

The RVCA produces individual reports for 16 catchments in the Lower Rideau subwatershed. Using data collected and analysed by the RVCA through its watershed monitoring and land cover classification programs, surface water quality conditions are reported for the Rideau River along with a summary of environmental conditions for the surrounding countryside every six years.

This information is used to help better understand the effects of human activity on our water resources, allows us to better track environmental change over time and helps focus watershed management actions where they are needed the most.

The following pages of this report are a compilation of that work. For other Lower Rideau catchments and Lower Rideau Subwatershed Report, please visit the RVCA website at [www.rvca.ca](http://www.rvca.ca).

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**Catchment Facts**

- A predominantly rural/agricultural reach containing urbanized areas in the villages of Kars and Osgoode along with some rural residential clusters at Becketts Landing and elsewhere in the Reach
- Contains a number of tributaries, including Stevens, Cranberry and Brassils Creeks along with McDermott, Arcand and Murphy Drains; Kemptville Creek also discharge into this Reach
- Shoreline development along this reach varies from a mixture of developed and rural lands between Kars and Beckett's Landing and rural and natural lands between Becketts Landing and Burritts Rapids
- Rideau Canal (Parks Canada) operates Long Island and Manotick Dams to maintain water levels for navigation from mid-May to mid-October
- This reach is under shoreline development pressure (along with some shoreline hardening) and is intensively used for boating. Parks Canada - Rideau Canal Office is working on education and awareness around the boat speed/wake problem, in cooperation with police
- 62% of the catchment falls within the City of Ottawa and 38% within the Municipality of North Grenville
- Drains 109 sq. km of land or 14.2% of the Lower Rideau Subwatershed and 2.6% of the Rideau Valley Watershed
- Dominant land cover is crop and pastureland (33%), followed by woodland (29%), wetland (15%), settlement (11%), water (6%), transportation (4%) and grassland (2%)
- Riparian buffer (30 m. wide along both sides of the Rideau River and its tributaries) is comprised of wetland (33%), crop and pastureland (28%), woodland (22%), settlement (13%), transportation (3%) and grassland (1%)
- Contains a warm/cool water recreational and baitfish fishery with 40 fish species
- Contains 12 municipal drains
- Water quality rating along the Rideau River is fair at the Kars Bridge, with no change in the water quality rating observed over a 12 year reporting period (2000-2005 vs. 2006-2011)
- Woodland cover has decreased by 5.3 percent (577 ha.) from 2002 to 2008
- One hundred and forty-nine stewardship (landowner tree planting/clean water/shoreline naturalization) projects have been completed
- Flood plain mapping has been available since 1976 for the entire reach and was last updated in 1989. Flood forecasting and warning services aim to give residents and municipalities 48 hours notice prior to onset of flooding ("flood stage" based on elevation of access roads), enabling mobilization of emergency response measures and evasive action to minimize damages and losses
- Major studies completed include: A Multidisciplinary, Community-Based Study of the Environmental Health of the Rideau River: Final Report. 2001 (Canadian Museum of Nature); Lower Rideau Watershed Strategy, Final Report. 2005 (Robinson Consultants for RVCA)
- Rideau River designated a UNESCO World Heritage Site

**1) Surface Water Quality**

Assessment of streams in the Lower Rideau is based on 24 parameters including nutrients (total phosphorus, total Kjeldahl nitrogen, nitrates), E. coli, metals (like aluminum and copper) and additional chemical/physical parameters (such as alkalinity, chlorides pH and total suspended solids). Each parameter is evaluated against established guidelines to determine water quality conditions. Those parameters that frequently exceed guidelines are presented below.

The assessment of water quality throughout the Lower Rideau Subwatershed also looks at water quality targets that are presented in the 2005 Lower Rideau Watershed Strategy (LRWS), to see if they are being met. The LRWS identifies improving water quality as a priority concern; specifically reducing the levels of nutrients, bacteria and contaminants in the Lower Rideau.

**1) a. Rideau River-Kars**

Surface water quality conditions in Rideau River-Kars are monitored through the City of Ottawa's Baseline Water Quality Program (Site RRS-121C upstream side of Roger Stevens Road bridge, see Fig. 1 for the location).

The water quality rating for Rideau River-Kars is "Fair" as determined by the CCME Water Quality Index (CCME WQI); analysis of the data has been broken into two periods 2000-2005 and 2006-2011, to examine if conditions have changed in this timeframe. Table 1 outlines the WQI scores and their corresponding ratings. For more information on the CCME WQI please see the Lower Rideau Subwatershed Report.

Table 1. WQI Ratings and corresponding index scores (RVCA terminology, original WQI category names in brackets).

Rating	Index Score
Very good (Excellent)	95-100
Good	80-94
Fair	65-79
Poor (Marginal)	45-64
Very poor (Poor)	0-44

**Rideau River Kars Nutrients**

Total phosphorus (TP) is used as a primary indicator of excessive nutrient loading and may contribute to abundant aquatic vegetation growth and depleted dissolved oxygen levels. The Provincial Water Quality Objectives (PWQO) of 0.030 mg/l is used as the TP Guideline. Concentrations greater than 0.030 mg/l indicate an excessive amount of TP. Rideau River-Kars TP results are shown in Figures 2a and 2b. In addition to the TP guideline, the Lower Rideau Watershed Strategy set a target for TP concentration of 0.030 mg/l at the 85<sup>th</sup> percentile for the main channel of the Rideau River. Percentile plots of TP data are shown for two time periods 2000-2005 (Fig. 3a) and 2006-2011 (Fig. 3b). Any point to the left of the 85<sup>th</sup> percentile line (vertical) and above the guideline (horizontal line) have failed to reach the LRWS target.

Total Kjeldahl nitrogen (TKN) is used as a secondary indicator of nutrient loading; RVCA uses a guideline of 0.500 mg/l (TKN Guideline) to assess TKN concentrations. Rideau River-Kars TKN results are shown in Figures 4a and 4b.

Tables 2 and 3 summarize average nutrient concentrations at the monitored site on the Rideau River-Kars and shows the proportion of samples that meet guidelines. Highlighted values indicates that that average exceeds the guideline.

Table 2. Summary of total phosphorous results for Rideau River-Kars from 2000-2005 and 2006-2011

Total Phosphorus 2000-2005			
Site	Average (mg/l)	% Below	No. Samples
RRS-121C	0.032	55	56
Total Phosphorus 2006-2011			
Site	Average (mg/l)	% Below	No. Samples
RRS-121C	0.029	49	45

**Rideau River-Kars Nutrients: Site RRS-121C**

Total phosphorus (TP) results at site RRS-121C show approximately half the samples were below the TP

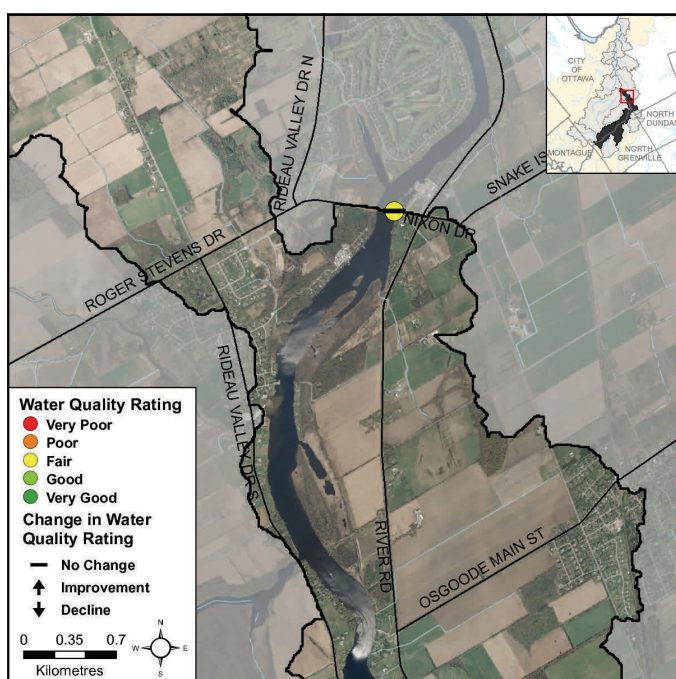


Figure 1. Sampling site on Rideau River-Kars

Table 3. Summary of total Kjeldahl nitrogen results for Rideau River-Kars from 2000-2005 and 2006-2011

Total Kjeldahl Nitrogen 2000-2005			
Site	Average (mg/l)	% Below Guideline	No. Samples
RRS-121C	0.650	2	56
Total Kjeldahl Nitrogen 2006-2011			
Site	Average (mg/l)	% Below Guideline	No. Samples
RRS-121C	0.602	11	45

guideline of 0.030mg/l with little change between the two time periods (Fig. 2a, 2000-2005 and Fig. 2b, 2006-2011). Fifty-five percent of samples were below the guideline in the 2000-2005 period; this declined to forty-nine percent of samples in the 2006-2011 period. There was a slight decrease in average TP concentration from

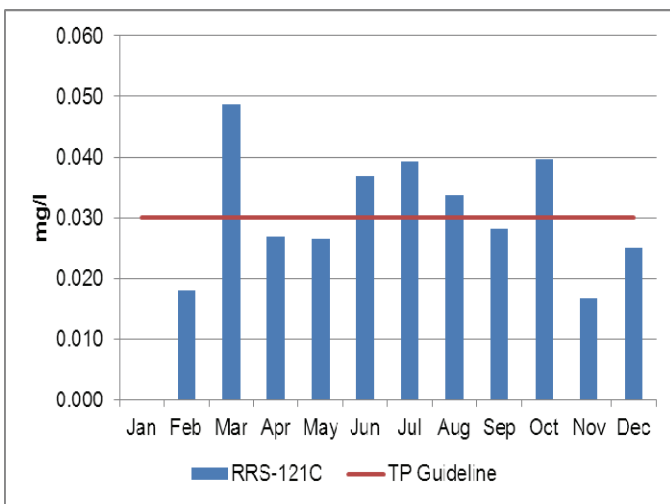


Figure 2a. Total phosphorous concentrations in Rideau River-Kars from 2000-2005

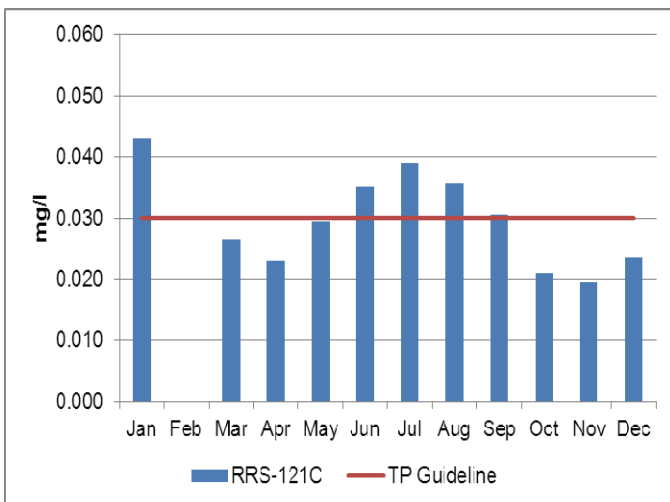


Figure 2b. Total phosphorous concentrations in Rideau River-Kars from 2006-2011

0.032 mg/l (2000-2005) to 0.029 mg/l (2006-2011) which is just below the guideline. The LRWS target of a TP concentration of 0.030 mg/l at the 85<sup>th</sup> percentile has not been achieved at this site, though the concentration at the 85<sup>th</sup> percentile did decrease from 0.042 mg/l (2000-2005, Fig. 3a) to 0.036 mg/l (2006-2011, Fig. 3b).

TKN is used as a secondary indicatory of nutrient enrichment. Figures 4a and 4b show that the majority of results exceeded the TKN guideline of 0.500 mg/l; only two percent of samples were below the guideline in 2000-2005, this dropped improved to eleven percent of samples in the 2006-2011 period. The average concentration decreased from 0.650 mg/l to 0.602 mg/l, though exceeding the guideline.

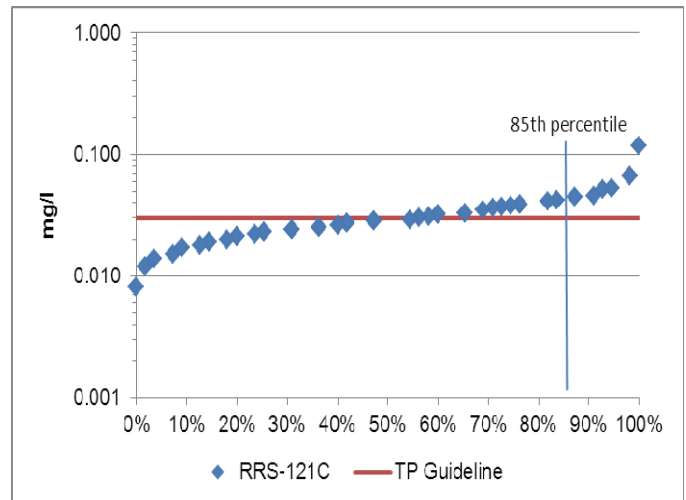


Figure 3a. Percentile plots of total phosphorous in the Rideau River-Kars from 2000-2005

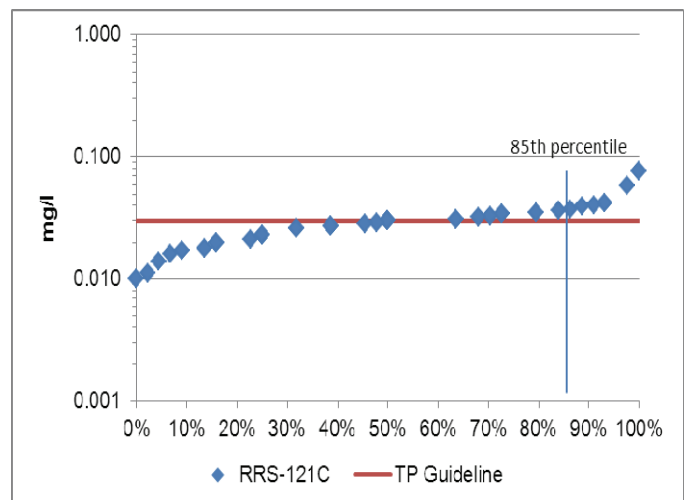


Figure 3b. Percentile plots of total phosphorous in the Rideau River-Kars from 2006-2011

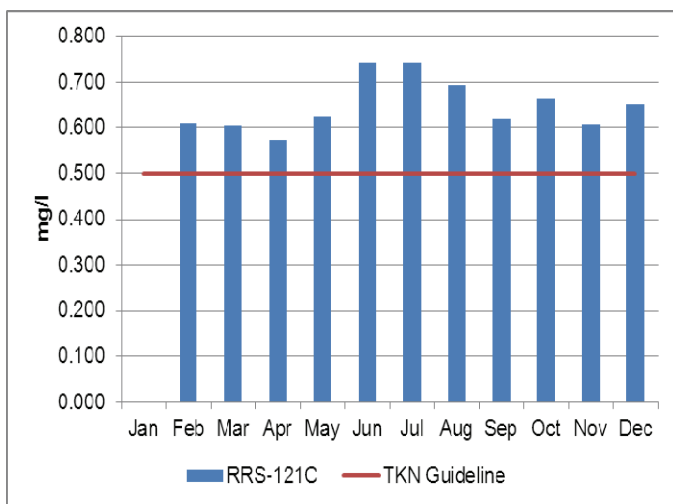


Figure 4a. Total Kjeldahl nitrogen concentrations in Rideau River-Kars from 2000-2005

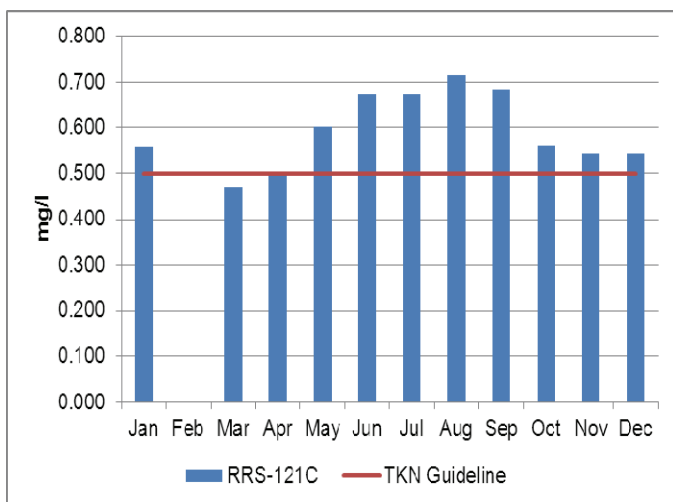


Figure 4b. Total Kjeldahl nitrogen concentrations in Rideau River-Kars from 2006-2011

**Rideau River-Kars Nutrient Summary**

Overall the data suggests that nutrient loading is a problem at this site; efforts should be made to reduce nutrient inputs to the river.

**Rideau River-Kars E. coli**

E. coli is used as an indicator of bacterial pollution from human or animal waste; in elevated concentrations it can pose a risk to human health. The PWQO Objectives of 100 colony forming units/100 millilitres is used. E. coli counts greater than this guideline indicate that bacterial contamination may be a problem within a waterbody. The LRWS set the target of achieving the guideline for all samples and having no results exceed 500 CFU/100ml.

Table 4 summarizes the geometric mean at monitored sites in Rideau River and shows the proportion of samples that meet the E. coli guideline of 100 CFU/100ml.

Figure 5 shows the results of the geometric mean with respect to the guideline for the two periods 2000-2005 (Fig. 5a) and 2006-2011 (Fig 5b). Figures 6a and 6b show percentile plots of the data for the two time periods of interest 2000-2005 (Fig. 6a) and 2006-2011 (Fig. 6b). Any point to the left of the 80<sup>th</sup> percentile line (vertical) and above the guideline (horizontal line) have failed to reach the LRWS target

Table 4. Summary of E. coli results in Rideau River-Kars.

E. coli 2000-2005			
Site	Geometric mean (CFU/100 ml)	% Below Guideline	No. Samples
RRS-121C	6	95	56
E. coli 2006-2011			
Site	Geometric mean (CFU/100 ml)	% Below Guideline	No. Samples
RRS-121C	11	95	44

**Rideau River-Kars E. coli: Site RRS-121C**

E. coli counts above the guideline of 100 colony forming units per 100 mL (CFU/100mL) were rare at the water quality site RRS-121C. In comparing the two time periods the proportion of samples below the guideline remained constant at ninety-five percent, while the count at the geometric mean increased from 6 CFU/100 ml (Fig. 5a, 2000-2005) to 11 CFU/100 ml (Fig. 5b, 2006-2011).

**Rideau River-Kars E. coli Summary**

These statistics indicate that bacterial counts generally meet the LRWS target, though occasionally some

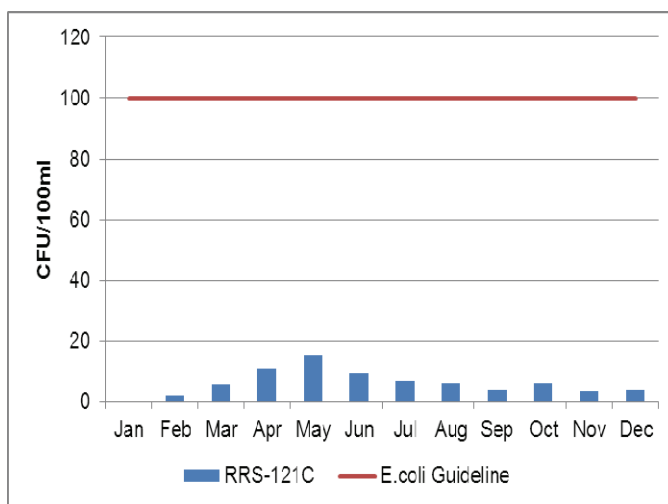


Figure 5a. E. coli counts in the Rideau River-Kars from 2000-2005

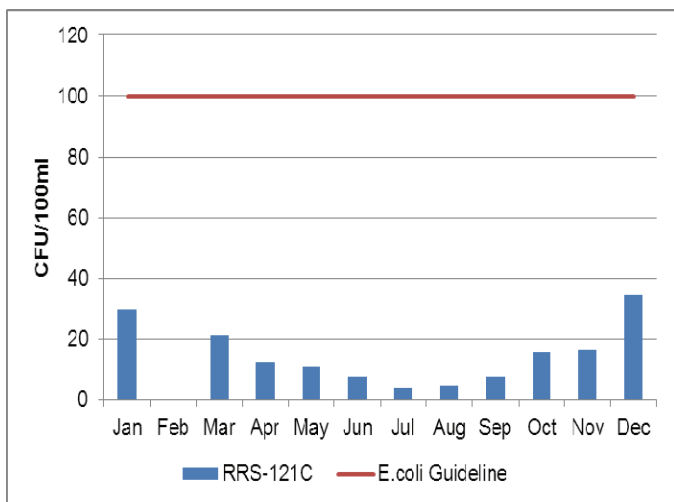


Figure 5b. E. coli counts in the Rideau River-Kars from 2006-2011

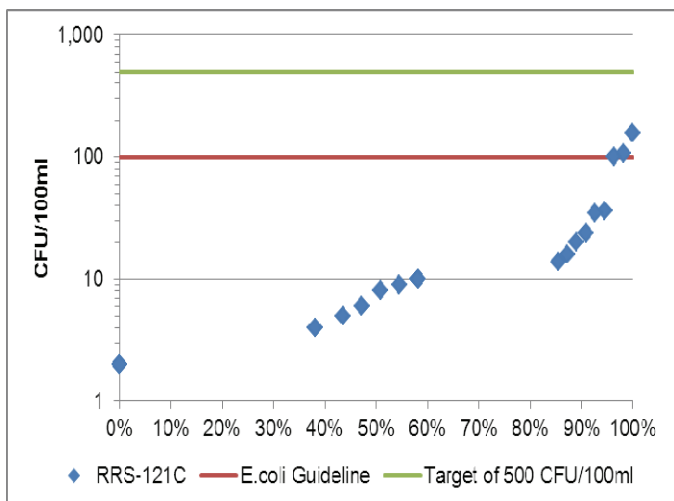


Figure 6a. Percentile plots of E. coli in the Rideau River-Kars from 2000-2005

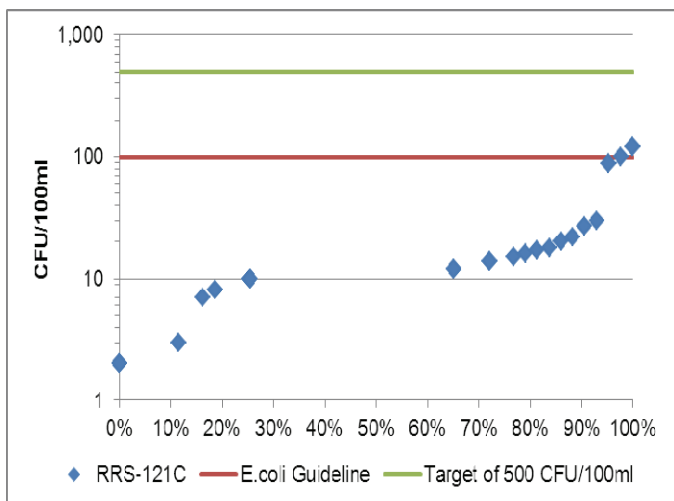


Figure 6b. Percentile plots of E. coli in the Rideau River-Kars from 2006-2011

exceedances occur. Efforts should be made to reduce any possible sources of contamination to the river to protect overall water quality and aquatic life.

**Rideau River-Kars Metals**

The majority of metals monitored at site RRS-121C were below guidelines, however results for aluminum (Al) and copper (Cu) were occasionally elevated. In elevated concentrations these metals can have toxic effects on sensitive aquatic species.

Table 5 summarizes average metal concentrations at monitored sites on Rideau River and shows the proportion of samples that meet guidelines.

Figures 7 and 8 show the results for each site with respect to guidelines for the two periods 2000-2005 (figures 7a, and 8a) and 2006-2011 (figures 7b, and 8b). The guidelines for each metal as stated by the PWQO are Al 0.075 mg/l, and Cu 0.005 mg/l. The Lower Rideau Watershed Strategy set a target for Cu concentration of 0.005 mg/l (Cu guideline) at the 75<sup>th</sup> percentile for the main reaches of the Rideau River. Percentile plots of Cu data are shown for the two time periods 2000-2005 (Fig. 9a) and 2006-2011 (Fig. 9b). Any point to the left of the 80<sup>th</sup> percentile line (vertical) and above the guideline (horizontal line) have failed to reach the LRWS target.

Table 5. Summary of metal concentrations in the Rideau River-Kars

Aluminum 2000-2005			
Site	Average (mg/l)	% Below Guideline	No. Samples
RRS-121C	0.062	81	53
Aluminum 2006-2011			
Site	Average (mg/l)	% Below Guideline	No. Samples
RRS-121C	0.062	76	45
Copper 2000-2005			
Site	Average (mg/l)	% Below Guideline	No. Samples
RRS-121C	0.002	94	53
Copper 2006-2011			
Site	Average (mg/l)	% Below Guideline	No. Samples
RRS-121C	0.004	80	45

**Rideau River-Kars Metals: Site RRS-121C**

Results for Al were typically below the guideline of 0.075 mg/l in both time periods (Fig. 7a, 2000-2005 and Fig. 7b, 2006-2011), eighty-one percent of samples were less than the guideline in the 2000-2005 period, this

declined to seventy-six percent in the 2006-2011 period. The average Al concentration remained consistent at 0.062 mg/l.

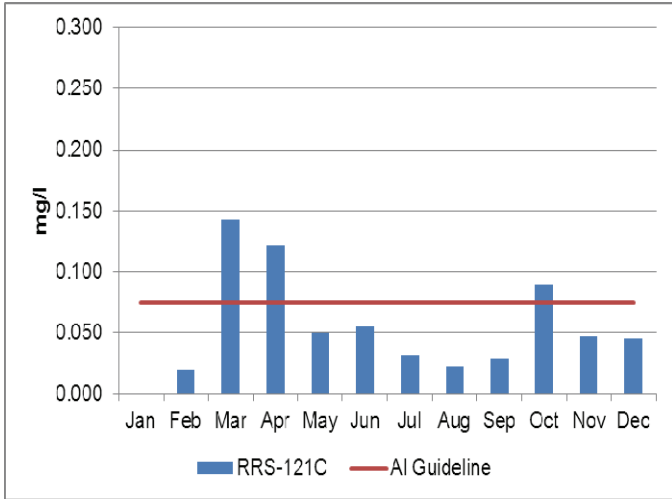


Figure 7a. Aluminum concentrations in Rideau River-Kars from 2000-2005

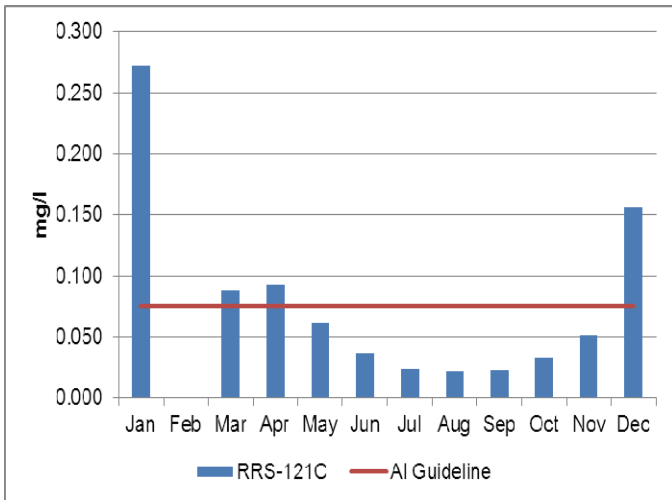


Figure 7b. Aluminum concentrations in Rideau River-Kars from 2006-2011

Results for Cu concentrations were also occasionally above the guideline of 0.005 mg/l. The proportion of samples below the guideline decreased from ninety-four percent (Fig. 8a, 2000-2005) to eighty percent (Fig. 8b, 2006-2011), the average concentration increased from 0.002 mg/l to 0.004 mg/l. The target of a Cu concentration of 0.005 mg/l at the 75<sup>th</sup> percentile was increased between the time periods to just meet the target in the 2006-2011 period. The concentration at the 75<sup>th</sup> percentile increased from 0.002 mg/l (Fig 9a, 2000-2005) to 0.0085 mg/l (Fig. 9b, 2006-2011).

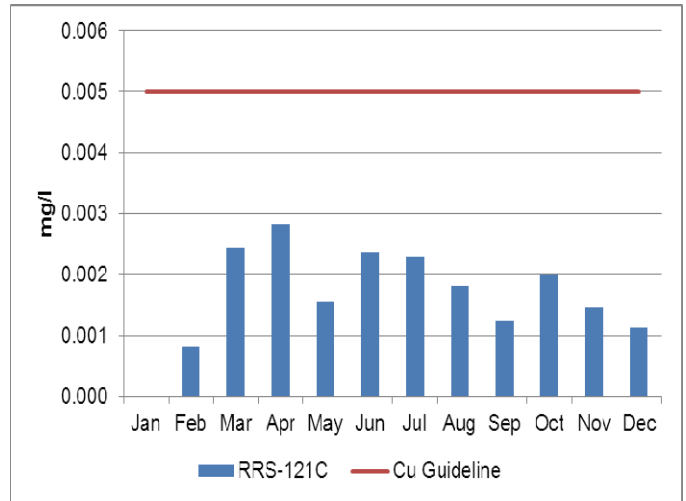


Figure 8a. Copper concentrations in Rideau River-Kars from 2000-2005

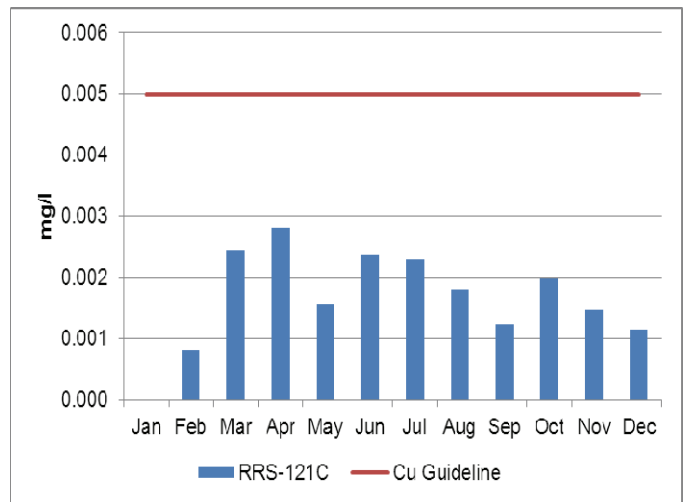


Figure 8b. Copper concentrations in Rideau River-Kars from 2006-2011

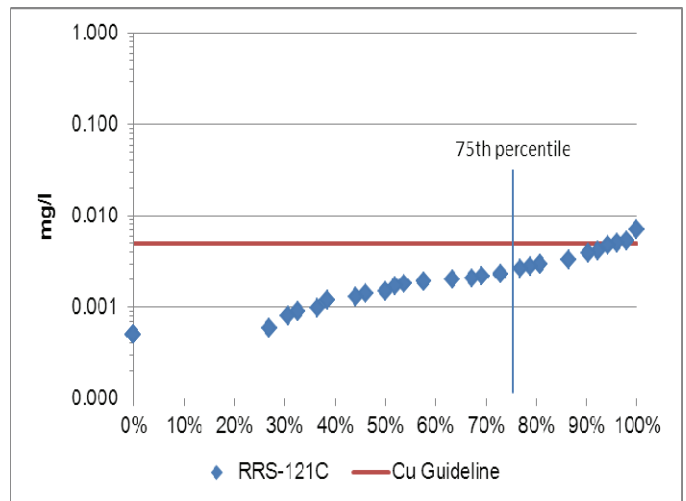


Figure 9a. Percentile plots of copper in Rideau River-Kars from 2000-2005

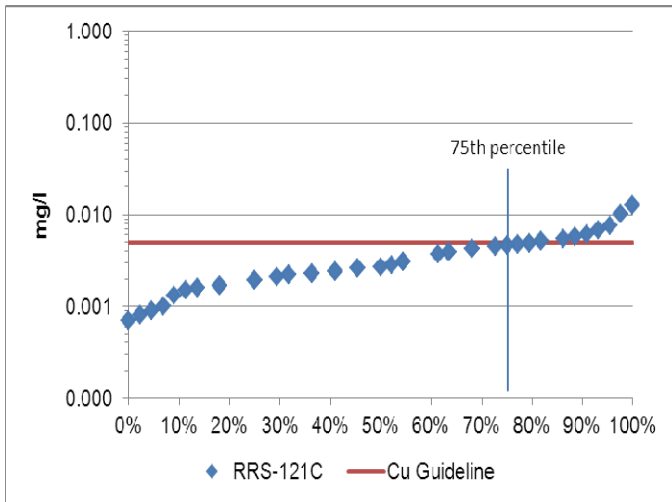


Figure 9b. Percentile plots of copper concentrations in Rideau River-Kars from 2006-2011

### Rideau River-Kars Metals Summary

Overall the data shows that metals concentrations do exceed targets on occasion; efforts should be made to minimize any sources of pollution to protect and enhance water quality in the river.



An image of a shorthead redhorse



A common water snake along the shore of the Rideau



Temperature probes are deployed to determine thermal regime



A female snapping turtle testing her nest sites

2) a. Overbank Zone

**Riparian Buffer along the Kars Reach of the Rideau River and Tributaries**

The riparian or shoreline zone is that special area where the land meets the water. Well-vegetated shorelines are critically important in protecting water quality and creating healthy aquatic habitats, lakes and rivers. Natural shorelines intercept sediments and contaminants that could impact water quality conditions and harm fish habitat in streams. Well established buffers protect the banks against erosion, improve habitat for fish by shading and cooling the water and provide protection for birds and other wildlife that feed and rear young near water. A recommended target (from Environment Canada's Guideline: How Much Habitat is Enough?) is to maintain a minimum 30 metre wide vegetated buffer along at least 75 percent of the length of both sides of rivers, creeks and streams.

Figure 10 shows the extent of the naturally vegetated riparian zone in the catchment, 30 metres on either side of all waterbodies and watercourses. Results from the RVCA's Land Cover Classification Program show that 56 percent of streams and creeks are buffered with woodland, wetland and grassland; the remaining 44 percent of the riparian buffer is occupied by settlement, crop and pastureland and transportation.

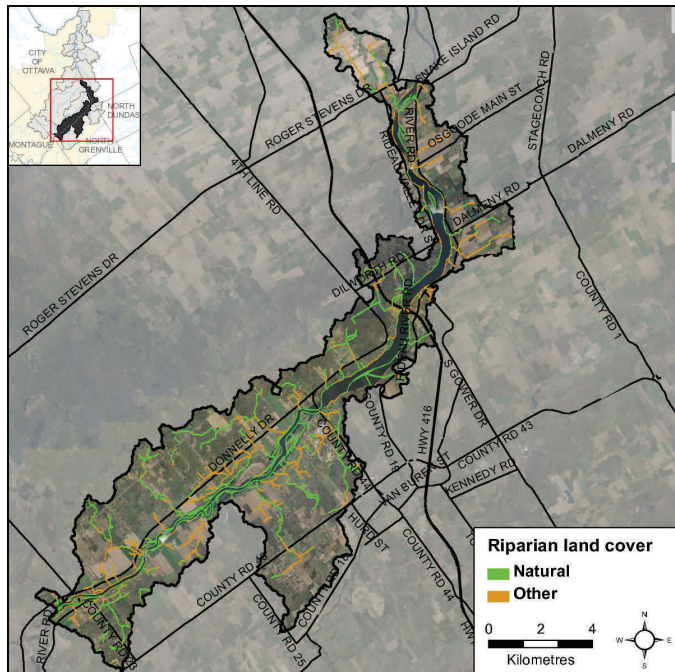


Figure 10. Catchment land cover in the riparian zone

**Fish Sampling**

Fish sampling sites located along the Kars reach are shown in Figure 11. The provincial fish codes shown on the following map are listed (in Table 6) beside the common name of those fish species identified in the Kars reach of the Rideau River.

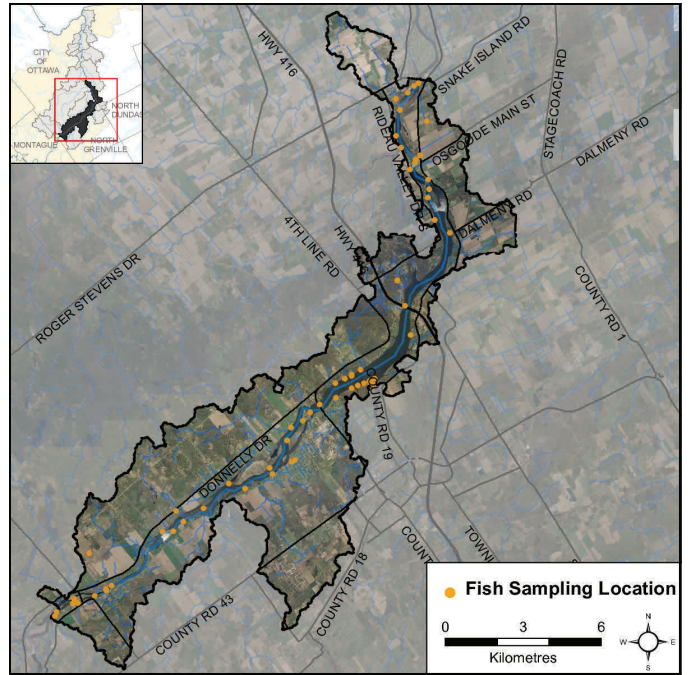


Figure 11. Fish sampling locations along the Kars reach

Table 6. Fish species observed in the Kars reach

Wall walleye	NoPik northern pike	Muske muskel-lunge	Hy502 tiger muskel-lunge	ceMud central mud minnow	CoCar common carp
ESMin eastern silvery minnow	CoShi common shiner	GoShi golden shiner	EmShi emerald shiner	BcShi blackchin shiner	BnShi blacknose shiner
SpShi spottail shiner	MiShi mimic shiner	BnMin bluntnose minnow	Falf fallfish	WhSuc white sucker	SiRed silver redhorse sucker
ShRed shorthead redhorse sucker	GrRed greater redhorse sucker	Redsp redhorse sucker species	BrBul brown bullhead	YeBul yellow bullhead	ChCat channel catfish
TaMad tadpole madtom	BaKil banded killifish	BrSil brook silverside	BrSti brook stickleback	MoScu mottled sculpin	RoBas rock bass
Pump pump-inseed	Blue bluegill	SmBas smallmouth bass	LmBas largemouth bass	BlCra black crappie	JoDar johnny darter
YePer yellow perch	LoPer logperch	TeDar tessellated darter			



**3) Land Cover**

Crop and pastureland is the dominant land cover type in the catchment as shown in Table 7 and displayed in the land cover map on the front cover of the report.

*Table 7. Catchment land cover type*

Cover Type	Area (ha)	Area (% of Cover)
<b>Crop &amp; Pasture</b>	<b>3610</b>	<b>33</b>
<b>Woodland</b>	<b>3166</b>	<b>29</b>
<b>Wetland</b>	<b>250</b>	<b>15</b>
<b>Settlement</b>	<b>1149</b>	<b>11</b>
<b>Water</b>	<b>649</b>	<b>6</b>
<b>Transportation</b>	<b>428</b>	<b>4</b>
<b>Grassland</b>	<b>247</b>	<b>2</b>

**Woodland Cover**

The Rideau River-Kars catchment contains 3166 hectares of woodland (Fig. 12) that occupies 29 percent of the drainage area. This figure is less than the 30 percent of woodland area required to sustain forest birds, according to Environment Canada’s Guideline: “How much habitat is enough?” When forest cover declines below 30 percent, forest birds tend to disappear as breeders across the landscape.

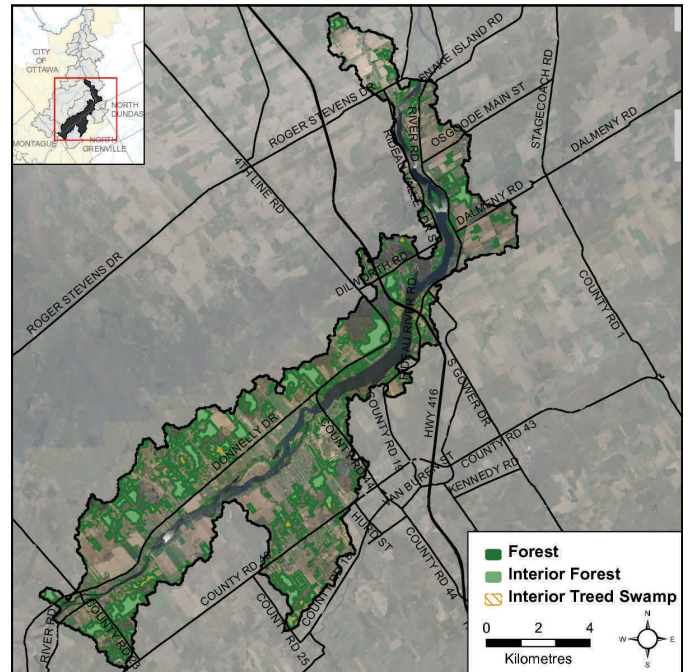
One hundred and thirty-eight (39%) of the 358 woodland patches in the catchment are very small, being less than one hectare in size. Another 181 (51%) of the wooded patches ranging from one to less than 20 hectares in size tend to be dominated by edge-tolerant bird species. The remaining 39 (15%) of woodland patches range between 20 and 221 hectares. Twenty-nine of these patches contain woodland between 20 and 100 hectares and may support a few area-sensitive species and some edge intolerant species, but will be dominated by edge tolerant species.

Conversely, ten (3%) of the 358 woodland patches in the drainage area exceed the 100 plus hectare size needed to support most forest dependent, area sensitive birds and are large enough to support approximately 60 percent of edge-intolerant species. One of these patches tops 200 hectares, which according to the Environment Canada Guideline will support 80 percent of edge-intolerant forest bird species (including most area sensitive species) that prefer interior forest habitat conditions.

**Forest Interior**

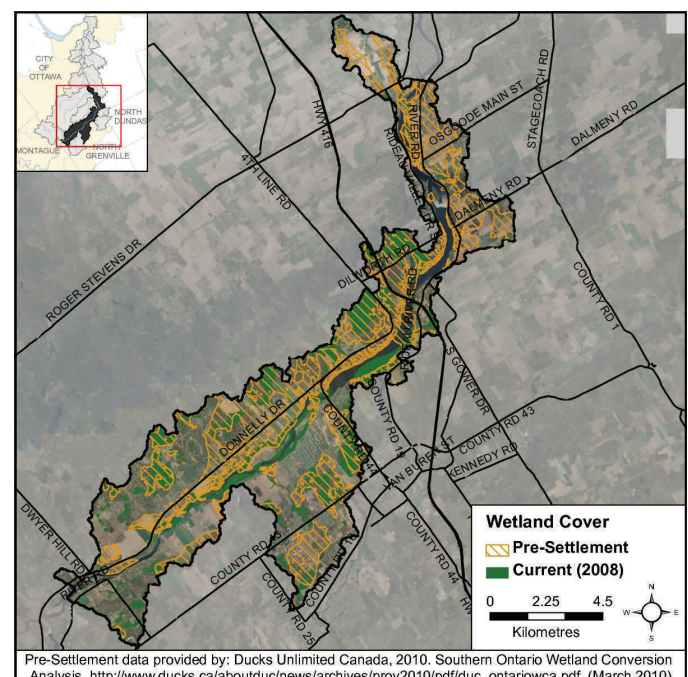
The same 358 woodlands contain 136 forest interior patches (Fig. 12) that occupy four percent (427 ha.) of the catchment land area. This is below the ten percent figure referred to in the Environment Canada Guideline

that is considered to be the minimum threshold for supporting edge intolerant bird species and other forest dwelling species in the landscape.



*Figure 12. Catchment woodland cover and forest interior*

Most patches (119) have less than 10 hectares of interior forest, 84 of which have small areas of interior forest habitat less than one hectare in size. Conversely, 17 patches have greater than 10 hectares of interior forest, the largest of which contains more than 50 hectares of interior forest (at 51 ha.).



*Figure 13. Pre-settlement and present day wetland cover*

Pre-Settlement data provided by: Ducks Unlimited Canada, 2010. Southern Ontario Wetland Conversion Analysis. [http://www.ducks.ca/aboutduc/news/archives/prov2010/pdf/duc\\_ontariowca.pdf](http://www.ducks.ca/aboutduc/news/archives/prov2010/pdf/duc_ontariowca.pdf). (March 2010)

#### 4) Stewardship and Protection

The RVCA and its partners are working to protect and enhance environmental conditions in the Lower Rideau Subwatershed.

##### Rural Clean Water Projects

Figure 14 shows the location of all Rural Clean Water Projects in the Kars drainage area. From 2006 to 2011, landowners completed 71 projects including 29 septic system repair/replacements, 20 well upgrades, 11 well decommissionings, 3 well replacements, 4 erosion control and 4 buffers/windbreaks. In total, RVCA contributed \$94,201 in grant dollars to projects valued \$490,659.

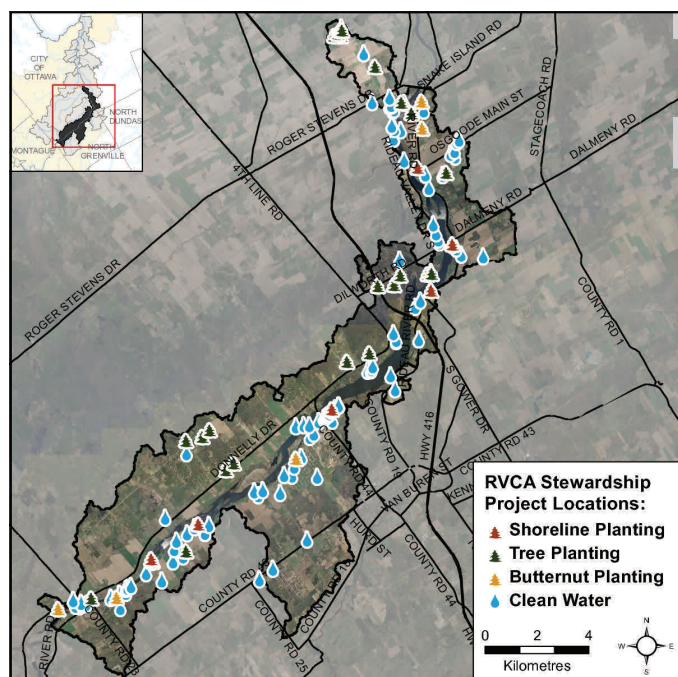


Figure 14. RVCA stewardship program project locations

Prior to 2006, the RVCA completed 50 projects in the area consisting of 23 septic repairs/replacements, 13 well upgrades, 5 erosion control, 3 manure storage, 2 surface wastewater treatment, 2 chemical/fuel storage and handling, 1 nutrient management plan and 1 educational initiative. In total, RVCA contributed \$100,941 in grant dollars to projects valued at \$381,968.

##### Tree Planting Projects

The location of all tree planting and shoreline projects is also shown in Figure 14. From 2006 to 2011, 5400 trees, valued at \$12,324, were planted on 4 sites through the RVCA Tree Planting Program. Before that, from 1984 to 2006, landowners helped plant 100,570 trees, valued at \$145,781, on 18 project sites, using the RVCA Tree Planting Program, on 50.3 hectares of

private; fundraising dollars account for \$59,405 of that amount.

##### Shoreline Naturalization Projects

With funding through the Rideau Valley Conservation Foundation's *Making Shorelines Natural* Project, 6 shoreline planting projects were completed in 2011 with 670 trees and shrubs planted along 183 metres of the Rideau River at a total project value of \$3,864.

##### Valley, Stream, Wetland and Hazard Land Regulation

Thirty-six square kilometre or 33 percent of the catchment drainage area is within the regulation limit of Ontario Regulation 174/06 (Fig.15), giving protection to wetland areas and river or stream valleys that are affected by flooding and erosion hazards.

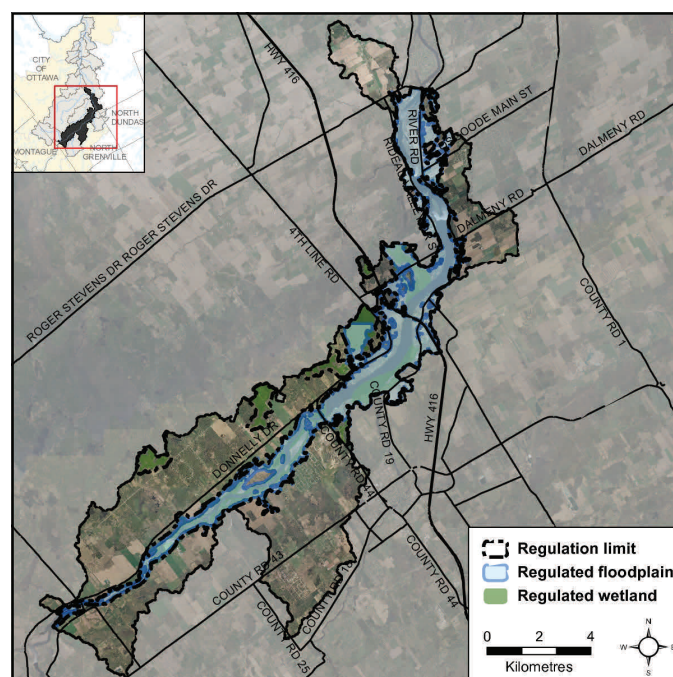


Figure 15. RVCA regulation limits

Natural features within the regulation limit include 8.1 sq. km. of wetland (representing 50 percent of all wetlands in the catchment) and 97.8 kilometres of watercourse (representing 53 percent of all watercourses in the catchment). Many of these regulated watercourses (26 km or 14 percent of streams) flow through regulated wetlands.

Regulation limit mapping has been plotted along 71.8 km (or 39 percent) of the streams that are outside of wetlands. Plotting of the regulation limit on the remaining 87.6 km (or 47 percent) of streams requires identification of flood and erosion hazards and valley systems. Within the regulation limit, "development" and "site alteration" require RVCA permission, as do any proposed works to alter a watercourse, which are subject to the "alteration to waterways" provision of Ontario Regulation 174/06.

**5) *Issues***

- Loss and channelization of headwater tributaries due to rural drainage practices
- Removal of natural riparian vegetation along the shoreline of the Rideau River and its tributaries
- Altered hydrology causing erosion and impacts to aquatic habitat
- Reduced biodiversity
- Loss of wetland and forest habitat
- Increasing presence of invasive species
- Nutrient and occasional metal exceedances observed in water samples taken
- Shoreline is susceptible to erosion due to boat wake and wave action, if not protected by shoreline stabilization methods (riparian plantings, bioengineering or healthy stands of emergent wetland vegetation in the littoral zone)
- Some riverfront property owners have installed erosion protection (e.g., riprap/retaining wall) works that have detrimental effects on shoreline vegetation and aquatic habitat
- Boat speed and wake rules are in place but are only as effective as the level of effort applied to enforcement
- This reach receives significant boat traffic and is under shoreline development pressure
- Above Manotick, the river valley becomes less-well defined and relatively large expanses of land between Manotick and Highway 416 are flood prone at 1:100 year flood level. Along the Long Reach from Manotick to Burritts Rapids, 639 buildings are located within the 1:100 year flood plain (source: RVCA flood forecasting and warning manual) on riverside properties or communities that were created prior to flood plain zoning and regulation. Regulatory policies allow for continuing use of existing structures, but new lot creation or building additions are restricted

**6) *Opportunities for Action***

- Engage landowners in invasive species removal, tree and riparian planting. The RVCA and its partners continue to promote shoreline naturalization efforts along this reach of the Rideau River. Shoreline landowners are eligible for assistance under the Clean Water and Shoreline Naturalization Programs, if they use shoreline naturalization and/or bio-engineering methods to remedy erosions problems
- Continue with efforts made by the Parks Canada - Rideau Canal Office and its partners to work on education and awareness around the boat wake and speed problems