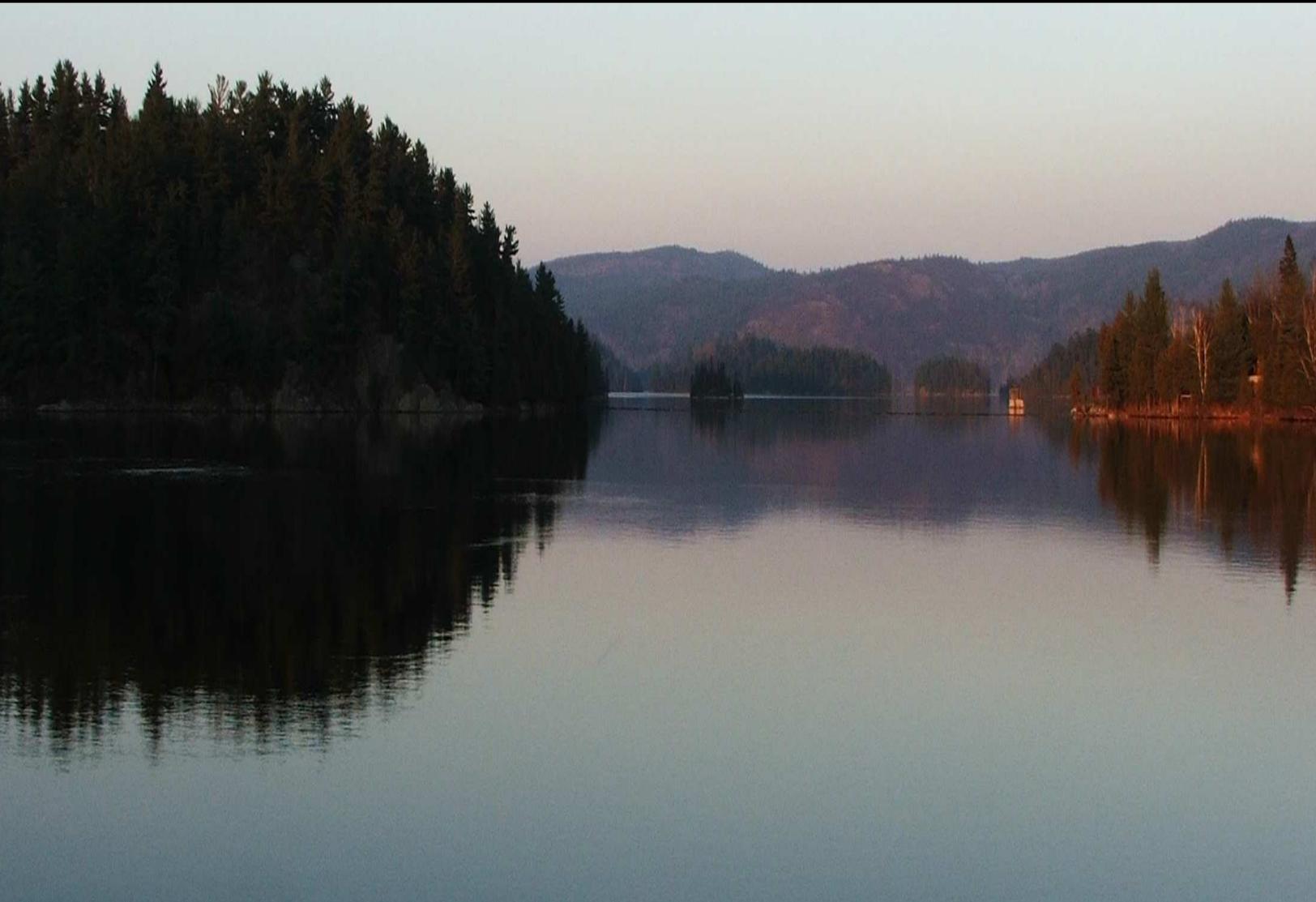


Gatineau River
Watershed
Committee
www.COMGA.org



Summary

Gatineau River
Watershed
Portrait

January 2007

Cover page: Gatineau River, view from Pagan Power Station
Photo courtesy of Sarah-Lacey McMillan



DESCRIPTION

The Gatineau River watershed is located in the south-western portion of the province of Quebec. It drains 23,724 km² of land and covers parts of the administrative regions of

Abitibi-Témiscamingue, Lanaudière, Laurentides, Mauricie and Outaouais. The watershed fans out from Parent (La Tuque agglomeration) then through the MRCs (regional county municipalities) Matawinie, Antoine-Labelle, Vallée-de-l'Or and Pontiac, then running south, it crosses MRC Vallée-de-la-Gatineau, Collines-de-l'Outaouais, and the City of Gatineau where it flows into the Ottawa River. Two Algonquin's Indian reservations are present there: Kitigan Zibi and Rapid-Lake.

The estimated population of the catchment area of the Gatineau River was 96,366 inhabitants in 2001. The residents are concentrated close to the Ottawa River mouth (more than 50,000 in the City of Gatineau), then dispersed in a series of bordering villages until Grand-Remous and Montcerf-Lytton, the most important being Maniwaki, Cantley, Chelsea and Wakefield.

The Gatineau River with its 386 kilometres and an average flow of 350 m³/sec at Paugan Power Station is the most important affluent of the Outaouais River.

The Gatineau River watershed is composed of eight secondary watersheds: River and Desert Lakes, Kazabazua and Gens de Terre Rivers, Thirty-one Mile Lake, Cabonga Basin, Petawaga, Clova and Bazin Lakes. Around fifty brooks flow into the Gatineau River.

The basin contains more than 19,000 lakes for the benefit of cottagers and residents. The principal ones are Dumont Lake, Blue Sea, Petit Lac des Cèdres, Grand

Lac des Cèdres, Heney, Pémichangan, Roddick, Cayamant, Sainte-Marie and Thirty-one Mile Lake, and two reservoirs, Baskatong and Cabonga.

COMGA (Gatineau River Watershed Committee) is a not-for-profit organization whose mandate is the improvement of the water quality of the Gatineau River, with an aim towards sustainable development.

COMGA is a major player in the integrated water management of the watershed. In this role, it serves as a forum for the exchange of ideas between representatives of all users and managers of the water resources within the territory of the watershed.

COMGA's mission is the protection, improvement and the promotion of water resources within the Gatineau River watershed, as well as the other resources and habitats associated with it, within a framework of sustainable development and in collaboration with all the major players involved. This will be achieved, notably, through the preparation, implementation and supervision of a Water Master Plan.

The Gatineau River watershed is based almost entirely on the geographical areas of Southern Laurentides (Canadian Shield), except in her southernmost portion which drains the lowlands of the St. Lawrence to the mouth of the Gatineau River. More precisely, the watershed cuts the following geographical areas: to the north, the Parent plate and Chochocouane hills, to the west, La Vérendrye depression and the Dumoine plate, to the east, the Mount-Laurier depression and in the extreme south, the Ottawa plain. The watershed of the catchment area is constituted mainly of metamorphic rocks (gneiss and paragneiss). However, the valley close to the river, on a width of about thirty kilometers, rests on carbonated rocks between Grand-Remous and Low. The section of watershed located within the municipalities of Pontiac and La Pêche is composed mainly of mediosilic rocks.

The south of the Gatineau Valley, located in the Canadian Shield, is characterized by a relief of plains and terraces with an average altitude of 150 metres above the sea level. In the north, on the Laurentian plate, altitude reaches the 400 metres on average.

In general, the watershed is characterized by a continental climate: the climate is hot and wet during the summer, while it is characterized by a generally wet, cold and snow-covered winter. Still the climatic variation is important between the north and the south of the area.

All in all, the Gatineau River watershed harbours ideal habitat characteristics for several species of land, water and aviary fauna. Thus, one counts 472 species, including 82 fish species, 18 amphibians, 14 reptiles, 308 birds and 50 mammals.

In big game one finds for example the white-tailed deer, the moose and the black bear. In small fauna species trapped for fur or game, one finds the beaver, the muskrat, the American marten and the raccoon. Small game includes the ruffed grouse, the snowshoe hare and recently wild turkey.

Aquatic species are diversified. Up to 82 species fish can be found within the watershed, including lake trout, brook trout and the walleye. In the Gatineau River, the dominant species are walleye, smallmouth and largemouth bass, perch, lake sturgeon, northern pike and channel catfish. Recently an important group of river redhorses, an endangered specie, was found at Farmers' Rapids.

In the catchment area of the Gatineau River, the forest is made up of hardwoods in the south and is mix in the center. Softwoods trees covers only 19 % of the surface and are located more in the north. The territory of the catchment area is covered with forests whose age groups vary largely. Due to earlier harvesting, the trees of the Gatineau River Valley forests range in age from 20 and 60 years of age.

The watershed territory is covered by five bioclimatic fields. Their location of the bioclimatic fields is influenced by topography, drainage, soil and climate. While progressing towards the north, the bioclimatic fields are hickory-maple sugar forest,

basswood-maple sugar forest, maple sugar-yellow birch forest, fir plantation with yellow birch, and fir plantation with white birch.

COMGA serves as a discussion table for the exchange of ideas between all the players concerned with water issues at the local and regional level. Its principal mandate is the preparation of a Water Master Plan for the watershed. This plan will include, among other things, a socio-economic and environmental portrait of the watershed, the identification of the key issues and concerns of the population, the negotiation of watershed contracts with the various players involved, as well as the monitoring of contract progress and the state of the environment.

The watershed of the Gatineau River contains 8 exceptional forest ecosystems. They include three types of forests: rare forests (Demerest Lake, Ruisseau-de-la-Côte-Jaune), old-growth forests (Fusain Lake, Baie-Sullivan, Antostagan Lake) and shelter forests for threatened or vulnerable species (Kazabazua River, Black-Bay, Fresavy Lake).

The catchment area of the Gatineau River includes 311 km² of protected surfaces, five ecological reserves (André-Michaux, Louis-Zéphirin-Rousseau, Rolland-Germain, Père-Louis-Marie and Érablière-du-Trente-et-un-Milles), two parks managed by the National Capital Commission (Gatineau Park (248 km²) and Leamy Lake Park), and several wildlife habitats (13 deer yards, 19 heronries and 7 bird colonies).

In addition, the catchment area of the Gatineau River includes the Community Wildlife Area of the Baskatong Reservoir (320 km²), 28 outfitters with exclusive rights, La Vérendrye Wildlife Reserve (4 250 km²), and 6 ZECs (Controlled Exploitation Zones).



LAND USE

The southern part of the catchment area of the river of the Gatineau River is characterized economically by its very dynamic urban sector, the service sector employing nearly 85 % of regional labour force. To the north, the further development of the forestry and tourist industries has been the subject of constant attention by the economic stakeholders, for many years. Agriculture and the forestry industry are the primary sectors present in this part of the territory.

Due to the more moderate climate, the urban and agricultural professions are concentrated essentially in the southern portion and consequently occupy only a negligible part of the territory. The protected agricultural zone, today covers 92,300 hectares inside the catchment area, that is to say 4 % of this territory. Nearly 95 % of the farm land is used for forage production. The majority of the farming operations are cow-calf beef farms, with only a very few dairy, sheep and vegetable farms making up the remainder.

The forest belts (the great majority being crown land) are predominate within more than 80 % of the territory of the catchment area, concentrated mostly in the MRCs Vallée-de-la-Gatineau and Antoine-Labelle. The commercial volume gross of the public forest territory consists of 68 % of hardwoods (hardwoods and aspen/poplar) and of 32 % of softwoods (fir, spruce, gray pine and tamarack).

Nowadays, of the once vibrant mining industry, only gravel and sand pits are left. The watershed was once the cradle of mining industry in Quebec with excavation of graphite, mica, apatite, barite, fluorite, garnet, granite, feldspar, brucite and chrysotile. The area was also an important copper, nickel and iron producer.

The catchment area of the Gatineau River has an enormous recreational and tourist potential which lends itself at the same time to the nautical and outdoor activities, cottaging, hunting, fishing, notwithstanding all other related activities. The biggest centers of attraction are Gatineau Park, the Forêt de l'Aigle, La Vérendrye Wildlife Reserve (including the Cabonga Reservoir), the Community Wildlife Area of the Baskatong

The major elements of COMGA's mandate are:

- *To prepare a portrait of the watershed*
- *To draw up a Water Master Plan*
- *To negotiate watershed contracts*
- *To ensure a follow-up and evaluation of the actions taken*

Reservoir as well as the many ZECs and outfitters. For winter activities one finds five ski centers, snowmobile and cross-country ski trails.

The Gatineau River counts 4 hydroelectric power stations: Mercier, Paugan, Chelsea and Farmers' Rapids. The origin of the power stations goes back to the beginning of the 20th century. The total production of electricity is approximately 1.5 TWh/yr.

A very important aspect in the management of water levels in the river is the control of the flows during flood periods by Hydro-Quebec in order to avoid floods. Historically, the Gatineau River was recognized as a river which had strong floods. Since the construction of the dams, the water level has been regulated. The Gatineau River has two dams for stream flow regulation: Mercier (Baskatong Reservoir) and Cabonga (Cabonga Reservoir, also used to regulate the flow of the Ottawa River).

The watershed basin of the Gatineau River contains thirteen municipal networks of drinking water distribution serving a little more than 60 % of the population. Nearly 88 % of these people live in the City of Gatineau which draws its water from the Ottawa River rather than the Gatineau River. Other municipal drinking water networks use ground water and there are only five filtration stations as most of the residents have wells.



QUALITY OF THE AQUATIC ECOSYSTEMS

The Gatineau River, most important tributary of the Ottawa River, drains a territory that is overall not a very densely used. The overall good water quality of the river reflects the extensive way land is used in this little industrialized watershed.

The portrait considers also the quality of the affluents of the Gatineau River, La Pêche River, the Blackburn Creek, Chelsea Creek and Meech Creek which the Friends of the Gatineau have sampled. The preliminary data of La Pêche River leads us to believe that, because of the presence of coliforms, the quality of water is rather passable and that uses (such as swimming) are compromised. Water of the other creeks studied (except for a part of Meech Creek) is of rather good quality.

As for the lakes, the health of certain lakes is at issue in the Outaouais and in the Laurentides, the problems taken into account were: the temperature of the water, the acidity of the lakes, water milfoil, and because of the increasing quantity of phosphate in water, the cyanobacteria.

COMGA will also work to:

- *Promote a better understanding of the resources and potentials of the watershed*
- *Reconcile the multiple uses of the water resource through an integrated management approach*
- *Act as an educator, trainer and mobilizing agent with regard to the population*
- *Develop projects that will aid in the advancement of the objectives of the corporation*
- *Organize and manage activities to permit the raising of funds for the realization of its objectives*
- *Receive donations, bequests, subsidies and other contributions compatible with its objectives*
- *Set up and administer funds*
- *Adopt follow-up and control procedures in relation to its objectives*
- *Exercise any other function compatible with its objectives*