GATINEAU PARK: A CASE STUDY OF MANAGING RECREATION IN THE WILDLAND-URBAN INTERFACE

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Abstract.—Gatineau Park, a few kilometers from the Parliament Buildings in Ottawa, is a classic example of a park confronted by management issues related to the wildland-urban interface. The park, comprising 36,300 hectares of forested and hilly Canadian Shield terrain stretching 50 kilometres in length, extends into the National Capital region, which has a population of over one million. A new Master Plan was approved for the park in 2005. This study uses a case study approach where Gatineau Park is intensively investigated to obtain insights that might be helpful to other parks in managing recreation in the wildland-urban interface.

1.0 INTRODUCTION

Environmental impacts and recreational conflicts in the urban-wildland interface are intense, unique and complex due to high levels of diverse visitors with interests in a variety of different activities (Ewert 1993; Stein 2005). Gatineau Park, located just a few kilometers from the Parliament Buildings in Ottawa, Canada, is a classic example of a park confronted by management issues related to the wildland-urban interface: residential development adjacent to the park; conflicts among stakeholders relating to acceptable uses of the park, and conflicts between humans and wildlife. Gatineau Park is a unique park in that, unlike other large nature parks in Canada, it is not a National Park or a Provincial Park but is managed by the National Capital Commission (NCC), an agency of the Canadian federal government. It is managed under the authority of the National Capital Act. Another feature of Gatineau Park is its proximity to an urban area (Ottawa-Gatineau), which also distinguishes it from other nature parks in Canada. Figure 1 shows the geographic context of Gatineau Park in relation to other nature parks in eastern Ontario and Western Quebec. As can be seen from the figure, other large parks such as Algonquin Provincial Park, La Verendrye reserve and Mont Tremblant Park are a considerable distance from large urban centers such as Toronto, Ottawa, and Montreal, while Gatineau Park protrudes into the National Capital Region (see Figure 2).

The land comprising Gatineau Park was assembled between the 1930s and the 1970s. The Park contains 36,300 hectares of forested and hilly terrain within the Canadian Shield and stretches over 50 kilometres in length. The range of natural habitats in the park provides for a rich biodiversity including exceptional forests, 50 lakes and hundreds of ponds. The wildlife includes 230 bird species and 50 mammal species, such as deer,

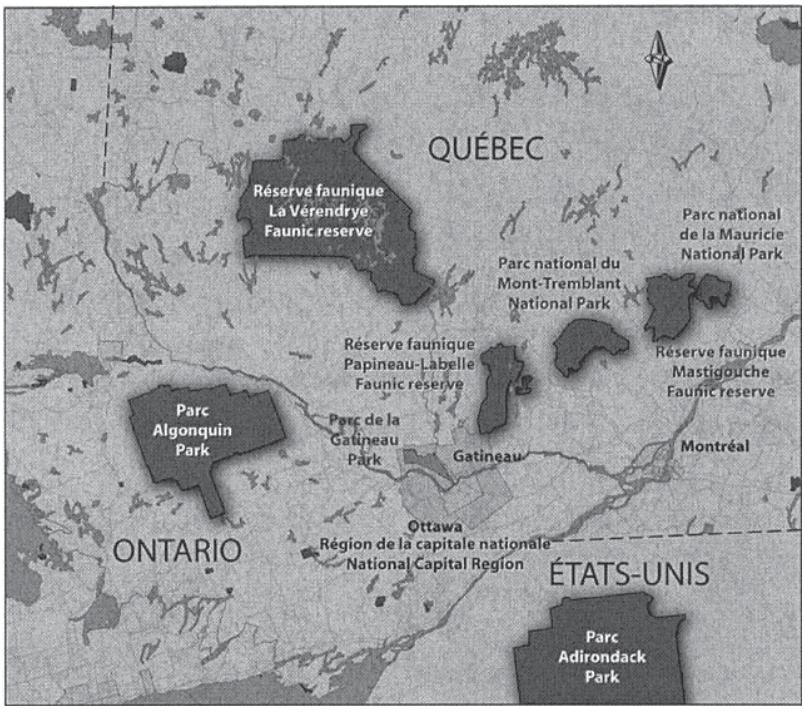

Figure 1.—Geographical Context of Gatineau Park. Source: National Capital Commission. (2005). *Gatineau Park Master Plan.* Ottawa, ON: Author, p. 3.

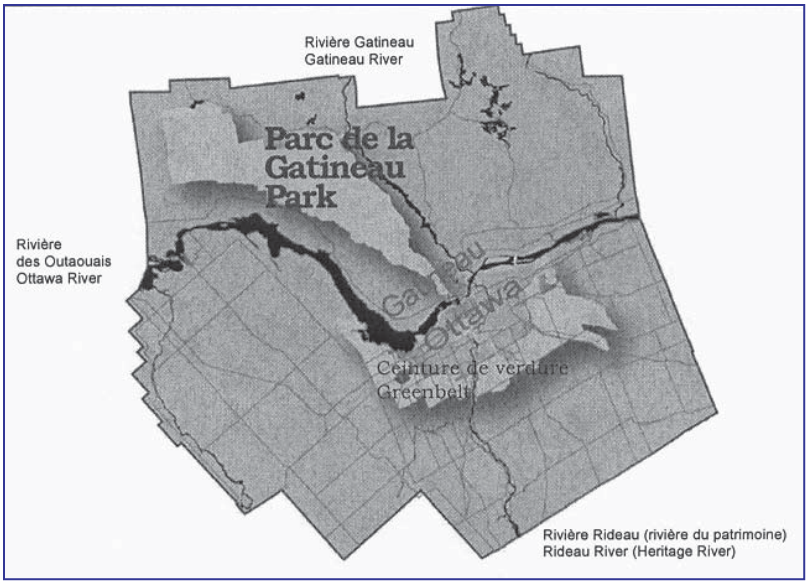

Figure 2.—Geographical Context of Gatineau Park in National Capital Region. Source: National Capital Commission. (2005). *Gatineau Park Master Plan.* Ottawa, ON: Author, p. 4.

black bear and wolf. During the nesting season 350,000 birds nest in the park. In terms of fauna, there are 1,000 plant species, of which 121 are endangered—the largest concentration of rare species in the province of Quebec.

Three-quarters of the land adjacent to the park is farmland. However, the southernmost part of the Park extends into the urban area of the National Capital Region, Canada's fourth largest urban community, with a population of more than one million people. The park is increasingly surrounded by new urban neighborhoods. It is predicted that increased urban growth around the southern portion of the park will add another 20,000 new residents by 2020 (Del Degan et al. 2004).

Summer recreational opportunities in the park include six beaches, 14 picnic areas, 40 km of scenic vehicle parkways, 165 km of hiking trails, of which 90 kms are also used by cyclists, 20 km of paved recreational pathways, and canoeing opportunities in the park's lakes. Winter recreational opportunities include 200 km of cross-country ski trails, 25 km of snowshoe trails, 10 km of winter hiking trails, and a privately operated downhill skiing center which has a long term-lease in the park. Cultural attractions include the Mackenzie King Estate, the estate of a former Prime Minister of Canada who played an instrumental role in establishing the park, which attracts 60,000 visitors a year. Special events attract over 265,000 people per year. Ninety percent of special-event visitors enjoy the changing leaf colors during the annual Fall Rhapsody, which also creates congestion on the parkways. This peaking of use during a specific season with associated congestion and managerial challenges is typical of the wildland-urban interface (Dwyer & Chavez 2005). Other special events include sports events, such as the annual Keskinada cross country ski loppet in the winter, which require a high level of services. Visitor use is primarily day use with low numbers of overnight users. There are 300 organized campsites and 60 overnight places in winter shelters. This emphasis on day use is also characteristic of wildland-urban interface areas (Dwyer & Chavez 2005).

Population growth in the region, aging of the population, an increase in demographic diversity, an increase in educated technology-sector employees seeking outdoor activities, and more emphasis on quality of life, health, heritage, and culture, have all led to a significant impact on recreational demand (Del Degan et al. 2004). The park is one of the most heavily used natural parks in Canada, with 1.7 million visitors per year. It has eight times the annual visits per square kilometres as Banff National Park, and twice that of Shenandoah National Park (see Figure 3). The impacts of this recreational use are positive in social and economic terms (the park contributes more than $25 million to the economy of the region and 420 person-years of direct employment), but negative in terms of ecological effect (Del Degan et al. 2004).

The National Capital Commission developed the first Master Plan for the park in 1980, followed by a second Master Plan in 1990. The 1990 Master Plan featured Gatineau Park as the "Capital's natural park" and emphasized a balance between conservation and recreation. In 2001, the NCC began a review of the 1990 Master Plan for the park and a Preliminary Master Plan for the period 2005-2015 was unveiled in October 2004 (Del Degan et al. 2004). Following public consultation

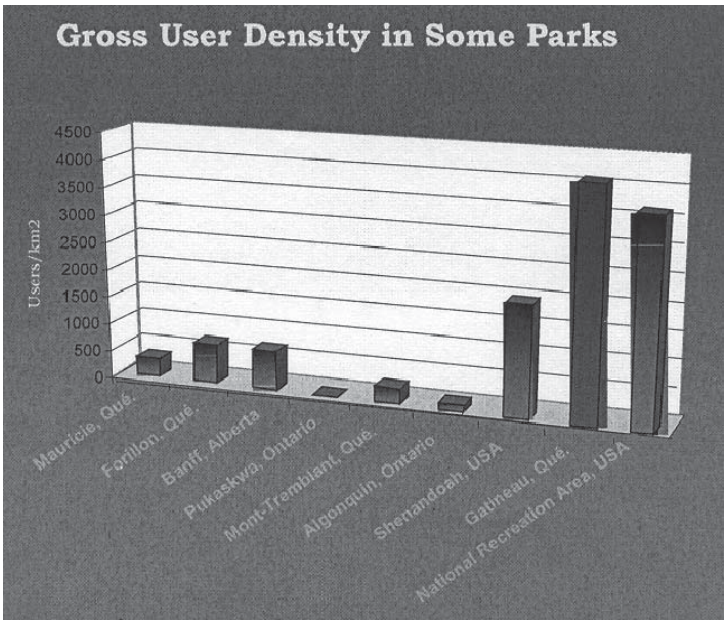

Figure 3.—Gross User Density in Some Parks. Source: National Capital Commission. (2005). *Gatineau Park Master Plan.* Ottawa, ON: Author., p. 9.

and some modifications to the Preliminary Master Plan, the NCC approved the new Master Plan in May 2005 (National Capital Commission, 2005).

2.0 OBJECTIVES

The objective of this study is to examine Gatineau Park and its new 2005 Master Plan to determine insights relevant to managing recreation in the wildland-urban interface. The study will specifically focus on the 2004 Preliminary Master Plan and how it was modified through the public participation process before final approval of the Master Plan in 2005.

3.0 METHODS

This study utilizes a case study approach where one case (i.e., Gatineau Park) is intensively investigated to obtain insights that might be helpful to other parks (Henderson & Bialeschki 1995). The results section highlights some of the key points in the 2004 Preliminary Master Plan and the approved 2005 Master Plan for Gatineau Park. In the discussion section, recreation related issues that were prominent in the public participation process will be discussed within the context of managing recreation in the wildland-urban interface.

4.0 RESULTS

4.1 2004 Preliminary Master Plan

Issues identified in the master plan review process were grouped into four principal concerns: environment, recreation, regional context, and management (Del Deganet al. 2004). Environment concerns included risk of habitat loss, disruption of natural processes, colonization of invasive species, ecological isolation, and loss of diversity and rare species. For example, new roads, such as a new access road to the Mackenzie King Estate and the McConnell-Laramée Road, which bisects the southern portion of the park, are creating fragmentation and ecological isolation. Recreation concerns involved risk of decreased quality of recreational experience, conflicts between recreational users, increase in users and overloads, and informal recreational activities in conflict with authorized activities and conservation goals. Regional context concerns consisted of the park's being increasingly circled by surrounding urban and agricultural development, difficulties in controlling general access to the park, and demand for public urban use such as roads, transmission lines, and sports fields that conflict with the park's mission. Management concerns included rationalization of resources and budget cutbacks, and lack of resources for control, conservation, and interpretation.

The vision of the park as stated in the 2004 Preliminary Master Plan was that of a conservation park: "the Park's vision for the coming decades should focus on the conservation of the natural and cultural environments… Gatineau Park will become a natural protected area, managed primarily for conservation then for recreational use" (Del Degan et al. 2004, p. 12). The balance of conservation and recreation that characterized the 1990 Master Plan would now be replaced with a focus on conservation so that the park would be known as the "Capital's Conservation Park" rather than the "Capital's Nature Park."

The priorities of the 2004 Preliminary Master Plan were identified as follows:

> "Preserve and enhance the unique natural and cultural heritages making up the park…."
>
> "Offer high quality recreational experiences that are respectful of the natural environment…"
>
> "Inspire all…to respect conservation values in order to ensure the survival of the Park for future generations..." (Del Degan et al. p. 12).

The Preliminary Master Plan identified six strategic objectives: environment, recreation, regional integration, heritage, national symbol, and management (Del Degan et al. 2004). In this paper we will focus on only two of these strategic objectives, namely, environment and recreation.

In regards to the environment strategic objective, the Preliminary Master Plan proposed the following: the preservation of ecological links; ecosystem restoration and reduction of fragmentation; and the relocation of recreational activities to less sensitive areas or if necessary, the termination of recreation activities. Recreational relocation would involve limiting human presence in some areas, eliminating unofficial trails and access points, and limiting new infrastructure and activities.

The recreation strategic objective in the Preliminary Master Plan included proposals to maintain recreation activities that are respectful of the environment, improve reception facilities and visitor service points, and place limitations on non-compatible recreational activities. The plan proposed no new competitive sports infrastructure, limits on extreme sports, limits on community recreation, and the elimination of off-road motorized activities such as motor boats and snowmobiles.

Specific recreation issues included the eventual banning of snowmobiling in the park by the year 2010, temporarily banning rock climbing for three years until a conservation plan is completed, limitations on mountain biking, and the elimination of informal trails by local residents.

4.2 Public Participation

Public consultations on the Preliminary Master Plan were held during the fall of 2004. The public participation process consisted of public meetings, six-question questionnaires distributed at the public meetings, the reception of comments and briefs, and an opinion poll. Public feedback on the preliminary plan ranged from those who slammed restrictions on recreational use to those who wanted more conservation, such as the Canadian Parks and Wilderness Society, which advocated emphasis on ecological integrity and legislative protection (e.g., National Park status) for the park (CBC 2004, Munter 2004). Some of the specific responses to the Preliminary Master Plan will be highlighted in the Discussion section of this paper.

4.3 2005 Master Plan

The new Master Plan was approved in May 2005. The new plan sets aside a larger area of the park as having a conservation priority, emphasizes respectful activities, and increases conservation activities to protect the natural environment. The park will be managed primarily for conservation and then for recreational use. Decisions about recreation include significantly reducing but not banning climbing activities, eliminating off-road motorized vehicles, including the use of snowmobiles by the year 2010 and naturalizing unused roads and informal trails.

5.0 DISCUSSION

The specific recreational issues that arose in the public participation process reflect broader issues common in the wildland-urban interface. The banning of snowmobiling reflects rural-urban lifestyle differences, the banning of rock climbing reflects ecological-recreation conflicts, limitations on mountain biking reflect user-group conflicts, and elimination of informal trails reflects urban encroachment. Each of these specific issues is a part of an overall debate between recreational use versus conservation within the park and a proposed shift from a "nature park" with a balance of conservation and recreation to a "conservation park" with a focus on conservation first, then recreation.

5.1 Rural-Urban Lifestyles

Rural and urban values often conflict and increase the complexity of management in the wildland-urban interface (Dwyer & Chavez 2005). Difficult decisions need to be made between views on both resource use and user expectations that arise from the very different environments—rural and urban—that come together at the interface. This type of rural-urban conflict is evident in the master planning process for Gatineau Park, where there are significant differences between the rural residents at the northwest end of the park and the urban residents increasingly surrounding the southern end of the park. As one newspaper column noted: "The socio-economic disparity of abutting populations at extreme poles of Gatineau Park is appalling." The writer goes on to describe a home on the northwest end of the park: "On the porch of a dilapidated shack surrounding by derelict pick-ups an obese man lounges on car upholstery" (Huggett 2004, p. B4). The contrast between the rural and urban was also illustrated by the physical grouping of residents at one of the public meetings as described by a newspaper reporter: "In one part of the room was a crowd of avid snowmobilers, including burly men sporting T-shirts touting their favourite make; in another corner was a group of earnest rockclimbers" (Drolet 2004, p. B2). Members from a snowmobiling club in the rural area just northwest of the park criticized the proposed snowmobiling ban effective in 2010. They claimed that snowmobiling did not affect the environment, and they felt it would hurt the economy of small communities near the park and have an adverse affect on gas stations, snowmobile dealers and bars in that area (Drolet 2004). The municipal government in this area (Pontiac), reflecting the values of its rural residents, has supported the use of an all-terrain vehicle trail through the northwest corner of the park even though motorized trail use is not approved in the park. The municipality has also approached the park with a request that local contractors be allowed to log in this part of the park. Many of the rural residents "view Gatineau Park as a 'lock-up' of their recreational back-yard. Most resent the restrictions which seem to favour the interests of urban visitors—focussed on 'smelling flowers'—rather than ripping around in four-wheelers" (Huggett 2004, p. B4). Despite the protests of the snowmobilers, the approved Master Plan calls for a gradual elimination of off-road motorized activities from the park. The National Capital Commission indicated they will work with snowmobile associations and other governments to relocate the snowmobile corridors outside of the park.

5.2 Ecological-Recreation Conflicts

The proposed ban on rock-climbing, along with the proposed ban on snowmobiling, received the most attention at a public meeting in 2004. Due to 17 environmentally sensitive species found in areas used by climbers, the Preliminary Master Plan would have placed an immediate ban on rock-climbing for three years while a conservation plan was developed. Rock-climbers argued to have continued access to a section of the sensitive Eardley escarpment, which contains the best rock-climbing in the Ottawa area, and represents, according to the chair of the Ottawa section of the Alpine Club of Canada, "really the only place to climb in the Ottawa area" (CBC 2004). The climbers argued that they had been climbing in the park for over 50 years, and that park officials had not worked with the climbers to come up with a compromise similar to the ones that have been established in other sensitive areas such as the Niagara Escarpment in southern Ontario. They claimed their activities have minimal impact as they do not use motorized activity but only their hands and feet. The rock-climbers were able to achieve a compromise in the approved Master Plan. Instead of banning rock-climbing for three years, climbing on the Eardley escarpment will be significantly reduced in order to assist in the protection and regeneration of the escarpment's natural ecosystems. Climbing will be restricted until a Natural Resources Conservation Plan is developed, and in the meantime, park officials will work with climbing groups to ensure the protection of the escarpment. Since the adoption of the Master Plan, the National Capital Commission and the Gatineau Park Climbers' Coalition reached a short-term agreement on the sites where rock climbing would be allowed. Rock climbing will be permitted on 22 sites, not permitted on four sites, and not permitted on sections of three sites (National Capital Commission 2006).

5.3 User-Group Conflicts

Dwyer and Chavez (2005) observed that new technologies for outdoor recreation are more popular in wildland-urban interface areas than in backcountry areas. For example, bicycle travel has become popular in interface areas leading to conflict with traditional trail users. During the public participation process, a letter to the editor of *The Ottawa Citizen* illustrated this type of conflict between users in Gatineau Park.

> With the increased popularity of snowshoeing and mountain-biking, it is becoming clear that the current practice of sharing trails is not reasonable. Two cyclists coming downhill behind me on the Wolf Trail affected my enjoyment of nature; presumably cyclists are disturbed when, as they come over the top of a hill, there are hikers spread across the trail. And in winter it is most frustrating for this back-country skier to come to a favourite downhill run on a trail to find snowshoers have made it into a snow luge. Control is virtually impossible, so off into the bush you go (Campbell 2004, p. A15).

The approved Master Plan specifies that mountain biking needs to be managed more stringently with restrictions on the areas of the park where it may take place so that negative effects on other user groups are minimized and the environmental impact of mountain biking is reduced.

5.4 Urban Encroachment

Urban encroachment is a significant issue in managing recreation in the wildland-urban interface:

> Changing private land ownership in the interface may bring more landowners,…and subsequently more pressure for the use of public lands. Increasing numbers of relatively small private holdings adjacent to public holdings create major challenges for the management of public lands, including managing the multiple interfaces between these many holdings and the public land, meeting the expectations of nearby residents…Controlling access to public lands in the interface is often critical to effective management given the large numbers of individuals living nearby, sometimes as neighbours who share a common boundary, as well as potential users from urban areas…(Dwyer & Chavez 2005, pp. 273-274).

Urban encroachment issues were identified in the Preliminary Plan as it proposed no new competitive sports infrastructure, limits on extreme sports, and limits on community recreation. In addition, the preliminary plan proposed the elimination of informal trails by local residents. During the public participation process some local residents opposed the elimination of these informal trails. For example, one resident stated: "We have our own natural trails that we've been maintaining, that give us connection to the park, and the whole idea of us moving up there is to have access to the park" (CBC 2004). However, park officials maintained that these trails are not natural, and that they wanted these trails returned to nature. The approved Master Plan states that the Park plans to naturalize informal trails and unused roads to reduce fragmentation in the park. However, new roads in the park, such as the McConnell-Laramée Road across the southern end of the park, currently under construction, and the new access road to the MacKenzie King Estate, have gone ahead despite opposition from conservation groups. These roads, which further fragment the park, may be seen as an almost inevitable result of urban development in the region. Another form of urban encroachment that was criticized was residential development on private land within the park (Cornish 2004).

5.5 Shift to Conservation Park

The new master plan reflects a shift in priorities, that is, a shift from a "natural park" as stated in the 1990 Master Plan to a "conservation park" as stated in the 2005 Master Plan, and a shift from a "balance between conservation and recreation" in the 1990 plan to "conservation, then recreation" in the 2005 plan. This shift reflects a shift that has been taking place in the main park agencies within Canada during the last 15 years. For the majority of their history, Canadian National Parks were guided by the dual mandate as outlined in the National Parks Act of 1930: "Parks are hereby dedicated to the people of Canada for their benefit, education and enjoyment,…so as to leave them unimpaired for

future generations." However, with an amendment to the National Parks Act in 1988, there was a new focus on ecological integrity, which was further reinforced in the Canada National Parks Bill of 2000. This legislation states: "Maintenance or restoration of ecological integrity, through protection of natural resources and natural processes, shall be the first priority…when considering all aspects of the management of parks." A similar shift is taking place concerning the management of Ontario Provincial Parks. The Provincial Parks Act of 1913, which was amended in 1954, states: "All provincial parks are dedicated to the people of Ontario and others who may use them for their healthful enjoyment and education." There was no environmental protection in this act. However a new Provincial Parks and Conservation Reserves Act that emphasizes maintaining biodiversity and ecological integrity along with providing opportunities for compatible, ecologically sustainable recreation has just been passed by the Ontario government. The difference between Canada's National Parks, Ontario's Provincial Parks, and Gatineau Park is that Gatineau park is much closer to a metropolitan area and therefore faces unique challenges in conservation. Will the shift from a "nature park" to a "conservation park" be merely a shift in policy or also a shift in actual management practice?

6.0 CONCLUSION

"The wildland-urban interface presents a situation where recreation conflict often occurs, and where management is challenged to seek appropriate actions" (Rollins et al. 1998, p. 107). The new Master Plan for Gatineau Park is an example of compromise between the conflicting views expressed by the various stakeholders—between recreationists and preservationists. On the one hand, snowmobilers, rock-climbers, and informal trail users wanted to continue their recreational activities in the park, while preservationists such as those represented by the Canadian Parks and Wilderness Association desired greater emphasis on ecological integrity. In such a situation a compromise is inevitable. As Lucie Bureau, the NCC's senior regional planner stated, "They can't please everyone" (CBC 2004). Ongoing research is needed to determine the effectiveness of the plan in managing the identified issues.

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