning within the urban boundary.

Total Ottawa RCWP expenses from 2011-2014 were \$631,651 including grants and program delivery expenses. Program Delivery Expenses were 23% of total expenditures (Table 4 and Annex 8).

Table 4: Ottawa RCWP Revenue and Expenditures (2011-2014)

<b>Revenue</b>	<b>2011-2014</b>
Special Levy	\$800,000
2010 Carry-Over	\$32,385
Urban Well Decommissioning	\$50,000
<b>Total Revenue</b>	<b>\$882,385</b>
<b>Expenses</b>	
Grants – RCWP	\$477,708
Grants – Urban Well Decommissioning	\$8,959
Program Delivery	\$144,984
<b>Total Expenses</b>	<b>\$631,651</b>
<b>Balance</b>	<b>\$250,734</b>

The accumulated surplus as of December 31, 2014 was slightly more than \$250,000.

The cumulative 5 year surplus is due to:

- The end of the OSCIA top-up partnership in 2013. In 2011 and 2012, top-ups to the Canada-Ontario Farm Stewardship Plan accounted for 40% of grants. Although OSCIA continued to share information about the Ottawa RCWP in its Environmental Farm Plan workshops, participation at these workshops was low in 2013-2014 as the EFP was not initially required under Growing Forward 2. It has been re-introduced in 2015.

- Many higher cost projects such as streambank stabilization and manure storage are carried forward for completion in a subsequent year, often due to time or cashflow. Landowners are required to cover all initial costs, and are reimbursed once the project has been completed and all receipts submitted and verified.
- Low uptake of the separate \$50,000 for urban well decommissioning.

The Review considered whether the carry-over was an indication of reduced demand for the Program. While demand cannot be quantified, the continued need for the Program is seen by:

- phosphorous levels that regularly exceed provincial standards;
- the fact that 88% of rural watercourses flow through private property;
- the numbers of farm businesses and other rural property owners who have not yet participated in the Program; and
- the fact that Ottawa farmers are no longer eligible for most GF2 grants.

Overall the Program is delivered effectively and efficiently, and has resulted in high satisfaction by participants. The Program benefits from local farmers and stewardship staff as Site Reps and on the Review and Program Committees. Partnerships with the OSCIA and other CA stewardship programs were effective for cross-promotion and leveraging of additional provincial and private funding sources. However, the Program could be enhanced by targeted and peer-to-peer promotion, and by offering a range of project delivery methods, including both rebates and direct implementation.

## **2.6. Governance, Monitoring and Reporting**

### ***Governance***

The 2011-2015 Ottawa Rural Clean Water Grants Program was approved by the Agriculture and Rural Affairs Committee (ARAC) and Council, and staff report annually to ARAC on program performance and proposed modifications.

The Program Terms of Reference (revised in 2010) outline the responsibilities and function of the Program Committee and Delivery Agents. Details on project eligibility as well as applicant guidelines are available online.

An external Program Committee composed of representatives of agricultural and environmental organizations, provincial agencies, local Conservation Authorities and community members (Annex 1) provides guidance on program delivery. Members are invited from a list of 12 organizations as well as 3 Members-at-Large.

The Committee is responsible for:

- making recommendations on: program design and delivery; annual grant structure and budget; promotion and outreach; and monitoring and evaluation;
- appointing representatives to watershed Review Committees in each CA; and

- hearing appeals.

The Committee typically meets annually, with additional meetings as required, as was the case during this past year during the Program Review.

Overall this governance structure works well, as the Program benefits from the expertise of the Program Committee. That said, the Program Committee has faced challenges with vacancies, inconsistent participation and a low response to request for new members. Opportunities were identified to enhance Committee engagement, and specifically in Program promotion and outreach with their respective organizations.

### ***Monitoring and Reporting***

The Ottawa RCWP is monitored through a range of methods:

- A Program database tracks project statistics, enabling comparison since the Ottawa RCWP began in 2000.
- Site representatives visit a select number of completed projects (follow-up site visits to all completed projects were discontinued in 2011 for cost savings).
- Annual reports to ARAC on the number of projects completed, funds allocated and education and promotional efforts.
- Survey of past participants to assess their experience with program services, motivations and benefits, and gather ideas for future program improvements.
- Review of water quality and riparian cover data to examine trends in watershed health. While it is difficult to measure the direct impact of the Program on water quality as many factors impact the monitoring data, this data can be used to guide Program outreach.

During the review several opportunities were identified to improve monitoring and reporting:

- Enhancing data collection and entry methods to more easily retrieve data on participating farm types, projects undertaken on properties with or near watercourses, and project outcomes such as lengths of watercourse buffers, areas restored, or nutrients kept out of watercourses.
- Using water quality and riparian data, and information in subwatershed plans, source protection plans and catchment reports to identify high-need areas.

## 2.7. Summary of Strengths, Weaknesses, Opportunities and Barriers

Table 5: Summary of Strengths, Weaknesses, Opportunities and Barriers

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• 94% of past participants reported being satisfied or highly satisfied with the program</li> <li>• Straight forward process - 80% reported little or no 'red tape'</li> <li>• Increased uptake of most priority projects – streambank stabilization, land retirement (buffers and windbreaks), precision farming, well decommissioning</li> <li>• Participation across City and by all property sizes (farm &amp; non-farm)</li> <li>• Consistency of Conservation Authority (CA) and field staff</li> <li>• Field Reps and Review Committees include local farmers</li> <li>• Good cross-promotion via OSCIA and CA stewardship programs</li> <li>• Streamlined delivery with OSCIA (&gt;40% of funds in 2011 and 2012)</li> <li>• EFP requirement encourages broader environmental education</li> <li>• Diversified promotion - postcards, profiles, ads in farm papers and some targeted promotion (e.g. tile drain contractors)</li> <li>• Program delivery maintained at 20% of annual budget</li> </ul>	<ul style="list-style-type: none"> <li>• Program underspent - \$250,000 surplus anticipated due to: end of OSCIA top-ups, time and cashflow to complete complex projects, few urban well decommissioning projects, and need for diversified promotion</li> <li>• Depending on external organizations for delivery requires adaptability; OSCIA top-ups ended in 2012 due to significant changes in Growing Forward 2</li> <li>• No uptake of education initiatives (priority project)</li> <li>• Cannot easily assess trends in participating farm types, watercourse properties or new project categories due to current data collection and entry methods</li> <li>• Program Committee vacancies, inconsistent participation at meetings, low response to request for new members</li> </ul>

<i>Opportunities</i>	<i>Barriers</i>
<ul style="list-style-type: none"> <li>• The Ottawa RCWP fills a gap for farmers no longer eligible for provincial funding under Growing Forward 2</li> <li>• City and provincial policies recognize the importance of private rural stewardship for healthy streams, rivers, groundwater and wetlands, and to mitigate and adapt to climate change</li> <li>• CA City Stream Watch programs, and other new provincial or local programs are opportunities for collaboration</li> <li>• Subwatershed and source protection plans, catchment reports, water quality and riparian data can identify high-need areas</li> <li>• Peer-to-peer contact, signs and demonstration sites may be more effective to encourage uptake of some projects.</li> <li>• Specific grants can be promoted to specific producer groups or community associations</li> <li>• Program Committee members appointed for the 2016-2020 term can play a more active role in Program promotion</li> <li>• Additional BMPs such as cover crops and land restoration increasingly supported across Ontario</li> </ul>	<ul style="list-style-type: none"> <li>• Some grants may be insufficient to offset land value/ crop prices</li> <li>• Some landowner types are hard to contact (e.g. may not participate in groups or associations)</li> <li>• Farmers may not have the time to attend a 2 day EFP workshop to develop or update their plans</li> <li>• New farmers or rural landowners may not know what projects can be done on their property</li> <li>• Year-end deadline to complete projects may discourage fall applications.</li> <li>• It is difficult to measure the impact of the program on water quality as many factors impact the monitoring data.</li> </ul>

### 3. Recommendations for 2016-2020

The following recommendations stem from the above analysis. The Program Terms of Reference will be revised accordingly as per Council direction.

#### 3.1. Proposed Goals and Objectives

Add a Program goal and modify the objectives to reflect the importance of best management practices and rural stewardship in protecting water quality.

Goal: To protect Ottawa's streams, rivers, wetlands and groundwater by providing cost-share grants to Ottawa farmers and rural landowners, including rural villages.

Objectives:

- a) To focus on priority Best Management Practices that directly protect and enhance surface water and groundwater quality for recreation, livestock watering, irrigation, aquatic habitat and drinking water supplies;
- b) To increase awareness and encourage adoption of practices that protect water quality;
- c) To streamline the application process by partnering with other cost-sharing programs, when appropriate;
- d) To guide the Program based on changes in water quality and stream health; and
- e) To adapt the Program based on continued performance monitoring.

#### 3.2. Eligible Projects

Continue to offer grants to all current projects, but simplify the grant names and consolidate under a series of categories for clearer communication (recognizing some projects contribute to more than one category). See Table 6 for the proposed list of Eligible Projects.

Modify the following current projects to enhance uptake:

- Cover all types of washwater treatment – to include wastewater from milkhouses, greenhouses, horticulture, fruits and vegetables;
- Increase the total amount covered under Tile Drain Control Structures;
- Make support for well decommissioning city-wide;
- Adjust the education initiative to include demonstration projects to encourage learning and uptake of new technologies such as controlled tile drains, strip tillage or targeted nutrient application. Revise the criteria for matching funds and enhance promotion to eligible non-profit groups.
- Support two options for shoreline plantings: i) reimbursement grant to landowners that complete the projects themselves; or ii) project is planned and completed with a CA (builds on Green Acres and Shoreline Naturalization model).



Introduce the following new eligible projects:

- Cover Crops – to protect against soil erosion especially in extreme weather events.
- Forest and Wetland Management Plan – to support the development of a forest, woodlot or wetland management plan and increase eligibility for provincial tax incentives. Landowners can also request an advisory visit to identify opportunities on their property, using a Rural Landowner Stewardship Guide as a resource.
- Innovative Projects – grants would be considered on a case by case basis and must have clear water quality benefits. All rural properties, farms within the urban boundary and non-profit organizations would be eligible.
- Septic system repairs – to offset the costs of repairs or replacements for failing septic systems within 50m of surface water or within a WHPA, up to an annual maximum of \$20,000.

Project guidelines will be developed or revised in 2016, in consultation with the Program Committee.

Table 6: Proposed Eligible Projects for 2016-2020

Project Type	Grant Rate	Max. Grant	Proposed Revisions
<b>Nutrient Management</b>			
Manure Storage	50%	\$15,000	
Washwater Treatment	50%	\$5,000	Includes washwater from milkhouses, fruits and vegetables and greenhouses.
Nutrient Management/ Precision Farming	50%	\$1,000	Includes Nutrient Management Plans and GPS units.
Watercourse Fencing	90%	\$7,500	Promote through City Stream Watch.
<b>Soil Protection</b>			
Erosion Control	90%	\$7,500	Includes all erosion control projects including grassed waterways.
Tile Outlet Erosion Control	75%	\$2,500	
Cover Crops	\$50/ acre/ year Max 20 acres & 3 years		New project - overwinter cover to reduce soil erosion.
<b>Water Management</b>			
Clean Water Diversion	50%	\$5,000	
Tile Drain Control Structures	50%	\$5,000	Increase max grant amount from \$1,000.
Chemical or Fuel Storage	50%	\$1,000	
Well Decommissioning	90%	\$3,000	Eligible city-wide (no separate urban fund)

Project Type	Grant Rate	Max. Grant	Proposed Revisions
Septic System Repairs/ Replacements	50%	\$1,000	New project – faulty septic systems <50m from a waterbody or within a WHPA. Max total/ year: \$20,000
<b>Land Stewardship</b>			
Watercourse Buffers	90%	\$7,500	Promote through City Stream Watch. Offer a planting service or reimbursement (as per Green Acres and Shoreline Naturalization).
Natural Windbreaks	75%	\$6,000	
Land retirement Incentive	\$150/ acre/ year Max 10 acres & 3 years		
Forest & Wetland Management Plan	75%	\$750	New project - support the development of forest, woodlot or wetland management plans (to be eligible for provincial tax incentives)
<b>Education and Innovation</b>			
Educational Initiatives	75%	\$5,000	Include demonstration projects. Review eligible matching funds. Promote to non-profit groups.
Innovative Projects	50%	\$5,000	New project for organizations or individuals – projects to be reviewed on a case by case basis, must have clear water quality benefits.

### 3.3. Program Implementation

#### *Delivery Partners and Streamlined Delivery*

Continue to deliver the Program through the South Nation, Rideau Valley and Mississippi Valley Conservation Authorities, with South Nation as the lead agency. Continue having local farmers and stewardship advisors as Site Representatives, and on Review Committees.

Continue to enhance the effectiveness and efficiency of the Program by:

- Developing clear top-up guidelines for continued coordination with Green Acres and RVCA’s Shoreline Naturalization program to facilitate program and financial reporting.
- Supporting shoreline naturalization projects identified and implemented by MVC and SNC as well as RVCA.
- Removing the year-end deadline to complete projects; project must be completed within 12 months unless otherwise specified;

- Piloting a simplified process for straight-forward low-cost projects e.g. automatic eligibility for GPS for farmers that attend a Crop Day workshop on the environmental benefits of precision farming.
- Continuing to require an Environmental Farm Plan (EFP) for farm projects, and accept either the 3<sup>rd</sup> or 4<sup>th</sup> edition.
- Introducing electronic application processes, for ease of application and data entry, and ongoing administrative efficiencies.

### **Enhance Promotion and Outreach**

- Enhance the promotion of priority projects with lower uptake including shoreline plantings, watercourse fencing, education and tile drain control structures.
- Increase peer-to-peer contact – Program Committee or staff to make presentations or hold workshops at local agriculture and community events.
- Work with City Stream Watch programs to target promotion to watercourse properties.
- Offer an initial site visit to discuss potential stewardship projects on their property, using a modified version of the *Southern Ontario Rural Land Stewardship Guide*.
- Provide all participants with a project sign.
- Support demonstration sites and workshops through Education grants.
- Continue to place ads in agricultural newspapers, undertake targeted mail drops and promote through Councillors and the Rural Affairs newsletter.
- Continue to create project profiles and consider other means to recognize rural stewardship.
- Create promotional materials targeted to specific groups (e.g. farm producer types, village residents, non-farm property owners, horse owners).

### **Program Budget**

Continue the program allocation at \$200,000/ year for 2016-2020 with increased uptake anticipated through the revised project list, enhanced promotion and flexible implementation.

The Program will be financed as follows:

- The cumulative surplus at 2015 year end (anticipated to be approximately \$250,000) will be used to finance the 2016 Program and contribute to the 2017 Program.
- \$150,000 will be requested as a special levy to South Nation Conservation (SNC) in 2017, reverting to \$200,000 in 2018-2020.

## **3.4. Program Governance, Monitoring and Reporting**

### **Program Committee**

- Re-assess Committee representation for 2016-2020 to ensure the membership reflects the range of practices covered by the Program, and organizations have the capacity and interest to participate.

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- Continue to meet annually to advise on program delivery, including grant structure, budget and promotion; and more frequently as required, such as during program evaluations.
- Better engage Program Committee members as ambassadors of the Program. Develop a clear communications and promotions plan at the start of each year, identifying opportunities for Program Committee to represent the Program at key agricultural and community events.

### **Monitoring and Reporting**

- Continue to report annually to ARAC on Program performance including enhanced reporting on environmental outcomes (e.g. length of shoreline restored, kg of phosphorus kept out of watercourses and acres retired from agricultural production), social outcomes (including numbers and types of participants) and economic outcomes (grants awarded, local landowner investment, external funds leveraged).
- Enhance the database to more readily enter and retrieve program data.
- Continue to use data such as water quality and riparian cover, as well as City and Conservation Authority plans to guide Program outreach.

### **4. Annexes (see Document 3):**

#### **Annex 1 – Program Committee Members**

#### **Annex 2 - Completed Projects**

#### **Annex 3 – Changes in Provincial and Municipal Policies and Programs**

#### **Annex 4 – Ottawa’s Rural Landscape**

#### **Annex 5 – Maps of Water Quality**

#### **Annex 6 - Review of Other Rural Clean Water Programs in Ontario**

#### **Annex 7 – Summary Report of Rural Community Focus Groups**

#### **Annex 8 – Program Delivery and Past Participant Survey**