

HOW MUCH OF THE RIDEAU CANAL IS MAN-MADE?

Back in the summer of 2019, I received an email with a simple question: “Is there a map of the Rideau Canal showing which sections are man-made?” The answer at that time was also simple, “no, there is not”. The answer today would be “yes there is” since the question piqued my interest and I set about to create a set of maps showing the man-made sections. But then I hit snag, what exactly is meant by “man-made”? As those familiar with the Rideau Canal know, the 202 km long Rideau Canal is mostly a series of lakes and rivers connected by locks and short canal cuts.

Defining man-made then led to more questions and soon I was writing a book to provide an explanation of the not just the whats and wheres of the man-made work, but also the whys, the whos and the hows. Why did Lt. Col. John By make certain decisions? How exactly did they do it? Who did it? (details of the workforce). I was 136 pages into writing a book on this subject in 2020 when COVID-19 hit and de-railed that project. The book is yet to be completed, but this article will provide the main results.

If you use a broad definition of man-made as “changed from its original natural state” then the answer to the question is 100% since essentially every part of the Rideau is flooded due to the slackwater design of the canal. If you think of it as “excavated channels” then the number is much smaller, but it becomes more complicated. Should we just count visibly excavated sections (what we can see today), or the total amount of excavation, some now flooded over? Since I don’t do things by halves, I ended up with a number of definitions including visible excavations, hidden excavations, channel clearing and apparent excavations (gully clearing). While I was at it, I also wanted to document how much of today’s Rideau Canal was above water in the pre-canal era (dry land), how much was water less than 5 feet deep and how much was water over 5 feet deep (navigation depth). This water depth information was the challenge Lt. Colonel John By faced in making a minimum 5 foot deep navigation way between the Ottawa River and Kingston. In addition, I thought it would be interesting to compare the excavations required for By’s slackwater canal design to Samuel Clowes’ conventional canal design proposal.

The last survey prior to the British government green-lighting the construction of the Rideau Canal in 1826, was done by civilian surveyor Samuel Clowes in 1823 and 1824. Clowes proposed a conventional canal system with



Lower Brewers 1829

This painting shows two workers with pickaxes and four with wheelbarrows, excavating the channel into the lock pit at Lower Brewers. A bypass channel was excavated here to maintain the operating sawmill (building in background right). Painting by Thomas Burrowes, Archives of Ontario, C 1-0-0-67.

excavated channels cut to bypass rapids. When everything is measured up, Clowes’ proposal would have involved 31 kilometres of excavated bypass channels and about 19 km of channel straightening for a total of almost 52 km of excavation work. Clowes’ canal was designed for unpowered vessels; his design included a tow path along most of his canal route.

Lt. Colonel John By was a visionary, he saw that steamboats were the future. The British military was moving to steam as were civilian commercial vessels. These self-powered craft didn’t need a tow path and hence he could use a less costly and faster to build technique, a slackwater design. Slackwater, in its pure form, involves building a dam at the head of a set of rapids with the locks adjacent to the dam. The dam puts a head of water into those locks and then floods the channel upstream to the next set of locks. The best example on the Rideau Canal of this classic slackwater design is the dam and locks at Long Island (see pg. 6). But By also had to contend with the fact that many spots where he wanted to put his locks and dams were already occupied by mills.

The Rideau Canal Act of 1827 allowed By to acquire land for canal purposes, but he was not allowed to do it by using expropriation – he had to do by negotiation, or,

Friends of the Rideau is a volunteer, non-profit organization, working to enhance and conserve the heritage and charm of the Rideau Canal.

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if that failed, payment for land would be settled by arbitration. With mills, his first desire was to keep them intact. Sawmills and gristmills were a critical need for settlers and By didn't want to disturb them if he didn't have to. So, at places such as Merrickville and Upper Brewers, By used excavated cuts to bypass the existing mills, to keep them operational. In other spots such as Chaffeys and Davis, topography was such that he had no choice but to buy out the owners and flood the mill sites.

So, what are the numbers? The general number in use today is that 10% of the Rideau Canal is what we would consider to be man-made with the remaining 90% simply flooded lakes and rivers. Ten percent is actually pretty close and a good public number. If I add up the amount of visible excavation work (7.6%) and add in the amount of apparent excavation work in the form of gully clearing (2.4%) we end up at 10%. But that's not the actual amount of man-made excavations. Actual excavations, which would be the lock pits plus visible and hidden (drowned) excavations that By had done totals 16.5 km (8.2%). However, that number doesn't include channel clearing (up to 33.9 km – 16.9%) or the above noted gully clearing. You can see where this starts to get complicated. Bottom line is the actual number in terms of excavation that By had to have done to create a navigable waterway is a number somewhere between 10% and 27% - the unknown is the channel clearing number, most of that is underwater in the southern Rideau and impossible to accurately measure.

How does this compare to Clowes' canal proposal? In terms of the excavation of bypass channels, Clowes' design adds up to 31.3 km with By's design requiring less than half that number, at 15.0 km. Most of Clowes' excavations would have been in solid bedrock. By avoided that where he could, most of his excavations were in gravels (with the notable exception of the Newboro cut). Clowes was also going to excavate a 19 km long channel along the Cataraqui River, while By was simply doing channel clearing, only excavating edges and high spots since he planned to flood the whole area to create the required navigation depth.

Documenting the challenge By faced in creating a 5 foot deep navigation way between Ottawa and Kingston shows that 24.8 km (12.3%) of the route of today's Rideau Canal was above water in the pre-dam (pre-1784) era, with 130.4 km with water (rivers) that was less than 5 feet deep and 46.8 km (23.2%) with water over 5 feet deep (mostly the pre-canal lakes).

All the above is now documented on maps and spreadsheets. I do plan to complete the book but I've had other projects, including a couple of other new books (Old Stone Mill NHS in Delta) that took priority. I have shared a partial release, the maps and actual numbers, with some people, but I hesitate to do that as a general release without the full explanation. Currently I plan to complete the book this coming winter. If anyone is interested in the specifics feel free to email me (rideauken@gmail.com).

- Ken Watson



The Excavation Maps

My first challenge for this project was to find a map base that could show excavation areas in sufficient detail for the entire 202 km length of the Rideau Canal. The solution for that was to re-purpose my 18 paddling guide maps, which are scale accurate, highly detailed and in editable digital format. This resulted in a set of 18 excavation documentation maps covering the entire length of the Rideau. The original is in colour, details are easy to see in a PDF or at full printed size. Of interest in the above map of the Ottawa Locks to the Hogs Back Locks is that By used both excavation and slackwater to make a navigation way. Only 62% of the Ottawa section of the canal is excavated, the other 38% consists of flooded natural features (the Natural Gully and Dows Lake).


A REMINDER

Just a reminder that we have the latest 2022 version of Watson's Paddling Guide to the Rideau Canal available as a free download from our website.

While geared to the paddler, it is a useful guide to the Rideau for any boater. And it's free!

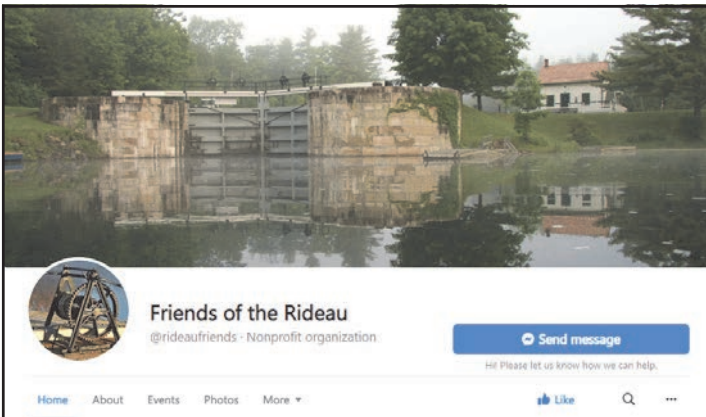
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WATSON'S
PADDLING GUIDE
to the
RIDEAU CANAL
by
Ken W. Watson



v 2021-02-24

Revitalized Facebook Page



Friends of the Rideau Director Susan Warren is making our Facebook page much more lively with the addition of various things of Rideau interest (lots of vintage photos).

Sue is a Rideau history expert and is very active on several other Rideau Facebook groups. If you haven't visited our Facebook page in a while, check it out at www.facebook.com/rideaufriends



Inside the Depot

Summer staff Joshua Terpstra and Elijah Loos taking direction from FoR Chair Hunter McGill during Depot setup in 2021.

Joshua and Elijah will be back again this year to greet visitors to the Depot and provide them with any Rideau information they are looking for.

When you're next in Merrickville this summer, head to Blockhouse Park and pay Joshua and Elijah a visit.

Membership

It's that time of year again, members will find a membership renewal form with this newsletter (our membership year runs from June 1 to May 31). Please renew and consider a donation to help us with our work.

Thanks!

Message from the Chair

Dear Friends,

Greetings from now quiet, unoccupied Ottawa. I hope you don't mind that "political" reference.

Your Board is looking forward to the 2022 season on the Rideau Canal, setting up The Depot in Blockhouse Park in Merrickville, to open mid-June. Friends is grateful to Merrickville Village Council and the federal Department of Economic and Social Development for their financial support. Our staff of Joshua Terpstra and Elijah Loos look forward to greeting you at The Depot.

Over the last several months, Board members have had an ongoing dialogue, through a series of virtual meetings, with Parks Canada, in the person of David Britton, Director of Ontario Waterways, and members of his team. In the discussions Friends has emphasized two issues: the draft management plan for the Rideau Canal National Historic Site for the next 10 years; and heritage presentation and education at the lockstations on the Canal.

Current challenges to the integrity of the heritage landscapes along the Rideau Canal include the massive new Ottawa Hospital Civic building and parking garage to be built on a portion of the Central Experimental Farm, right next to Dow's Lake, and additional high-rise buildings to be constructed at Lansdowne Park right next to the Canal in the centre of Ottawa. Both projects, while just outside the boundary and buffer zone of the Rideau Canal, hold the potential to negatively affect the Outstanding Universal Value of the Rideau Canal World Heritage Site and its setting. In our view a full Heritage Impact Assessment should be done for both projects.

Elsewhere in this newsletter you will read an update on the University of Ottawa/Carleton University research project on the governance of the Rideau Canal, to which several members of the Friends' Board have contributed. The findings and recommendations of this project are valuable in the context of the above projects, as well as the proposed expansion of the Chateau Laurier in Ottawa, and the Rideau Marina development in Kingston, going back several years.

The Board of Friends of the Rideau always welcomes feedback and comments from our members and supporters. Contact us at info@rideaufriends.com.

We look forward to seeing you this summer, whether at The Depot or at events along the Rideau Canal, starting with the Rideau Paddlefest in Smiths Falls on June 11.

- Hunter McGill

A Breach of the Public Trust—The Rideau Canal Management Plan

Opinion by Ken Watson

As of this writing, the new Rideau Canal Management Plan is floating somewhere in Parks HQ, getting ready to be submitted to the Minister. Unfortunately what Parks Canada will produce will not be a management plan by any definition of that term, and it will not reflect the tremendous amount of informed public input that Parks Canada received as part of the management plan “consultation” process.

There were 50 written submissions made to Parks Canada, more than received by any other Parks Canada site in Canada. In contrast, Jasper National Park only received 9 written submissions. There were also detailed round table consultations in 2017 and virtual meetings with heritage and environmental groups in 2021. However, in their “What We Heard” document released earlier this year, Parks Canada essentially ignored all that other than a few general statements and concentrated instead on results from their fluff internet surveys (and we all know the value of an internet survey).

The singular message from the thoughtful public input they received was for Parks Canada to get back to its core mandates, that of environmental and cultural heritage protection and presentation. There are also many UNESCO World Heritage Site issues that need addressing. Those were completely absent in the draft plan. To do this will require management and staffing changes on the Rideau Canal to provide it with the ability to meet Parks Canada legislated requirements. The massive management restructuring of 2011 (rolled out in 2012) and the subsequent heritage and science purge of Parks Canada in 2012, removed its capacity to meet its core mandates on the Rideau Canal.

My litmus test for Parks Canada is not the management plan, which is a document it doesn’t follow anyway, it is what actually happens on the Rideau Canal. Does Parks Canada have meaningful engagement with public stakeholders such as Friends of the Rideau, other heritage groups and lakes associations? Does Parks Canada have heritage staffing for the Rideau Canal? Does Parks Canada have an actual heritage interpretation program? The list goes on and the answer to all those questions is “no they don’t”. You can find all those details on SaveOurRideau.ca

The problem is rooted at the top, with deliberate decisions made under successive Parks Canada CEOs, including the present one, not to resource the Rideau Canal to be able to meet its legislative requirements with regards to natural and cultural heritage as well as its UNESCO World Heritage Site obligations. Not even to foster, within Parks Canada, a corporate culture that puts their primary legislated mandates as key components of site management. None of these bureaucrats have shown, by their actions, that they have any interest in Canadian heritage, even though that’s a core legislated requirement of Parks Canada. Parks Canada, has, for the last 20+ years, been turning itself into a tourism agency run by an inefficient bureaucracy.

A couple of years ago I asked Christina Cameron, who was a senior Parks Canada official dealing with heritage before her retirement, about this problem. I’m paraphrasing her reply, which was essentially that if Parks Canada does not have a “heritage champion” in the upper ranks, then Parks Canada doesn’t do heritage. That’s clearly the case today given the tremendous heritage importance of the Rideau Canal and Parks’ failure to tell those incredible stories to Canadians—to have them value the Rideau Canal as more than just a recreational waterway.

We’ll see what the final management plan looks like when the Minister rubber stamps it and it is tabled in Parliament. Parks Canada did conduct an extensive public consultation process. Implied in that process was that these were true consultations, that they would listen to and act on what the public had to say. I have a bit of a jaded view of today’s Parks Canada and predicted that it would be essentially a pro-forma process. Have they breached the public trust by ignoring all that informed input? There have been no changes on the Rideau Canal, in fact it’s gotten worse. Will the new management plan actually reflect the input they received? We’ll find out in a few months.

2022 Hours of Operation

2022 Fees

Dates	Days	Hours	
May 20—June 19	Mon to Thurs	10 am to 4 pm	Single Lockage & Return = \$ 1.00 per foot
	Fri to Sun, holidays	9 am to 7 pm	One Day = \$ 1.75/ft
			Transit (one way) = \$ 5.00/ft
June 20 – Sept. 5	Mon to Thurs	9 am to 6 pm	Six Days (any six days) = \$ 5.50/ft
	Fri to Sun, holidays	9 am to 7 pm	Seasonal (power boats) = \$ 9.50/ft
Sept. 6— Oct. 10	Mon to Friday	10 am to 4 pm	Seasonal (paddle craft) = \$4.75/ft
	Sat to Sun, holidays	9 am to 5 pm	Mooring (overnight) = \$1.00/ft.

Rideau Canal Corridor Collaborative Writing Project with the School of Sociology and Anthropological Studies, University of Ottawa

Community members along the Rideau Canal possess important knowledge and perspectives that are potentially valuable for government decision makers responsible for managing the system. Traditionally, social scientists would employ a variety of methods to collect, summarize and interpret data in ways to represent the perspectives of community members. However, some researchers regard this approach as being “extractivist” because it implies that researchers are harvesting something of value from participants and repurposing it to create value for themselves. The same critique can apply to a consultation process that filters the public comments to fit a standard format thus minimizing critical views and opinions. Summaries of public consultation processes by government agencies are excellent examples as they extract what they want to hear without giving voice to the real concerns expressed by citizens.



historicwaterways.wixsite.com/research

Making environmental and social research less extractive is a major challenge. Communities with a major stake are demanding that their voices be unfiltered by research methodologies and standard public consultation processes.

To attempt to address this issue, two researchers with the School of Sociology and Anthropological Studies at the University of Ottawa undertook a collaborative writing project with a number of individuals with a long standing association with the Rideau Canal. The project is an outgrowth a multiyear NSERC grant commenced in 2018, which funded a variety of ecological and sociological research projects along the Rideau Canal. Through a series of workshops with stakeholders and government agencies, the researchers found that there are long standing and widespread concerns that the ecological and cultural heritage values of the Canal Corridor were being eroded owing to a lack of a common vision, leadership and effective collaboration. The release of the draft management plan for the Rideau Canal further confirmed the view that Parks Canada’s vision for the Rideau Canal and the management plan will not provide the means of addressing complex multi-jurisdictional issues.

While the original NSRC research project provided valuable insights into governance challenges and other pressing issues, the researchers, in conversation with a number of community members, conceived a project through which they would write about their priorities without the filter of academic interpretation and summary. These voices are presented as a series of three “calls to action” to improve the governance of the Rideau Canal.

Call to action 1: A Shared Vision. There was widespread dissatisfaction with Parks Canada’s vision in the draft management plan. As an alternative one of the co-authors submitted the vision from the 2005 management plan updated with 4 additional points.

Call to action 2: A Holistic Approach. Five guiding principles were identified that focused on managing the Canal region in a holistic manner. As the co-author of “The whole is the sum of the parts” put it so well: “Too often management gets buried in the details, the minutiae of specific policy or legislation without keeping an eye on the overall objectives, the whole”. In addition, other co-authors addressed ecological integrity, the impact of climate change, the potential for the establishment of a heritage region, and the need to protect the visual character of the Canal.

Call to action 3: Good Governance. In this section, co-authors presented their views on a wide variety of issues and opportunities germane to good governance of the Rideau Canal corridor. These include a call for Parks Canada to take the lead in achieving a shared vision, meaningful engagement of local citizenry, public education, a shared plan, accountability and transparency, and enforcement.

The collaborative writing project satisfied both the community co-authors, who shared their views on matters they deemed important, and research co-authors who provided context for how community voices can help address complex socio-ecological challenges. The resulting paper has been submitted for publication in an academic journal and will be available on the social science research team’s website once it is finalized and published.

For more information and other outputs from the research, please consult the team’s website: historicwaterways.wixsite.com/research

The community co-authors, Manuel Stevens, Ken Watson, Richard Scott and Grant Leslie, wish to express our gratitude to the University of Ottawa research team consisting of Professor Nathan Young, PhD candidate Christine Beaudoin, and Isha Mistry, MA, for all the guidance and support provided throughout the project.

- Manuel Stevens

DID YOU KNOW?

Did you know that the Rideau Canal's UNESCO World Heritage status, and in fact all other canal WHS sites in the world, have their origin in an initiative by Friends of the Rideau back in 1992? That's the conclusion of an academic paper written in 2015.

"What paved the way for the heritage-ization of canals on a global scale was a Canadian NGO – the Rideau Waterway Coordinating Association, also known as the Friends of the Rideau – to promote the inclusion of the Rideau Canal in Ontario, Canada, on the list of sites of "outstanding universal value," the World Heritage List."

The person that led the initiative to have the Rideau Canal inscribed as a World Heritage Site was Larry Turner, who, in 1992 was Chair of Friends Heritage Committee (later Chair of Friends). Larry's firm, Commonwealth Historic Resource Management, had previously prepared the successful World Heritage Site submission for the Historic District of Old Québec, so he had direct experience with the World Heritage designation process.

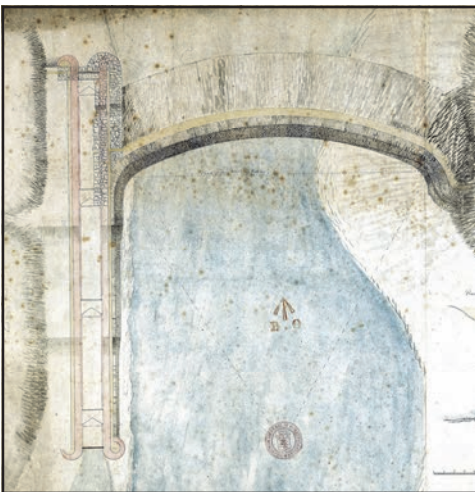


Larry Turner

Prior to Friends' initiative, Parks Canada had exhibited a little bit of interest. In 1989, Jane Roszell, Director General of the Ontario Region for Parks Canada, suggested the Rideau could be listed as a cultural site. In 1990, the Superintendent of the Rideau Canal, John Bonser, prepared a World Heritage Statement for the Rideau. However Parks Canada HQ was cool on the idea and the initiative died.

At a Friends board meeting in January 1992, Larry Turner proposed that Friends focus its energies on getting the Rideau Canal inscribed as a World Heritage Site. It was planned to launch an all-out campaign for this in May 1992. Parks Canada, not wanting to be left in the dust, made a decision in the spring of 1992 to support the initiative. Not everyone in Parks Canada was on board with this idea, in part because there was no fit for a canal within the existing criteria for a World Heritage Site.

Jumping ahead to 1994, the issue of canals becoming World Heritage Sites was to be resolved at an international meeting of experts at Chaffey's Lock, jointly sponsored by Parks Canada and Friends of the Rideau. Our very own Hunter McGill was directly involved in organizing that meeting. The goal of the meeting was to produce a framework that would allow heritage canals to be inscribed as World Heritage sites. Within two years of that meeting, the Canal du Midi in France became the first canal to become a World Heritage Site. Why did it take Canada over 10 years to get the Rideau nominated? Well, that's another story. In the end, our nomination was submitted in 2006 and we were inscribed in 2007. Tragically, Larry Turner passed away in 1996 and never saw his dream come true.



Textbook Slackwater—Long Island

This 1828 engineering diagram of the locks and dam at Long Island is a textbook example of slackwater design. One of the reasons for our UNESCO World Heritage designation is that **"The Rideau Canal remains the best preserved example of a slackwater canal in North America."** Map section from "Plan of the Dam and Locks to be constructed at Long Island by Lt. Col. John By, c.1828. Library and Archives Canada, 21895.

In 2012, Parks Canada, as the agency responsible for the Rideau Canal, abandoned many of the heritage commitments it made to UNESCO. In 2019 the Government of Canada received a rare rebuke from UNESCO, noting, in part, that the management system of the Rideau Canal World Heritage Site was not adequate to protect the Outstanding Universal Value of the site. Parks Canada has yet to address those issues.

An important role of Friends of the Rideau today is as a Rideau Canal heritage advocate, trying to get Parks Canada to honour its commitments to the World Heritage Site designation of the Rideau Canal.

The academic paper quoted above is "Scaling the Local: Canada's Rideau Canal and Shifting World Heritage Norms" by Aurèlie Élisabeth Gfeller and Jaci Eisenberg, The Graduate Institute, Geneva. *Journal of World History*, Vol. 26, No. 3 (September 2015), pp. 491-520.

Hotel Kenney Rideau

The sale of the historic Hotel Kenney at Jones Falls has been completed. New owners Jeff Day and Core Lee plan to start with offering ice cream and cookies this summer and work their way to into a full diner, banquet hall, and more. Their new website is: www.hotelkenneyrideau.com