Creating a Regional Nature Park: A Case Study on Community Engagement in Developing the Mill Creek Nature Park in the Town of Riverview, New Brunswick.

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Abstract

This paper explores the development and management of the Mill Creek Nature Park in the Town of Riverview, New Brunswick. The park is under development on a 217 ha plot of land owned by the municipality on the eastern edge of Riverview. The site is unique due to its proximity to a rapidly developing residential area and the presence of a dam and reservoir, which was installed by the Royal Canadian Navy in the late 1950s. This paper investigates the Mill Creek Nature Park in the context of three development themes: inception, consultation, and materialization. The findings offer insight into the genesis of environment-based municipal projects, the importance of engaging community in the early planning-phase of park development, and the subsequent development process for the implementation of the park plan. Additionally, peer-reviewed literature is consulted to provide a brief overview of the value of green space and to explain why the broader community should be involved in the planning and development of local parklands. The information highlighted in this paper serves as a valuable overview of the creation of a regional nature park in the context of New Brunswick, Canada, and can provide insight into the early development processes for other municipalities seeking to develop a park of a similar size and scope within their own communities.

Introduction

The Mill Creek Nature Park (MCNP) is a recreation and nature conservation site situated in the Town of Riverview, New Brunswick. The undeveloped, municipally-owned site, host to a dam and reservoir, was recognized as being a valuable candidate for the establishment of a regional nature park due to its military history, the existence of an already established trail network, and its proximity to two burgeoning subdivisions on the municipality's east end. Long-term policy objectives assured the future development of a park at the site, but stagnating
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development in eastern Riverview, alternative political priorities, and capital limitations resulted in a postponement of progress. However, in 2010 this development hiatus ended, and through direct collaboration with the community and local stakeholders, political interest in the site was revitalized. This resulted in a community-focused planning paradigm, which became the foundation for the site’s development and helped guide the creation of the Master Plan for the implementation of the project.

This report investigates the process of developing a community project through the framework of the MCNP, from inception, consultation, and ultimately to materialization. The genesis of this park’s development, the role of the community, and the implementation process for MCNP’s master plan offers a compelling framework, with lessons and strategies, which can be adopted by other communities to facilitate an effective park development process in municipalities across Canada.

Literature Review

Park space is a crucial thread in the fabric of a community, providing benefits to health through mental rejuvenation (Salmond et al., 2016; Cohen-Cline, Turkheimer, & Duncan, 2015) and opportunities for active recreation (Niemela, 1999); a place for wildlife and vegetation to flourish (Toni & Duinker, 2015); a space that can absorb air pollution (Chang & Li, 2014); a booster of land value (Brambilla & Ronchi, 2016); and a wellspring of economic opportunity (Sander, 2016). Subsequently, allocating resources for the establishment of these spaces should be the priority of all municipalities; however, creating an effective park requires more than just spare land and political will. A successful park requires input from the community and active public engagement throughout the planning process (Sklara, Autry, & Anderson, 2014; Calder & Beckie, 2013). This form of inclusive planning will help create a park space that includes the features and amenities desired by the community, while mitigating the risk of allocating resources to infrastructure that may be underutilized (Dahl & Molnar, 2003).

Engaging with a diverse range of community stakeholders has the potential to reveal new and innovative design ideas, which may not have been considered otherwise. Therefore imbuing the community with a greater sense of pride associated with the development of a project (Calder & Beckie, 2013). Building a park on the foundation of community ideas and desires is the key to creating a community-driven park space, and this was a vital component to the development of the MCNP. Turning to the community for inspiration helped to refresh public and political interest in developing a park at the Mill Creek site and the ideas put forward during the early planning phase became the bedrock upon which the official development goals for the park were founded.

Methods

As part of the research process, a review was conducted of peer-reviewed literature on park development, available through the ProQuest database and the University of Dalhousie’s library. Grey literature on the history of the Mill Creek site was also consulted in addition to a review municipal reports on the park’s design and future operational objectives. Interviews with key stakeholders, including Gerry Cole (Director of the Parks, Recreation, and Community Relations Department for the Town of Riverview), Bill Budd (Director of the City of...
Moncton Urban Planning Department), and Pamela Fowler (grade 12 Environmental Science teacher at Riverview High school), provided additional fact-based information on the genesis of the project. All three of these participants have been directly involved with the project and helped to elaborate on the overall development process for the site.

**Study Area**

The MCNP is situated approximately 3 km south from the bend in the Petitcodiac River, which divides the Town of Riverview from the City of Moncton and the City of Dieppe. The site is bordered by the expanding Carriage Hill and Harmony Estates subdivisions to the north and the Cross Creek mini-home community to the south, covering a total area of 217 ha (figure 1). The site is predominantly overlaid with typical flora native to the Acadian forest, with the Mill Creek watercourse passing through the centre of the park, discharging into the Petitcodiac River just beyond the north-eastern border of the site. Municipal infrastructure throughout the park includes a wastewater pipeline; an electrical substation with a transmission line corridor skirting along the western edge; access-roads along the north-western border; a snow-dumping site which has been partially redeveloped into a parking lot; and a new operations centre for the Town of Riverview’s 1. Department of Engineering and Public Works and 2. Department of Parks, Recreation and Community Relations at the western entrance.

![Figure 1: MCNP Official Park Map.](Adopted from Friends of Mill Creek, 2016a. See end of article for larger figure).

The MCNP and its adjacent neighbourhoods share a venerated legacy in the history of the Town. In 1943, the Royal Canadian Navy acquired a holding of land in the community of Coverdale for the development of a radio direction finding station (Belliveau, 2014). Construction of the base was streamlined and completed within eight months, with the station becoming operational in early 1944 (Proc, 2015). In its early years, the base was operated by the Women’s Royal Canadian Navel Service and was used to track German U-Boats during the Second World War (Proc, 2015). The base continued to operate throughout the Korean War and Cuban Missile Crisis, receiving the formal designation of Her Majesty’s Canadian Ship (H.M.C.S) Coverdale (Belliveau, 2014). In 1959, the Department of Defence began the construction of a dam on the Mill Creek stream, 1.5 km from its confluence into the Petitcodiac watershed. The reservoir was to serve as an emergency water supply to combat fires in the event of an aerial bombing (Proc, 2015). Currently, the reservoir, which lies behind the 53 m long and 7 m high reinforced concrete buttresses dam (GEMTEC, 2012), extends 1 km up
stream and holds approximately 20 million gallons of water (Proc, 2005).

The station saw a slow but steady reduction in operations throughout the late 1960s and was formally closed in 1971. 16 ha were set aside for the development of an air traffic control centre, which was completed in 1978 by Transport Canada (Belliveau, 2014). The rest of the land was sold to the Province of New Brunswick, with a portion, including the dam and reservoir, conveyed to the Town of Riverview in 1981. This area was designated as a parks and institution zone in the 1986 zoning by-law and was predestined to become a component of the Town’s municipal green network in accordance with the 1986 Municipal Plan.

The remainder of the station’s property was sold piecemeal to private developers in the 1990s and later developed into the residential subdivisions of Carriage Hill and Harmony Estates. Many of the buildings from the base still exist today, such as the Coverdale Recreation Centre and the Victory Church on Runneymeade Road, although all have been upgraded and remodeled to better suit their contemporary uses (Friends of Mill Creek, 2016a).

**Project Inception**

**Early Site Use and the Initial Planning Phase**

The Mill Creek site remained largely undeveloped after it was acquired by the Town of Riverview in 1981. The local cross-country ski organization maintained an existing system of trails throughout the area during the winter season and off-road vehicle owners in the nearby subdivisions frequently used the site as an access route to the greater trail networks beyond the southern border of the Town. The Town of Riverview recognized the value in establishing a large recreational space at the site, particularly since Riverview had no park of a similar size and scope compared to those in the neighbouring community of Moncton, such as the Irish Town Nature Park and Centennial Park. The Town designated the land as municipal park space and established policy goals for the development of the site; however, alternative political objectives and financial limitations delayed the Town from acting.

In the late 2000s, prompted by longstanding policy objectives in the Town’s five year Municipal Plan review process, which mandated the creation of a comprehensive plan for the site, the City of Moncton Urban Planning Department (formerly the Greater Moncton Planning Commission) began investigating development opportunities for the Mill Creek property. An increase in residential demand resulted in the rapid growth of new subdivisions in Riverview’s east end; this, compounded by future plans for a new roadway connecting Gunningsville Boulevard to Hillsborough Road, resulted in the shift of political attention to this section of the community. The presence of the large and undeveloped Mill Creek property in this area spawned discussions among local developers and the municipality about their plans for the site.

**Initiation of the Current Planning Process**

In 2011, the environmental science teacher at Riverview High School, Pamela Fowler, contacted the City of Moncton Urban Planning Department to discuss designing a project in cooperation with the municipality. Ms. Fowler and her class had previously worked on a project called XStream in
collaboration with Fundy National Park, which saw students conduct water quality analyses of select local watersheds, including the Mill Creek stream (P. Fowler, personal communication, Dec. 16, 2014). As a result, a project was created which tasked students with designing a proposal for the development of a park at the Mill Creek property. The Director of the City of Moncton Urban Planning Department, Bill Budd, visited the class on multiple occasions and provided guidance in accordance with municipality expectations in the context of a park. These sessions, along with multiple visits to the site, established a project built on a platform of experiential learning, by engaging students with local, in-field opportunities, which extended beyond standard classroom-based lectures.

At the end of their semester, students presented their proposals to a panel of judges, which included the Director of the City of Moncton Urban Planning Department, municipal officials, and teachers, who selected a winner to present their proposal to the municipal council. The winning proposal emphasized the importance of nature conservation and featured the name “Mill Creek Nature Park”, which has since become the official title for the park. This student-led proposal, as well as rapid residential growth in the eastern edge of the town, reinvigorated political interest in developing the site. The City of Moncton Urban Planning Department’s role in the process was concluded shortly thereafter, once the new municipal development plan was adopted (Town of Riverview, 2012), and the Town of Riverview took over responsibility for implementing the project.

Engaging with students from the community during the early planning phase became a catalyst for rejuvenating municipal interest in the site, jumpstarting a comprehensive development process. Collaborating with the students and adapting the project to be used as a learning tool resulted in a formative design, which resonated with the municipal council and resulted in the adoption of new design ideas focused on nature conservation and sustainable management. This inclusive and community driven form of planning became the foundation for the park’s development, as well as the official Master Plan, which was established to guide the development and future management of the park.

The Consultation Process

From the very beginning of the current planning process, the MCNP was built on a foundation of public participation and engagement. Prior to the 2011 high school project, the City of Moncton Urban Planning Department worked with other schools and neighbourhoods in the region to gain insight into what the community envisioned for the future development of the Mill Creek area (Budd, B, personal communication, August 22, 2014). This form of community-led planning paved the way for the formal consultation process, which was launched for the development of the park’s Master Plan.

CollabPlan (now Trace Planning and Design) and Genivar, were awarded the contract for creating a park development plan and in 2012 engaged in a comprehensive public consultation process for the development of the site’s Master Development Plan. This included three phases, youth consultation (e.g., public schools), stakeholder consultation (e.g., local professionals, landowners, etc.), and community workshops (e.g., public discussion groups) (CollabPlan & Genivar, 2013). This process
resulted in the creation of a list of features and attributes, which the community desired for the park. This list was further synthesized into four themes which were established as guiding principles for the development of the park: nature, play, sport, and services (CollabPlan & Genivar, 2013). These themes, as well some of the more specific ideas proposed by the community, were codified into the final development plan, and act as the foundation for the development and future management of the park.

To accommodate the spectrum of features and recommendations highlighted throughout the consultation process, it was decided that the park should be divided into distinct zones, which would support different levels of development. Conceptual plans separated the park into a development scale, ranging from intensive development on the western edge to less invasive development further east. Plans for the western section of the park included the installation of paved pathways to maximize accessibility; the installation of a new operations centre for the Department of Engineering and Public Works and the Department of Parks, Recreation and Community Relations; and the establishment of a motorized vehicle route for accessing trails beyond the southern edge of the park. In contrast, the eastern section of the park would offer a more rugged and natural trail system, with minimally invasive infrastructure and interpretative opportunities for people looking for a more nature oriented experience. This compromise allowed for a significant section of the park to remain predominantly natural, which was prioritized in the original project proposal, while also including more development-heavy infrastructure desired by certain segments of the community.

Public participation in the plan’s development process was extensive and the information gathered has been adopted as the core guiding principles for the development and management of the park. This ground-up community planning was important for ensuring that public interests were incorporated during the early phases of the project and are expected to result in the establishment of a space that is reflective of the wants and needs of the community.

Materialization: Developing a Park

With the completion of the Master Development Plan (the Plan) in April of 2013, the MCNP was officially founded. The Plan outlines two processes, each with a list of objectives. The first process provides a guideline of administrative steps that are necessary to begin on-site development of the park. This includes the adoption of a park mandate, the implementation of relevant policies, and the assembly of land (CollabPlan & Genivar, 2013).

The second process details three phases of development. The first phase focuses on establishing gateways into the park and connecting existing trails at the site to other trail networks in the community. It also includes the installation of wayfinding signage and the development of a greening strategy to help re-forest certain sections of the site (CollabPlan & Genivar, 2013). The second phase concentrates on upgrading existing trails around the dam and reservoir, constructing a recreation facility for bikers and skiers, and implementing an interpretation plan to establish a knowledge base of local culture and history surrounding the site. The final phase focuses on organizing the development of a commercial sector on the western edge of the park, as well as planning for the future development of a visitation centre and other long-term
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project investments (CollabPlan & Genivar, 2013). All of this development will be guided by Riverview’s newly implemented sustainability plan, which outline strategies for sustainable development and nature conservation within the context of the Riverview community (Town of Riverview, 2015). Overall development of the park is expected to take approximately 25 years and a chart outlining yearly development goals is included in the Plan to benchmark progress.

An analysis of the dam was conducted by GEMTEC shortly after the Plan was completed. It was determined that the spillway of the structure was beginning to deteriorate but otherwise the dam was in an acceptable condition (GEMTEC, 2012). The projected cost for total restoration was estimated to be in the range of one million dollars (CDN). Some local environmental groups, such as the Petitcodiac Watershed Alliance, petitioned to have the dam removed to permit for fish passage and restore the watershed to its natural state; however, the municipality recognized the dam and reservoir as a point of interest and opted to keep the structure. Acquiring the necessary capital to restore the dam is only one component of the estimated five-million dollars (CDN) required to develop the park. Consequently, a large pool of capital must be secured to fund the park’s development and future maintenance.

The most significant source of long-term funding is anticipated to come from the municipal tax base. Meaning, residential and commercial development around the periphery of the park is expected to pay for most of the development expenses, as well as future maintenance and operations of the site (CollabPlan & Genivar, 2013). Other sources of funding for the project are expected to come from the provincial and federal government, as well as independent organizations, such as the Rotary Club of Moncton West and Riverview, which has already invested in the development of a gateway entrance on the northern edge of the park.

The third phase of park development is now underway. The primary trail, which traverses across the park, has been completed and signage has been installed. An official entrance has been completed at the end of Runneymeade Road and the Town’s new Operations Centre is now open. This will provide a jump-off point for Parks staff, which is anticipated to help expedite the overall development process (Cole, G, personal communication, August, 2014).

To oversee and manage development of the park, a private committee of stakeholders was established in January of 2016, titled the Friends of Mill Creek, which reports directly to the Town of Riverview’s municipal council. This committee is responsible for establishing objectives for the park; implementing development and management strategies; establishing partnerships with other organizations; consulting literature on best-practice development procedures, etc. (Friends of Mill Creek, 2016b). The committee convenes monthly to discuss these processes and to spearhead new programs and strategies relevant to the development, management, and operation of the park.

The community is kept informed of park development through the official Facebook page maintained by the Friends of Mill Creek, and notable events are publicized on the Town’s website and through the local newspaper. The group is committed to keeping the community involved in the project and informed of development.
milestones. The committee has recently hosted some public events, such as a tree planting initiative funded by the TD Bank Group, a “bioblitz” aimed at identifying species across the site, and a guided Halloween walk through the woods. These efforts, as well as steady development progress, have resulted in a significant increase in community interest in the site and a notable rise in the number of visitors to the park.

This area of Riverview, including the park and the land around it, is expected to become a new hub for the Town, with residential development nearly reaching the northern boundary of the park, and commercial infrastructure already beginning to pop-up along the southern end of Gunningsville Boulevard. The park will act as a significant expansion to the community’s recreational infrastructure and provide space for active recreation, interpretation, and education. The site will also act as a gateway for tourists travelling along the Fundy coastal route to prominent landmarks such as the Hopewell Rocks and Fundy National Park. As such, Riverview hopes to capitalize on this opportunity by providing a unique space for travellers to visit along their journey through the province.

**Conclusion**

This case study provides an overview of the MCNP and its journey from inception to materialization. This research contributes to the limited repository of literature on the subject of park formation and provides a possible template to help other municipalities looking to develop their own parks. The findings highlight the importance of community-led planning and the value in facilitating community engagement opportunities in the process of developing public green space. Identifying the dominant purpose of a park, (i.e., active recreation, ecosystem protection, wetland research, etc.), as well as the wants and needs of the community, and creating themes based on the objectives identified, is crucial to this process. Equally as important is implementing those themes into the final development plan. Planning officials and consulting firms need be careful not to lose sight of the original reasons for establishing a park, and must incorporate these as the dominant themes and objectives in their final park plan.

Based on the early success of the Mill Creek Nature Park, it is suggested that municipal planning authorities consult extensively with the general community in the early-design phase of park development. Furthermore, it is important not to underestimate the creative potential of students from within the community. By actively engaging with a wide range of local stakeholders and future park users, a space that will best serve the community will be created. In addition, choosing a park site that has special cultural or natural value, such as an area with military remnants or with striking vistas, can bolster public interest in a site and create a sense of connection to a space that may not be possible in an area without a distinct sense of unique character.

Developing a park with these principals and lessons in mind will help planners and municipal officials to create a green space that will better serve the needs of the greater community and create a sense of pride among its users. As municipal governments increasingly realize the value in creating effective parks and interconnected green networks, particularly in light of national trends towards environmental protection and sustainable development, the methods for
effectively developing prosperous park space will become increasingly relevant to a wide range of municipalities across Canada. The lessons highlighted in this study provide a potential framework for the early-stages of park development and may prove to be a useful guide for other communities looking to create recreational nature parks in the years to come.

Acknowledgments

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References


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### Timeline of the Mill Creek Site and the Park Development Process

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November, 1942</td>
<td>The Royal Canadian Navy approves the establishment of a Special Wireless Station in Coverdale, New Brunswick.</td>
</tr>
<tr>
<td>March, 1943</td>
<td>The Mill Creek site in Coverdale is leased to the Royal Canadian Navy.</td>
</tr>
<tr>
<td>January-February, 1944</td>
<td>The Coverdale Station is completed and becomes operational.</td>
</tr>
<tr>
<td>1956</td>
<td>The Coverdale Station is awarded the designation of Her Majesty's Canadian Ship (H.M.C.S.) Coverdale.</td>
</tr>
<tr>
<td>1959</td>
<td>The Mill Creek dam is installed.</td>
</tr>
<tr>
<td>June, 1971</td>
<td>The H.M.C.S. Coverdale is formally decommissioned.</td>
</tr>
<tr>
<td>November, 1976</td>
<td>Part of the property is purchased by the Province of New Brunswick.</td>
</tr>
<tr>
<td>1978</td>
<td>An Air Traffic Control Centre is established by Transport Canada on a remaning parcel of the property.</td>
</tr>
<tr>
<td>March, 1981</td>
<td>The Mill Creek site is purchased by the Town of Riverview.</td>
</tr>
<tr>
<td>1986</td>
<td>The Mill Creek site is zoned as a Parks and Institution zone and is designated in the 1986 Municipal Plan as a future park area.</td>
</tr>
<tr>
<td>1995</td>
<td>The 1995 Municipal Plan upholds the intention to develop the site into a park and mandates acquiring more land around the reservoir.</td>
</tr>
<tr>
<td>March, 2011</td>
<td>A joint project between the former GMPDC and the grade 12 environmental science class at Riverview High School sees students design a proposal for a regional nature park at the Mill Creek site.</td>
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<tr>
<td>June, 2011</td>
<td>A grade 12 student presents their park proposal to the Town of Riverview’s Municipal Council.</td>
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<tr>
<td>2012</td>
<td>CollabPlan and Genivar are awarded the tender for developing a Master Plan for the park.</td>
</tr>
<tr>
<td>June, 2012</td>
<td>Private developers proceed with the official planning process to expand the Harmony Estates subdivision to the north-eastern edge of the park.</td>
</tr>
<tr>
<td>November, 2012</td>
<td>GEMTEC conducts an assessment of the Mill Creek dam.</td>
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<tr>
<td>April, 2013</td>
<td>The Mill Creek Nature Park Development Master Plan is completed.</td>
</tr>
<tr>
<td>March, 2013</td>
<td>The Mill Creek Nature Park is officially founded.</td>
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<tr>
<td>2015-2016</td>
<td>The first and second phase of on-site development takes place.</td>
</tr>
<tr>
<td>January, 2016</td>
<td>The Friends of the Mill Creek Committee is established.</td>
</tr>
<tr>
<td>October, 2016</td>
<td>The new Operations Centre for the Town of Riverview is completed on the western edge of the park.</td>
</tr>
<tr>
<td>November, 2016</td>
<td>The Rotary Club of Moncton West and Riverview officially open a Gateway Entrance on the northern edge of the park.</td>
</tr>
<tr>
<td>2017</td>
<td>The third phase of on-site development is set to begin.</td>
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Figure 1: MCNP Official Park Map.