

Protection, Sustainability and Maintenance of the Chapel Hill North Forest and its Trails

Part 1 of 2 – Main Report

Report of the Forest Valley Trails Working Group

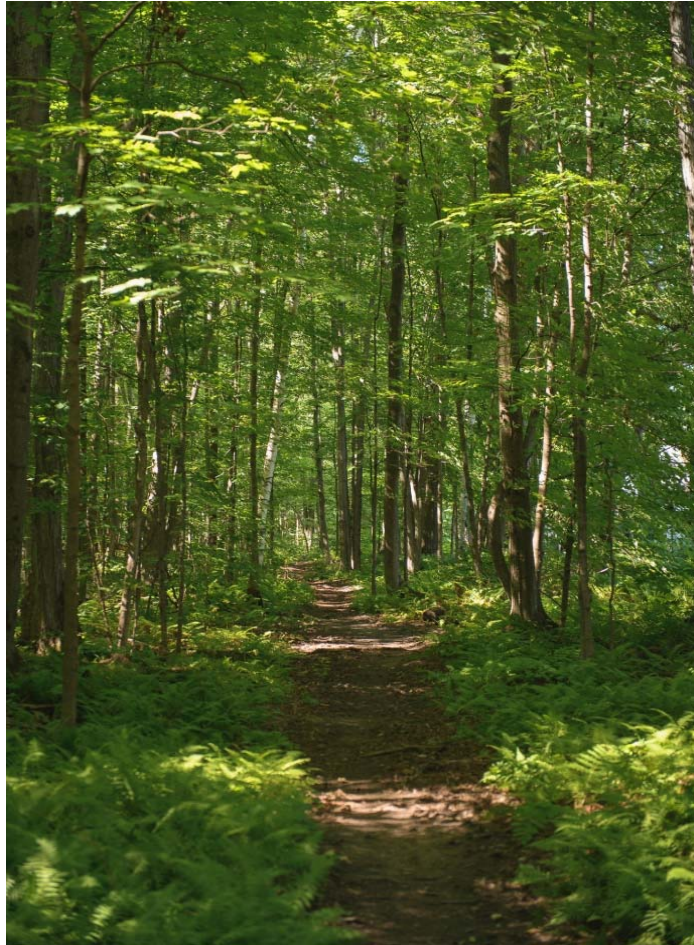


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FVTWG Report Part 2 of 2 – Supporting Information

October 22, 2018

Forest Valley Trails Working Group is an ad hoc Working Group
of the Chapel Hill North Community Association
Innes Ward 2, Orléans, Ontario

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Executive Summary

Urban forests are increasingly being recognized not only for their environmental benefits, but also for the important contributions they make to the diversity and livability of residential neighbourhoods, and to the physical and mental well-being of residents. Urban forest management is a shared responsibility. As shown in this report, the ecologically unique Chapel Hill North forest and trails are an important part of the community. Residents want to ensure it is sustainable now and for the future, and to have input into its management.

The Chapel Hill North Community Association (CHNCA) held a public meeting in May 2017, which was attended by Innes Ward Councillor Jody Mitic, and representatives of the City of Ottawa and the National Capital Commission (NCC). A proposal was presented for maintenance of the trails, followed by discussions during which concerns were raised regarding appropriate use, plans for maintenance, potential changes, sustainability of the forest, and the role of residents. At the June 2017 CHNCA Annual General Meeting, support was given by Councillor Mitic for the creation of a community working group to help identify options for maintenance of the Chapel Hill North forest and trails to address residents' concerns.

The CHNCA invited residents to volunteer for an ad hoc working group, from which the Forest Valley Trail Working Group (FVTWG) was formed. In July 2017, it commenced to capture and understand the broad cross-section of interests, concerns and hazards identified by residents and other interested parties. The FVTWG then undertook to identify the key priorities as well as practical and constructive approaches for ensuring the integrity and maintenance of the forest trails for all to enjoy.

Much has changed over the years since the Chapel Hill North subdivision was carved out of the area's forests and farm fields in the mid-1980s. The remaining forested area is located on adjoining NCC and City of Ottawa land. The contiguous forest and trails properties are situated within the City's Innes Ward. Additional responsibility related to the Voyageur Creek sub-watershed area, resides with the Rideau Valley Conservation Authority.

As a result, the Chapel Hill North forest area falls under a combination of federal, provincial and municipal authorities. Governance considerations and usage of the area are also influenced by the diversity of properties bordering the forest area, which includes farmland, residences, parks, roadways and institutions including the Good Shepherd Church and RCMP facilities.

Over time, residents have created a series of unplanned paths through the forest area, resulting in use by others as the forest area became more accessible. However, increased use and new activities can create their own challenges for the environmental integrity of the forest area, and increase potential for user conflicts. Therefore, determining the appropriate usage and maintenance priorities for this area and identifying objectives along with recommended actions for addressing them are a key focus of the report.

The report identifies and highlights seven key priorities which are mutually supporting, with environmental protection of the forest being the top priority which has implications for all others. Considerable effort has gone into understanding and seeking out the interests and priorities of residents and other interested parties. In particular, the NCC and City landowners and their experts in forest management, natural systems, environment and recreation, actively engaged with the FVTWG and provided valuable input. A wealth of information has been gathered and assessed by the FVTWG and

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included in annexes to this report, as a basis for understanding the priorities and recommended actions. It is also a valuable resource for future planning and reference by the landowners and key authorities, by community leaders, residents and other interested users or parties.

Environmental protection of the Chapel Hill North forest area is identified as a key underlying priority, since the other priorities are dependent on the sustained environmental integrity of the forest. It is significant that this area is already recognized by the City and NCC for its natural value and designated an EP-Environmental Protection zone. As a result, specific objectives and recommended actions for environmental protection are included in the report.

The report identifies various challenges and needs and sets out proposed actions which are captured under the other key priorities, such as rationalizing trails within the forest and increasing public education and awareness. An important step in order to implement the recommended actions, will be striving to reach consensus with the official landowners (NCC, City) regarding protocols for use of the forest and trails. Possible examples of trail protocols are outlined in the report as a starting point.

Importantly, priorities are also identified for ensuring ongoing feedback and consultation with the community. In particular, the report proposes creation of an advisory group of residents to support the CHNCA in moving forward on the report's recommended actions with the NCC and City, to plan for the future use and activities involving the Chapel Hill North forest and its trails.

In conclusion, residents have identified concerns with the status quo and feel it is important for them to have an opportunity to play a role in future planning and maintenance of the Chapel Hill North forest and trails. Recommendations for proactive measures to ensure the ongoing integrity and functionality of the Chapel Hill North forest and its trails in terms of protection, sustainability and maintenance are an integral part of the way forward in the option recommended by FVTWG.

While this report identifies various challenges and concerns related to the forest and its use, it is important to know that the vast majority of all usage of the area and interactions among users has continued to be positive and respectful. It is our wish that this continues well into the future and that the report and its recommendations are a helpful contribution to this end.

Forest Valley Trails Working Group

Chapter 1: Background and Context

Background

Introduction

The forested area on the western edge of the Chapel Hill North (CHN) community is nominally one of the most environmentally protected natural woodlands in Ottawa. Its location on adjoining National Capital Commission (NCC) and City of Ottawa owned public land and its important Rideau Valley Conservation Authority (RVCA) watershed function give the federal, provincial and municipal governments either direct or indirect regulatory authority over the protection, sustainability and maintenance of the forest and recreational activities allowed in it.

The residents of CHN appreciate and value the Chapel Hill North Forest for its aesthetic, environmental, recreational, social and economic benefits and want it sustained in its natural state for the enjoyment of present and future generations.

Residents are concerned however that as more people discover the forest's unique natural area, pressures on the resources of the Chapel Hill North forest will continue to intensify. Contributing factors include expanding neighbouring communities, intensification of urban populations, expansion of recreational networks across the city, changes in life styles, demographics and leisure activities, and growing awareness of the forest's spectacular natural features as a place to enjoy.

As a result, the Forest Valley Trails Working Group was created by the Chapel Hill North Community Association in June 2017.¹ (See FVTWG Mandate below)

Report Structure

The goal of this Report is to help CHN residents identify priorities and options for action for the CHN forest and its trails, taking into account the interests and concerns of CHN residents and other users, while respecting the authority and mandate of the City of Ottawa, NCC and RVCA, as well as the protected environmental status of the forest. This Report is written primarily for CHN residents, and can serve as a basis for the community's next steps including consultation and engagement with residents and landowners, priority setting and ultimately implementation of recommended actions. The Report presents ambitious but practical and achievable measures for going forward that will benefit the CHN community in the near term and over the longer term. The FVTWG's Report consists of two parts: Part 1 - Main Report, and Part 2 - Supporting Information.

Report Part 1 – Main Report. Part 1 presents the FVTWG's Executive Summary, as well as the Context and Background, Priorities and Actions, Options and Activities, and Conclusions. Part 1 has two annexes that directly relate to and support the main report:

- Annex A - the municipal, federal and provincial policy framework (City, NCC, RVCA) governing the CHN protected natural forest related to environment, land use and planning.
- Annex B - a detailed assessment of the main themes and factors identified in the documentation and information sources collected by the FVTWG over the course of its review. This assessment provides the critical link from the policy framework and other sources to the Priorities.

¹ CHN Community Association Minutes to Annual General Meeting, 7 June 2017 posted on CHNCA Blogsite at https://docs.google.com/document/d/1LCJfValknJwEqbOTtpjkvNxKi_5xI_7vCNTtEzXA7E/edit

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Most important is Chapter 2 which lays out the seven mutually supporting Key Priorities for CHN residents and other users. Each Priority identifies the current situation, specifies a goal and objectives, and presents recommendations for action. While determining which actions are taken, when and how ultimately rests with the NCC and City as the landowners and primary stewards of the forest and its trails, all Priorities stress the importance of ongoing and regular engagement of CHN residents, officials and others users, as well as priority setting and a valuable role for CHN residents.

In Chapter 3 the FVTWG lays out three possible options for going forward and identifies its Recommended Option. The Report's Conclusions are presented in Chapter 4.

Report Part 2 – Supporting Information. Part 2 of the Report provides seven supporting annexes beginning with Annex C that provides a summary table of the seven key priorities showing the Goals, Objectives and Recommended Actions. Examples of Trail Protocols based on best management practices of urban forests and other public natural land are at Annex D. These examples of possible trail protocols focus on public education and awareness for CHN forest activities and uses which serve as a start for dialogue and engagement with the City and NCC.

Additional annexes follow: Annex E contains Maps and Photos of the CHN area, forest and trail features; Annex F lists FVTWG members and milestones; Annex H provides a Bibliography of the FVTWG's sources; and finally, Annex I contains a Glossary of Terms.

Context

Chapel Hill North Forest²

The Forest Valley Trails refers to a small network of forest trails located on environmentally protected lands in Chapel Hill North, Orleans.³ The area is bounded by St. Joseph Boulevard in the north, Innes Road in the south, CHN residences and Forest Valley Drive in the east and the RCMP Technical Operations Facility in the west. (See Annex E Map 1) This forest area involves three levels of government, each with their own policies, naming protocols and terminology, albeit similar in nature. For the purpose of this Report, the forest area is called the Chapel Hill North forest (CHN forest).⁴

The NCC owns and manages the southern three quarters of the area, which is 70 hectares (169 acres) in size and part of the NCC Greenbelt. The terrain is primarily flat to gently sloped forested land with some open spaces and an approximant 6.5 km network of wider, open looping trails. The City owns the northern quarter of the forest comprising 27 hectares (65 acres) consisting of a mixture of steeply sloped ravines and hills with a dense 5 km network of inter-connected single-track trails.⁵ Although the NCC and City have allowed people to use the trails for some time, both consider them

² See also FVTWG Report Part 2 Annex E Maps and Photos.

³ The CHN forest area is part of City of Ottawa's Innes Ward 2.

⁴ CHN Forest area is referred to by various names, such as CHN Forest CHN Core Natural Area, Chapel Hill Woodland, Voyageur Creek Valley, Voyageur Creek Sub-watershed, Forestglen Park or West Branch of Bilberry Creek.

⁵ CHNCA Blogspot, Forest Valley Trails – Notes provided by the City of Ottawa at the 17 May 2017 Public Meeting.

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as unofficial and unsanctioned and do not necessarily agree with the current trail layout and structures.⁶

The NCC forest area is in the Green's Creek Sector of the NCC Greenbelt⁷ (see Annex E Maps 5-6) and is maintained through a formal NCC tendering process. The City of Ottawa forest area is part of the Voyageur Creek Valley (See Annex E Map 2) and the City does not have a proactive approach to managing the forest trails.⁸ The whole area is part of the Voyageur Creek Subwatershed regulated by the Rideau Valley Conservation Authority which is a provincial agency created to further the conservation, restoration, development and management of natural resources.⁹

Forest Valley Trails Working Group

In January 2017, the Ottawa Mountain Bike Association (OMBA) approached the City to enter into a formal agreement for the maintenance and improvement of the NCC and City portions of the CHN trail network.¹⁰ The City expressed interest in the proposal but sought input from the CHN community before proceeding further.

The CHNCA presented the OMBA proposal to CHN residents at a public meeting on 17 May 2017 and discussed it further at its meetings on 7 June and 26 September 2017. On these three occasions, CHN residents voiced their opposition to the OMBA proposal. At the same time, a formal petition was circulated outside of the FVTWG informing the City and NCC of the type of activities and trails the residents wanted and stating their opposition to mountain biking in the forest. Some of the concerns expressed about the proposal included:

- It was prepared by a special interest group without adequate consultation with the community;
- It would increase the trail usage particularly by mountain bikers, and this would discourage other uses of the trails, and also result in environmental damage; and
- It would increase the pressure on already limited on-street parking.¹¹

FVTWG Mandate: To help address residents' concerns, and at the suggestion of the Innes Ward City Councillor Jody Mitic during its June 2017 Annual General meeting, the CHNCA approved the creation of an ad hoc working group called the "Forest Valley Trails Working Group" with the mandate "to help identify trail maintenance options".¹² A call for members was posted on the community association's website and the inaugural meeting of members, all volunteer residents from CHN including a member of the CHNCA Board of Directors, took place mid-July 2017.

⁶ Notes of the FVTWG meeting with the NCC 30 November 2017 and City of Ottawa 12 June 2018.

⁷ NCC Canada's Capital Greenbelt Master Plan 2013, Figure 5.2 Greenbelt Land Designations; Section 7.7 Green's Creek Sector.

⁸ City of Ottawa Recreation Cultural and Facility Services Department, Orleans News, article by Brier Dodge, 25 May 2017, p. 11.

⁹ Government of Ontario, Conservation Authorities Act, R.S.O. 1990, Articles 20 and 28.

¹⁰ Ottawa Mountain Bike Association website at <https://ottawamba.org> states the OMBA "is a non-profit, volunteer organization whose purpose is to improve mountain bike trail access by working with local landowners, stakeholders, clubs, and riders in the Ottawa/Outaouais region."

¹¹ CHN Community Association Minutes to Public Meeting: Forest Valley Trails Proposal Summary (Draft), 17 May 2017 and Minutes Annual General Meeting, 7 June 2017. A Petition began circulating before the formation of the FVTWG and was signed by 633 Chapel Hill North residents and accepted by Innes Ward Councillor Jody Mitic on behalf of the City of Ottawa in August 2017 in accordance with the City of Ottawa's Petition Policy, and is a public document.

¹² Chapel Hill North Community Association Minutes to Annual General Meeting, 7 June 2017 posted on CHNCA Blogsite at https://docs.google.com/document/d/1LCJfValknJwEqbOTtpjkvNxKi_5xI_7vCNTtEzXA7E/edit

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While the FVTWG received no further written mandate, it was necessary for the FVTWG to interpret its responsibilities in respect of:

- i. The interests and concerns of the Chapel Hill North community and users;
- ii. The authorities and mandates of the City of Ottawa and NCC as landowners and primary stewards of the forest land; and
- iii. The limitations and responsibilities in relation to the environmental protection designation and related sustainability requirements of the CHN forest.¹³

Over the course of its review and report preparation, the FVTWG provided progress reports and updates to the CHNCA and Board of Directors. (See Annex F FVTWG Members and Milestones) The FVTWG's efforts have ultimately resulted in this Report "Protection, Sustainability and Maintenance of the Chapel Hill North Forest and its Trails". It identifies seven key mutually supporting priorities, along with goals, objectives and recommendations to address the various interests and concerns, users and uses of the forest, and to promote consensus, both within the community and as a way forward with the CHN forest landowners.

Research Methodology

From July 2017 to August 2018, the FVTWG reviewed federal, provincial and municipal legislation, policies, plans and reports regulating the activities and uses permitted in the CHN forest and on its trails. It investigated the responsibility, accountability and coordination of the various jurisdictions, community involvement, as well as best management practices applied in other urban forests.¹⁴ Further clarity on the CHN forest and its trails was obtained through consultation with NCC, City of Ottawa, RVCA, Greenspace Alliance of Canada's Capital and other Ontario urban forest officials relating to the policy framework, as well as a "walkabout" of the City-owned forested area to better understand its current status and condition.¹⁵

The NCC, City, RVCA and other Canadian urban forest policies, reports and correspondence covered a wide range of urban forest subjects. Determining their relevance to future forest trail maintenance and recreational activities of interest or concern to CHN residents was challenging and time consuming. The FVTWG worked through these authoritative sources by adopting a deductive reasoning methodology. Sources were assessed to determine their implications for the recreational and maintenance activities in the CHN forest and its trails. (See Annex B Assessment of Policies and Plans, Reports, Correspondence and Residents' Concerns) The implications in Annex B are not necessarily recommended actions in themselves but rather identify main themes in the source documents and important factors to consider. These themes and factors are developed into the key recommended actions for the seven Priorities described in Chapter 2.

¹³ This interpretation of the FVTWG mandate was provided at the CHNCA meeting of September 26, 2017 at which the FVTWG stated it was "proceeding in accordance within the letter and spirit of the City, NCC and Rideau Valley Conservation Authority policies and plans governing the environmental protection and sustainability of urban forests like the FVT area, as well as the concerns many Chapel Hill North residents have brought forward."

¹⁴ FVTWG Report Part 1 Annex B Assessment, Section D Item 14 Best Practices of Other Urban Forests.

¹⁵ A list of acknowledged contributors and the Bibliography of sources are in FVTWG Report Part 2 Annexes G and H respectively. The "walkabout" took place on 25 September 2017 with representatives from the City of Ottawa's Cultural and Facility Services, Planning Infrastructure and Economic Development, and Parks Forestry and Stormwater Services Departments, Rideau Valley Conservation Authority and Greenspace Alliance of Canada's Capital; and Notes of the FVTWG meeting with NCC, A/Chief Greenbelt and Senior Manager of Natural Resources and Land Management, 30 November 2017.

Chapter 2: Key Priorities and Recommended Actions

Introduction

The FVTWG Report refers to informal and unofficial trails located in the urban forest of Chapel Hill North (CHN), as described in Chapter 1. Federal, provincial and municipal government legislation, policies, plans and best management practices provide the framework that guide environmental protection, recreational activities and maintenance for protected natural urban forests like the high-value and ecologically significant CHN forest.¹⁶ (See Annex A)

Within these guidelines, the key factors identified and assessed by the FVTWG are the forest's environmental protected (EP) status, its natural topography, permissible forest activities, existing and potential degradation and corrective measures, best practices in other urban forests, and the concerns of CHN residents.¹⁷ (See Annex B)

The FVTWG's assessment resulted in the identification of seven important areas requiring action to be taken on a priority basis. These seven Priorities are mutually supporting and comprehensive in their scope, and reflect concerns raised by CHN residents.

The recommendations for action in each Priority are not prescriptive measures, in recognition of the overriding authorities of the City and NCC. Certain decisions are more appropriately addressed by the two landowners given their mandate. Additionally, CHN residents have an important role in deciding what direction they want to take and how their CHN Community Association (CHNCA) can support their interests and concerns. Strengthening the capacity of the CHNCA through a follow-on advisory group of residents will help during the community's engagement with landowners, ongoing consultations with residents and ultimately a consensus with the landowners around community initiatives in the near term and going forward.

Allowed uses and recreational activities and maintenance of trails within the CHN forest are dependent on the sustained health of the forest, its unique ecology and terrain and its watershed role. For this reason the FVTWG has placed importance on three aspects: the protection, sustainability and maintenance of both the CHN forest and its trails now and for the future. Trail maintenance options lie within the scope and flexibility of Priority actions and activities.

Similarly, the FVTWG considers that specifying a timeline, work schedule and cost/benefit is not appropriate at this time. Certain preliminary steps are required by the landowners, such as mandatory environmental studies/assessments, prior to decisions on an agreed maintenance plan. Consultation with CHN residents is critical for any protocol involving forest and trail use and allowed recreational activities, maintenance or terrain alterations in order to avoid adverse/negative impacts of the natural features of the forest, watercourse or ecological functions and to ensure ongoing enjoyment of the forest and its trails.¹⁸

¹⁶ FVTWG Report Annex A Policy Framework for Environment, Land Use and Planning

¹⁷ FVTWG Report Annex B Assessment of Policies and Plans, Reports, Correspondence and Residents' Concerns

¹⁸ Annex B, Environmental Status of the CHN Forest Items 1, 2, 4 and 5.

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This chapter presents the FVTWG's seven Key Priorities which are:

- Priority 1 – Environmental Protection
- Priority 2 – Forest Trails
- Priority 3 – Health Benefits and Family
- Priority 4 – Forest Entry and Exit Points, Parking and Traffic
- Priority 5 – Public Education and Awareness
- Priority 6 – Feedback and Consultations
- Priority 7 – Next Steps

Each Key Priority is described in the following four parts:

Current Situation	Summary of the factors and implications giving rise to the Priority.
Goal	Desired end-state goal, which may only be achieved over time.
Objectives	Near-term objectives that form the first steps in achieving the Goal.
Recommended Actions	Specific actions necessary to achieve the Objectives.

With these seven key priorities as its foundation, Chapter 3 presents the FVTWG's three suggested options for CHN residents for going forward and identifies recommended activities and their results, as well as considerations for trail maintenance options.

Priority 1: Environmental Protection

When we protect our rivers, oceans, atmospheres and forests, we are telling our children that our future prosperity cannot be disconnected from the health of the natural world.¹⁹

Current Situation

Chapel Hill North Forest and its trails are situated in the National Capital Commission's Green's Creek Sector, a protected Core Natural Area of the Greenbelt. (See Annex E Maps 5-6) It is one of only ten NCC Greenbelt "high-value ecosystems and habitats" areas²⁰. The City of Ottawa has zoned the CHN forest as Environmental Protection (EP), designated it as having important Urban Natural Features²¹, and recognized the forest area as "significant woodland".^{22 23}

Protection

- The uniqueness of the CHN natural forest is recognized through a comprehensive policy framework of environment, land use and planning measures by its two landowners (City of Ottawa and NCC), and the Rideau Valley Conservation Authority (RVCA), who have the mandate and authority to ensure its protection, sustainability and maintenance, in collaboration with residents and users.²⁴ For an overview of their current regulatory policies and plans, see Annex A Policy Framework for Environment, Land Use and Planning.²⁵
- Protection and enhancement of the natural area, ecosystems and habitats is a primary role for the City and NCC landowners.²⁶ Residents and users also see a role for themselves.²⁷
- Ensuring that CHN forest has a healthy natural environment is a cornerstone to a successful trail.
- Through various policies and practices, the City, NCC and RVCA recognize that a well-planned and designed trail layout and engagement of communities can better protect the natural forested areas in which trails are located.

Today's CHN Forest and its Trails

- The CHN forest has been assessed through federal, provincial and municipal studies as having high environmental integrity and ecological value.²⁸ Being an urban natural area, CHN forest is part of the Ottawa's larger ecological network of natural areas.²⁹ The CHN forest plays a

¹⁹ Prince William, Sept.2016, Great Bear Rainforest Queen's Commonwealth Canopy initiative, Bella Bella, BC.

²⁰ FVTWG Report Annex B Environmental Status of the CHN Forest Item 2; and NCC Canada's Capital Greenbelt Master Plan 2013, Section 5.2.1 Core Natural Areas.

²¹ City of Ottawa Official Plan Volume 1 Schedule B Urban Policy Plan

²² City of Ottawa Official Plan Zoning By-law Part 9 EP-Environmental Protection Zone at <https://ottawa.ca/en/part-9-environmental-zones-sections-183-184>; and FVTWG Report Annex B Assessment Item 3 Zoning

²³ FVTWG Report Annex B Assessment Item 5 Significant Woodland; and Annex B Policy Framework A - City of Ottawa

²⁴ FVTWG Report Annex A Policy Framework for Environment, Land Use and Planning – City, NCC and RVCA.

²⁵ Assessments related to the Policy Framework are in FVTWG Report Annex B Assessment of Policies and Plan.

²⁶ Annex B Environmental Status of the CHN Forest, Item 2; and NCC Greenbelt Master Plan, Vision Statement.

²⁷ Biodiversity Canada, Biodiversity Goals and Targets for Canada 2017, p.113

²⁸ FVTWG Report Annex B Assessment, Section F. Concerns of CHN Community Residents

²⁹ Annex B, Environmental Status of the CHN Forest Item 3 Zoning; City of Ottawa Official Plan Designations & Land Use; and City of Ottawa Urban Natural Area Environmental Evaluation Study (UNAEES) #82, 2003, Daniel F. Brunton

²⁹ NCC Canada's Capital Greenbelt Master Plan 2013 Chapter 5 Land Designation.

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significant role in maintaining biodiversity and ecological functions³⁰ and in the enjoyment and well-being of its residents. (See also Priority 3 Health Benefits and Family)

- The forest is situated on an old, post-glacial landslide giving it an undulating micro-topography, sloping toward the Ottawa River. The CHN forest is recognized as an aesthetically spectacular forest site with ecologically significant features, such as woodlands, ravines, Voyageur Creek, riparian habitats, steep slopes, standing pools, wet areas, hummocks and small meadows. (See Annex E Maps and Photos CHN 1-5, 10-31 and 34-35). It supports habitats of rare and uncommon species, wildlife, insects and amphibians.³¹ (See Annex E Photos CHN 14-15)
- CHN has one of the very few remaining original forests in Ottawa. Its towering Eastern Hemlocks represent one of the best original Hemlock forest habitats in the area.³²
- Over the years, there has been evidence of an accumulation of adverse impacts from recreational trail use in the CHN forests, some of which include site alterations, erosion, soil compaction and displacement, vegetation loss, exposed tree roots, blocked streams and built structures located in unsustainable areas.³³ (See Annex E Maps and Photos CHN 11 and 8-30)
- There are no official trails in the CHN forest. However, informal trails have proliferated and grown in size and complexity without benefit of sustainable design, routing and build, accompanied by unsanctioned structures and trail features for mountain biking, more evident in the sensitive escarpment and ravine areas owned by the City.³⁴ (See also Priority 2 Forest Trails and Annex E Photos)

Land Use

CHN land was sold by First Nations inhabitants to settlers in 1783.³⁵ CHN land use has changed from its original old growth (heritage) forest cover to a mixed urban setting of largely residential, commercial, agriculture, greenspace and forests uses. In 1970, a large farm parcel was sold for housing development, a section of which became CHN in the 1980's. For the most part, forested areas were retained in their natural state, whereas CHN dwellings, schools, parks and other uses were built on former farmland. (See Annex E Historical Aerial Maps 3-4)³⁶

CHN land use is guided by environmental designations determined by the City and NCC landowners. The NCC Greenbelt forest has defined "allowed" and "prohibited" activities and uses for its forest area. Prohibited uses include those that would degrade natural features and functions, fragment features or undermine ecosystems.³⁷ For other relevant plans and policies of the City, NCC and RVCA, see Annex A Policy Framework and Annex B Assessment of Policies and Plans, Reports, Correspondence and Residents' Concerns.

Management

- Being a natural environment area, CHN forest requires fewer management interventions than areas of intensive or active recreation. However, pressures on the CHN forest resources have

³⁰ Biodiversity Canada, Biodiversity Goals and Targets for Canada 2017, p.113

³¹ City of Ottawa UNAEES Study 82 Forestglen Park, 2003

³² City of Ottawa, Urban Natural Area Environmental Evaluation Study (UNAEES) 82, 2003, Daniel F. Brunton

³³ FVTWG Report Annex B Assessment, Section F Observed Terrain Degradation and Corrective Measures; and City of Ottawa UNAEES Study #82 Forestglen Park; Consolidated report from City forest area "walkabout" September 25, 2017.

³⁴ FVTWG Report Annex B Observed Terrain Degradation and Corrective Measures Items 15 and 19.

³⁵ Gloucester Historical Society, History Timeline for the Township of Gloucester at <http://www.gloucesterhistory.com>

³⁶ City of Ottawa geoOttawa, Historical aerial photographs at <http://maps.ottawa.ca/geoottawa/>

³⁷ Annex B Assessment Environmental Status; Annex C Policy Framework ; and NCC Greenbelt Master Plan Section 5.2 p.59.

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and will continue to intensify due to development expansion in neighbouring communities; increase in population densities in urban Ottawa; and change to life styles, demographics and activities. It will be important for the City and NCC, together with CHN residents and users, to manage more proactively this valuable CHN forest.

- FVTWG's review of best management practices for trails in forest areas indicates that some of the important priorities to consider include baseline environmental studies, tree inventory and assessments; ecologically sensitive planning and design; timely restoration, mitigation and trail closures; preventative management practices (negative impacts from human activities); monitoring and reviews, public awareness and education; engagement of residents and landowners and public awareness and education including signage; and timely communications.³⁸
- The City, NCC and RVCA are aware of the current situation of the CHN forest and its trails and have indicated that action should be taken to protect the forest's environmental integrity, as well as enhance and rationalize the trails.³⁹ Essential preliminary steps would involve sound planning and design including environmental impact assessments, followed by trail management and maintenance.
- The CHN forest is a relatively compact natural environment area, and yet an important link to other nearby natural areas. Proactive management of the CHN forest could serve as a model for other neighbouring Innes Ward communities. Some recommended actions could benefit from being part of a larger community plan.

Goal

Ongoing protection, sustainability and maintenance of the high-value natural forest bordering CHN for its contribution to environmental integrity, recreation, and well-being of Chapel Hill North residents, present and future.

Objectives

- Promote the importance and benefits of protecting, sustaining and maintaining the natural environment forest in Chapel Hill North.
- Implement a phased, priority-based approach to protecting, sustaining and maintaining the CHN forest and its trails through sound environmentally-based planning and design, mitigation, remediation and other protection and conservation methods aimed at actual and potential forest damage, degradation and hazards due to human or natural causes.
- Enhance the opportunities for outreach, feedback and involvement of residents on CHN forest and trails matters, ensuring that their interests and concerns are heard and action taken on a timely basis.
- Strengthen the community's participation and collaboration with the CHN forest landowners (City of Ottawa and NCC), the RVCA and other interested parties, on matters of protection, sustainability and maintenance of the CHN forest and its trails.
- Involve CHN residents in initiatives to support the protection, sustainability, maintenance and management of the CHN forest and its trails.

³⁸ FVTWG reviews: Petrie Island; Carp Hills; Gatineau Park; South March Highlands; Cities of Toronto, Mississauga and London; Toronto and Region Conservation Authority; Simcoe County; NCC Greenbelt (Stony Swamp, Pine Grove Forest) Ottawa Conservation Areas; Larose Forest, Limerick Forest, Rouge National Urban Park and Whistler and Banff National Parks;

³⁹ Consolidated Response on the CHN Forest Walkabout, September 25, 2017 – City, RVCA and Greenspace Alliance; and Notes of a meeting with the NCC, November 30, 2017

*Urban Forest Management is a Shared Responsibility and Working Together is the Key to Achieving Success.*⁴⁰

Table of Recommended Actions
Priority 1: Environmental Protection

No.	Recommended Actions	Remarks
1.	Promote the importance and value of protecting, sustaining and maintaining the CHN natural environmental area forest and its trails.	<p>High Priority</p> <ul style="list-style-type: none"> • Residents recognize the high value and uniqueness of CHN forest as a natural resource asset, a contribution to environmental integrity and to their well-being. • Without a healthy, protected forest, there would not be the same level of enjoyment of forest trails. • Reduce the “human footprint” in the CHN forest. • Protection, conservation and maintenance of the forest and its trails are critical to its long-term sustainability. • Environmental integrity of the CHN forest area and its trails must be protected and promoted. • Collaborative effort is required between landowners (City and NCC) and stakeholders (RVCA, residents, users and other interested parties).
2.	Promote and participate in reviews, assessments and environmental studies of CHN forest and its trails by City and NCC landowners and RVCA, including allowable and prohibited activities and uses.	<ul style="list-style-type: none"> • Support, promote and participate, as relevant, in studies and assessments, reviews and analysis by officials and experts, prior to detailed planning, design and implementation of forest uses and activities, trail characteristics and trail layout. • Ensure that the City and NCC are aware of the importance to CHN resident of comprehensive environmental assessments and studies prior to any site alteration, development or other initiative in the CHN forest. • Ensure there is meaningful dialogue between residents and the City and NCC on Allowable and Prohibited activities and uses in the CHN forest including protocols and guidelines. • Consultation with and engagement of the CHN community and residents.
3.	Assist in the planning, design, development and maintenance of a sustainable nature trail in CHN forest, including trail rationalization, remediation and mitigation of actual and potential priority areas of concern in the CHN forest.	<p>High Priority</p> <ul style="list-style-type: none"> • Long term sustainability of the environment, ecology and biodiversity shall take precedence. • Overall, ensure appropriate and sustainable fit with the CHN forest’s geology, topography, ecology, biodiversity and watercourses using ecologically sensitive approaches to achieve maximum protection with a minimum of maintenance.

⁴⁰ City of Ottawa, June 2017, “Putting Down Roots for the Future – Urban Forest Management Plan 2018-2037” p.173, Recommendation #25 Promote and facilitate the development and implementation of Neighbourhood Stewardship Plans.

PROTECTION, SUSTAINABILITY AND MAINTENANCE OF THE CHAPEL HILL NORTH FOREST AND ITS TRAILS

No.	Recommended Actions	Remarks
		<ul style="list-style-type: none"> • Conditional on identification of allowable development and site alterations in accordance with required and recommended environmental impact statements (EIS).⁴¹ • The number, complexity, location and features of nature trails within the CHN forest will be rationalized in accordance with sound and environmentally sustainable forest and trail management policies, plans and practices. • Implementation through a phased approach with priority given to re-naturalization, closure and removal of degraded informal trails, alterations and structures. • Consultations and engagement with landowners and CHN residents during all stages (planning, design, implementation, monitoring, reviewing and reporting). • Ensure regular and ongoing monitoring and review of forest conditions, uses and activities.
4.	Sharing of notifications and information about consultations, public events, reviews, studies or reports concerning proposed alterations or developments for CHN forest and its trails.	<ul style="list-style-type: none"> • Complete and fulsome dissemination of information and data to CHN residents on a timely, transparent and consistent basis so residents can make thoughtful and informed feedback to the CHNCA, other residents, Orleans Councillor, MPP or MP, and the two CHN forest landowners - City and NCC. • Interested residents involved. • As appropriate, a community interest group is formed.
5.	Outreach by CHNCA and residents to organizations active in the protection and sustainability of trails in forested areas.	<ul style="list-style-type: none"> • Encourage participation by CHN residents in a Friends of CHN Forests initiative to promote public awareness and educational opportunities. • Examples of local organizations active in community-based environment matters include Ontario Stewardship Council, Greenspace Alliance Ottawa, Ottawa Field Naturalist Club, Ecology Ottawa, and other community associations.
6.	Ensure CHN residents' concerns and interests are heard, tabled and considered during planning, design and maintenance for short term and long term CHN forest and trail initiatives.	<p>High Priority</p> <ul style="list-style-type: none"> • Outreach, feedback, consultations, participation and engagement with CHN residents and CHNCA. • Take into account the increasing number of older adults in the community now and anticipated and other accommodation and consideration measures. • Ensure long term benefits and safeguards are not compromised for short term gains and interests and that activities are consistent with environmental

⁴¹ City of Ottawa Official Plan, Section 4.7.8 Environmental Impact Statement at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-4-review-development-applications#4-7-environmental-protection>

PROTECTION, SUSTAINABILITY AND MAINTENANCE OF THE CHAPEL HILL NORTH FOREST AND ITS TRAILS

No.	Recommended Actions	Remarks
		protection and sustainability of the forest and trails. <ul style="list-style-type: none"> • Explore options that may be available to promote appropriate forest activities and uses. • As public education and awareness is fundamental, explore options with landowners, such as forest interpretation walks and panels, awareness building with residents, and forest/trail education initiatives.
7.	Preparation of CHN Forest Management Plan(s) by the City and NCC, in consultation with RVCA, CHNCA and residents.	<ul style="list-style-type: none"> • City and NCC collaborate, coordinate and cooperate on a plan to manage and maintain the CHN forest and its trails together with CHN community, thus ensuring consistent and holistic approaches. Recognize that trees, wildlife and creeks do not recognize political boundaries. • Consultation and engagement with CHN residents. • Active dialogue and engagement of CHN residents and landowners.
8.	Establish mechanisms and build capacity within the community and CHNCA to consider and take action on environmental forest and trail matters.	<ul style="list-style-type: none"> • Using a phased approach, integrate environmental forest and trail matters into CHNCA planning, resources, initiatives and reporting. • Consider ways to assist in planning and implementing community involvement. • Determine roles for residents in community based initiatives and explore new ideas, e.g. Block Captains. • Requires leadership and commitment by CHNCA to plan and implement community activities. • Seek involvement by CHN residents at all stages.
9.	Consideration by CHNCA residents of a future Neighbourhood Stewardship Plan ⁴² for tree identification and canopy inventory on private land in CHN in collaboration with the City of Ottawa.	Medium to long-term time horizon. <ul style="list-style-type: none"> • An initiative that is future oriented for the benefit of CHN growth and ongoing community development and as resources and interest permits. • Recognition that abundant and well-conserved trees in CHN open spaces and on private land contribute to environmentally healthy communities and serve as linkages to the natural environment forest in CHN. • In consultation and partnership with City of Ottawa’s community outreach and tree conservation plans. • Based on identified needs, benefits and involvement of residents for baseline information for future CHN growth and development.

⁴² City of Ottawa, June 2017, "Putting Down Roots for the Future – Urban Forest Management Plan 2018-2037" – Neighbourhoods Program at <https://ottawa.ca/en/residents/water-and-environment/trees-and-community-forests/ottawas-urban-forest-management-plan>

Priority 2: Forest Trails

Current Situation

- The federal, provincial and municipal governments have jurisdiction over the Chapel Hill North forest and the legislation, policies and plans establishing the forest as an environmentally protected, ecologically significant woodland and regulations specifying the permissible recreational and maintenance activities in the area.⁴³
- The NCC owns the southern three-quarters of the Chapel Hill North forest, the City owns the northern quarter and the RVCA has regulatory authority over the watershed and watercourses throughout the entire area.⁴⁴ As the landowners, only the NCC and City have the authority to determine the recreational activities allowed in the forest and to design and build appropriate trails to support them.⁴⁵ It is a small area with limited capacity to accommodate increased numbers of users. Federal and provincial precedents may preclude or distinguish between pedestrian and cycling or biking uses in area prone to damage or environmental impact.⁴⁶
- The currently existing trails were randomly created over the past 30 years or so by local residents for their own enjoyment. Even though the NCC and City have allowed people to use them and the NCC has carried out some maintenance and bridge building, both levels of government consider the trails as unofficial and unsanctioned.⁴⁷
- Over the past year and a half, the Chapel Hill North residents have expressed concern over the future environmental protection and recreational use of the Chapel Hill North forest at CHNCA meetings, at a public consultation and in private communications with the Innes Ward Councillor.⁴⁸ They realize that as the local population, including the senior demographic, and popularity of urban greenspaces like the forest grow, trail improvements will inevitably attract more users that will:
 - increase the existing and already evident environmental degradation;⁴⁹
 - attract mountain bike traffic jeopardizing the safety of users on foot and discourage them from using the trails;
 - raise safety issues due to increasing traffic levels in residential areas and reduce the already limited on-street parking especially on streets without sidewalks; and
 - require clear and easily accessible protocols describing appropriate user behaviour and procedures for reporting environmental damage, maintenance requirements and safety concerns.

Goal

An easily maintained and inviting trail layout that supports the protection, sustainability and maintenance of the Chapel Hill North forest and addresses the concerns and interests of the Chapel Hill North residents.

⁴³ Annex B, Environmental Status of the CHN Forest Items 3, 4, 5, 6 7; Permissible Forest Activities and Enforcement Items 11, 12. The applicable legislation, policies, plans and reports are listed in the Bibliography at Annex H.

⁴⁴ Annex B, Environmental Status of the CHN Forest Item 1.

⁴⁵ Annex B, Environmental Status of the CHN Forest Item 1; Observed Terrain Degradation and Corrective Measures Item 20.

⁴⁶ Annex B, Topography of the CHN Forest, Item 9; Best Practices of Other Urban Forests, Item 14.

⁴⁷ Annex B, Observed Terrain Degradation and Corrective Measures Item 15.

⁴⁸ Annex B, Concerns of CHN Community Residents Items 21, 22, 23, 24.

⁴⁹ The City of Ottawa Urban Nature Area Environmental Evaluation Assessment, 2003.

PROTECTION, SUSTAINABILITY AND MAINTENANCE OF THE CHAPEL HILL NORTH FOREST AND ITS TRAILS

Objectives

- Establish a collaborative relationship with the NCC, City of Ottawa and RVCA to protect, sustain and maintain the Chapel Hill North forest and its trails.⁵⁰
- Urge the NCC, City and RVCA to collect and analyze the appropriate topographical, hydrological, geotechnical, flora and fauna data on the Chapel Hill North forest on which to base the forest trail layout.⁵¹
- Actively engage the Chapel Hill North community in the planning and design process of the trails on an ongoing basis.⁵²
- Design a trail layout with damage mitigation, rehabilitation, restoration and minimal environmental impact or footprint as its central feature consistent with environmental and recreational legislation, policies, plans and reports and informed by other cities' urban forest guidelines and best practices.⁵³
- Encourage users and residents to monitor and inform the NCC and City on the condition of the Chapel Hill North forest and its trails particularly where environmental damage has occurred or repairs may be required.⁵⁴

Table of Recommended Actions

Priority 2: Forest Trails

No.	Recommended Actions	Remarks
1.	Consult with the NCC, City and RVCA forestry and environmental staff to determine how the Chapel Hill North residents can contribute in planning an environmentally supportive and safe Chapel Hill North forest trail layout. ⁵⁵	<ul style="list-style-type: none"> • Outreach programs are a key tenet of NCC, City and RVCA policies.⁵⁶
2.	Encourage the NCC, City and RVCA to conduct the necessary preliminary environmental assessments before trail design begins to determine the: <ul style="list-style-type: none"> • current environmental condition of the Chapel Hill North forest; • sensitive areas and flora and fauna in need of protection and locations of invasive, poisonous and noxious species to be avoided; and • areas where trails should and should not be.⁵⁷ 	<ul style="list-style-type: none"> • The NCC, City and RVCA will likely conduct separate studies for their jurisdictional areas.

⁵⁰ Annex B, Environmental Status of the CHN Forest Items 1, 2; Concerns of the CHN Community Residents Item 21.

⁵¹ Annex B, Environmental Status of the CHN Forest Items 4, 5, 6; Permissible Forest Activities and Enforcement Items 2, 11, 12.

⁵² Annex B, Environmental Status of the CHN Forest Item 1; Permissible Forest Activities and Enforcement Items 11, 13; Observed Terrain Degradation and Corrective Measures Items 15, 18, 20; Concerns of CHN Community Residents Item 21.

⁵³ Annex B, Environmental Status of the CHN Forest Items 4, 5, 6; Topography of the CHN Forest Item 9; Permissible Forest Activities and Enforcement 10, 11, 12; Best Practices of Other Urban Forests Item 14; Observed Terrain Degradation and Corrective Measures Items 16, 19, 20; Concerns of CHN Community Residents Items 21 and 24.

⁵⁴ Annex B, Permissible Forest Activities and Enforcement Item 13; Observed Terrain Degradation and Corrective Measures Item 20.

⁵⁵ Annex B, Environmental Status of the CHN Forest Items 1, 2; Concerns of CHN Community Residents Item 21.

⁵⁶ Annex B, Environmental Status of the CHN Forest Item 1.

⁵⁷ Annex B, Environmental Status of the CHN Forest Items 4, 5, 6; Permissible Forest Activities and Enforcement Item 11, Observed Terrain Degradation and Corrective Measures Item 18.

PROTECTION, SUSTAINABILITY AND MAINTENANCE OF THE CHAPEL HILL NORTH FOREST AND ITS TRAILS

No.	Recommended Actions	Remarks
3.	Consult and engage with Chapel Hill North residents on a regular, transparent and open basis on the progress and content of consultations, studies and trail planning, design and implementation. ⁵⁸	Seek the residents' comments on: <ul style="list-style-type: none"> • progress reports during the planning phase; • draft trail layout plan before work commences; • progress reports during implementation.
4.	Collaborate with the NCC, City and RVCA staffs in planning a simple, easily maintained natural forest trail layout that: <ul style="list-style-type: none"> • supports the protection, sustainability and maintenance of the Chapel Hill North forest; • consolidates and rationalizes existing trails to avoid trail braiding; • is consistent with the environmental designations of the area and both the letter and spirit of government legislation, policies, plans, reports and studies governing the recreational activities and work permitted in the Chapel Hill North forest and on its trails; • incorporates applicable best practices and lessons learned from other urban forests; • minimizes the environmental impact or footprint of the trail layout and recreational activities; • addresses the existing environmental degradation and concerns of local residents; • allows the unobstructed natural flow of the watercourses.⁵⁹ 	<ul style="list-style-type: none"> • The various options for environmental damage rehabilitation and restoration measures should be a central feature of the trail layout.⁶⁰ • See Priority 5 – Public Education and Awareness for signage and wayfinding, identifying areas subject to seasonal restrictions, locating entry and exit points, potential dangers and off-limit areas.⁶¹
5.	City and NCC to conduct their respective “no negative impact” study of the proposed draft trail layout for its CHN forest area with adjustments to the trail layout, as necessary. ⁶²	The “no negative impact” study is a provincial and City of Ottawa requirement.
6.	Collaborate with the NCC, City and RVCA in drafting maintenance protocols and procedures describing recreational activities, user conduct and reporting. ⁶³	See Priority 5 – Public Education and Awareness.

⁵⁸ Annex B, Environmental Status of the CHN Forest Item 1; Permissible Forest Activities and Enforcement Items 11, 13; Observed Terrain Degradation and Corrective Measures Items 15, 18, 20; Concerns of CHN Community Residents Item 21.

⁵⁹ Annex B, Environmental Status of the CHN Forest Item 5.

⁶⁰ Annex B, Environmental Status of the CHN Forest Item 5.

⁶¹ Annex B, Environmental Status of the CHN Forest Items 4, 5, 6; Topography of the CHN Forest Item 9; Permissible Forest Activities and Enforcement Items 10, 11, 12; Best Practices of Other Urban Forests Item 14; Observed Terrain Degradation and Corrective Measures Items 16, 19, 20; Concerns of CHN Community Residents Items 21, 24.

⁶² Annex B, Environmental Status of the CHN Forest Items 4, 5, 6; Permissible Forest Activities and Enforcement 11.

⁶³ Annex B, Permissible Forest Activities and Enforcement Items 11, 13; Observed Terrain Degradation and Corrective Measures Item 18; Concerns of CHN Community Residents Items 22, 23, 24.

Priority 3: Health Benefits and Family

Current Situation

- Residents of Chapel Hill North value the Chapel Hill North forest (CHN forest) area as an integral part of the community, whether or not they actively use the trails.
- Residents appreciate the greenery, which makes Chapel Hill North unique, and enjoy the forest bordering the community for its natural beauty.
- Urban forests also serve important functional values including temperature moderation, air pollution removal and carbon sequestration.
- Many residents actively use the forest and trails throughout the year, when weather and conditions permit. They also enjoy the forest with their children and extended families, friends and neighbours.
- Older adults are a growing demographic and value walking the trails as part of an active living lifestyle and a healthy pursuit while connecting with nature.⁶⁴
- In recent years, mental health has been much in the news. Residents appreciate the mental health benefits of having this green space as part of our neighbourhood, having ready access to nature, a place for unstructured activity, and a quiet natural place as a break from everyday pressures.⁶⁵
- Similarly, awareness of health and welfare needs of our pets has also grown in recent years. There are benefits for both owner and pets using the green space.⁶⁶

Goal

Maintain the natural state of the CHN forest and ensure its ongoing environmental integrity, so it continues to provide functional benefits while also supporting the physical, mental and social well-being of residents and other users.

Objectives

- Maintain the CHN forest so it continues to support the existing natural flora and fauna, and ensure limited disturbance of the natural features of this area so all may enjoy.⁶⁷
- Continue providing a place for residents to take advantage of the physical and mental health benefits that this natural area affords, whether as a nearby property owner or as an active user.⁶⁸
- Enable continued use of the trails area to pursue unstructured activities such as walking, jogging, biking, skiing, tobogganing, bird watching, photography, exploring and walking pets.⁶⁹

⁶⁴ Annex B, Permissible Forest Activities Items and Enforcement 11, 12; Concerns of CHN Community Residents Item 21 Recreational Activities and Trail Design.

⁶⁵ Annex B, Permissible Forest Activities and Enforcement, Item 10.

⁶⁶ Annex B, Permissible Forest Activities and Enforcement, Item 10.

⁶⁷ Annex B, Environmental Status of the CHN Forest Items 4, 5, 6; and Permitted Forest Activities and Enforcement, Item 10.

⁶⁸ Annex B, Permissible Forest Activities and Enforcement, Item 10.

⁶⁹ Annex B, Permissible Forest Activities and Enforcement, Item 10.

Table of Recommended Actions

Priority 3: Health Benefits and Family

No.	Recommended Actions	Remarks
1.	Develop a collaborative process among CHNCA residents, NCC and the City of Ottawa that ensures ongoing engagement with respect to the protection, maintenance, usage and awareness of the CHN forest.	
2.	Establish a process through the CHNCA to allow for updates and communication about plans and activities involving the CHN forest, and for residents to report and identify issues that may need attention.	
3.	Develop a maintenance plan for ensuring a limited number of nature trails, which will meet the needs of the residents for multiple users.	<ul style="list-style-type: none"> This may require involvement of a technical expert.
4.	Identify improper activities, which cause harm to the environment or lessen the value for other users, and establish protocols accessible to everybody to promote respectful compliance.	<ul style="list-style-type: none"> To promote compliance, the protocols should be largely in agreement with the wishes and expectations of the general public regarding usage and activities. See Annex E – Protocols.

Priority 4: Forest Entry and Exit Points, Parking and Traffic

Current Situation

- Entry and exit points to the Chapel Hill North forest and its trails, residential parking and traffic are inter-related issues of concern to Chapel Hill North residents living near the Chapel Hill North forest because they detract from the quiet nature and appearance of their neighbourhood.⁷⁰
- Proper entry and exit routes, associated parking and traffic recommendations are essential components of any proposal for the CHN forest.⁷¹

Entry and Exit Points

- People using the forest enter and leave the area at multiple informal points that traverse or encroach on residential streets, environmentally sensitive areas, private property and Forestglen Park. The City designated Forestglen Park as a neighbourhood green space for social activities by local residents, and as a playground for young children.⁷²
- The City's planning staff state that parking and traffic control measures are an essential component of any plan involving the Chapel Hill North forest.⁷³

Residential Parking and Traffic

- Parking issues date from at least eight years ago when residents complained to the NCC about the number of forest users parking on residential streets.⁷⁴
- Residents are concerned that improvements to the trail network will attract more users thereby increasing traffic, decreasing the already limited on-street parking for local residents and their visitors, and increasing safety issues for pedestrians and drivers, especially at blind corners near the forest entry and exit points.⁷⁵

Goal

Quiet, safe and attractive local streets that improve the living and environmental conditions for local residents.

Objectives⁷⁶

- Locate forest entry and exit points where they neither inconvenience local residents or pedestrians nor interfere with residential traffic flow and parking.
- Locate parking for users away from residential streets.
- Identify traffic management measures to control the volume and composition of traffic.
- Conduct regular public consultations with Chapel Hill North residents on their views and the progress of work.

⁷⁰ Annex B, Concerns of CHN Community Residents Items 21, 24.

⁷¹ Annex B, Concerns of CHN Community Residents Item 24.

⁷² Annex B, Concerns of CHN Community Residents Items 21, 24.

⁷³ Annex B, Concerns of CHN Community Residents Item 24.

⁷⁴ Annex B, Concerns of CHN Community Residents Item 24.

⁷⁵ Annex B, Environmental Status of the CHN Forest Item 7; Concerns of CHN Community Residents Items 21, 24.

⁷⁶ Annex B, Environmental Status of the CHN Forest Item 7; Observed Terrain Degradation and Corrective Measures Item 19; Concerns of CHN Community Residents Items 21, 24

Table of Recommended Actions

Priority 4: Forest Entry and Exit Points, Parking and Traffic

No.	Recommended Actions	Remarks
1.	Identify entry and exit points away from residential streets and fragile, environmentally sensitive or erodible terrain. ⁷⁷	<ul style="list-style-type: none"> • The identification of sensitive environmental areas may require an environmental impact or “no negative impact” assessment be done using the provincial Environmental Impact Statement (EIS) Guidelines.⁷⁸
2.	Obtain permission to park on NCC and City existing and planned public parking lots. ⁷⁹	<ul style="list-style-type: none"> • This will require a good understanding of the NCC and City staff planning and budgeting responsibilities and approval process. Possible areas are: <ul style="list-style-type: none"> ▪ Chapel Hill Park and Ride planned at the intersection of the Brian Coburn Blvd extension and Navan road; ▪ Bus Rapid Transit and LRT parking areas in the Orleans to Blair Road area; ▪ school parking lots outside of school hours; ▪ community parks with parking lots; ▪ linear open spaces/parks; and ▪ recreational facilities and centres.
3.	Request the City and NCC negotiate with owners of institutions and private parking lots to allow use by trail users. ⁸⁰	<ul style="list-style-type: none"> • Possible areas: <ul style="list-style-type: none"> ▪ Good Shepherd Church, Innes Road; ▪ Community Pentecostal Church, St Joseph Boulevard; and ▪ Jeanne d’Arc Medical Centre, St Joseph Boulevard.
4.	Request the City investigates the installation of year-round traffic control and calming measures on local residential streets. ⁸¹	

⁷⁷ Annex B, Environmental Status of the CHN Forest Item 5; Permissible Forest Activities and Enforcement Item 12; Concerns of CHN Community Residents Item 24.

⁷⁸ Annex B, Environmental Status of the CHN Forest Item 4.

⁷⁹ Annex B, Concerns of CHN Community Residents Item 24.

⁸⁰ Annex B, Concerns of CHN Community Residents Item 24.

⁸¹ Annex B, Concerns of CHN Community Residents Item 24.

Priority 5: Public Education and Awareness

Current Situation

- The Chapel Hill North forest (CHN forest) is an unsupervised variable terrain of forested and watershed areas, with an unplanned series of paths. The well-being of the area has depended on common sense usage and the good will of users and residents. The majority of the usages, activities and interactions have been positive.
- There is limited public awareness or understanding of the respective roles, policies and plans, rules and activities of the NCC, City and the RVCA.
- The NCC owns the southern three quarters of the Chapel Hill North forested area, the City owns the northern quarter and the RVCA oversees the watershed and creeks in both areas.⁸²
- There is limited and often no information available, regarding proper use or inappropriate activity.
- Availability of garbage receptacles is inadequate to promote responsible use and upkeep throughout the forest and its trails.
- Over the years, maintenance has often been undertaken by individual residents who use the trails, particularly by dog walkers in the earlier years of the community. However, it has been unclear what options for maintenance may exist, nor is information readily available for those who wish to participate in upkeep.
- Some activities and creative usage (e.g. digging pits, bike ramps, trails along ravine edges etc.) are incompatible with the nature and permitted usage of the forest, especially due to the environmental impacts.⁸³
- Non-resident individuals and groups from outside Chapel Hill North occasionally access the CHN forest.
- There is a need for education on appropriate public use and stewardship of the area and for clear and easily accessible guidance.

Goal

Ensure broad awareness of:

- a. the nature and value of the CHN forest;
- b. the requirements to protect and maintain the environmental integrity of the area; and
- c. recommended protocols to promote appropriate usage and enable enjoyment by all.

Objectives⁸⁴

- Clarify what is appropriate vs. inappropriate usage of the trails.
- Develop and promote protocols for all users which are reasonable and practical.
- Provide information about the forest in general, its noteworthy features, forest and trail maintenance options, and ways to enable remedial action.

⁸² Annex B, Observed Terrain Degradation and Corrective Measures Item 15.

⁸³ Annex B, Observed Terrain Degradation and Corrective Measures Items 15, 16, 17, 18, 19.

⁸⁴ Annex B, Permissible Forest Activities and Enforcement Items 11, 13; Observed Terrain Degradation and Corrective Measures Items 15, 18; Concerns of CHN Community Residents Items 22, 23, 24.

Table of Recommended Actions

Priority 5: Public Education and Awareness

No.	Recommended Actions	Remarks
1.	Develop simple, clear protocols regarding appropriate behaviour for the variety of activities and uses of the CHN forest. The information should be made available in several formats for ready access.	<ul style="list-style-type: none"> Common sense and respect for all users should be the main guide. Protocols aid in a common understanding and self-policing of appropriate user behaviour. See Annex E – Sample Recommended Protocols.
2.	Promote standard signage for access points to both the NCC and City of Ottawa portions of the trails.	
3.	Promote public awareness of the environmental features of the CHN forest, develop material that can be accessible electronically, posted on websites, and be made available in print format as well.	
4.	Ensure proper facilities (e.g. garbage receptacles) are available to accommodate user needs.	<ul style="list-style-type: none"> It is important that proper usage as per protocols and signage, be supported, such as by ensuring appropriate garbage receptacles are readily available and regularly picked up.
5.	Use CHNCA, NCC and City websites and other media to promote awareness. Along with NCC and City of Ottawa, develop signage for entrance areas. ⁸⁵	<ul style="list-style-type: none"> Hazards may include things such as wild parsnip, poison ivy, and higher tick infested areas.
6.	With the NCC and City landowners, identify when it may be appropriate to mark specific areas of the forest, which present hazards to users and should be avoided. ⁸⁶	<ul style="list-style-type: none"> Other public areas identify the presence of wild parsnip and how to recognize it.
7.	Determine if/how it would be appropriate to develop signage in the forest for purposes such as wayfinding, education, off-limit areas and seasonally restricted activities.	<ul style="list-style-type: none"> If developed, such signage should be minimal to serve the need, sufficiently attractive and non-obtrusive.
8.	Engage residents in activities and processes that will enhance forest awareness.	

⁸⁵ Annex B, Best Practices of Other Urban Forests Item 14.

⁸⁶ Annex B, Observed Terrain Degradation and Requirements, Items 15, 16.

Priority 6: Feedback and Consultations

Current Situation

- Setting up a working group was an important first step in attempting to capture and address the interests and concerns of residents regarding the CHN forest.
- The FVTWG has collected a great deal of information concerning the policy, planning and guiding frameworks governing the CHN forest and trails, and approaches followed for environmentally sensitive areas in other municipalities.⁸⁷
- The FVTWG has conducted a walkabout in the City section of the CHN forest with five experts from the City of Ottawa, the Rideau Valley Conservation Authority and Greenspace Alliance of Canada's Capital, as reported at CHNCA meetings.⁸⁸
- The FVTWG has met with NCC officials to discuss the NCC section of the CHN forest.⁸⁹
- Residents want to know about any plans concerning their neighbourhood forest and want to have a strong say in the planning process and final outcome.⁹⁰
- The CHNCA, the City of Ottawa, our Innes Ward Councillor, and NCC encourage community input and involvement in the forest management and greenspace plans. In fact, the NCC, City and RVCA are mandated to engage with the community.⁹¹
- This FVTWG report forms a sound basis for CHN residents to understand the context and parameters of the policy and regulatory framework, as well as priorities and next steps for the community in terms of recreational activities and maintenance of our CHN forest and trails.

Goal

Provide residents a voice and an opportunity to participate in any planning and initiatives to ensure a sustainable future for the Chapel Hill North forest in its natural state, with an environmentally compatible trail system, in accordance with all the City, NCC, and RVCA policies regarding the forest's Environmentally Protected designation.

Objectives

- Provide an objective report on the status of the forest and what uses and activities are compatible with its environmental sustainability.
- Ensure openness and transparency with regard to information, planning and progress of maintenance work regarding the Chapel Hill North forest.
- Ensure CHN residents' interests and concerns are heard and incorporated to the extent possible in any plans for the protection and maintenance of the forest and its trails, so that it is sustainable in its natural state for current and future generations.

⁸⁷ The relevant policies and plans are described in FVTWG Report, Annex B and the Bibliography at Annex H.

⁸⁸ Notes of the FVTWG meeting with NCC Acting Chief Greenbelt and Senior Manager of Natural Resources and Land Management, 30 November 2017.

⁸⁹ Notes of the FVTWG meeting with NCC Acting Chief Greenbelt and Senior Manager of Natural Resources and Land Management, 30 November 2017.

⁹⁰ Annex B, Environmental Status of the CHN Forest Items 1, 2; Concerns of CHN Community Residents Item 21. This was a clear message from the initial meetings regarding the OMBA proposal for maintenance of the trails; the request from Innes Ward Councillor Jody Mitic for the formation of FVTWG; and the petition.

⁹¹ Annex B, Environmental Status of the CHN Forest Items 1, 2; Concerns of CHN Community Residents Item 21.

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- Encourage engagement of CHN residents in the care of the local forest and trails, and their participation in setting future directions for these highly valuable and cherished forested lands.
- Encourage ongoing and regular consultation with the two CHN forest landowners (City of Ottawa and NCC) and the RVCA, with regard to any planning involving the CHN forest.

Table of Recommended Actions

Priority 6: Feedback and Consultations

No.	Recommended Actions	Remarks
1.	Present the FVTWG report to CHNCA board. Make it available to residents online, and in the form of a few hardcopies for reference at the Orleans Blvd. Public Library or the Innes Ward Councillor's office. Ensure all residents are made aware of the FVTWG report and the means of accessing it.	<ul style="list-style-type: none"> • It may be helpful to distribute flyers to let residents know how to access the report. • Residents who do not use social media or a computer could access the hardcopies at the library or Councillor's office, or perhaps through the assistance of neighbours.
2.	Encourage written feedback from residents over a reasonable period of time.	<ul style="list-style-type: none"> • Ensures that residents' interests and concerns are heard. • Respondents should be required to identify their full name and residency.
3.	Hold a CHNCA public information and feedback session, after residents have had a chance to read and digest the FVTWG report.	<ul style="list-style-type: none"> • Provides an opportunity for residents to ask questions and voice some feedback on the FVTWG Report, ensuring residents' interests and concerns are heard. • Helps engage residents to support the well-being of the CHN forest and its trails.
4.	Incorporate residents' comments into the FVTWG report in light of feedback. Submit this final FVTWG report to CHNCA.	<ul style="list-style-type: none"> • It is expected that a variety of views and opinions will be expressed by residents. • Feedback should be incorporated based on relevance to the seven priorities.
5.	CHNCA to canvas CHN residents for volunteers for an advisory working group to follow on from the FVTWG as soon as possible. See Priority 7 – Next Steps.	<ul style="list-style-type: none"> • It would be preferable to have some volunteers recruited before the FVTWG completes its tasks.
6.	Consult with and seek feedback from City, NCC and Innes Ward 2 Councillor, both with respect to the FVTWG Report and on an ongoing basis. The initial meeting should include members of FVTWG and any members recruited for the advisory working group (see Priority 7).	<ul style="list-style-type: none"> • The landowners have the final say, but they promote community engagement in forest and trail management, so residents' interests and concerns ought to carry considerable weight. • Landowners should be able to provide direction and options for collaboration.

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No.	Recommended Actions	Remarks
7.	Keep residents well-informed and involved with respect to any future planning or forest-and-trails-related concerns and initiatives. Look for ways of achieving more rapid and complete dissemination of information to residents, for example - timely notices from the landowners regarding proposed work in the forest.	<ul style="list-style-type: none"> • Residents would remain an integral part of the information sharing and decision making process within CHNCA, and with the City of Ottawa and NCC. • Regular and ongoing updates on progress could be provided to CHN residents, and their views and input sought by CHNCA. A key player could be the advisory working group (see Priority 7). • Volunteer Block Representatives could help in the dissemination of information.
8.	Encourage ongoing monitoring of the forest by residents and reporting of any problems to respective landowners, RVCA, Innes Ward Councillor’s Office and CHNCA.	<ul style="list-style-type: none"> • In addition to ongoing monitoring there could be an annual “State of the Forest” walkabout by interested residents, from which any observable changes or potential problems related to activities and environmental issues could be logged.⁹²

⁹² See the Toronto Natural Environment Trail Strategy, Appendix I, pages 167-168, as a guide for items that could be on a walkabout checklist.

Priority 7: Next Steps

Current Situation

- The Chapel Hill North forest is one of the most ecologically significant and environmentally protected natural woodlands in the City of Ottawa. The residents of Chapel Hill North value the forest for its environmental and recreational benefits and are concerned it is experiencing increasing stress as the population grows including the senior demographics, urban development continues, recreational networks expand across the city and more people discover the forest's unique natural area. Residents want the forest sustained in an environmentally protected natural state for the enjoyment and benefits of present and future generations.
- A review of federal, provincial and municipal legislation, policies and plans concerning the forest indicated that environmental protection, sustainability and maintenance of the forest is the primary requirement for all recreational activities, maintenance and other types of work in the forest and on its trails.⁹³
- The FVTWG Report, Protection, Sustainability and Maintenance of the Chapel Hill North Forest, identified seven key mutually supporting priorities that address the concerns and interests expressed by Chapel Hill North residents. Environmental protection of the forest is the top priority which has implications for all the others.⁹⁴ Each priority includes an end state goal, near-term objectives and specific recommended actions to achieve the objectives. The priorities will have their greatest effect if they are addressed in conjunction with each other and not piece-meal. The Report provides a sound basis for the CHN community's next steps in addressing their interests and concerns regarding the CHN forest through consultation and engagement with residents and landowners and the development of measures to achieve and ultimate implementation of the actions recommended in the seven priorities.
- For the community's next steps including consultation and engagement with residents and landowners, priority setting and ultimately implementation of recommended actions that meets the interests and concerns of the CHN residents. The Report presents ambitious but practical and achievable measures of going forward that will benefit the CHN community in the near term and over the longer term.
- A public meeting will be held in the fall of 2018 at which the FVTWG will brief the Chapel Hill North residents on its Report and hear their comments. While this is the end of the FVTWG tasks, it is not the end of addressing the concerns of the residents about the recreational activities and protection, sustainability and maintenance of the Chapel Hill North Forest and its trails.
- The FVTWG recognizes that the CHNCA is a volunteer-based community organization that has constraints to its capacity to take on additional community priorities. A new residents group would provide additional resources to move forward with the next steps to advise and deliver on the seven priorities described in Chapter 2. It would work on a collaborative basis with landowners and other parties and be guided by the relevant regulatory and policy framework, the results of public consultations and the interests and concerns of the Chapel Hill North residents.

⁹³ The applicable legislation, policies, plans are listed in the Bibliography at Annex I.

⁹⁴ The Recommended Actions identified in the priorities are drawn from Assessment in Annex B.

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Goal

The protection, sustainability and maintenance of the natural environment of the Chapel Hill North forest for the enjoyment and benefit of present and future generations.

Objectives

- Create an advisory working group to implement the FVTWG priorities in collaboration with the NCC, City of Ottawa and RVCA, consistent with their legislation, policies and plans and other jurisdictions' best practices for urban forest areas like the CHN forest.⁹⁵
- Collaborate with the NCC, City of Ottawa and RVCA in producing a Chapel Hill North forest management plan.⁹⁶
- Engage in government outreach programs.⁹⁷

Table of Recommended Actions

Priority 7: Next Steps

No.	Recommended Actions	Remarks
1.	CHNCA establish a new group or committee to advise and deliver on the priorities.	<ul style="list-style-type: none"> • A well-defined mandate, goals, deliverables and timeframe are required. • Members are Chapel Hill North residents. • The Group will be guided by the interests and concerns of the Chapel Hill North residents.
2.	Identify the Chapel Hill North forest and trail environmental issues of concern and interest to Chapel Hill North residents. ⁹⁸	<ul style="list-style-type: none"> • This can be accomplished by different methods such as public consultations and surveys on a regular basis.
3.	Collaborate with the NCC, City and RVCA in developing a plan to implement the FVTWG Report priorities. ⁹⁹	<ul style="list-style-type: none"> • The implementation plan will involve an Environmental Assessment Study done by technical experts.¹⁰⁰
4.	Urge the NCC, City and RVCA to develop a management plan for the CHN forest in collaboration with forest users and residents. ¹⁰¹	<ul style="list-style-type: none"> • Priority be placed on the City-owned part of the CHN forest given its high ecological rank, its current condition and potential for further degradation.
5.	Determine options for residents and users to collaborate with the NCC, City and RVCA. ¹⁰²	

⁹⁵ Annex B, Environmental Status of the CHN Forest Environmental Status of the CHN Forest Items 1 and 2; Best Practices of Other Urban Forests Item 14.

⁹⁶ Annex B, Environmental Status of the CHN Forest Items 1, 2, 5; Observed Terrain Degradation and Corrective Measures Item 15.

⁹⁷ Annex B, Environmental Status of the CHN Forest Item 1.

⁹⁸ Annex B, Concerns of CHN Community Residents Item 21.

⁹⁹ Annex B, Environmental Status of the CHN Forest Items 1, 2; Concerns of CHN Community Residents Item 21.

¹⁰⁰ Annex B, Permitted Forest Activities and Enforcement Item 12.

¹⁰¹ Annex B, Environmental Status of the CHN Forest Items 1, 2, 5; Observed Terrain Degradation and Corrective Measures Item 15.

¹⁰² Annex B, Concerns of CHN Community Residents Item 21.

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No.	Recommended Actions	Remarks
6.	Encourage residents to monitor the condition of the CHN forest on a regular basis. ¹⁰³	<ul style="list-style-type: none"> • Various possibilities include annual “walkabouts” by local residents, monitoring of forest and trail conditions.
7.	Investigate establishing an advisory group as the Chapel Hill North community point of contact for NCC, City and RVCA outreach environmental programs with respect to the Chapel Hill North forest and its trails. ¹⁰⁴	<ul style="list-style-type: none"> • Outreach programs are a key tenet of NCC, City and RVCA policies.¹⁰⁵ Possibly conduct public stewardship activities such as clean up days, tree plantings etc.

¹⁰³ Annex B, Environmental Status of the CHN Forest Item 1.

¹⁰⁴ Annex B, Environmental Status of the CHN Forest Item 1.

¹⁰⁵ Annex B, Concerns of CHN Community Residents Item 21.

Chapter 3: Options and Activities

The mandate of the Forest Valley Trails Working Group is to help identify trail maintenance options. It was necessary for the FVTWG to interpret its responsibilities in respect of: i) the interests and concerns of the CHN community and users; ii) the authorities and mandates of the City of Ottawa and NCC as landowners and primary stewards of the forest land; and iii) the limitations and responsibilities in relation to the environmental protection designation and related sustainability requirements of the CHN forest.

The Forest Valley Trails Working Group has identified three options for Chapel Hill North residents.

Option A: Key Priorities with Community Engagement

Option B: Public Awareness and Forest Access with Community Input

Option C: Status Quo

Option A: Key Priorities with Community Engagement [FVTWG RECOMMENDED OPTION]

Option A is based on the FVTWG's seven mutually supporting key priorities with environmental protection of the forest being the top priority which has implications for all others. Ensuring environmental integrity of the CHN forest is fundamental for sustainable community forest trails and which is consistent with the designated federal, municipal, and provincial status of the CHN forest area. Option A includes recommendations for proactive measures involving opportunities for engagement by resident with the landowners for the protection, sustainability and maintenance of the CHN forest and its trails as an integral way forward. Each of the seven priorities proposes a desired goal, near term objectives and recommended actions to achieve the objectives.

Activities:

The recommended actions under Option A fall into these general areas of activity:

- a) Environmental Protection Assessments and Planning;
- b) Consultation and Feedback;
- c) Engagement and Collaboration;
- d) Capacity Building;
- e) Public Awareness, Education and Communication;
- f) Trail Uses and Activities, Design and Layout;
- g) Signage and Protocols;
- h) Forest Access (Entry and Exit Points, Parking and Traffic); and
- i) Management, Monitoring and Maintenance.

Possible results residents may see over the near to longer term under Option A:

- Opportunities for collaborative engagement with landowners in relation to the community's priorities and activities, environmental reviews/assessments; as well as Involvement in sustainable forest trails;
- Opportunities for consultation and feedback with residents and sharing of information;
- Protocols for notifying and informing residents in advance; and Information about the environmentally protected forest, its features and maintenance options, and ways to enable remedial action;
- Forest management and maintenance plan, monitoring and reports; Clarification of allowed forest and trail uses and activities; Forest and trail protocols for all users; New and improved

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- signage for forest and trail wayfinding, education, off-limit areas and seasonally restricted activities; and Improvements to forest access (entry and exit points, parking and traffic); and
- Enhanced capacity of the CHNCA, such as through the possible creation of a new group of residents for advice and guidance on the delivery of activities.

Option B: Public Awareness and Forest Access with Community Input

Option B is based on Key Priority 4 Forest Entry and Exit Points, Parking and Traffic, and Key Priority 5 Public Education and Awareness. These priorities each propose a desired goal, near term objectives and recommends actions to achieve the objectives.

Activities:

The recommended actions under Option B focus on these general areas of activity:

- a) Public Awareness, Education and Communication;
- b) Consultation and Feedback;
- c) Capacity Building;
- d) Signage and Protocols; and
- e) Forest Access (Entry and Exit Points, Parking and Traffic).

Possible results residents may see over the near to longer term under Option B:

- Protocols for notifying and informing residents in advance;
- Enhanced capacity of the CHNCA, such as through the possible creation of a new advisory group of residents for advice and delivery on matters relating to public awareness and access;
- Information about the environmentally protected forest, its features and maintenance options, and ways to enable remedial action; Basic clean-up activities for the forest, trails and watercourses; and
- Clarification of allowed forest and trail uses and activities; Forest and trail protocols for all users; New and improved signage for forest and trail wayfinding, education, off-limit areas and seasonally restricted activities; and Improved forest access (exit and entry points, parking and traffic).

Option C: Status Quo

Under Option C, individuals, groups of residents and other users may approach the NCC, City and RVCA with their own concerns, interests or proposals. The NCC, City and/or RVCA will make their own determination of how to proceed with such requests.

Considerations for Trail Maintenance Options:

- **Trail Rationalization** – Options for trail maintenance on public land assume official trails. However, there are no officially designated trails in the CHN forest. They are nature paths which have been developed by users over time, proliferating in size and complexity without benefit of sustainable planning and design, and showing evidence of degradation and potential for further adverse impacts. Based on a review of other urban forest management plans, and a forest “walkabout” and comments from officials, an important step in trail maintenance will be to identify appropriate trail design and rationalization.

The options for trail rationalization are diverse and based on environmental assessments to protect sensitive areas and mitigate adverse impacts, safety of users, and planning and trail design. Possibilities could include closure and re-naturalization of certain forest areas or trails; removal of unsustainable or unsafe structures and mountain biking features; and designation of allowed uses and activities including seasonal considerations. Trail rationalization options should be consistent with the governing policies, and informed by best management practices of environmentally protected urban forests in Ottawa and other jurisdictions.

- **Priority Setting:** Sound planning for trail design and management involves the establishment of priorities before engaging in trail maintenance. Consideration will need to be given to objectives, resources, costs, priority areas of attention, expertise and roles of the landowners and those who conduct the maintenance (e.g. existing contractors).
- **Engagement of Residents:** The NCC and the City as landowners have their respective mandates and authorities, and manage their sections of the CHN forest differently. The NCC, City and RVCA each recognized the importance of community out-reach programs that identify the interests and concerns of residents. Decisions on allowable roles for residents ultimately rest with the respective landowners. Recommendations on how resident can become involved are included in the key priorities, with Priority 7 addressing options for residents in next steps.
- **Role of Residents:** There are different roles possible for CHN residents to become involved and engaged in the activities proposed in the key priorities. The following are options to consider:
 - *Reporting functions* – Report fallen trees, creek blockages, environmental damage, site alteration, negative impacts, invasive or hazardous plant species, misuse causing damage, vulnerable areas that need attention (immediate, short- or long-term), etc.
 - *Advisory functions* – Participate in a residents’ CHNCA advisory group to advise and deliver on the priority recommended actions. Prior to either the NCC or City of Ottawa engaging in activities or changes to the forest or trails, residents are given prior notice through the CHNCA and an opportunity to identify any issues or concerns and to provide suggestions.
 - *Clean-up and other maintenance functions* – Participate in NCC, City of Ottawa and/or RVCA periodic clean-up activities to remove litter and debris from the forest, trails and watercourses. The NCC and City may choose to identify options for residents to either work alongside officials in joint maintenance activities, or identify permissible maintenance activities that residents may carry on at any time, without officials present.

Chapter 4: Conclusions

The CHN forest is an important natural part of the neighbourhood which residents appreciate and value, want to ensure is maintained, and in whose future they want to play a role.

Seven mutually supporting priorities for the CHN forest and trails have been identified, addressing the broad array of issues for the ongoing maintenance and usage of the forest. A set of recommended actions has been suggested for each priority.

Ensuring environmental protection and integrity of the CHN forest was identified as the key priority which underlies the other six priorities and which is consistent with the designated federal (National Capital Commission), municipal (City of Ottawa) and provincial (Rideau Valley Conservation Authority) status of the CHN forest area.

The assessment identifies that both the degree and the types of human activities in the CHN forest have increased, especially in the last 10 years, resulting in damage and degradation in some areas. If the existing and potential future conditions are not addressed, they may threaten the future integrity of the forest and watercourses.

Therefore, there is a need for proactive measures to ensure the ongoing integrity and functionality of the CHN forest and trails, including:

- **Protection:** Remediation and steps to help mitigate damaging activity, in order to protect the CHN forest from further negative impact and allow recovery;
- **Sustainability:** Careful design and rationalization of the CHN forest trails and areas of usage to ensure the forest's long-term sustainability;
- **Maintenance:** Planning to ensure ongoing forest integrity, prudent maintenance, and enjoyable, safe usage of the trails, allowing CHN residents to play an integral role. Planning and maintenance must also include identifying clear and consistent protocols and means to increase public awareness, for the benefit of the forest and to avert conflict among its various users.

Finally, to follow through, it will be important for the long-term success of the forest and trails for the CHN community to engage and collaborate with the two landowners (NCC and City), come to agreement on the priorities, and to determine an appropriate, stepwise course of action involving both the landowners and residents.

The proposals for resident and user engagement in this report are intended to be flexible enough to accommodate the needs of the City and NCC, while also allowing the public to participate in ways they feel would be most appropriate.

The FVTWG has proposed three suggested options for Chapel Hill North residents for going forward: Option A: Key Priorities with Community Engagement; Option B: Public Awareness and Forest Access with Community Input; and Option C: Status Quo. **The Forest Valley Trails Working Group recommends Option A: Key Priorities with Community Engagement.**

Annex A – Policy Framework for Environment, Land Use and Planning

City of Ottawa, National Capital Commission and Rideau Valley Conservation Authority

Introduction

To understand how the Chapel Hill North forest and its trails are governed, the Forest Valley Trails Working Group examined many documents, including legislation, policies, strategies, plans, guidelines, reviews, studies, public consultations, City and NCC decisions, best management practices, maps and photographs and historical documents. (See Annex H Bibliography) The key components are summarized in a policy framework that forms the foundation for the FVTWG’s assessment of implications for recreational and maintenance activities in the CHN forest and its trails.

The FVTWG’s search covered three levels of government and involved three primary organizations that have the mandate and authority to ensure the protection, sustainability and maintenance of the CHN forest. They are: National Capital Commission (NCC); City of Ottawa; and Rideau Valley Conservation Authority (RVCA). While they are separate entities with their own distinct jurisdictions, mandates, resources, policies, plans, stewardship and public engagement approaches, in fact, they work collaboratively on a regular and ongoing basis. In terms of urban forest management, the City, NCC and RVCA have developed shared goals and objectives, as well as implementation of strategies.

Initial lines of inquiry included such topics as: who owns the forest land; what kind of forest is it; what guides land use and activities; how are decisions made; what are the environmental requirements; what is the current thinking of officials and experts; what are the visions and priorities going forward; what are their best management practices; and what is relevant for the CHN community and its residents.

Policy Framework

The table below is a summary of key land use, planning and environment policies relevant to the CHN forest and trails. The FVTWG was guided by this policy framework in its assessments which in turn formed the basis for its recommendations for action.¹⁰⁶

Policy Framework for Environment, Land Use and Planning City of Ottawa, NCC and RVCA		
Type	A - City of Ottawa	B - National Capital Commission (NCC)
Strategic, Plans, Strategies and Reports	City of Ottawa Strategic Plan 2014-2018	The Plan for Canada’s Capital 2017-2067
	City of Ottawa Official Plan to 2036	Canada’s Capital Greenbelt Master Plan 2013
	Greenspace Master Plan 2006	Capital Urban Lands Plan 2015
	Urban Forest Management Plan 2018-2037	Gatineau Park Master Plan 2005
	Environmental Strategy 2003	Capital Pathway Strategic Plan 2006 and Review
	Parks and Recreation Master Plan development	Annual Environment Report 2016-2017
	Transportation Master Plan 2013	
	Cycling Plan and Pedestrian Plan 2013	
Older Adult Plan 2015		
Reviews, Manuals and Activities	Urban Natural Areas Environmental Evaluation Study (UNAEES) 2005	Gatineau Park Master Plan Review
	Environmental Protection and Environmental Impact Statement Guidelines 2015	Natural Capital Economic Value of the NCC’s Green Network 2016
	Significant Woodlands Policy Implementation WG	National Capital Greenbelt Trails

¹⁰⁶ See FVTWG Report Annex B Assessment of Policies and Plans, Reports, Correspondence and Residents’ Concerns, and FVTWG Report Chapter 2 Key Priorities and Recommended Actions.

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Policy Framework for Environment, Land Use and Planning City of Ottawa, NCC and RVCA		
	Park Development Manual 2 nd Edition 2017	Parks, Paths and Pathways
Type	C - Rideau Valley Conservation Authority (RVCA)	
Strategic, Plans and Programs	Vision, Mission and Mandate	
	Planning and Regulations	
	City Stream Watch Program - Voyageur Creek 2013 Summary Report	

A – City of Ottawa

- **Strategic Plan** – the City Council’s plan for its four-year term of office. The 2015-18 plan concludes with the municipal election in October 2018. It lays out priorities, objectives, initiatives, performance measures, and oversight.¹⁰⁷ Ottawa’s newly elected City Council will establish their Strategic Plan once in office.
- **Ottawa’s Official Plan**¹⁰⁸ – a legal document that contains the vision and policy framework for the growth of the City of Ottawa to the year 2031 (extended to 2036), approved under the province’s Planning Act and Provincial Policy Statement (PPS)¹⁰⁹. The Official Plan includes supporting Schedules such as the Urban Policy Plan, Multi-use Pathways and Environmental Constraints.¹¹⁰

Provincial land use policies represent minimum standards; planning authorities and decision-makers may go beyond these minimums to address matters of importance to a specific community (unless doing so would conflict with any policy of the Provincial Policy Statement).¹¹¹

Zoning By-laws - Ottawa’s land use is managed under Zoning By-law No. 2008—250. Land designations describe the use of the land and the policies that apply. Implementation is through more detailed land use zones.¹¹²

Chapel Hill North Zoning – CHN is bordered by a number of zones, the most significant being the Chapel Hill North Forest zoned Environmental Protected (EP)¹¹³, as well as zones for Institutions, e.g. Grey Nuns residence and Good Shepherd Church (I1E), the woodlot on the corner of Innes and Blackburn By-pass (Rural). CHN community is largely zoned Residential (R1W and R1WW) and City parks (O1 Open Space).

Environmental Protection Zone (EP)¹¹⁴ – the CHN Forest is an environmentally sensitive natural area and contains important environmental resources. Development is regulated to minimize the impact

¹⁰⁷ City of Ottawa Strategic Plan 2014-2018 at

https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/2015_2018_strategic_plan_en.pdf for the City of

¹⁰⁸ FVTWG Report Annex B Assessment Item 2 Governance; and City of Ottawa Official Plan at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan>

¹⁰⁹ Ontario Planning Act Provincial Policy Statement 2014 at <http://www.mah.gov.on.ca/AssetFactory.aspx?did=10463>

¹¹⁰ FVTWG Report Annex B Assessment Item 2 Governance; and City of Ottawa Official Plan, Section 6 Schedules at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan#section-6-schedules>

¹¹¹ Provincial Policy Statement 2014 at <http://www.mah.gov.on.ca/AssetFactory.aspx?did=10463>

¹¹² City of Ottawa Official Plan, Section 3. Designations and Land Use at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-3-designations-and-land-use>

¹¹³ FVTWG Report Annex B Assessment Item 3 Zoning; and City of Ottawa Official Plan

¹¹⁴ FVTWG Report Annex B Assessment Item 3 Zoning

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of any buildings or structures.¹¹⁵ As EP zones are natural areas, there is little or no development.¹¹⁶ An EP zone is prescriptive: it permits only those uses which are compatible with and assist in the protection of the environmental attributes of the land, or are in keeping with applicable Official Plan policies. Permitted uses include: (a) environmental preserve and education area, and (b) forestry area.

Proposals for land use and site development must be reviewed under the City's Official Plan provisions for environmental protection, for example such aspects as applications, vegetation cover, erosion prevention, protection of endangered and threatened species (e.g. habitats) and landform features such as escarpment, stream and valley land.

Under provincial and municipal policies and regulations, the requirement for reviews, approvals and permits is an essential step for any proposed site alteration or development within significant woodlands, natural areas and watercourses. This includes projects initiated by the NCC¹¹⁷ and City of Ottawa.¹¹⁸ In the case of CHN forest, written approval and permits from the Rideau Valley Conservation Authority may also be required. (See C - RVCA below)

Environmental Designations - The City's Official Plan has four environmental designations, two of which are relevant to CHN forest: Natural Environment Areas and Urban Natural Features. The other two are Rural Natural Features and Wetlands. These four make up most of the natural heritage systems of the city. CHN forest is linked by nearby rural wooded corridors which allow for the migration of wildlife and the maintenance of natural functions across a large area.¹¹⁹

- a. **Natural Environment Areas**¹²⁰ - this designation applies to land in the City of Ottawa having a high environmental value as assessed through federal, provincial and municipal studies. These areas typically contain several elements of the natural heritage system, e.g. woodlands and wildlife habitat. They are among the most significant in terms of maintaining biodiversity and ecological functions. Natural environment areas owned by the NCC, such as the southern part of the CHN forest, are also identified in the NCC Greenbelt Master Plan. (See B - NCC below)

A special environmental constraint within the CHN forest is its unstable slopes.¹²¹ Deposits of Leda clay, a potentially unstable material, underlie extensive areas of the Ottawa valley. Careful management, restoration and enhancement are required.¹²² The City has guidelines

¹¹⁵ City of Ottawa Official Plan Zoning By-law Part 9 EP-Environmental Protection Zone at <https://ottawa.ca/en/part-9-environmental-zones-sections-183-184>

¹¹⁶ FVTWG Report Annex B Assessment Item 4 City of Ottawa Urban Natural Features; and City of Ottawa Official Plan, 3.2.3 Natural Environment – Urban Natural Features at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-3-designations-and-land-use#3-2-3-urban-natural-features>

¹¹⁷ NCC, Federal Land Use, Design and Transaction Approvals at <http://ncc-ccn.gc.ca/doing-business/federal-land-use-design-transaction-approvals>

¹¹⁸ The City of Ottawa Environmental Impact Statement (EIS) Guidelines 2015 at https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/eis_guidelines2015_en.pdf

¹¹⁹ City of Ottawa Official Plan Amendment #76, OMB File # PL100206, April 26, 2012

¹²⁰ City of Ottawa Official Plan Schedule B at https://documents.ottawa.ca/sites/default/files/schedule_b_en_9.pdf; and FVTWG Report Annex B Assessment Environmental Status of the CHN Forest Item 3 Zoning.

¹²¹ City of Ottawa Official Plan, Schedule K Environmental Constraints at https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/schedule_k_en_0.pdf

¹²² City of Ottawa Official Plan, Designations and Land Use, Section 3.2.2. Natural Environment Area at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-3-designations-and-land-use#3-2-natural-environment>

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on tree planting in sensitive marine clay soils.¹²³

Development within and adjacent to natural environment areas could unduly stress significant natural features and their ecological functions. The primary objective of management plans for publicly-owned land is restoration and enhancement of natural features and functions. Regardless of ownership (e.g. City, NCC or private), an Environmental Impact Statement (EIS) and an environment management plan can identify and demonstrate that there will be no negative or adverse impacts on the natural features.¹²⁴

- b. **Urban Natural Features** – this designation is for natural landscapes and may include woodlands, wetlands, watercourses and ravines. Natural features may occur on city, federal, provincial or privately-owned land. The purpose of the urban natural features designation is to preserve natural features that are currently managed for conservation or passive leisure uses. They provide a valuable contribution to biodiversity and wildlife habitat in the urban area and are enjoyed by residents.¹²⁵

After the City's amalgamation in 2001, all natural features were identified and their values established. Chapel Hill North Forest has a High environmental rating with ecological significance.¹²⁶

Permitted Uses¹²⁷ - permitted uses in the CHN forest are those that do not adversely affect the natural characteristics of the area. Adverse impacts can include: alteration of natural topography; disruption or alteration of ecological relationships among native species or their habitat; alteration of natural habitats; erosion or compaction of soils or deposition of sediment and fragmentation in size. Recreational uses that are not appropriate in protected forest areas, whether due to soil, ecology, biodiversity, hydrology, topography, seasonal or weather conditions must be avoided.

Environmental Impact Statement (EIS) and No Negative Impact¹²⁸– development within or adjacent to woodlands and other natural features has potential to impact the feature and functions by removing vegetation, increasing the amount of impermeable surfaces, changing the grading of the site, or making other changes. Development and site alteration is not permitted within 30 metres of the boundary of a designated urban natural feature unless an Environmental Impact Statement demonstrates there will be no negative impacts on the natural features within the area of their ecological functions.¹²⁹

¹²³ City of Ottawa Design and Planning Guidelines 2017 at <https://ottawa.ca/en/city-hall/planning-and-development/community-plans-and-design-guidelines/design-and-planning/completed-guidelines/tree-planting-sensitive-marine-clay-soils-2017-guidelines>

¹²⁴ FVTWG Report Annex B Assessment Item 5 City of Ottawa Environmental Designation - Significant Woodland

¹²⁵ FVTWG Report Annex B Assessment Item 4 Urban Natural Features; and City of Ottawa Official Plan, Section 3.2.3 Urban Natural Features at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-3-designations-and-land-use#3-2-3-urban-natural-features>

¹²⁶ City of Ottawa UNAEES Study, UNA 82 Forestglen 2003, Daniel F. Brunton

¹²⁷ City of Ottawa Official Plan, Section 3.2.3. Urban Natural Features at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-3-designations-and-land-use#3-2-3-urban-natural-features>

¹²⁸ City of Ottawa Official Plan, Section 4.7.8 Environmental Impact Statement at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-4-review-development-applications#4-7-environmental-protection>

¹²⁹ FVTWG Report Annex B Assessment Item 4 City of Ottawa Environmental Designation – Urban Natural Feature ; and City of Ottawa Official Plan, Volume 1, Section 3.2.3 Urban Natural Features

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No negative impact refers to degradation that threatens the health and integrity of the natural features or ecological functions due to development or site alteration activities. An EIS identifies the natural features of a site early in the development process and consider ways to avoid or mitigate these impacts before they occur, and enhance natural functions. An EIS is required for development proposed within or adjacent to significant woodlands, valley lands, wildlife habitat and other components of the natural heritage system. CHN forest is part of the natural heritage system and is considered significant woodland.¹³⁰

Significant Woodlands¹³¹ – The City’s Significant Woodlands policy (December 2016) is based on Ontario’s land use planning Provincial Policy Statement. A public-private working group is currently studying proposed revisions to the City’s natural heritage system features and the Environmental Impact Statement Guidelines to include a new section on the evaluation of the social and economic values of urban natural heritage system features.

Chapel Hill North Forest is considered “significant woodland” with urban natural features with social and economic value. It is rich mix of young to mature upland and swamp forest areas and home to Eastern Hemlock and Sugar Maples throughout, as well as Trembling Aspen, American Beech, Red Maple, White Cedar, White Pine, White Birch, Yellow Birch, and Black Ash.¹³²

- **Urban Forest Management Plan (UFMP) 2017**¹³³ – Ottawa’s first 20-year UFMP provides strategic and technical guidance to the City, community and stakeholders to achieve urban forest sustainability in Ottawa. Its vision is an urban forest that is healthy, diverse, resilient, and always growing. CHN forest is part of the urban forest. The UFMP makes 26 recommendations to protect, manage and sustain the urban forest.¹³⁴ It will be implemented over five 4-year periods.

The UFMP is a key policy for forest management. Three of the UFMP’s guiding principles are: (i) the urban forest must be recognized and managed as a valuable infrastructure asset and a positive investment, (ii) the City and its partners should be bold and innovative in urban forest management, and (iii) urban forest management is a shared responsibility and working together is the key to achieving success.

The UFMP and EP zoning policies reflect the high ecological value and environmental protection given to the CHN forest. They are important and relevant for CHN forest in term of its current and future sustainable land uses and activities, protection, maintenance and engagement of residents.

- **Urban Natural Area Environmental Evaluation Study (UNAEES) 2003** - The City’s UNAEES Site 82 Forestglen study¹³⁵ identifies management concerns and recommends long term protection needs of the City’s section of the CHN forest to ensure appropriate management. Included are:
 - Research on the long-term protection needs to ensure appropriate management is in place;

¹³⁰ A. MacPherson, Natural Systems and Environmental Protection Planning and Growth Management, Economic Development Services, City of Ottawa, June 12, 2018.

¹³¹ FVTWG Report Annex B Assessment Item 5 Significant Woodland

¹³² See FVTWG Report Annex E Maps and Photos, Map 2 Site #82 Forestglen Park.

¹³³ City of Ottawa Urban Forest Management Plan 2017 at <https://ottawa.ca/en/city-hall/public-engagement/projects/urban-forest-management-plan>

¹³⁴ City of Ottawa Urban Forest Management Plan 2017 at <https://ottawa.ca/en/city-hall/public-engagement/projects/urban-forest-management-plan>

¹³⁵ City of Ottawa UNAEES Study, UNA 82 Forestglen 2003, Daniel F. Brunton

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- Passive recreation opportunities (footpath and interpretation potential due to the history of land use in Ottawa and the ecological significance of the ravines;
 - Rationalization and stabilization of an informal footpath along the periphery of the site, important to reduce vegetation damage and erosion; and
 - Pre-emptive control of mountain bicycle traffic before impact becomes serious.¹³⁶
- **Environment Strategy 2003**¹³⁷ – a strategy to manage the city’s projected 50% growth in population in a sustainable way, preserving natural habitats and creating a network of green spaces, with an emphasis on trees as an important way of maintaining environmental integrity.
 - **Greenspace Master Plan 2006**¹³⁸ – a vision for Ottawa’s network of greenspaces (e.g. forests, waterways, parks) in the urban area, and sets policies for managing the projected growth in the city.
 - **City’s Parks and Recreation Master Plan**¹³⁹ – presently in development. The Parks Development Manual¹⁴⁰ addresses park planning and delivery processes. The CHN forest EP-environmental protection zoning is different than an open space park given the forest’s high-value ecosystems and habitats and designation as an urban natural area within Ottawa’s Natural Heritage System.
 - **Transportation Master Plan 2013**¹⁴¹, **Cycling Plan 2013**¹⁴² and **Pedestrian Plan 2013**¹⁴³ – all three are part of the City’s Official Plan outlining transportation facilities, services and policies to support the projected growth in population from 921,000 (2011) to 1.2 million (2036)¹⁴⁴. Walking that is attractive, safe and accessible and a network of cycling facilities are part of the vision.
 - **Older Adult Plan 2015-2018**¹⁴⁵ – Ottawa was recognized by the province for its efforts to make the city more accessible and age-friendly. The number of seniors is expected to more than double between 2011 and 2031 representing 22% of the population – more than 1 in 5. Walking and nature appreciation is a growing leisure activity for older adults. Feeling secure and comfortable in their walking environments is a priority. Nature trails need to be safe and convenient for older adults.

¹³⁶ City of Ottawa UNAEE Study, UNA 82 Forestglen 2003, Ecological Comment, Daniel F. Brunton

¹³⁷ City of Ottawa Environment Strategy 2003 at

https://documents.ottawa.ca/sites/default/files/documents/enviro_strategy_en.pdf

¹³⁸ City of Ottawa Greenspace Master Plan 2006 at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/greenspace-master-plan>

¹³⁹ City of Ottawa Parks and Recreation Master Plan development at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/parks-and-recreation-master-plan-development>

¹⁴⁰ City of Ottawa Park Development Manual 2nd Edition 2017 at

https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/park_development_manual_en.pdf

¹⁴¹ City of Ottawa Transportation Master Plan 2013 at https://documents.ottawa.ca/sites/default/files/documents/tmp_en.pdf

¹⁴² City of Ottawa Cycling Plan 2013 at

https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/ocp2013_report_en.pdf

¹⁴³ City of Ottawa Pedestrian Plan 2013 at

https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/opp_2013_en.pdf

¹⁴⁴ City of Ottawa Official Plan Amendment #180 at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan-amendment-180>

¹⁴⁵ City of Ottawa Older Adult Plan 2015-2018 at <https://ottawa.ca/en/older-adult-plan>

B - National Capital Commission (NCC)

- **Plan for Canada's Capital 2017-2067¹⁴⁶** – the NCC is a federal Crown Corporation. The NCC's 50-year plan is the pre-eminent document for land use and development planning for federal lands in the National Capital Region that straddle provincial and municipal boundaries. It shapes the vision for the nation's capital.

The NCC and its partners, including municipalities and community-based organizations, have a shared responsibility for the successful evolution of Canada's Capital. The NCC consults with stakeholder groups and Anishinabeg communities, seeks continuous improvement in its consultation approaches, and fosters relationships with organizations that can provide input into the planning for the Capital and the stewardship of federal lands. The NCC has a mandate to promote and communicate the value and contribution of the Greenbelt to the Capital and to Canadians both in and beyond the Capital to make the Greenbelt better known and appreciated.

The NCC has a long tradition of conserving and protecting natural environments and continues to manage and enhance the protection of natural areas in the Greenbelt. The Greenbelt's ecosystems help sustain the health and wellbeing of the residents in this region and enhance biodiversity, making this natural features area extremely valuable. Two of the NCC's seventeen Milestone Projects are particularly relevant to CHN forest and its trails:

- Secured ecological corridors and protected natural environment, and
 - Regeneration of the Capital urban forest.
- **Canada's Capital Greenbelt Master Plan 2013¹⁴⁷** – communicates the long-term direction for the NCC Greenbelt's 20,000 hectares of green space, including natural areas, forests, farms and wetlands. Created in the 1950s, it has since become the largest publicly owned greenbelt in the world. Approximately 75% of the Greenbelt is owned by the NCC, including the southern section of the CHN forest. The City's CHN forest area was added to the Greenbelt in 1996. While the City retains jurisdiction for its land, the NCC's Green's Creek Sector mandate includes supporting continued protection of this forested area and its sector plan guides planning and land use.¹⁴⁸

The Greenbelt Master Plan describes the Greenbelt's three main roles:

- Primary Role - Natural Environment;
- Secondary Role: Sustainable Agriculture and Capital Experiences & Recreation; and
- Tertiary Role: Facilities.

The CHN forest and its trails fall under the NCC's primary role of Natural Environment to protect and enhance natural areas, ecosystems and habitats. Such lands contain or support unique, threatened or endangered natural or cultural features, or are among the best examples of features

¹⁴⁶ NCC The Plan for Canada's Capital 2017-2067 at <http://s3.amazonaws.com/ncc-ccn/documents/PFCC-English-complete-optimized.pdf?mtime=20170503200838>

¹⁴⁷ NCC Canada's Capital Greenbelt Master Plan 2013 at <http://ncc-ccn.gc.ca/our-plans/greenbelt-master-plan>

¹⁴⁸ NCC Canada's Capital Greenbelt Master Plan 2013 Section 7.7 Green's Creek at <http://ncc-ccn.gc.ca/our-plans/greenbelt-master-plan>

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that represent Greenbelt diversity, and are designated Core Natural Areas¹⁴⁹ with high-value ecosystems and habitats (HVEH). These areas represent outstanding examples of Greenbelt value, such as significant woodlands.¹⁵⁰ The HVEH designation respects the framework of protected management area categories developed by the International Union for the Conservation of Nature (IUCN).¹⁵¹

To ensure protection of the NCC Greenbelt's natural environment, allowable and prohibited activities and uses are spelled out in the Master Plan¹⁵²:

- **Allowable:** non-intensive passive and/or linear recreation uses (low-impact multi-use trails or boardwalks to support walking, hiking, nature interpretation, cross-country skiing, snow-shoeing), and wayfinding and interpretive signs; research; cycling on designated trails; geo-caching and orienteering; low impact federal training facilities; and federal facilities.¹⁵³
 - **Prohibited:** new facility area; new stormwater management facilities; agriculture; motorized access along recreational trails; and any other uses that would degrade natural features and functions, fragment features or undermine ecosystems. Seasonal restrictions may occur for some of the listed allowable Activities and Uses.
- NCC also identifies its natural areas by allowed and not permitted recreational usages due to considerations such as sensitive natural ecosystems, trail erosion and user conflict, e.g. certain NCC Greenbelt and Gatineau Park areas are designated "hiking and walking" (no mountain biking), others "shared" (mountain biking, hiking/walking), while some are specifically for snowshoeing or cross-country skiing. Other jurisdictions also specify which recreational uses are allowed.¹⁵⁴
 - **Capital Urban Lands Plan 2015**¹⁵⁵ – focus is the NCC's urban lands. The plan complements and supports other NCC plans, such as the Greenbelt Master Plan, Gatineau Park Master Plan¹⁵⁶ and Capital Core Area.
 - **Gatineau Park Master Plan Review**¹⁵⁷ and **Responsible Trail Management Project**¹⁵⁸ - The FVTWG has noted with interest the NCC's review of Gatineau Park and its Trails in terms of process, outcomes and plans. There was considerable concern and interest surrounding the Park's long-

¹⁴⁹ NCC Canada's Capital Greenbelt Master Plan 2013 Section 5.2.1 Core Natural Area pp. 58-59 at <http://ncc-ccn.gc.ca/our-plans/greenbelt-master-plan>

¹⁵⁰ See FVTWG Report Annex A Part A - City of Ottawa, Significant Woodland

¹⁵¹ NCC Canada's Capital Greenbelt Master Plan 2013 Section 5.2 Natural Environment – Core Natural Areas, p. 58 at <http://ncc-ccn.gc.ca/our-plans/greenbelt-master-plan>; and FVTWG Report Annex B Assessment Item 6 NCC Environmental Designations – Core Natural Areas and HVEH

¹⁵² NCC Canada's Capital Greenbelt Master Plan 2013 Table 5.1 Core Natural Area, p.59; and FVTWG Report Annex B Assessment Item 6

¹⁵³ FVTWG Report, Annex B Assessment Item 6 Core Natural Area; and NCC Greenbelt Master Plan, Core Natural Areas Table 5.1

¹⁵⁴ Other examples where recreation uses have been designated: Ottawa conservation areas and certain NCC Greenbelt sectors specify allowed uses on certain trails (walking, hiking, snowshoeing and cross-country skiing) e.g. Green's Creek, Stony Swamp; Mer Bleue, Southern Farm, Pinhey Forest, Pine Grove and Shirley's Bay <http://ncc-ccn.gc.ca/hiking-and-walking>. Parks Canada Rouge National Urban Park does not permit biking on its trails. <https://www.pc.gc.ca/en/pn-np/on/rouge/activ/bicyclette-bike>

¹⁵⁵ NCC Canada's Capital Urban Lands Plan 2015 at <http://ncc-ccn.gc.ca/our-plans/urban-lands-plan>

¹⁵⁶ NCC Gatineau Park Master Plan 2005 at <http://ncc-ccn.gc.ca/our-plans/gatineau-park-master-plan>

¹⁵⁷ NCC Gatineau Park Master Plan Review at <http://ncc-ccn.gc.ca/our-plans/gatineau-park-master-plan>

¹⁵⁸ NCC Gatineau Park Responsible Trail Management Project 2018-2021 at <http://ncc-ccn.gc.ca/our-projects/responsible-trail-management-in-gatineau-park#TRAILS-10A>

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term protection; conservation and sustainability challenges; increased number of visitors; growing demand for passive and active recreation facilities; improved public education and awareness; and stresses on the park's ecology and biodiversity. Between 2014 and 2017, public consultations were held to share information and find solutions to reduce the environmental impact caused by the use of unofficial trails.

The Responsible Trail Management project 2018-2021 aims to meet the NCC's environmental obligations and comply with Gatineau Park's conservation mandate, while enriching the offer of recreational opportunities by providing a variety of outdoor experiences. The NCC is undertaking the following:

- Naturalizing approximately 200 kilometres of unofficial trails, to protect sensitive habitats, and these trails will no longer be accessible to users;
 - Integrating approximately 100 kilometres of unofficial trails into the official trail network, and these trails will be accessible to users.
- **Capital Pathway Strategic Plan 2006¹⁵⁹** - a multi-use, recreational and tourist network across the Capital Region. The network extends to and links natural and built areas by providing access to waterways and green spaces, as well as cultural and heritage features. User education and awareness programs promote pathway sharing. The network is connected to other non-motorized transportation networks within the region and in communities to encourage sustainable transportation, and forms a key component of the Capital's recreational and cycling experience. The current Capital Pathway Review will renew the vision, guiding principles and standards; set priorities for the next 10 years and harmonize federal and municipal planning, where possible.
 - **Environment Report 2016-2017¹⁶⁰** – NCC's environmental performance. Renewal of the NCC's Environment Strategy is in process. The NCC is studying various biodiversity and ecosystem health indicators to assist in making informed natural resource management decisions. Wildlife and plant inventories conducted; ecological integrity of habitats monitored; and human activities analyzed. CHN forest and its informal trails are being reviewed by NCC biologists and other staff.
 - **Natural Capital - The Economic Value of the NCC's Green Network 2016¹⁶¹** – study conducted by the David Suzuki Foundation of 13 ecosystem services and benefits provided by Canada's Capital green space, e.g. erosion control, biodiversity habitat, aesthetics, recreation, pollination, climate regulation, water filtration, air quality control. The economic value of all natural and cultivated NCC green space averages \$332 million per year.
 - **National Capital Greenbelt Trails¹⁶² and Parks, Paths and Pathways¹⁶³** – online maps, public awareness and other information about the NCC's trail network, parks and paths.

¹⁵⁹ NCC Capital Pathway Strategic Plan 2006 and Review at <http://ncc-ccn.gc.ca/our-plans/capital-pathway-strategic-plan>

¹⁶⁰ NCC Annual Environment Report 2016-2017 at http://s3.amazonaws.com/ncc-ccn/documents/EnviroAnnReport-2016-17_EN_Web-144dpi.pdf?mtime=20171103154009

¹⁶¹ NCC Natural Capital Economic Value of the NCC's Green Network 2016 at <http://ncc-ccn.gc.ca/posts/natural-capital-the-economic-value-of-ncc-green-spaces>

¹⁶² NCC National Capital Greenbelt All-Seasons Trails at <http://s3.amazonaws.com/ncc-ccn/documents/national-capital-greenbelt-all-seasons-trail-map.pdf?mtime=20170504133734>

¹⁶³ NCC Parks, Paths and Pathways at <http://ncc-ccn.gc.ca/places-to-visit/parks-paths-and-parkways>

C - The Rideau Valley Conservation Authority (RVCA)¹⁶⁴

- **Rideau Valley Conservation Authority¹⁶⁵** – one of the province’s 36 Conservation Authorities. Under Ontario’s Conservation Authorities Act, the RVCA is responsible for furthering the conservation, restoration, development and management of natural resources in the watershed and protecting people and property from natural hazards like flooding and erosion. Watershed planning is an integrated ecosystem approach to land use planning. It aims to balance environmental protection, conservation and restoration with development and land use practices to ensure long term health.

RVCA Vision is a thriving watershed with clean abundant water, natural shorelines, rich forests and wetlands, diverse habitat and sustainable land use that is valued and protected by all. RVCA’s mission is to understand, manage, protect, restore and enhance the Rideau watershed through science, stewardship, education, policy and leadership.

Municipal Planning and Regulations¹⁶⁶ - sound land use and municipal planning is a critical part of protecting land and water. Approvals and permits may be required.¹⁶⁷ The RVCA: (a) regulates construction in and along environmentally sensitive areas such as floodplains, steep slopes, shorelines, wetlands and waterways (Ontario Regulation 174/06 — Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation); (b) reviews development proposals (municipal plan/Planning Act review) within or adjacent to natural areas; and (c) administers Part 8 of the Ontario Building Code on behalf of the City of Ottawa by reviewing and issuing Building Permits for construction, enlargement and/or alteration of sewage disposal systems.

- **City Stream Watch Program¹⁶⁸** – in 2013, the monitoring program included 8 partners: the Rideau Valley Conservation Authority, City of Ottawa, NCC, Heron Park Community Assoc., Ottawa Flyfishers Society, Ottawa Stewardship Council, Rideau Roundtable, and National Defence HQ Fish & Game Club.

Voyageur Creek 2013 Summary Report¹⁶⁹ – monitoring report by City Stream Watch. Voyageur Creek Subwatershed #3 is located in Ottawa East Watershed, and is under the jurisdiction of the provincial Rideau Valley Conservation Authority.¹⁷⁰ Voyageur Creek is a 6 km long tributary of the Ottawa River located in Chapel Hill North and flows northward through CHN forested ravines. 71% of the adjacent land use is natural areas (forest with some scrubland and meadow), 14% residential, and 15% a mix of recreational, industrial and infrastructure. Informal trails and unsanctioned bridges and boardwalks criss-cross the creek, low water line and embankments.

¹⁶⁴ FVTWG Report Annex B Assessment Item 8 RVCA

¹⁶⁵ Rideau Valley Conservation Authority Vision, Mission and Mandate at <https://www.rvca.ca/about-us>

¹⁶⁶ Rideau Valley Conservation Authority Planning and Regulation at <https://www.rvca.ca/regulations-planning>

¹⁶⁷ City of Ottawa Official Plan, Section 4.7 Environmental Protection at <https://ottawa.ca/en/city-hall/planning-and-development/official-plan-and-master-plans/official-plan/volume-1-official-plan/section-4-review-development-applications#4-7-environmental-protection>

¹⁶⁸ Rideau Valley Conservation Authority City Stream Watch Program at <https://www.rvca.ca/volunteer/city-stream-watch>

¹⁶⁹ Rideau Valley Conservation Authority Voyageur Creek 2013 Summary Report https://www.rvca.ca/media/k2/attachments/Final_CSW2013_VoyageurCreek.pdf

¹⁷⁰ City of Ottawa Official Plan Annex 2A – *Watershed and Subwatershed Plans* at https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/annex_2a_en.pdf

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Voyageur Creek Subwatershed Profile in 2013: ¹⁷¹

- Land uses - 33% forest, 51% urban and 15% agriculture.
- Surface geology - 53% clay, 29% sand and 10% bedrock.
- Watercourse - 86% natural, and flow type is 78% permanent and 22% ephemeral.
- Extensive stream shading along the creek through forested ravines which moderate stream temperature, contributes to food supply and nutrient reduction.
- 86% of the stream sections had observable garbage (opportunity for instream restoration).
- Bank erosion is seen along most of the creek. Eight invasive species observed. Two fish species captured, no game fish present.
- Vegetation cover is 99% wooded areas. Five woodlots account for 78% of the woodlot cover, each being greater than 30 hectares.

¹⁷¹ City Stream Watch, RVCA and seven partners - Voyageur Creek 2013 Summary Report at <https://www.rvca.ca/watershed-monitoring-reporting/reporting/city-stream-watch-reports>

Annex B: Assessment of Policies and Plans, Reports, Correspondence and Residents' Concerns

The table in this Annex provides the rationale linking the many sources of information from the NCC, City and RVCA legislation, policies, expert reports, urban forest best management practices and Chapel Hill North residents' interests and concerns, to the recommendations in the seven key Priorities described in Chapter 2.

This Assessment follows a deductive reasoning methodology. Sources of information, called Factors in the table, were assessed to determine their implications for the recreational and maintenance activities in the Chapel Hill North forest and on its trails. These implications are not necessarily recommended actions in themselves but rather identify the main themes in the source documents.

The Assessment table is organized into six sections (A to F) that reflect the major themes arising from the information sources, and their 24 factors. These themes and factors are developed into the key recommended actions for the seven Priorities described in Chapter 2.

A. Environmental Status of the Chapel Hill North forest

1. Forest Ownership and Management
2. Governance
3. Zoning
4. City of Ottawa Designation – Urban Natural Feature
5. City of Ottawa Designation – Significant Woodland
6. NCC Environmental Designations – Core Natural Area, High Value Ecosystem Habitat
7. Forestglen Park Designation
8. Rideau Valley Conservation Authority

B. Topography of the Chapel Hill North forest

9. Topography of the Chapel Hill North Forest

C. Permissible Forest Activities and their Enforcement

10. Health Benefits
11. Jurisdiction over Activities and Maintenance
12. City of Ottawa – Trail Recreational Activities
13. Government Policy and By-Law Enforcement

D. Best Practices of Other Urban Forests

14. Best Practices of Other Urban Forests

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E. Observed Terrain Degradation and Corrective Measures

15. Trail Proliferation
16. Trail Locations
17. Erodible and Wet terrain
18. Tree Maintenance
19. Structures
20. Forest Maintenance and Trail Design Responsibility

F. Concerns of Chapel Hill North Community Residents

21. Recreational Activities and Trail Design
22. Conflict between Users
22. Dogs
24. Forest Entry and Exit Points, Parking and Traffic

Annex B: Assessment of Policies and Plans, Reports, Correspondence and Residents' Concerns		
Item	Factors	Implications
A. Environmental Status of the Chapel Hill North Forest¹⁷²		
1.	<p>Forest Ownership and Management</p> <ul style="list-style-type: none"> • The CHN forest is one contiguous forest sitting on public land. The southern three-quarters of the area is owned by the federal government and managed as part of the Greenbelt by the NCC. The northern quarter is owned and managed by the City of Ottawa. The provincial government has regulatory authority over the watershed and watercourses throughout the entire area that is exercised by the RVCA.¹⁷³ Annex D describes the key NCC, City and RVCA policies of relevance to the CHN forest. • Soliciting the views and concerns of local residents on the use and sustainability of urban forests and watercourses figure prominently in the City, NCC and RVCA environmental communication outreach plans.¹⁷⁴ 	<ul style="list-style-type: none"> • The thrust of government documents described in Annex D require the appropriate government approvals be obtained for the recreational activities and maintenance residents may want in the forest and on its trails. • The federal, provincial and municipal legislation, policies, plans and reports pertaining to forested areas like the CHN forest must be identified and their content and application understood as a first step in developing options for recreational activities and maintenance in the CHN forest and on its trails • Since the area is on contiguous forest, a collaborative

¹⁷² FVTWG Report Annex A Policy Framework for Environment and Land Use Planning for a description of the key NCC, City and RVCA policies of relevance to the CHN forest.

¹⁷³ FVTWG Report Annex A Policy Framework, Rideau Valley Conservation Authority <https://www.rvca.ca/about-us>

¹⁷⁴ City of Ottawa, Putting Down Roots for the Future: Ottawa's Urban Forest Management Plan 2018-2037, Section 5.4, pages 168-177 describe Outreach program objectives; National Capital Commission, Capital Urban Lands Plan, 2015, pages 1-2, 58 and 105; and Rideau Valley Conservation Authority Strategic Plan 2020, page 6.

PROTECTION, SUSTAINABILITY AND MAINTENANCE OF THE CHAPEL HILL NORTH FOREST AND ITS TRAILS

Annex B: Assessment of Policies and Plans, Reports, Correspondence and Residents’ Concerns		
Item	Factors	Implications
		<p>working relationship should be fostered between the three levels of government for them to address the interests and concerns that Chapel Hill North residents have for the CHN forest.</p> <ul style="list-style-type: none"> • In consultation with the RVCA, and with CHNCA and residents, the City of Ottawa and NCC collaborate, coordinate and cooperate on the establishment of an overarching environmental forest management plan for the CHN forest that serves current and future uses and activities.
2.	<p>Governance The City of Ottawa’s Official Plan,¹⁷⁵ Urban Forest Management Plan (2016)¹⁷⁶ and Park Development Manual (2017),¹⁷⁷ the NCC’s Canada’s Capital Greenbelt Master Plan (2013)¹⁷⁸ and its Capital Urban Lands Plan (2015)¹⁷⁹, and associated RVCA Subwatershed Reports¹⁸⁰ emphasize that the protection and sustainability of the CHN forest and its trails is an underlying priority for the federal, provincial and municipal levels of Government.</p>	<ul style="list-style-type: none"> • The CHNCA should promote these policies, plans and priorities and collaborate with the NCC, City and RVCA in their implementation with respect to the environmental, forestry, water management and recreational activities in the CHN forest and its trails. • Actions supporting both the letter and spirit of the objectives described in these policies and plans is a mandatory requirement. • Unauthorized maintenance or alterations to the terrain are unacceptable.
3.	<p>Zoning</p> <ul style="list-style-type: none"> • The City area of the CHN forest is zoned as “EP – Environmental Protection”.¹⁸¹ Its purpose is to: <ul style="list-style-type: none"> • “recognize lands which are designated in the City of Ottawa’s Official Plan as Significant wetlands, Natural Environment Areas and Urban Natural Features that 	<ul style="list-style-type: none"> • Actions must be compatible with, and assist in the protection and maintenance of the environmental attributes inherent in the area’s environmental status.

¹⁷⁵ City of Ottawa, Official Plan, Section 2.1 Strategic Directions.

¹⁷⁶ City of Ottawa, Putting Down Roots for the Future: Ottawa’s Urban Forest Management Plan 2018-2037.

¹⁷⁷ City of Ottawa Park Development Manual, 2nd Edition, 2017.

¹⁷⁸ Canada’s Capital Greenbelt Master Plan (2013).

¹⁷⁹ NCC Capital Urban Lands Plan, 2015, at <https://ncc-ccn.gc.ca>

¹⁸⁰ Rideau Valley Conservation Authority Subwatershed Reports at <https://www.rvca.ca>

¹⁸¹ City of Ottawa Official Plan, Volume 1, Schedule B Urban Policy Plan; email dated 8 August 2017 from City of Ottawa Planning Infrastructure and Economic Development Department, City of Ottawa and maps.ottawa.ca/geoOttawa

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	<p>contain important environmental resources which must be protected for ecological, educational and recreational reasons;</p> <ul style="list-style-type: none"> • permit only those uses which are compatible with and assist in the protection of the environmental attributes of these lands, or are in keeping with applicable Official Plan policies; and • regulate development to minimize the impact of any buildings or structures within these environmental areas.”¹⁸² • The area is assessed as being of high ecological integrity.¹⁸³ • “The City of Ottawa intends to manage growth by conserving and regenerating the natural environment. This must happen at every level – sites, neighbourhoods and the City as a whole. Green spaces that perform important linkage functions must be identified and protected.”¹⁸⁴ 	
4.	<p>City of Ottawa Environmental Designation – Urban Natural Feature</p> <ul style="list-style-type: none"> • The City area of the CHN forest is designated as an “Urban Natural Feature”.¹⁸⁵ As such: <ul style="list-style-type: none"> • it is to be managed for conservation and passive leisure uses;¹⁸⁶ • “development and site alteration are prohibited;”¹⁸⁷ • it “is to be maintained in a natural state, primarily for its environmental values, but also for its social and cultural values;”¹⁸⁸ • “only activities consistent with the protection of the area’s environmental values may occur;”¹⁸⁹ and • “development and site alteration is not permitted within 30 metres of the boundary 	<ul style="list-style-type: none"> • Maintain the area as close to the natural state as practical for primarily environmental values. • Recreational uses that are not appropriate or permitted in protected forest areas due to its soil, trees, flora and fauna, watercourse, ecology, biodiversity, season or weather conditions, should be avoided in the present and future. • Support activities that restore and sustain the natural environment;

¹⁸² City of Ottawa Zoning By-law 2008-250, Part 9, Environmental Zones, Sections 183-184.

¹⁸³ City of Ottawa Urban Nature Area Environmental Evaluation Assessment (UNAEES) by D.F. Brunton, 2003.

¹⁸⁴ City of Ottawa, St. Joseph Boulevard Corridor Study 2003, page 3.

¹⁸⁵ City of Ottawa Official Plan, Volume 1, Schedule B Urban Policy Plan; email dated 8 August 2017 from City of Ottawa Planning Infrastructure and Economic Development Department and maps.ottawa.ca/geoOttawa

¹⁸⁶ City of Ottawa Official Plan, Volume 1, Section 3.2.3 Urban Natural Features and Schedule B Urban Policy Plan.

¹⁸⁷ City of Ottawa Recreation Cultural and Facility Services Department and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to Question 2 i in the Walkabout Responses, 25 October 2017.

¹⁸⁸ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to Question 2 i in the Walkabout Responses, 25 October 2017.

¹⁸⁹ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to Question 2 ii in the Walkabout Responses, 25 October 2017.

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	<p>of a designated Urban Natural Feature unless an Environmental Impact Statement demonstrates there will be no negative impacts on the natural features within the area of their ecological functions.”¹⁹⁰</p>	<ul style="list-style-type: none"> • Avoid recreational trails within 30 metres of the CHN forest boundary; • Include environmental impact studies conducted by the appropriate technical authority as necessary. • Discourage all activities and remove structures that could damage the environment and the natural state of the CHN forest; and • Restore areas of terrain alteration to their natural state where appropriate.
5.	<p>City of Ottawa Environmental Designation – Significant Woodland</p> <ul style="list-style-type: none"> • The City owned area of the CHN forest is considered a “Significant Woodland” as defined in the land use policy of the City’s Official Plan’s approved in 2016 and is in accordance with the Ontario Provincial Policy Statement under the Planning Act of 2014, which reflect minimum standards that communities are encouraged to exceed. A Significant Woodland is defined as a wooded area greater than or equal to 0.8 hectares or two acres in size or 40 years of age and their socio-economic and cultural value, which this area meets.¹⁹¹ • Significant Woodlands are subject to the “no negative impact” test under the Provincial Policy Statement that stipulates, “development and site alteration shall not be permitted in... significant woodlands... unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.” In Ottawa, the no negative impact test is applied according to the Council-approved Environmental Impact Statement (EIS) Guidelines;¹⁹² • Mitigation measures must be identified for each potential negative impact, to eliminate or reduce the impact to the extent possible. The preferred mitigation measures avoid or minimize impacts, and may be supported by compensatory measures such as site rehabilitation or restoration.¹⁹³ • The City requires an Environmental Impact Statement (EIS) for development within or 	<ul style="list-style-type: none"> • Collaborate with the appropriate government levels in the development of an environmental and forest management plan for CHN forest that considers the impacts of any land-use activities on natural features, develops a plan to mitigate adverse effects, and protects, enhances and restores the natural system for the pleasure of all. • Encourage City forestry or other expert staff to determine the current environmental status of the significant woodland and identify sensitive areas and flora and fauna in need of protection and locations of invasive, poisonous or noxious plant species to be avoided. • Encourage a “no negative impact test” be conducted for any site alteration using the Official Plan Environmental Impact Statement Guidelines. • Adopt an approach that avoids or eliminates environmental impact of any existing or planned trail

¹⁹⁰ City of Ottawa Official Plan, Volume 1, Section 3.2.3 Urban Natural Features and Schedule B Urban Policy Plan.

¹⁹¹ City of Ottawa Significant Woodlands Policy Implementation Working Group Terms of Reference; Planning Infrastructure and Economic Development Department, Economic Development Services, City of Ottawa, 12 June 2018; and Provincial Policy Statement, 2014, Part III.

¹⁹² City of Ottawa Official Plan, Volume 1 Section 4.7.8 Environmental Impact Statement Guidelines and Canada’s Capital Greenbelt Master Plan, November 2013, page 144 .

¹⁹³ Government of Ontario, Provincial Planning Statement under the Planning Act 2014, Section 2.1, pages 22-23 and page 45, and City of Ottawa Environmental Impact Statement Guidelines, October 2015, Section 3.5 page 33 and page 53.

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	adjacent to Significant Woodlands, valley lands, wildlife habitats etc. to demonstrate there will be no negative impact or degradation that threatens the health and integrity of the natural feature or ecological functions. ¹⁹⁴	<p>design wherever necessary.</p> <ul style="list-style-type: none"> • Provide environmental damage mitigation, rehabilitation and restoration measures as a central feature. • Request the RVCA review any work or activity planned for the CHN forest or on its trails as required under the Ontario Conservation Act.
6.	<p>NCC Environmental Designations – Core Natural Area, High Value Ecosystem Habitat</p> <ul style="list-style-type: none"> • The NCC part of the CHN forest <ul style="list-style-type: none"> • is part of the Greenbelt; • is designated as a “Core Natural Area”; • considered a “High Value Ecosystem Habitat”; • has the same “EP – Environmental Protection” zoning as the City owned area of the CHN forest.¹⁹⁵ • It is one of only ten Core Natural Areas in the Greenbelt.¹⁹⁶ Core Natural Areas are defined by the NCC as areas representing “ecologically sensitive habitats that contain or support unique, threatened or endangered species and natural features, or are among the best examples of these in the Capital Region. [They] consist of provincially and globally significant wetlands, habitat of threatened and endangered species, wildlife habitat, woodlands, sand dunes, Areas of Natural & Scientific Interest, fish habitat, escarpment geology.”¹⁹⁷ • The key planning and land use document for this forest area is the NCC’s Greenbelt Master Plan. A related document is the NCC Capital Urban Lands Plan that concerns federal lands in the core of the city extending out to the inner border of the Greenbelt.¹⁹⁸ Although it does not include the Greenbelt, its general information and definitions are still relevant. Both Plans are guided by the NCC’s overarching strategic document The Plan for Canada’s Capital 2017-2067. • The aim of the Capital Urban Lands Plan is to: <ul style="list-style-type: none"> • ensure local and regional biodiversity in valued natural habitats; 	<p>With reference to the NCC area of CHN forest:</p> <ul style="list-style-type: none"> • include a review by NCC technical staff to determine the current environmental status of the significant woodland and identify sensitive areas and flora and fauna in need of protection and locations of invasive, poisonous or noxious plant species to be avoided; • include the NCC equivalent of the “no negative impact test” for any site alteration; • adopt an approach that avoids or eliminates environmental impact of any existing or planned trail design wherever necessary; • provide environmental damage mitigation, rehabilitation and restoration measures as a central feature of trail design in the CHN forest; • request the RVCA review any work or activity planned for the CHN forest or on its trails as required under the Ontario Conservation Act.

¹⁹⁴ City of Ottawa Official Plan, Volume 1 Section 4.7.8 Environmental Impact Statement Guidelines.

¹⁹⁵ City of Ottawa Zoning information at www.mapsottawa.ca/geoottawa

¹⁹⁶ NCC Canada’s Capital Greenbelt Master Plan, November 2013, pages 55, 58 and 122-123.

¹⁹⁷ NCC Canada’s Capital Greenbelt Master Plan, November 2013, Table 5.1 and Section 5.2.1

¹⁹⁸ NCC Capital Urban Lands Plan at <http://ncc-ccn.gc.ca/our-plans/urban-lands-plan>

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	<ul style="list-style-type: none"> reinforce vegetative cover in urban settings to enable the strengthening the regional biodiversity; and promote contact with green spaces and blue spaces, the natural environment and valued habitats for the benefit of all, as a priceless resource and a vital space for the future in an increasingly urbanized region”.¹⁹⁹ 	
7.	<p>Forestglen Park Designation</p> <ul style="list-style-type: none"> Forestglen Park which has a children’s play structure, borders the northeast end of the City-owned area of the CHN forest. It is zoned “O1 – Parks and Open Space.”²⁰⁰ It is designated as a parkette that the City defines as a small park “located within walking distance of residents. They provide central green space and social gathering places within neighbourhoods, and offer predominantly passive recreation and minor active recreation opportunities within a local residential or mixed-use neighbourhood. Parkettes can improve connectivity within neighbourhoods, provide interesting focal points, enhance built form and contribute to community character, providing a place for residents to interact, children to play and social events to occur.”²⁰¹ 	<ul style="list-style-type: none"> The use of Forestglen Park as an access point to the CHN forest could be contrary to the Park’s design and intended benefit to the local community. Available parking for those who drive to the forest will decrease on-street residential parking and increase traffic on residential streets around the parkette as the population and activity levels on trails in the CHN forest grows.
8.	<p>Rideau Valley Conservation Authority</p> <ul style="list-style-type: none"> The RVCA is one of 36 conservation authorities in Ontario. Its role is to “administer Ontario Regulation 174/06 “Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation” under Section 28 of the Conservation Authorities Act. In this particular case [i.e. the City part of the CHN forest], only a project that requires any alteration, straightening, changing, diverting or interfering in any way with any watercourse requires the prior written approval from the Conservation Authority (including watercourse crossings). The RVCA’s regulatory jurisdiction does not extend beyond the watercourse itself for Voyageur Creek at this time. The second role is an advisory role to the Municipality under the Planning Act. When a Planning Act application is triggered, the RVCA is circulated, and provides comments in relation to Section 1.6.6 Sewage, Water and Stormwater, Section 2.1 Natural Heritage, Section 2.2 Water and Section 3.1 Natural Hazards.”²⁰² 	<ul style="list-style-type: none"> The RVCA should be briefed on the FVTWG Report and their advice and recommendations incorporated before any work commences.

¹⁹⁹ NCC Capital Urban Lands Plan, 2015, page 30.

²⁰⁰ City of Ottawa Zoning map at www.maps.ottawa.ca/geoottawa

²⁰¹ City of Ottawa Park Development Manual, 2nd Edition, 2017, Article 2.4.4, page 21.

²⁰² Rideau Valley Conservation Authority response dated 26 July 2017 to questions posed by the FVTWG.

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	<ul style="list-style-type: none"> Permits may be required from the RVCA before any bridging repairs or new construction near watercourses is undertaken.²⁰³ 	
B. Topography of the Chapel Hill North Forest – See Annex E photographs 13, 14, 15, 16, 17, 34 and 35		
9.	<ul style="list-style-type: none"> CHN forest is one contiguous forest about 97 hectares or one square kilometre with different terrain features. <ul style="list-style-type: none"> The NCC area is 70 hectares or 169 acres and part of the Greenbelt. It is primarily flat to gently sloped terrain with some open spaces with a 6.5 km network of wider, open looping trails.²⁰⁴ The City area is 27 hectares or 65 acres consisting of steeply sloped ravines and hills with a dense 5 km network of inter-connected single-track trails.²⁰⁵ The forest area and trail lengths equate to a trail density of 1 trail km per 10 hectares or 26 acres for the NCC land and 1 km per 5 hectares or 15 acres for the City land. By comparison, the trail density in the NCC Stoney Swamp sector is trail density of 1 km of trail per 162 acres. The City area of the CHN forest “is similar to the other east-end ravine lands, in which we tend to have mature, mixed forests on clay soils, with steep slopes where erosion may be an issue. The undulating micro-topography of this particular forest reflects the fact that it lies on an old, post-glacial landslide.”²⁰⁶ CHN forest has largely Eastern Hemlock and Sugar Maple species and more mature vegetation, however there is no full inventory of the forest.²⁰⁷ The soil and terrain of the greenspace centered on Voyageur Creek is highly erosive in nature.²⁰⁸ A special environmental constraint of the CHN forest area is its unstable slopes.²⁰⁹ Deposits of Leda clay underlying the valleys and ravines of Orleans are a special environmental 	<p>The topography indicates:</p> <ul style="list-style-type: none"> the trail density proposed for the CHN forest trail design must be supported by a sufficient amount of natural area consistent with good forest management practices and regulations. a natural environment conducive to tree and vegetation growth and proliferation which helps retain the soil throughout the area should be created; keeping or locating trails on erosive terrain should be avoided; and the specific soil, slope and erodible conditions of the CHN forest should be considered in the design and maintenance of the trail layout as opposed to adopting methods used in other forests where different conditions exist. the type of topography and vegetation could be described in interpretation panels along the trails.

²⁰³ Rideau Valley Conservation Authority report on Walkabout conducted on 25 September 2017.

²⁰⁴ CHNCA Blogspot, Forest Valley Trails – Notes provided by the City of Ottawa at the 17 May 2017 Public Meeting.

²⁰⁵ CHNCA Blogspot, Forest Valley Trails – Notes provided by the City of Ottawa at the 17 May 2017 Public Meeting.

²⁰⁶ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to Question 1 iv of the Walkabout Responses, 25 October 2017.

²⁰⁷ Forestry Section Manager, Parks, Forestry and Surface Water Services, City of Ottawa, June 12, 2018.

²⁰⁸ City of Ottawa Official Plan Volume 1, Schedule K Environmental Constraints and Co-Chair Greenspace Alliance, report on the Walkabout conducted on 25 September 2017.

²⁰⁹ City of Ottawa Official Plan, Schedule K Environmental Constraints https://documents.ottawa.ca/sites/documents.ottawa.ca/files/documents/schedule_k_en_0.pdf

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	constraint in terms of unstable slopes. In 2017, Ottawa issued Guidelines for tree planting in areas of sensitive marine clay soils. ²¹⁰	
C. Permissible Forest Activities and Enforcement		
10.	<p>Health Benefits Public Health and medical communities recognize the direct links between urban forests like the CHN forest and the positive health benefits not only for users but also for residents in the local area. The benefits include:</p> <ul style="list-style-type: none"> • promotion of outdoor activities and walkability; • reduction of the perceived severity of stressful life events; • improved physical health and well-being; • improved mental health and cognitive functioning; • improved air quality and cooling; and • increased social cohesion and strengthened communities.²¹¹ 	<p>Actions are required to:</p> <ul style="list-style-type: none"> • actively support the health benefits of urban forests and greenspaces; • protect and enhance the ground vegetation and tree canopy throughout the forest as much as possible; • include both public awareness and trail design measures that discourage inappropriate activities that harm the environment or lessen the value of the trail experience for other users; and • provide for trail design that is inviting and accessible for users of all ages and activities.
11.	<p>Jurisdiction over Activities and Maintenance</p> <ul style="list-style-type: none"> • As the landowners and the government bodies with jurisdiction over their respective parts of the CHN forest, the City and NCC have authority to determine the recreational activities, trails and maintenance permitted in the forest. • Only activities consistent with the protection of the area’s environmental values are permitted on City lands zoned EP.²¹² • In Core Natural Areas like the CHN forest, the NCC allows only non-intensive, passive and/or linear recreational uses such as: <ul style="list-style-type: none"> • Low-impact multi-use trails or boardwalks to support walking, hiking, nature interpretation, cross-country skiing, snow-shoeing; • Wayfinding and interpretive signs; • Ecological research; • Cycling on designated trails. 	<p>Actions are required to:</p> <ul style="list-style-type: none"> • Discourage all activities and structures that could damage the environment and the natural state of the CHN forest; • Establish acceptable and unacceptable guidelines for personal conduct or activities in the CHN forest and on its trails; and • Educate residents and users through approved NCC and City signage, periodic media reports and forest trail user protocols about the: <ul style="list-style-type: none"> • Environmentally protected status of the CHN forest; • acceptable, unacceptable and incompatible trail

²¹⁰City of Ottawa Designing and Planning Guidelines, Tree Planting in Sensitive Marine Clay Soils 2017. <https://ottawa.ca/en/city-hall/planning-and-development/community-plans-and-design-guidelines/design-and-planning/completed-guidelines/tree-planting-sensitive-marine-clay-soils-2017-guidelines>

²¹¹ City of Ottawa, Putting Down Roots for the Future: Ottawa’s Urban Forest Management Plan 2018-2037, Section 1.3 pages 25-36.

²¹² City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to Question 2 ii in the Walkabout Responses, 25 October 2017.

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	<ul style="list-style-type: none"> • Geo-caching and orienteering events, in designated areas allowable by permit; • Low impact federal training activities; • Existing residences and federal facilities (i.e. fences, communication towers or antennas) that support facility operations without causing permanent ecosystem damage. Over the long term, remove residences and federal facility structures, as opportunities occur.”²¹³ • The NCC does not allow the following activities: <ul style="list-style-type: none"> • “new facility area • new stormwater management facilities • agriculture • motorized access along recreational trails • any other uses that would degrade natural features and functions, fragment features or undermine ecosystems. • seasonal restrictions may occur for some of the listed Allowable Activities”²¹⁴ • The federal government recognizes that seniors are a rapidly growing demographic segment of the population.²¹⁵ • The NCC has observed a general rise in pathway usage and the people using them are older which is trend it expects will continue.²¹⁶ 	<ul style="list-style-type: none"> • activities and behavior; • procedures for reporting environmental damage, fallen trees, safety issues and areas of invasive plant species; • each individual’s responsibility to report inappropriate activities and behavior and environmental damage to the NCC or City of Ottawa as appropriate; and • request an Environmental Assessment Study to determine whether the forest soil requires seasonal closures for some or all recreational activities in certain areas. • Recognize the needs and interests of older adults throughout the planning, designing, implementing, reviewing and monitoring of initiatives for CHN forest and its trails in the NCC-owned forest area.
12.	<p>City of Ottawa – Trail Recreational Activities</p> <ul style="list-style-type: none"> • The City describes trails within parks as either a Recreational Path or a Nature Trail as follows: <ul style="list-style-type: none"> • Recreational Paths are “primarily intended for recreational purposes and provide opportunities for safe, off-street movement throughout the City of Ottawa. They are designed to accommodate the needs of a wide range of users and provide links to the City’s wider pathway system as well as the on-street sidewalk system.”²¹⁷ • Nature Trails are “paths that serve various forms of non-vehicular movement and 	<ul style="list-style-type: none"> • “The wide range of uses and volumes of users” typical of recreational paths may need to be restricted either by user group or season, given the sensitive environmental status and soil conditions of the CHN forest. • Actions are required to: <ul style="list-style-type: none"> • conserve of the natural functions of terrain features, habitat and watercourses; • allow only less-intensive leisure activities; and

²¹³ NCC Canada’s Capital Greenbelt Master Plan (2013), Table 5.1, page 59.

²¹⁴ NCC Canada’s Capital Greenbelt Master Plan (2013), Table 5.1, page 59.

²¹⁵ Government of Canada, Actions for Seniors Report 2014.

²¹⁶ NCC Sophie Acheson, Senior Land Use Planner, The Future of the Capital Pathways: Let’s Talk Blog 9 February 2018.

²¹⁷ City of Ottawa Park Development Manual, 2nd Edition 2017, Article 2.5.2, page 28.

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	<p>connect to points of interest. Points of interest are areas such as vista points or watercourses.²¹⁸ They are low-impact paths located in sensitive environmental areas such as forests, and adjacent to wetlands or watercourses. Nature trails are designed to address the more passive recreation needs of pedestrians, and cross-country skiers, among other users.”²¹⁹</p> <ul style="list-style-type: none"> • “The paths [in the City area of the CHN forest] most resemble nature trails.”²²⁰ • The City area of the CHN forest is unsuitable for use as a multi-use path as defined by the City. • The City recognizes that the growing senior demographic is an important factor in their recreational and park planning²²¹ and requires a proactive response from the City of Ottawa to adapt infrastructure, programs and services to the needs of this expanding group of residents.²²² 	<ul style="list-style-type: none"> • investigate the advantages and disadvantages of requesting that the City part of the CHN forest be declared a Nature Trail. • The trail design layout should: <ul style="list-style-type: none"> • protect the surrounding natural context in which the trail is located and follow the “path of least resistance”; • locate trails in appropriate locations taking into account seasonal land and vegetation variations, such as wetlands, ephemeral pools and invasive, alien species that are harmful to health; • keep trails as narrow as possible to minimize the environmental impact and forest fragmentation; • avoid erodible slopes; • connect to “points of interest”; and • provide for safe pedestrian and cyclist connections between the trail, and street and sidewalk systems. • meet the requirements from the most recent Accessibility Design Standards from the City of Ottawa.²²³ • Recognize the needs and interests of older adults throughout the planning, designing, implementing, reviewing and monitoring of initiatives for CHN forest and its trails in the City-owned forest area.

²¹⁸ City of Ottawa Park Development Manual, 2nd Edition, 2017, Article 2.5.3, page 31.

²¹⁹ City of Ottawa Park Development Manual, 2nd Edition, 2017, Article 2.5.3, pages 30.

²²⁰ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to Question 1 ii in the Walkabout Responses, 25 October 2017.

²²¹ City of Ottawa, Older Adult Plan 2015-2018.

²²² Report to City Council by the Community and Protective Services Committee Report 8, October 28, 2015; City of Ottawa – Older Adult Plan 2015-2018.

²²³ City of Ottawa Park Development Manual, 2nd Edition, 2017, Article 2.5.3, page 31. Nature trails are not typically exempt from accessibility requirements associated with Wilderness Trails etc.

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13.	<p>Government Policy and By-law Enforcement</p> <ul style="list-style-type: none"> Enforcement of environmental policies and by-laws relies on local residents and forest users to report inappropriate activities and areas of environmental or other damage by calling the City of Ottawa Customer Service line at 311, or NCC Client Services line at 613-239-5000.²²⁴ 	<ul style="list-style-type: none"> Signage, websites, local newspapers, social media and forest trail user protocols of appropriate and inappropriate activities and behavior are methods of informing the public of the City’s reliance on the public reporting of inappropriate activities and environmental damage. Peer pressure can be used to inform people performing inappropriate behavior of proper conduct unacceptable trail activities.
D. Best Practices of Other Urban Forests		
14.	<ul style="list-style-type: none"> The best practices for trail protocols and design guidelines used by the following forest managers or trail users were reviewed: <ul style="list-style-type: none"> NCC – A Message to Greenbelt Trail Users;²²⁵ NCC – Mountain biking “Rules of the Trail”,²²⁶ Parks Canada – Banff National Park Biking Rules and Regulations;²²⁷ Rideau Valley Conservation Authority – Visiting a Conversation Area;²²⁸ Ontario Best Trails;²²⁹ Rouge National Urban Park (Scarborough);²³⁰ Simcoe County Forest – Code of Conduct for County Forest Users;²³¹ Limerick Forest, United Counties of Leeds and Grenville;²³² 	<ul style="list-style-type: none"> These best practices are directly applicable to the recreational activities in the CHN forest and on its trails particularly considering two of the sources are from the NCC. Encourage the NCC and City to adopt the appropriate best practices and trail placement recommendations used by other urban forests.

²²⁴ City of Ottawa Recreation Cultural and Facility Services Department, City of Ottawa Parks and Recreation Planner, in reply to a question during the FVTWG Walkabout on 25 September 2017 and Notes of the Meeting with the NCC Acting Chief Greenbelt and Senior Manager of Natural Resources and Land Management in response to questions, 30 November 2017.

²²⁵ NCC Message to Greenbelt Trail Users, National Capital Greenbelt All Seasons Trail Map at <http://s3.amazonaws.com/ncc-ccn/documents/national-capital-greenbelt-all-seasons-trail-map.pdf>

²²⁶ NCC Cycling in the Capital at <http://ncc-ccn.gc.ca/cycling>

²²⁷ Parks Canada at <https://www.pc.gc.ca/en/pn-np/ab/banff/activ/cyclisme-biking>

²²⁸ Rideau Valley Conservation Authority at <https://www.rvca.ca/conservation-areas/visiting-a-conservation-area>

²²⁹ Ontario’s Best Trails, Guidelines and Best Practices for the Design, Construction and Maintenance of Sustainable Trails for All Ontarians, Ontario Best Trails Collaborative, 2006 at https://www.recpro.org/assets/Library/Trails/ontario_guidelines_bmp_design_construction_maintenance_sustainable_trails.pdf

²³⁰ Rouge National Urban Park Cycling at <http://www.pc.gc.ca/en/pn-np/on/rouge/activ/bicyclette-bike>

²³¹ Simcoe County at <https://www.simcoe.ca/Forestry/Documents/Simcoe%20County%20Forests%20Recreation%20Policy%20FULL%20VERSION.pdf>

²³² Limerick Forest Twenty Year Forest Management Plan 2007-2027, Objectives.

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	<ul style="list-style-type: none"> • Whistler Trail Standards, Environmental and Technical Trail Features;²³³ • Toronto Natural Environment Trail Strategy²³⁴ • IMBA Canada Rules of the Trail;²³⁵ • IMBA Canada Mountain Bike Trail Building and Design.²³⁶ • These practices included: <ul style="list-style-type: none"> • keeping to the trail and not creating new ones; • giving the right of way to walkers and hikers over cyclists; • not picking or collecting plant, animal or geological specimens; • controlling pets at all times and picking up after them; • respecting seasonal closure of trails; • putting all garbage in cans and recycling containers or carry it out of the forest with them. • biking trails not be placed in community watersheds, hazardous areas such as unstable slopes, soil prone to erosion, cliffs, embankments and undercut stream banks, and areas of shallow rooted trees • cyclists are being advised to: <ul style="list-style-type: none"> • control their speed at all times; • slow down if their view of the trail ahead is restricted and assume someone is ahead of them and be prepared to stop; • avoid skidding their tires by hard braking; and • not go where their wheels sink into the trail because they can cause considerable damage to soft or wet soils. • The RVCA allows only hiking and walking in Conservation Areas. • The Rouge National Urban Park does not permit biking on its nature (off-road) trails. 	
E. Observed Terrain Degradation and Corrective Measures (See Annex E Photographs 12, 19 to 30)		
15.	<p>Trail Proliferation</p> <ul style="list-style-type: none"> • Although the NCC and City have allowed people to use the trails for some time, both consider them as unofficial and unsanctioned and do not necessarily agree with their 	<ul style="list-style-type: none"> • The current trail status and conditions indicate the current layout: <ul style="list-style-type: none"> • inconsistent with the requirements of the NCC, City

²³³ Whistler Trail Standards, Environmental and Technical Trail Features, Resort Municipality of Whistler, 2003.

²³⁴ City of Toronto Natural Environment Trail Strategy 2013 <https://www.cip-icu.ca/Files/Awards/Planning-Excellence/City-of-Toronto-Natural-Environment-Trail-Strategy.aspx>

²³⁵ International Mountain Bicycling Association Canada Rules of the Trail at <http://www.imbacanada.com>. These rules are almost identical to the US IMBA rules.

²³⁶ Mountain Bike Trail Building and Design at www.imbacanada.com/resources/trail-building

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	<p>current layout.²³⁷</p> <ul style="list-style-type: none"> • The landscape is fragmented by the proliferation and density of trails and is not conducive to the environmental protection of the City area of the CHN forest.²³⁸ • The City position is that “action should be taken to reduce the proliferation of paths, to adjust some of the paths, and to address existing or potential problems of erosion.”²³⁹ The NCC’s position is that the trails should be enhanced and rationalized.²⁴⁰ • A striking feature of the City area of the CHN forest was that “many of the paths follow the crest of slopes and some were dug into the sides of the slopes.”²⁴¹ • “Trail layout appears to have evolved primarily from mountain biking use (short loops that can be ridden in both directions and combined in various configurations, use of topography to enhance experience, etc.) and “with no evident logic to its structure.”²⁴² • As early as 2003, “pre-emptive control of mountain bicycle traffic [was] required before impact becomes serious.”²⁴³ • Recently established short trail connections joining adjacent trail sections;²⁴⁴ • Multiple trail lines in a number of locations (braiding) with no clear indication of a primary trail;²⁴⁵ • Although environmental degradation and risks are very evident, “proper planning and support could mitigate any future negative impacts such as localized erosion, disturbance and forest fragmentation”.²⁴⁶ 	<p>and RVCA urban forest and environmental legislation, plans and policies;</p> <ul style="list-style-type: none"> • has caused and will cause additional environmental damage unless corrected; and • requires environmental mitigation measures and proper planning to reduce trail proliferation and addresses erosion.

²³⁷ Notes of the FVTWG meeting with the NCC, Acting Chief Greenbelt and Senior Manager of Natural Resources and Land Management, 30 November 2017 and conversation on 12 June 2018 with Senior Planner, City of Ottawa, Natural Systems and Environmental Protection Planning and Growth Management

²³⁸ City of Ottawa Recreation Cultural and Facility Services Department, City of Ottawa Parks and Recreation Planner during the FVTWG Walkabout on 25 September 2017.

²³⁹ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, reply to Question 2 iv of the Walkabout Responses, 25 October 2017. The Co-Chair Greenspace Alliance drew the same conclusion.

²⁴⁰ NCC Greenbelt Master Plan, Section 7.7 Green’s Creek Sector, page 122.

²⁴¹ Co-Chair Greenspace Alliance report on the Walkabout conducted on 25 September 2017.

²⁴² Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁴³ City of Ottawa Urban Nature Area Environmental Evaluation Assessment, 2003.

²⁴⁴ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁴⁵ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

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16.	<p>Trail Locations</p> <ul style="list-style-type: none"> • “To afford greater protection to the slopes, cycling paths should not be cut into any of the steep ravine slopes. In addition, they should be set back from the crest of the ravine slopes. Several should be taken out of commission to reduce fragmentation.”²⁴⁷ • There are trails going up and down slope fall lines.²⁴⁸ Fall-line trails are problematic because water flows are concentrated down the trail length and strips the soil, exposes roots, creates gullies, and scars the environment.²⁴⁹ • The “very wide path that runs very steeply down to the creek from the Forestglen Park entry should probably be closed and redesigned in a way that is less damaging to that very exposed slope.”²⁵⁰ • Parks Canada research has shown that “Very little has been studied of the recreational ecology of mountain bikes in the Canadian context. Since many of the environmental effects are known to vary according to regional geophysical traits, applying research carried out in other biomes and landscapes may be problematic.”²⁵¹ 	<ul style="list-style-type: none"> • A new trail layout plan is indicated that includes: <ul style="list-style-type: none"> • Closing unnecessary, redundant and “off-shoot” paths and return them to their natural state to assist in natural recovery; • Closing trails going up or down fall lines. • Closing all entry points and paths leading to or on environmentally sensitive areas and allow the terrain to return to its natural state. • Erecting appropriate City and NCC signage warning of dangerous areas. • The terrain, soil composition and the area’s environmental sensitivity and designation are important factors in locating or closing trails. • Standard IMBA trail building techniques, which were developed largely in the United States, may be inappropriate in the Ottawa climate or on the more sensitive erodible terrain in the CHN forest.
17.	<p>Erodible and Wet Terrain</p> <ul style="list-style-type: none"> • “There is erosion along trails (especially at wet sites) by mountain bicycle traffic and pre-emptive control of mountain bicycle traffic [is] required before impact becomes serious”²⁵² • Sections of some trails have poorly drained cross slopes;²⁵³ 	<ul style="list-style-type: none"> • Trails on erodible terrain or with poor drainage including on cross slopes or other environmentally sensitive terrain are inadvisable because they cause environmental damage.

²⁴⁶ City of Ottawa Public Works & Environment Services Department, Addendum to City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to the Walkabout Responses, 20 November 2017.

²⁴⁷ Report on the Walkabout conducted on 25 September 2017.

²⁴⁸ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁴⁹ International Mountain Bicycling Association Canada, Mountain Bike Trail Building and Design at www.imbacanada.com/resources/trail-building

²⁵⁰ Report on the Walkabout conducted on 25 September 2017.

²⁵¹ Michael Quinn and Greg Chernoff, Mountain Biking: A Review of the Ecological Effects, A Literature Review for Parks Canada, February 2010, page 21.

²⁵² City of Ottawa, Area Evaluation Summary, Urban Natural Area Site 82, Forestglen Park, 2003. The findings of this Evaluation remain valid and useful for City of Ottawa forestry staff (Parks, Forestry and Surface Water Services, City of Ottawa, June 12, 2018.)

²⁵³ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

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	<ul style="list-style-type: none"> • Tree roots are exposed due to surface erosion.²⁵⁴ • Voyageur Creek was observed to have high bank erosion in some sections approaching St Joseph’s Boulevard and floating and sunken garbage.²⁵⁵ • Environment Canada recommends a minimum 30 meter wide vegetated buffer be maintained along at least 75 percent of the length of both sides of rivers, creeks and streams.²⁵⁶ 	<ul style="list-style-type: none"> • Respect the 30-meter wide buffer zone along Voyageur Creek. • Clear garbage and obstructions in Voyageur Creek to assist its natural water flow.
18.	<p>Tree Maintenance</p> <ul style="list-style-type: none"> • A planned or designated and mapped trail network will assist City tree maintenance issues.²⁵⁷ • There is evidence of Tree cutting.”²⁵⁸ 	<ul style="list-style-type: none"> • Map trails and erect signage in accordance with NCC and City regulations. • Establish protocols for residents and users for reporting environmental damage, fallen trees, safety issues and locations requiring repair and areas of invasive, poisonous or noxious plant species.
19.	<p>Structures</p> <p>There are:</p> <ul style="list-style-type: none"> • Missing, poorly built or maintained bridges;²⁵⁹ • Unsafe wood structures;²⁶⁰ • Pits dug for soil to build trail surfaces and berms.²⁶¹ 	<ul style="list-style-type: none"> • Remove bridges on unstable terrain and on trails designated for closing or that do not support the remaining paths. • Remove structures obstructing the natural flow of the Voyageur Creek. • Fill in the mineral soil pits and remove the berms.

²⁵⁴ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁵⁵ Rideau Valley Conservation Authority, Voyageur Creek 2013 Summary Report.

²⁵⁶ Environment Canada, How Much Habitat is Enough? Third Edition, 2012 at <http://publications.gc.ca/site/eng/9.697387/publication.html>

²⁵⁷ City of Ottawa Public Works & Environment Services Department, Addendum to City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to the Walkabout Responses, 20 November 2017.

²⁵⁸ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁵⁹ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁶⁰ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

²⁶¹ City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined Trail visit Summary Observations, 25 October 2017.

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20.	<p>Forest Maintenance and Trail Design Responsibility</p> <ul style="list-style-type: none"> The NCC and City are responsible for the care and maintenance of their area of the CHN forest. RVCA permits may be required before any bridging repairs or new construction near watercourses is undertaken.²⁶² The City Customer Service line at 311 should be called “for tree-related maintenance issues on the City owned area such as trails blocked by fallen trees, large broken branches over trails, or safety concerns related to trees. Forestry Services staff will respond and arrange for any work as appropriate.”²⁶³ The NCC Customer Services line at 613-239-5000 should be called for similar problems on NCC land.²⁶⁴ 	<ul style="list-style-type: none"> Establish an ongoing public information program that: <ul style="list-style-type: none"> informs users and area residents of the City and NCC maintenance responsibilities; and provides the City and NCC telephone, email and social media points of contacts.
F. Concerns of Chapel Hill North Community Residents²⁶⁵ (See Annex E Photographs 6, 7, 32, 33)		
21.	<p>Recreational Activities and Trail Design</p> <ul style="list-style-type: none"> The NCC reported that 91% of respondents surveyed as part of the Greenbelt Visitor and Economic Impact Study feel that it is important that the Greenbelt be protected for current and future generations of Canadians.²⁶⁶ The residents of Chapel Hill North value the CHN forest in all its seasons for its natural beauty and see it as an integral part of the community whether or not they actively use the trails. Parents including older adults enjoy the forest with their children, extended families and pets for exercise or simply for the quiet forest setting away from the noise and bustle of everyday life. The OMBA proposal to enter into a formal agreement with the City for the maintenance and improvement of the CHN forest trails sparked discussions at several CHNCA meetings where residents expressed concerns that: <ul style="list-style-type: none"> they were not adequately consulted or their views heard on the recreational activities 	<ul style="list-style-type: none"> There is a requirement for the establishment of a collaborative and transparent relationship and process with the NCC and City of Ottawa that ensures the CHNCA residents are active participants in the planning and decision-making process for the protection, sustainment, maintenance and usage of the CHN forest and its trails. Inclusion of mountain biking trails or activities in the FVTWG Report is not supported by a large portion of the local residents which the CHNCA Board is committed to respect. Hold thorough, transparent and regular consultations where local residents have sufficient time to consider the issues on the following subjects:

²⁶² Rideau Valley Conservation Authority report on Walkabout conducted on 25 September 2017.

²⁶³ City of Ottawa Public Works & Environment Services Department, City of Ottawa Public Works & Enviro Services Department, Addendum to City of Ottawa Recreation Cultural and Facility Services Department, and City of Ottawa Planning Infrastructure and Economic Development Department, combined reply to the Walkabout Responses, 20 November 2017.

²⁶⁴ Notes of the meeting with the NCC, Acting Chief Greenbelt and Senior Manager of Natural Resources and Land Management, 30 November 2017.

²⁶⁵ Article 6.2.1 of the Chapel Hill North Community Association constitution states that all residents the of CHN community that are 18 years of age or older and registered with the Association are automatically members of the Association.

²⁶⁶ NCC Board of Directors Report on Activities June 21, 2018.

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	<p>and types of trails they wanted in the forest;</p> <ul style="list-style-type: none"> • trail improvements built to mountain bike standards, would: <ul style="list-style-type: none"> • increase mountain bike traffic that would jeopardize the safety of others using the trails for walking or other forms of exercise, detract from their enjoyment of the area and discourage them from using the trails; • increase the activity level along the trails and conflict between walkers and bikers. • As more users are attracted to the forest this will: <ul style="list-style-type: none"> • decrease the already limited on-street parking available to residents and their visitors; • increase traffic on residential streets; and • damage the forest environment.²⁶⁷ • A Petition was initiated by concerned Chapel Hill North residents to inform the City and NCC of the type of recreational activities and trails the residents want in the CHN forest. It circulated outside of the FVTWG mandate or proceedings, and was not a FVTWG product.²⁶⁸ The Petition was accepted by the City of Ottawa, and the CHNCA President and Board of Directors committed to accepting the will of the residents it expressed.²⁶⁹ 	<ul style="list-style-type: none"> • draft trail layout plan before presentation to the NCC and City; • the final work plan before work commences; and • the content and progress of work during the planning phase.
22.	<p>Conflict Between Users</p> <ul style="list-style-type: none"> • An International Mountain Bicycling Association sponsored research study found that the majority of mountain biking trail research focused on social issues, such as conflicts between trail users.²⁷⁰ • Social conflict between bikers and non-biker trail users pursuing different recreational activities must be taken seriously whether it arises from ill-informed perceptions or not. Some land managers appreciate that “a perceived problem is just as real as any other kind 	<ul style="list-style-type: none"> • The fact that the International Mountain Bicycling Association sponsored study found the majority of trail research concerned conflicts between trail users suggests conflict is a real and unresolved issue despite biker and non-biker perceptions.²⁷⁵ • Education of all users is necessary to: <ul style="list-style-type: none"> • satisfy the concerns perceived by non-bikers; and

²⁶⁷ CHNCA Minutes dated 17 May 2017 (still in draft), 7 June 2017 and 26 September 2017.

²⁶⁸ The petition’s title is “Re: Proposal for the Forest Valley Trails by the Ottawa Mountain Bike Association”. It began circulating in late May 2017 before the FVTWG was formed. It was signed by 633 Chapel Hill North residents of voting age and along with individual residents communicating directly with him, convinced Innes Ward Councilor Jody Mitic, that the OMBA proposal did not reflect the majority view of the local residents. Mitic sent a letter dated 30 August 2017 to inform the Acting Chief Greenbelt at the NCC, City of Ottawa Recreation Cultural and Facility Services Department, City of Ottawa Planner, Chair of the CHNCA, and the Secretary FVTWG, informing them of his decision. In a later email, his Chief of Staff stated the number of petitioners represented about 7.4% of the adult population of Chapel Hill North. The City of Ottawa Administrative Policies – Petition Policy, December 8, 2010 states petitions submitted to the City are public documents.

²⁶⁹ CHNCA Meeting 26 September 2017 and Forest Valley Trails Update, CHNCA Facebook Page dated 11 October 2017.

²⁷⁰ Jeff Marion and Jeremy Wimpey, Environmental Impacts of Mountain Biking: Science Review and Best Practices published in Managing Mountain Biking by the International Mountain Bicycling Association, 2007, page 12.

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	<p>of problem ... [For example, if] someone believes you're going too fast to them that's a problem, therefore it becomes a problem [for them].²⁷¹</p> <ul style="list-style-type: none"> Two sources of trail conflict recognized by bikers themselves are: <ul style="list-style-type: none"> when riders go too fast;²⁷² and the different experience being sought by walkers or hikers and mountain bikers. Walkers go at a slower pace that allow them have time to enjoy nature as they go along. The mountain biker's experience is about travelling often at speed that puts their focus on the trail in front, the immediate objects to get around and controlling their bike, not on the environment.²⁷³ Education of non-bikers and bikers by the adoption of a common set of rules for trail usage is suggested to reduce conflicts.²⁷⁴ 	<ul style="list-style-type: none"> reduce the speed of cyclists on the trails. Identify the rules of the trails including a right-of-way protocol that are successfully used in other City, NCC or urban wooded areas where hikers, walkers, runners, cyclists use the same trails.
23.	<p>Dogs</p> <ul style="list-style-type: none"> Some residents object to dog walkers along the trails who allow their dogs to run off leash and fail to "stoop and scoop" despite NCC and City regulations requiring dogs to be kept on leash except for service dogs²⁷⁶ and that owners pick up and remove the fecal matter left by their pet from NCC and City land.²⁷⁷ 	<ul style="list-style-type: none"> Incorporate NCC and City signage, public education and forest trail user protocols on dog walking in the NCC and City areas of the CHN forest. Supporting equipment (e.g. garbage cans, NCC and City contacts) that make it easier for users to follow protocols and signage describing permissible recreational activities and appropriate conduct should be provided.
24.	<p>Forest Entry and Exit Points, Parking, Traffic</p> <ul style="list-style-type: none"> The Chapel Hill North residents voiced concerns that the peaceful, safe, quiet streets and neighbourhoods that they now enjoy will be threatened by increased user parking and traffic if forest entrances and exits are located near residential streets.²⁷⁸ 	<ul style="list-style-type: none"> Entry and exit points, parking and traffic are inter-related issues and should be addressed together. Parking

²⁷⁵ Conflict between trail users has been an issue since the rise of mountain biking in the 1980s. See Mountain Biking Symposium Proceedings, A forum to explore ways of accommodating mountain biking in British Columbia while addressing the concerns of other trail users and land managers, Outdoor Recreational Council of British Columbia, 1990.

²⁷¹ Roger Hamilton, Head of Policy and Operations, Visitor Services, Canadian Parks Services, Western Region, Mountain Biking Symposium Proceedings, A forum to explore ways of accommodating mountain biking in British Columbia while addressing the concerns of other trail users and land managers, Outdoor Recreational Council of British Columbia, 1990, page 52.

²⁷² International Mountain Bicycling Association, Rules of the Trails at <http://www.imba.com>

²⁷³ Jim Rutter, Executive Director, Federation of Mountain Clubs of British Columbia, Mountain Biking Symposium Proceedings, Outdoor Recreational Council of British Columbia, 1990, pages 23-24.

²⁷⁴ Michael Quinn and Greg Chernoff, Mountain Biking: A Review of the Ecological Effects, A Literature Review for Parks Canada, February 2010, page 23.

²⁷⁶ NCC Animal Regulations, Section 7 and City of Ottawa Animal Care and Control By-law 2003-77, Sections 9-17 and Section 37.

²⁷⁷ NCC Animal Regulations, Section 8 and City of Ottawa Animal Care and Control By-law 2003-77, Section 37.

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	<ul style="list-style-type: none"> • Entry and Exit Points <ul style="list-style-type: none"> • Proper entry and exit routes, associated parking and traffic recommendations are essential components of any trail proposal for the CHN forest.²⁷⁹ • Parking <ul style="list-style-type: none"> • Local residents’ complaints about the number of forest users parking on residential streets has been an issue for eight years.²⁸⁰ • There is very limited capacity for additional parking on the residential streets around the CHN forest or near possible trail access points at Forestglen Park and Forest Valley Drive. • Existing parking on residential streets is limited by the City of Ottawa Traffic and Parking By-Law that states “No person shall park a vehicle or permit a vehicle to remain parked: <ul style="list-style-type: none"> • in front of or within one and a half (1.5) metres of a laneway or driveway; or • to obstruct a vehicle in the use of any laneway or driveway.”²⁸¹ • Parking is restricted to one side of most streets due to their lack of sidewalks and narrow street width; • Other than the Good Shepherd Church where parking is temporarily permitted, the only parking area currently available near the CHN forest is on residential side streets or on Forest Valley Drive. • Other public parking areas near the CHN forest are at the schools on Forest Valley, and the Chapel Hill Park and Ride is to be built at the intersection of the Brian Coburn Blvd extension and Navan Road for the Light Rail and Bus Rapid Transit routes.²⁸² • The RVCA may require storm water management plans for new parking areas to ensure the slopes and watercourses in the CHN Forest are not negatively impacted.²⁸³ 	<ul style="list-style-type: none"> • Users should be directed away from residential streets and to public parking areas through signage and forest trail user protocols. • Users should be advised and encouraged to park in existing or soon to be built public parking lots, which remove any requirement to build a dedicated parking area. • Since cyclists from the Chapel Hill North community are close enough to cycle to the CHN forest, there is little requirement for a purpose built parking lot to accommodate them. • Investigate if Park and Ride lots could be used after work hours and on weekends for trailhead parking. • Traffic <ul style="list-style-type: none"> • Entry and exit points that increase traffic on local streets should be discouraged. • Traffic calming measures may become necessary to control the volume or composition of traffic. • Entry and Exit Points <ul style="list-style-type: none"> • The trail layout should be designed so entry and exit routes: <ul style="list-style-type: none"> • do not interfere with local parking or traffic; and • not traverse or encroach on community parks or parkettes zoned for other purposes.

²⁷⁸ CHNCA Minutes dated 17 May 2017 (still in draft), 7 June 2017 and 26 September 2017 and Petition Re: Proposal for the Forest Valley Trails by the Ottawa Mountain Bike Association.

²⁷⁹ City of Ottawa Recreation Cultural and Facility Services Department, City of Ottawa Parks and Recreation Planner during the FVTWG Walkabout on 25 September 2017.

²⁸⁰ Notes of the Meeting with the NCC Acting Chief Greenbelt and Senior Manager of Natural Resources and Land Management in response to questions, 30 November 2017.

²⁸¹ City of Ottawa By-Law 2003-530, Updated January 2012. A by-law of the City of Ottawa regulating traffic and parking on highways, paragraph 7. This by-law includes residential streets in its definition of a highway.

²⁸² City of Ottawa Brian Coburn Blvd Extension/Cumberland Transitway Westerly Alternate Corridor Environmental Assessment Study., Public/Business Group Consultation Meeting #2, 10 May 2018.

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	<ul style="list-style-type: none"> • Traffic <ul style="list-style-type: none"> • The approximate rectangular shapes of Forestglen Crescent, Valley Field Crescent and Ridgelea Place create blind corners on each street that are exacerbated during winter. • There is a marked hidden intersection at Forest Valley Drive with Forestglen Crescent. 	

²⁸³ Planner staff, Rideau Valley Conservation Authority response dated 26 July 2017 to questions posed by the FVTWG.