

REPORT ON RECREATIONAL WATER QUALITY AT GATINEAU BEACHES - 2020

Recommendations for a future water quality monitoring program



Ottawa RIVERKEEPER®
GARDE-RIVIÈRE des Outaouais

SUMMARY OF RECOMMENDATIONS

1. That the City initiates a pilot project to increase the frequency of testing. Given that Parc Moussette typically has the highest numbers of days when the beach is closed, we strongly suggest that a pilot project begin at this beach. Ideally this pilot project would be for the entire swim season however, we recommend the increased testing occur for a minimum of a month and begin in late July or August as results have demonstrated higher variation later in the summer.
2. That, prior to the start of the 2021 season, the City coordinates a field session with its blue collar workers and ORK participants to demonstrate its sampling methodology.
3. In the event that the City has not yet adopted a daily sampling protocol, and the City is notified by ORK of results corresponding to a D rating: That the City immediately dispatch a team to validate these results, and consider a precautionary beach closure until it receives the results of its own analyses.
4. That the City makes the results and conclusions from its project, InfoBaignade, available to the public.
5. That the results of the City's water quality tests be made public (website and social media) within 24 hours. Ideally, before the beaches open for the day.
6. That along with the water quality codes (A,B,C,D) on its website, the City publishes numerical values for E. Coli concentrations.
7. That the City provides up to date water quality information to their lifeguards and ensures that lifeguards have been adequately trained to understand these results and the factors that contribute to poor water quality to better inform beachgoers
8. That, when there is a beach closure, the City's website specifies the reason (e.g., due to weather, including the date that weather occurred; due to poor water quality based on the samples taken and when they were taken, etc.).
9. That the City discontinues the use of yellow caution tape to indicate beach closures.
10. That the City proactively shares promotional and marketing materials to attract people to beaches and counter misperceptions about water quality in general.
11. That the City shares plans and specifications for addressing beach erosion with the public to ensure there is an opportunity for residents of Gatineau to learn what is being recommended for these parks.
12. That the City proceed immediately with the developments (Orientation 2, Objective 2.10 : Aménager les plages Moussette et des Cèdres de la Ville de Gatineau pour diminuer l'érosion du sable) that were scheduled to occur in 2019 and 2020
13. That the City continues to work with the Blue Flag program so that at least one beach in Gatineau is certified by the 2021 season.
14. That the City contributes financially, with the Ottawa Riverkeeper, to the hiring of a summer student who would conduct awareness activities at Gatineau beaches during the 2021 season. These activities could contribute to meeting the requirements of the Blue Flag program.

INTRODUCTION

This past summer, Ottawa Riverkeeper (ORK) resumed monitoring recreational water quality for beaches and popular water access points throughout the Ottawa River watershed. The goal of this program is to provide timely information to recreational water users, provide water quality results through the Swim Guide app, and improve the communities understanding about what factors impact water quality. This approach allows people to make informed decisions for their health and safety when deciding when and where to access rivers in the watershed.

Our local beaches are popular summer destinations, more so this year than previous years with the global pandemic keeping many people close to home. Ottawa Riverkeeper collected water quality samples from 24 locations in the watershed, including the Ville de Gatineau beaches located at Parc Moussette and Parc des Cèdres. This marks a significant increase from the eight locations monitored during our 2019 program and provided us with additional insight to what is most important to recreational water users: What is the quality of the water at their local beach; how to make sense of this information; and what factors contribute to poor water quality.

In 2020, Parc des Cèdres was among the top beaches in the Ottawa River watershed consulted on Swim Guide with 2626 views between June 20th - Aug 30th while Parc Moussette had 1932 views for that same period.

METHODOLOGY

Ottawa Riverkeeper follows the sampling procedure outlined by Health Canada's Guidelines for Recreational Water Quality. As outlined in this guide, Ottawa Riverkeeper assessed recreational water quality at beaches by collecting 5 samples along a straight line at a depth of 1 metre. Each sample is analysed separately and water quality for the beach is determined by calculating the geomean. This method differs from the "W" method used by the Ville de Gatineau in accordance with the Quebec Ministry of Environment and Fight Against Climate Change's provincial "Environnement-Plage" program. We are open to adopting the "W" method when testing Gatineau beaches in the future to maintain consistency between Ottawa Riverkeeper and Ville de Gatineau approach. Samples are processed using the IDEXX Colilert system, a USEPA approved system for the quantification of E.Coli in recreational water.

In order to ensure the accuracy and precision of our results, duplicate samples were collected from two locations for two rounds of in-house as well as two rounds of third party sample verification. Third party verification was conducted by Micro B, an accredited lab located in Gatineau. In all cases, there was no statistically significant difference between the results of each duplicate or between the results obtained by Micro B and Ottawa Riverkeeper. As such, we have confidence in the results we obtained.

SAMPLING & ANALYSIS

Water quality changes daily and can be influenced by a variety of factors. Beaches in urban locations are particularly susceptible to significant variation in water quality. Without frequent testing, urban recreational water users are only given a snapshot of the water quality at their local beaches and may possibly be swimming in contaminated water or barred from swimming unnecessarily due to water quality results that are no longer accurate.

In 2019, the Ville de Gatineau increased testing frequency at their beaches from once to twice a week. While we commend this effort, results from our 2020 monitoring program, which occurred on days the city of Gatineau did not test, highlight how more frequent testing would benefit beachgoers. Results from the City of Gatineau for Parc Moussette (Appendix A) closed the beach for 12 days between the months of July and August. However, results obtained through Ottawa Riverkeeper's monitoring program lowers the number of days the beach needed to be closed to six. As this only includes days when supplementary monitoring data was obtained, it is quite possible that this number may have been even lower if water quality had been tested 7 days a week. Additionally, the City of Gatineau water quality results for Parc Moussette had the beach open for two days when Ottawa Riverkeeper's data showed water quality was poor and potentially hazardous to swimmers. More frequent, and ideally daily testing, would both provide residents with reliable access to the water while also ensuring they have the most up to date information to make informed decisions for their health.

Based on these finding, Ottawa Riverkeeper makes the following recommendations:

1. That the City initiates a pilot project to increase the frequency of testing. Given that Parc Moussette typically has the highest numbers of days when the beach is closed, we strongly suggest that a pilot project begin at this beach. Ideally this pilot project would be for the entire swim season however, we recommend the increased testing occur for a minimum of a month and begin in late July or August as results have demonstrated higher variation later in the summer.
2. That, prior to the start of the 2021 season, the City coordinates a field session with its blue collar workers and ORK participants to demonstrate its sampling methodology.
3. In the event that the City has not yet adopted a daily sampling protocol, and the City is notified by ORK of results corresponding to a D rating: That the City immediately dispatch a team to validate these results, and consider a precautionary beach closure until it receives the results of its own analyses.
4. That the City makes the results and conclusions from its project, InfoBaignade, available to the public.

COMMUNICATIONS

How and when water quality results are shared is a critical component for the public to gain confidence in using beaches. A poll conducted this summer for Ottawa Riverkeeper by Abacus Data showed that, among respondents living in Ontario and Quebec, 32% believe it is not safe for an adult to swim in the Ottawa River and 45% believe it is not safe for a child to swim in the river. Overall, 60% of respondents would not swim in the Ottawa River because they think it is too dirty.

Ottawa Riverkeeper shares water quality results via the Swim Guide app and website which has proven to be a great tool to engage with the community on issues related to water quality. Through our Swim Guide engagement we have learned that people are interested not only in whether the quality of the water at their local beach, but what constitutes a water quality failure and beach closure, and what types of events or factors contribute to poor water quality. Communicating this information in a timely and transparent fashion provides residents with confidence in the data they are receiving and empowers them to make informed decisions regarding accessing the water.

Based on the above, Ottawa Riverkeeper makes the following recommendations:

5. That the results of the City's water quality tests be made public (website and social media) within 24 hours. Ideally, before the beaches open for the day.
6. That along with the water quality codes (A,B,C,D) on its website, the City publishes numerical values for E. Coli concentrations.
7. That the City provides up to date water quality information to their lifeguards and ensures that lifeguards have been adequately trained to understand these results and the factors that contribute to poor water quality to better inform beachgoers
8. That, when there is a beach closure, the City's website specifies the reason (e.g., due to weather, including the date that weather occurred; due to poor water quality based on the samples taken and when they were taken, etc.).
9. That the City discontinues the use of yellow caution tape to indicate beach closures.
10. That the City proactively shares promotional and marketing materials to attract people to beaches and counter misperceptions about water quality in general.

DEVELOPMENT

We commend the recent collaboration between City of Gatineau departments to establish an action plan and prioritize efforts to address water quality issues in Lake Beauchamp. Water quality is impacted by a number of factors and the city of Gatineau has already identified steps that could help improve the beaches at both Parc Moussette and Parc des Cèdres. In the Plan de gestion de l'eau 2017-2021, activities to control erosion at these two beaches along with activities to try to control the number of Canadian geese have been identified and budgeted for within this action plan. Stormwater runoff can contain high concentrations of E. coli from surrounding areas and any effort of reducing erosion at beaches would need to include addressing the volume of stormwater that reaches the beach. For this reason the activities highlighted under Orientation 2, Objective 2.10 : Aménager les plages Moussette et des Cèdres de la Ville de Gatineau pour diminuer l'érosion du sable could have the added benefit of improving water quality.

Based on the above, Ottawa Riverkeeper makes the following recommendations:

11. That the City shares plans and specifications for addressing beach erosion with the public to ensure there is an opportunity for residents of Gatineau to learn what is being recommended for these parks.
12. That the City proceed immediately with the developments (Orientation 2, Objective 2.10: Aménager les plages Moussette et des Cèdres de la Ville de Gatineau pour diminuer l'érosion du sable) that were scheduled to occur in 2019 and 2020

PROGRAMMING





The Ottawa River, like other rivers and lakes in the watershed, is an incredible resource and one that people should be encouraged to use. Ottawa Riverkeeper applauds the third objective of the Plan de gestion de l'eau 2017-2021 (Encadrer les activités de loisirs tout en protégeant les écosystèmes aquatiques), which highlights a variety of activities which can draw attention to the fantastic beaches in the city.


























For this reason, Ottawa Riverkeeper makes the following recommendations:

13. That the City continues to work with the Blue Flag program so that at least one beach in Gatineau is certified by the 2021 season.
14. That the City contributes financially, with the Ottawa Riverkeeper, to the hiring of a summer student who would conduct awareness activities at Gatineau beaches during the 2021 season. These activities could contribute to meeting the requirements of the Blue Flag program.

APPENDIX A - Résultats

Parc Moussette

 <p>Water quality measured by the City of Gatineau A,B,C = good D = bad</p>	 <p>Beach status Green = open Red = closed</p>	 <p>Water quality measured by Ottawa Riverkeeper</p>	 <p>Ottawa Riverkeeper's results contradict the beach status posted by the City of Gatineau</p>
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July				1	2	3	4		
									
5	B	6	7	D	8	9	10	11	
									
12	B	13	14	B	15	16	17	18	
									
19		20	21	B	22	23	24	25	
									
26	B	27	28		29	30	31		
									
August								1	
									
2	3	D	4	D	5	6	B	7	8
									
9	10	11	B	12	13	14	15		
									
16	D	17	18	C	19	20	21	22	
									
23	D	24	25	C	26	27	28	29	
									
30	31								
