



Vermilion River, by Allan Oman



VERMILION RIVER STEWARDSHIP

2014 ANNUAL REPORT

ANNUAL GENERAL MEETING

14 January 2015

Prepared by:

Linda Heron, Chair



Immediately Downstream of a Proposed Hydroelectric Facility

At Soo Crossing, on the Vermilion River

Children's Playground at Centennial Park

About the Vermilion River Stewardship

The Vermilion River Stewardship (VRS) is a grassroots Not-for-Profit organization serving the communities within the Vermilion River Watershed. It was formed in January of 2011 to address several development challenges that were posing a risk to the health of the Vermilion River. VRS incorporated as a Not-for-Profit in June of 2011.

Our Vision

“Community Supporting a Healthy, Natural and Sustainable River System”

Our Mission

The Vermilion River Stewardship will act as a voice for the Vermilion River and its Watershed, and work to build partnerships and strategic alliances with all other interested parties, communities, stewardships, organizations and industry to ensure clean and healthy water quality; and a balanced and sustainable ecosystem and natural habitat.

Stewardship of the Vermilion River is a responsibility shared by all those whose actions have an impact on its water quality.

Our Goals & Objectives

Acting on behalf of the Vermilion River for a healthy, balanced and sustainable ecosystem and natural habitat, this Stewardship will actively work to:

1. Encourage and promote cooperative stewardship;
2. Ensure its interests are fully represented and protected;
3. Preserve and protect its water quality, ecosystem, and natural habitat; and
4. Educate, promote and advocate for responsible and sustainable activities in the entire Vermilion Watershed

Vermilion River Concerns

VRS is concerned with all issues affecting the Vermilion River Watershed and its connecting lakes, rivers, streams and wetlands, including the cumulative effects of waste water treatment facilities, mining and industry releasing effluent into our waterways, diminished water quality and water quantity, forestry impacts, blue-green algae, invasive species, overdevelopment of our shorelines, endangered species, threatened fisheries, and of course the most daunting challenge of all, climate change. Some of the challenges the Vermilion River Stewardship is currently addressing:

1. 4 proposed Modified Run-of-River Hydroelectric Dams
2. Sewage Bypass Events at 9 Waste Water Treatment Facilities
3. Existing and Proposed Mining Development
4. Blue-green Algae Blooms and Contaminated Sediment

What VRS is Doing to Address these Concerns

1. 4 Proposed Modified Run-of-River Hydroelectric Dams

VRS has engaged with the proponent, Xeneca Power Development Inc. (Xeneca), on many occasions to learn as much as possible about the proposed developments at McPherson, Cascade, At Soo Crossing and Wabagishik Rapids, on the Vermilion River. Right from the beginning the proponent exhibited an attitude that raised red flags and galvanized our community into action.

VRS is strongly opposed to these hydroelectric dams as they would use a peaking and cycling operating strategy to produce power during peak demand hours. This type of dam results in numerous negative impacts on water quality, water quantity, fisheries, and fish habitat, can cause shoreline and sediment erosion, and can place public health and safety at risk.

The Vermilion River system is already under stress as a result of the cumulative effects of past and present developments, and has had intermittent blue-green algae blooms in the fall of 2011, and throughout the winter months of 2012 and 2013. Heavy metal contamination and high phosphorus levels were reported in a Ministry of Environment and Climate Change's (MOECC) 1986 Sediment Study - results include nickel, copper, arsenic, lead, manganese, iron, and zinc that are well over "severe effect levels". Xeneca refused our request to do heavy metal testing or to even consider the possible environmental impacts that its proposed development could have on aquatic life or public health and safety if this contaminated sediment is disturbed.

Xeneca submitted its Environmental Report (ER) for Wabagishik Rapids Generating Station in November of 2013. VRS and Ontario Rivers Alliance, along with twenty other local residents commented and made Part II Order requests to the Minister of Environment to elevate the project to a much more rigorous Individual Environmental Assessment, as in our opinion the ER did not meet the requirements of the Class EA for Waterpower. In all, only nineteen requests were accepted – four were rejected because they were not received before the deadline.

Our concerns are too many to list here; however, heavy metal contamination, and the fact

that large portions of the upstream and downstream zone of influence were not included in their environmental assessment were at the top of our list. For full details of our concerns you can find our Part II Order request [here](#).

Update:

The MOECC and Ministry of Natural Resources and Forestry (MNRF) have reviewed the ER and the Part II Order requests, and a visit to the public file at the MOECC offices revealed an internal MOECC document that confirms our position, that Xeneca did not meet the requirements of the Class EA for Waterpower in several areas. This document also revealed that MOECC is uncertain of how to proceed, whether to let Xeneca go through to permitting with detailed conditions, or to elevate the ER as requested. MOECC is also considering their liability if their "*approach leads to unforeseen negative impacts on the environment or other users*".

VRS subsequently made a presentation to MOECC in July of 2014 to reinforce all of our concerns, and highlighted the heavy metal contamination that was reported in the 1986 MOECC sediment study on Wabagishik Lake, as well as a 2014 sediment core study by Queen's University that confirmed even worse results that lie only a few centimeters beneath the lake bottom sediments. We await MOECC's decision.

Actions taken in 2014:

- February 2014 – ORA/VRS to MOECC – Xeneca's Response
- July 2014 – ORA/VRS Presentation to MOECC - Vermilion River Heavy Metal Concerns
- Visited the MOECC public file in Toronto in February, July and November.

2. Sewage Bypass Events at 9 Waste Water Treatment Facilities

The City of Sudbury was listed in the 2009 and 2013 EcoJustice Sewage Reports, as an offender for releasing untreated and under-treated sewage into the environment. To the City's credit, many municipalities did not report their bypass record to EcoJustice; however, the City of Sudbury was transparent and submitted their results.

VRS has met several times with Sudbury WWTF staff to learn more about their treatment processes and challenges, and to advocate for improved effluent parameters, fewer bypass events, and notification in real time when they occur.

Sewage By-Pass Alerts:

There are 9 Waste Water Treatment Facilities (WWTF), 3 sewage lagoons and numerous lift stations located within the Vermilion River Watershed that release treated, undertreated and untreated effluent into the environment. 5 WWTF are on the upper arm of the Vermilion River, and upstream of a water intake located just below Cascade Falls, that services 13,000 people in Lively, Walden, Copper Cliff and Whitefish with their drinking water. The other 4 WWTF release into the lower arm of the Vermilion, through Meatbird and Junction Creeks, which drain into the Vermilion River system.

City WWTFs use either primary or secondary treatment, and none were designed with climate change in mind. When there is a heavy rain event, many of our WWTF cannot handle the extraneous inflow and infiltration from illegal downspout hook-ups, leaking

manholes, and insufficient capacity.

In October of 2014, Ontario Rivers Alliance (ORA) made a formal request to the MOECC in support of an Application for Review by Lake Ontario Waterkeeper under the Environmental Bill of Rights for Sewage Bypass Alerts in the Toronto area. However, because of the history of sewage bypasses in the Sudbury area, ORA also requested that the Minister apply a policy of mandatory Sewage Bypass Alerts across the province. After reviewing the massive amounts of sewage bypassed in Sudbury in 2014, VRS corresponded with City staff to request Sewage Bypass Alerts in real-time, and sent a copy to Councillor Jacques Barbeau.

Councillor Barbeau requested that VRS prepare a Motion for City Council consideration, to notify the public in real-time through the City website and other means whenever a bypass event or spill occurs at any of their WWTFs. On the 4th of November 2014, City Council passed the Sewage Bypass Alert motion, with very slight amendments, in what was a unanimous vote.

Actions Taken in 2014:

- 4 November 2014 – VRS/Barbeau to City Council – Motion for Sewage Bypass Alert

3. Existing and Proposed Mining Development

Vale has been the primary mining company operating in the Vermilion River Watershed, and has taken important measures to reduce their environmental impact over the years.

Cliffs Natural Resources was proposing to build a Ferrochrome Processing Facility (FPF) just above Capreol in the old Moose Mountain Mine area, within the Greater City of Sudbury. This plant was to process chromite ore from the Black Thor deposit. VRS Commented on the Terms of Reference and the Amended Terms of Reference – see VRS's submissions [here](#). This project was of great concern to VRS; however, it was cancelled in September of 2013. Cliffs was recently convicted of Fisheries Act offences in Quebec that resulted in fines of over \$7 million.

Totten Mine is also in full operation as of the spring of 2014. There are new proposed mines as follows:

Glencore – Errington and Vermilion Projects:

Glencore is proposing to redevelop two brown-field sites on the shores of the Vermilion River – the Errington and Vermilion mines – zinc, copper, lead, silver and gold. Glencore staff made a presentation regarding their revised plans for these sites at a VRS General Meeting in November of 2014.

Originally redevelopment of the Errington mine was to begin in 2014, and once that mine was closed the Vermilion mine would be developed. Their plans have now changed, and both mines will be developed concurrently, and the ore will now be processed on site, rather than trucked to another location. It is reported that this project would create between 450 and 500 direct jobs.

These changes have escalated our concerns due to the risk of a breach of contaminated effluent. The necessity for the use of diesel generators has triggered the requirement for an

Environmental Report (ER), which is expected to be issued early in 2015. VRS will have an opportunity to review the ER and make a submission if there are concerns. VRS will continue to monitor this project closely, and will maintain contact with Glencore representatives.

Victoria Mine Project:

KGHM International is redeveloping the Victoria Mine, near Worthington. One of Sudbury's oldest and most prolific mines, Victoria would employ more than 200 full-time workers by the time it goes back into full production in 2017. Victoria Mine, is rich in copper, nickel and precious metals, and is now under development. Quadra FNX presented at a VRS General Meeting in 2011, and again at General Meeting in April of 2014. Ore will not be processed at this plant, and to date there are no major concerns.

4. Blue-Green Algae and Contaminated Sediment



The Vermilion River and its connecting lakes experienced blue-green algae blooms on the entire lower arm of the Vermilion River in October of 2011, and again on Ella Lake in November of 2012, right through to ice break-up in the spring of 2013.

At the onset of the 2011 bloom, VRS was galvanized into action when the bloom impacted on the entire lower arm of the Vermilion, originating in the Simon Lake area, all the way out to the Spanish River. This was the first known incident of blue-green algae on

the Vermilion, so it took everyone by complete surprise.

VRS took immediate action by forming a Strategic Planning Committee (SPC) to come up with a short term and long term solution to our water quality issues on the Vermilion River.

Our short-term solution was to create a telephone tree where volunteers could warn the community when there is a bloom. This Algae Alert can be used for any type of emergency on the river. VRS's long-term solution was to apply for a grant to undertake a water quality study. The Strategic Planning Committee felt that the only way to make significant change in water quality was to have reliable water quality data to clearly indicate the source/s of pollution.

In the Spring of 2012, VRS applied for a \$103,200 Ontario Trillium Foundation (OTF) grant to undertake a two year Lower Vermilion Source Water Quality Monitoring Project. The purpose of the project was to characterize the lower Vermilion River to identify all the negative inputs affecting water quality and water quantity, and to ultimately recommend a course of action to protect and restore water quality on the Vermilion River.

In November of 2012 VRS received approval for our project, along with the full amount requested. VRS contracted with Conservation Sudbury to provide a technician to do the

sampling, and to collate and analyze the data. VRS also partnered with the Beaver Lake Sports and Cultural Club and the Penage Road Community Association to hold our meetings and store equipment.

Add-ons to the project:

Over the term of the study the project has evolved and attracted new partners:

- 16 Lake Partner volunteers to transport our technicians out onto the river;
- University of Ontario Institute of Technology with a Master's Student to analyse 280 phytoplankton samples – at no additional cost to VRS; and
- Queen's University with a 4th year student to do sediment sampling on Wabagishik Lake – with minimal extra cost to the project.

Sediment Sampling:

Queen's University student, Zara Jennings



Zara Jennings, a Queen's University 4th year student and her professor, Brian Cummings, undertook sediment core sampling on Wabagishik Lake in September of 2013. Results indicate that the heavy metal contamination has steadily improved over the years; however, several heavy metals are still in the "severe effect level" and very nasty contamination lies within only centimetres of the sediment surface. Zara has provided an outstanding 4th year Thesis that will be a major part of our final project report.

Update:

- Completed water quality sampling – November 2014
 - 28 sites – total of 336 water quality samples
 - Phytoplankton samples – 280

- Conservation Sudbury – in the process of collating and analyzing data
- Conservation Sudbury will report to VRS in mid-January 2015
- University Ontario Institute of Technology – Master's Thesis due by February 2015
- VRS will submit a Final Report to OTF by 1 March 2015
- As of 31 December 2014 we are under budget by over \$17,000 due to several cost saving measures
- VRS will present a Final Report of our findings, along with recommendations, to:
 - OTF
 - Public, Stakeholders and First Nations
 - Greater City of Sudbury
 - Industry
 - Government

VRS has met and far exceeded its objectives for the Lower Vermilion Source Water Quality Monitoring Project, and OTF grant. The project has come in under budget and we are expected to make our deadline for our Final Report on the 1st of March 2015.

Application to KGHM:

Weather patterns over the last 2 years have not been typical for this area; and in the opinion of our Strategic Planning Committee, did not represent normal conditions on the Vermilion River. Consequently, VRS has made application to KGHM for funding to extend our Lower Vermilion Source Water Quality Monitoring Project. KGHM has indicated it cannot fund the full amount of our project, but is considering funding a portion of it. Consequently, once KGHM has made its decision on funding, we may be looking for additional funding partners. So stay tuned.

Conclusion

VRS has worked diligently to meet its Vision, Mission, Goals and Objectives as set out in our Constitution and ByLaws.

Our Board and volunteers will continue to work to build partnerships and strategic alliances with all other interested parties, communities, stewardships, organizations, industry and government to ensure clean and healthy water quality; and a balanced and sustainable ecosystem and natural habitat. VRS looks forward to another productive year.

Yours in sustainability,



Linda Heron
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