Plan for TRAILS on PUBLIC LAND



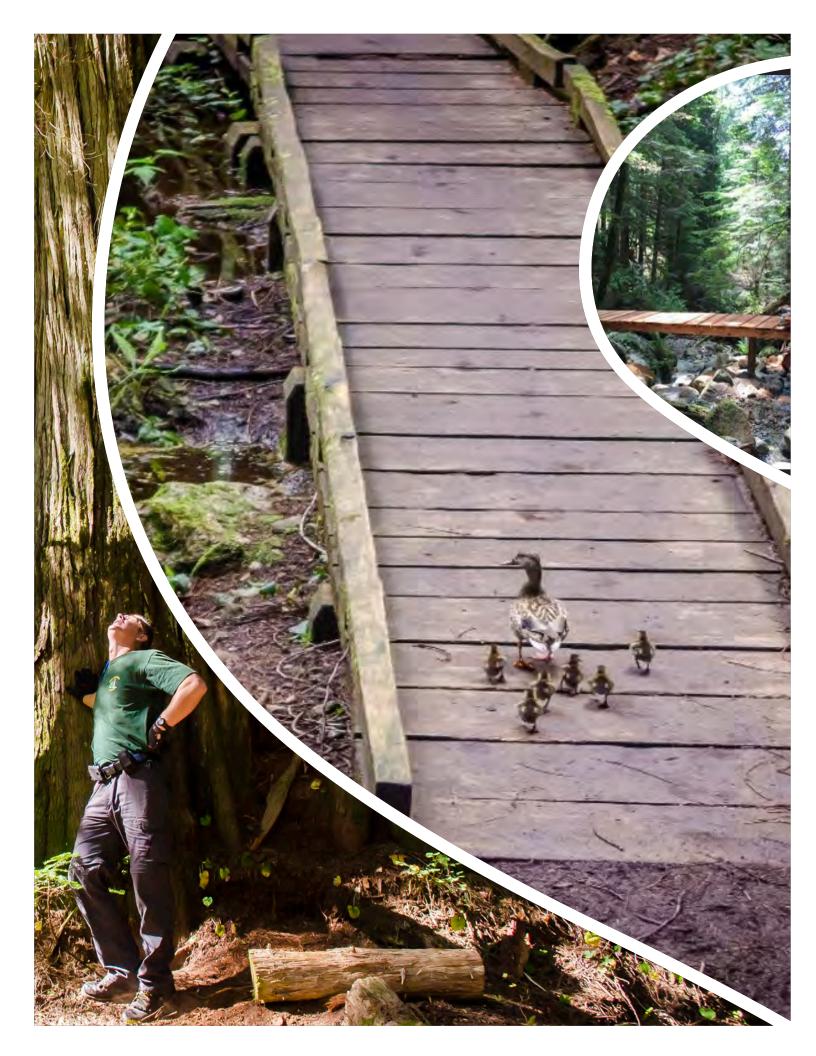
Prepared for the District of West Vancouver by Urban Systems. Approved April 2018





Contents

Introduction	
1.1 How to Use This Document	
1.2 Purpose and Context	
1.3 Planning Process	3
1.4 Vision and Core Values	4
Planning Framework	6
2.1 Current Status	7
2.2 Strengths and Challenges	13
2.3 Recommendations	13
Trail Network and Use	14
3.1 Current Status	
3.2 Strengths and Challenges	17
3.3 Recommendations	17
Trail Management System	19
4.1 Current Status	19
4.2 Strengths and Challenges	21
4.3 Recommendations	21
Stakeholder Groups	22
5.1 Current Status	22
5.2 Strengths and Challenges	23
5.3 Recommendations	23
Operations and Maintenance	24
6.1 Current Status	24
6.2 Strengths and Challenges	25
6.3 Recommendations	25
Implementation	27
7.1 Implementation Plan	27
7.2 Next Steps	30



Introduction

1.1 How to Use This Document

A Plan for Trails on Public Land (referred to as the "Trails Plan" for brevity) builds on recommendations in the Parks Master Plan (2012) and the Upper Lands Working Group Final Report (2015). The Trails Plan is a policy document that provides guidance for decisions about trails on public land in the District of West Vancouver.

Section 1 introduces the Trails Plan and provides the context and the core values.

Section 2 summarizes supporting documents and policies for the Trails Plan.

Section 3, 4, 5 and **6** of the Trails Plan provide information in several areas based on public input; descriptions in each section are followed by recommendations. These sections are:

- Trail Network and Use
- Trail Management System
- Stakeholder Groups
- Operations & Maintenance

Section 7, Implementation, lists all of the recommendations in the Trails Plan and identifies priorities, phasing and relative costs.

According to a telephone survey completed as part of the 2012 Parks

Master Plan process in 2011, 41 per cent of residents said that they hiked once a week or more, making it the sixth most popular activity in the District. The other top activitives included walking for leisure, walking dogs, running/power walking, and nature appreciation, all of which can also take place on trails.

1.2 Purpose and Context

The purpose of this document is to consolidate existing District policies and practices related to trails, and to provide high-level policy direction for the planning, management, and use of trails in the District of West Vancouver.

The District of West Vancouver manages over 135 km of trails on public land. Many recreation activities take place on these trails, including hiking, running, biking, dog walking, birdwatching, and more. There are also evolving uses such as mountain biking and commercial dog walking that are important pursuits among residents and visitors to the District.

Trails on public lands have always been, and continue to be, a very important amenity in West Vancouver. Trails play an important role in connecting people with nature, supporting healthy outdoor recreation experiences, and serving as

active transportation links. Experiences on trails are valued by users and help to foster a greater sense of stewardship for the local environment. The ability to access and use trails is consistently ranked on community surveys as one of the most desirable recreation activities in West Vancouver. There are, therefore, strong interests in retaining the recreational trail experiences in the District as development proceeds further into the Upper Lands.

There are several key types of trails in West Vancouver (see Map of Existing Trails at back). Within the developed areas, there are trail corridors that provide connectivity through and between neighbourhoods. Many of these are trails within parks. In the Upper Lands, there are historic trail routes as well as newer routes. A key trail traversing east-west across the Upper Lands is The Great Trail, previously known as the Trans Canada Trail. Another historic route that forms a loop north of the Great Trail is the Baden Powell Trail. Many newer trails were built by user groups, and most are unauthorizied, whether on public or private land. Some historic trails are on private land, although they have been used by the community for decades.

The District has a long history of incorporating trails into its new residential developments, parks system and recreation lands. Although this is the practice, there is very little policy to guide planning and management of these connections.

1.3 Planning Process

Work by the District of West Vancouver on the Trails Plan has been underway since 2015. The work that has been completed is summarized below:

November 2015	Early consultation with stakeholders	
	Public consultation	
May and June 2016	Public information meetings	
	Online and paper questionnaires	
July 2016	Information Report to Council	
	Trails Plan discussion paper	
	Reviewed the status of trail-related issues	
	Public consultation on the Trails Plan discussion paper	
May and June 2017	Public information meetings	
	Online and paper questionnaires	
	Consultation with other groups	
Summer / Fall 2017	Draft Trails Plan	
Fall 2017	Public review of Draft Trails Plan	
Early 2018	Adoption of final Trails Plan	

1.4 Vision and Core Values

Vision

The following is the vision articulated in the 2012 *Parks Master Plan*, which is also applicable to the Trails Plan.

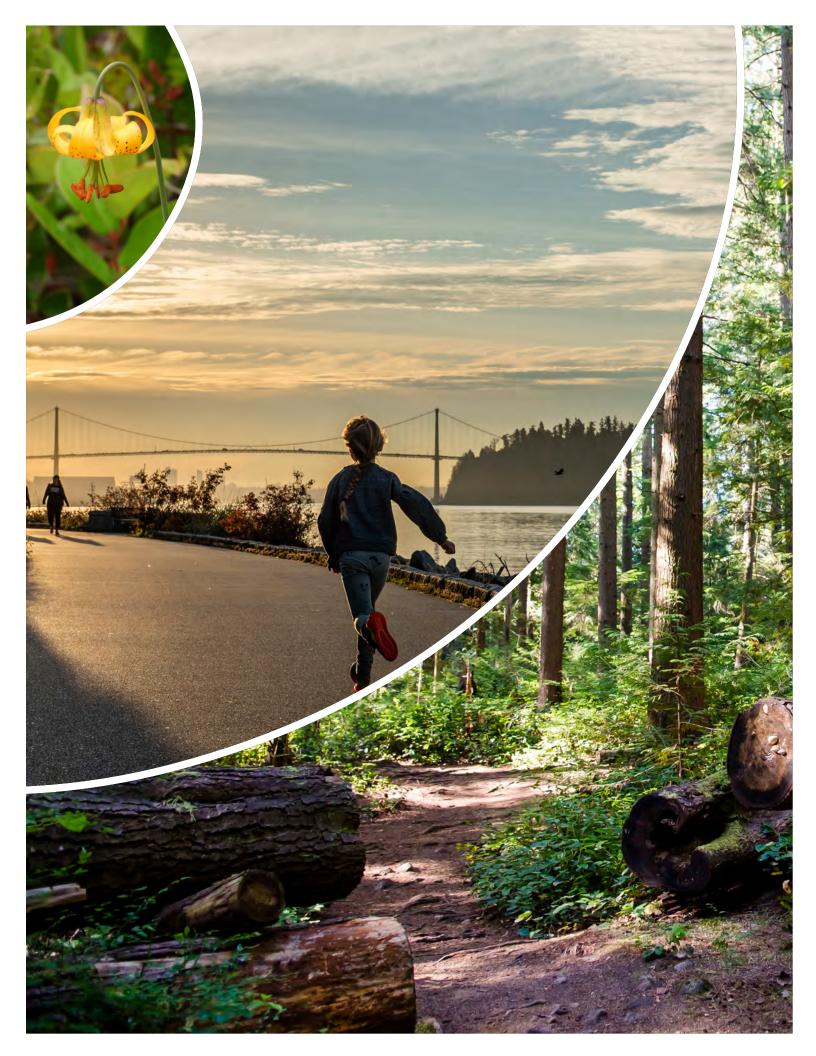
The Parks Master Plan endows the community with a balanced approach to parks planning that will increase enjoyment of and pride in our natural spaces, and it

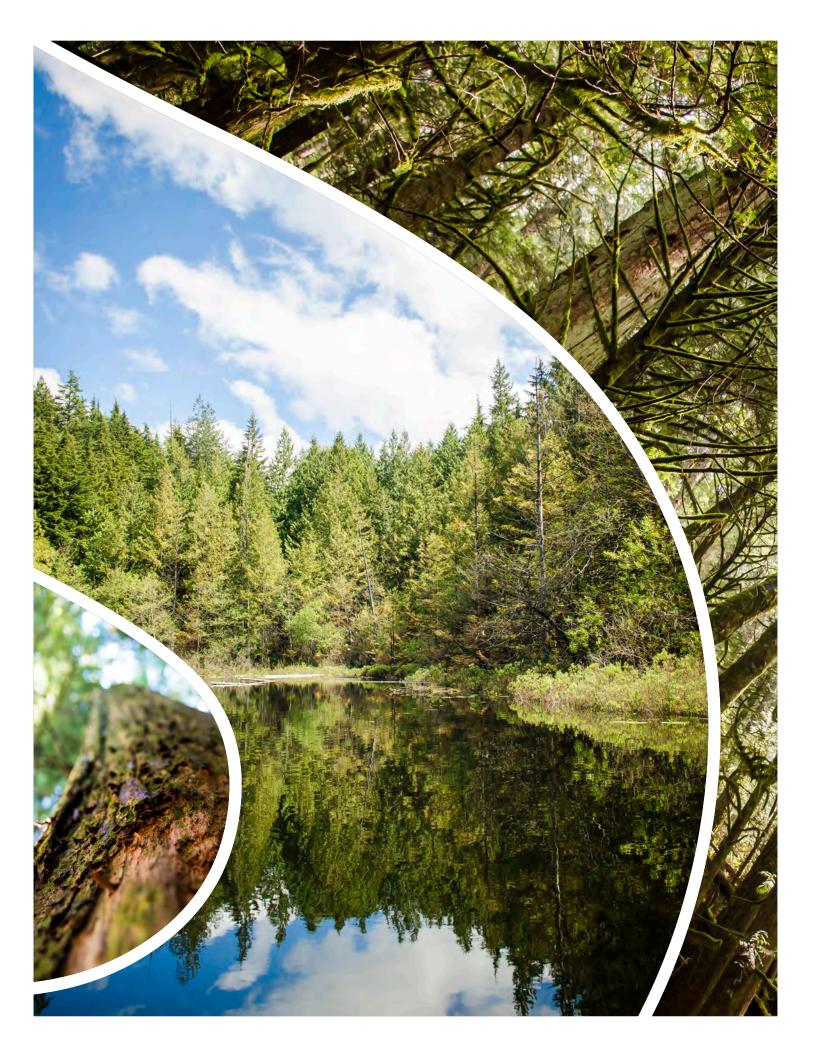
- protects, restores and defends the unique shores, parks and mountain lands of our community
- encourages and enhances relevant and accessible active living
- fosters community involvement and shared responsibility for stewardship, and
- uses creativity, innovation and efficiency to manage resources.

Core Values

The core values for the Trails Plan are based on the values in the 2012 *Parks Master Plan*, which were adapted slightly to better relate to trails. These core values were endorsed by the community through the engagement process for the Trails Plan.

- 1. Protection and stewardship of the natural environment
- 2. Experience, appreciation, and understanding the natural beauty of waterfront, creeks and forests
- 3. Support of active living, health, social and spiritual well-being by facilitating access to low-cost, unstructured opportunities like trails
- 4. Inclusiveness, accessibility and respect for all trail users
- 5. Sustainability for future generations
- 6. Support of community engagement and volunteers
- 7. Public safety and security
- 8. Prudent financial stewardship and management





Planning Framework

2.1 Current Status

This section includes a review of the current regulatory context in the District of West Vancouver, in chronological order. It also provides information on trail planning in neighbouring jurisdictions, including the District of North Vancouver, Metro Vancouver Parks and BC Parks. The policies and practices of other jurisdictions were reviewed as examples, as these are particularly relevant in terms of similar terrain and potential coordination due to proximity; more similarity in approaches across the region can help to provide a consistent experience for trail users.

West Vancouver

Official Community Plan, 2004

The District of West Vancouver completed its current *Official Community Plan* in 2004. It is in the process of being updated and a draft of the new *Official Community Plan* is anticipated in Spring 2018.

The current *Official Community Plan* supports the development and maintenance of trails to promote public access and to improve transportation safety. It also supports the protection of creek corridors and environmentally sensitive lands through policies and the establishment of development permit area NE13, which focuses on watercourse protection in new developments.

Future land uses and development permit area guidelines for new neighbourhoods are identified, including a requirement for new trails in areas such as the Upper Lands and Rodgers Creek. The *Official Community Plan* also has a policy to identify and acquire public lands to meet future needs.

Environmental Strategy, 2005

As part of the District's commitment to move towards a more sustainable future, Council adopted an *Environmental Strategy* that outlines how the environmental policies of the *Official Community Plan will* be put into action.

The strategy, which was developed cooperatively by all municipal departments, recognizes that environmental stewardship is the shared responsibility of the entire District. The *Environmental Strategy* is designed to protect our natural resources and preserve ecosystems.

Old Growth Park Strategy for Protection, 2006

The *Old Growth Park Strategy for Protection* contains recommendations for managing mountain biking and protecting the ecological integrity of the old growth ecosystem in the Old Growth Conservancy. The strategy recommended that a society be formed to help manage the conservancy, which led to the creation of the Old Growth Conservancy Society in 2007. The society's main activities include monitoring and protection of the Old Growth Conservancy and providing information on the conservancy to the public.

Parks Master Plan, 2012

The following are the recommendations in the 2012 Parks Master Plan related to trails:

Section	Policies
Parkland Protection & Acquisition	 3.3.1 Retain the recreational trail experiences and opportunities on the Upper Lands. Address within the Upper Lands Study the need to retain the recreational trail experiences and opportunities. On public land, recognize and protect trail corridors. On private land, negotiate to obtain formal access to the trail corridors for recreational uses where appropriate, e.g., rights-of-way, and locate, build and maintain trails based on sustainable trail standards.
	3.3.2 Identify trails in lands below the highway that are not within parks, confirm their importance, and determine whether additional protection is needed.
Capital Development for Active Living	 3.3.3 Identify, prioritize and establish new trails to improve connectivity. Design paths and trails in parks to be a logical network, with loops where there is sufficient space, connecting with trails external to the park where applicable. Include environmental considerations in the planning of major new trails through natural areas, and design trails to minimize environmental impacts.
	3.3.4 Make trailheads and staging areas more identifiable and provide infrastructure to suit the location, e.g., garbage bins, doggy bags, parking, kiosk sign
	3.3.5 Support and encourage the Spirit Trail work by the Roads & Transportation department.
Community	3.3.6 Work with interested user groups on designating, building, managing and maintaining shared-use trails in appropriate locations.
Involvement & Stewardship	3.3.7 Support the development of a volunteer monitoring program in partnership with trail user groups.

Parks Management	3.3.8 Prepare and adopt a best practice model for trail management that builds upon methods used in other jurisdictions, such as the District of North Vancouver.
& Service Delivery	3.3.9 Update design standards on well-used trails through areas with high environmental values to keep people on trails and to protect the resources, e.g., higher standard of trail construction, split rail fences where needed.
Dog Walking	3.7.1 Plan the trail system to include dog off-leash, dog on-leash, and "no dog" trails
Management of Natural Areas	 4.3.2 Rationalize trail routes and decommission and rehabilitate trails that are redundant. Consider environmental impacts and opportunities for enhancement in the rationalization of trail routes.
Volunteerism & Stewardship	 4.4.1 Increase coordination and support for volunteer efforts in park stewardship and outdoor recreation activities. Consider "adopt a park" and "adopt a trail" programs for regular observations, stewardship and education in specific parks and trails.

Abbie's Guide: A Dog's Life in West Vancouver, 2014

Abbie's Guide: A Dog's Life in West Vancouver is a brochure produced by the District that guides dog walking in the District of West Vancouver. The document lists dog-friendly areas, dog-free areas and off-leash areas and guides commercial dog walkers. The document does not explicitly list recommendations for trails but does mention the District's expected etiquette for dogs in public areas.

Upper Lands Study Review Working Group Final Report, Part One: Recommendations, 2015

The Upper Lands Working Group was formed to provide input to Council on planning and management of the Upper Lands. The report's recommendations related to trails were largely consistent with the 2012 *Parks Master Plan*. The working group also recommended that a Trails Plan be prepared to guide appropriate recreational use on lands above and below the 1200-foot contour line. The following are the trail-related recommendations from the report:

Section	Policies
	3.2.1.1 A Trails Plan be prepared in consultation with private landowners and stewardship and stakeholder groups that respects the needs of landowners and different users, and balances recreational uses with the community's environmental and cultural values.
	3.2.1.2 The Trails Plan be used to advance policy directions of the Parks Master Plan relating to:
	a.environmental management and protection; b.diversity and quality of trail experiences; c. trail network and connectivity;
Recreation Recommendations	 d.orientation and signage; e.involvement of stewardship and stakeholder groups in plan implementation; f. parking and infrastructure;
for Trails in the Upper Lands	g. access, accessibility and safety;h. potential revenue generation; and that preparation of the TrailsPlan be advanced as a District priority.
Lunus	3.2.1.3 Consideration be given in the preparation of the Trails Plan to the merits of a trail network that comprises both joint-use trails (for various trail users, e.g. hikers and naturalists) and single-use trails (e.g. downhill mountain bike trails).
	3.2.1.4 Consideration also be given in the preparation of the Trails Plan to other, non-trails based recreational activities.
	3.2.1.5 West Vancouver continue to work with private landowners and seek public ownership of private lands with high potential to be used for recreation.
Recreation Recommendations	3.2.2.2 Preferred trail corridors and a sanctioned trail maintenance strategy be identified and implemented early in the Area Development Plan process for Cypress Village.
for Planning New Neighbourhoods	3.2.2.3 Planning for Cypress Village include consideration of recreational uses in the adjacent area above 1200 feet to provide for trail connectivity and potential recreational amenities.
Future Neighbourhoods Recommendations for Cypress Village and Cypress West	3.3.2.6 An integrated circulation network (for pedestrians, hikers, bicycles, transit and vehicles) be created to optimize movement to and through the new Cypress Village and Cypress West neighbourhoods.

Parks Regulation Bylaw, 2016

The *Parks Regulation Bylaw* outlines the regulations that must be followed within district parks. In relation to trail-related uses, it provides direction on the use of motorized vehicles (including electric bikes), and lists uses that require permission from the District such as trail-building or blocking trails (for events).

Pedestrian Network Study, 2017

The *Pedestrian Network Study* describes the current state of walking in the District and sets out plans for promoting and enhancing pedestrian movement in West Vancouver. The study recognizes that various pathways, such as the Spirit Trail, Centennial Seawalk and Clovelly Walk are important connections in West Vancouver. The study includes two main strategies related to trails and network connectivity within the District:

Strategy 1.3 – Trails and Pathways

This strategy establishes goals for developing the trail network, completion of the Spirit Trail, and improvements to wayfinding.

Strategy 1.4 - Urban Connector Trails

This strategy describes the need to maintain existing urban connector trails, to keep an up-to-date inventory of these connections, and to add new connections in the form of pedestrian crossings at bridges, overpasses and underpasses where appropriate.

District of North Vancouver

Parks and Open Space Strategic Plan, 2012

"Goal 3: Maintain and expand an accessible, safe and diverse trail and greenway system to link North Shore amenities, encourage active modes of transportation, conserve ecological integrity and support an active lifestyle."

The *Parks and Open Space Strategic Plan* for the District of North Vancouver provides broad direction and policy on urban connector trails, ecological stewardship, alpine trails, and communication and signage. The document also describes the District's commitment to collaborate with North Shore municipalities to maintain regional trails like the Spirit Trail and the Baden Powell Trail.

The District of North Vancouver coordinates a volunteer program through which individuals can sign up to participate in trail-building efforts. This program is run in conjunction with the North Shore Mountain Bike Association. Volunteers help maintain the District's 3,000 hectares of parkland, greenbelts, trails, creeks and neighbourhood parks.

BC Parks

BC Parks manages over 7,000 kilometres of trails within parks across British Columbia. Management plans for provincial parks outline conservation and recreation goals. The Upper Lands in West Vancouver border Cypress Provincial Park. The Cypress Provincial Park Management Plan was approved in 1997 and includes the following trail strategies:

- Tie mountain biking into District trail network
- Connect trail system with neighbouring municipal systems
- Provide a wide range of hiking opportunities for all abilities
- Develop partnerships with interested parties for recommendations on new trails and maintenance of existing trails

Volunteers are an important part of BC Parks' maintenance and trail-building strategy. The BC Parks Volunteer Community is the organization through which BC Parks coordinates its volunteer base. Their web page allows volunteers to find opportunities through an events calendar and its many partner organizations.

Metro Vancouver

Parks Master Plan, 2016

Metro Vancouver operates regional parks throughout the Lower Mainland. Capilano River Regional Park borders West Vancouver to the east. Metro Vancouver's *Parks Master Plan* describes trails and greenways as important connections between natural areas. It prioritizes environmental sensitivity and guides trails to be sited to protect the integrity of large-scale ecosystems. Trails are intended for uses such as walking, hiking and cycling to manage impacts to natural systems.

Metro Vancouver runs a volunteer program that is focused on ecological restoration. Projects are led by Metro Vancouver parks staff or one of the several park associations that focus on individual parks. Volunteers are coordinated through meet-up groups to enhance the social aspect of volunteering.

2.2 Strengths and Challenges

_	
Strengths	Challenges
2012 Parks Master Plan, Upper Lands Report and Official Community Plan support trail planning, development and maintenance	Guidance is needed on the location or extent of new trails
New developments in Upper Lands have provided new trails	Resources for planning, management and maintenace of trails are needed
Pedestrian Network Study supports trail development as part of the transportation network	Direction is needed on how to manage authorized and unauthorized trails on private land
BC Parks intends to partner with neighbouring municipalities to make sure that trail systems are connected	Coordination with adjacent jurisdictions and groups is required
Some other jurisdictions have well-established policies and practices for managing their trail systems, and the District of North Vancouver's may be particularly relevant in terms of potential coordination due to the proximity	Need to determine if and how successful policies and practices from other jurisdictions might be emulated in West Vancouver

- 2.3.1 Collaborate with private landowners to develop a strategy for managing authorized and unauthorized trails on private lands.
- 2.3.2 Collaborate with neighbouring jurisdictions on trail management and trail planning.
- 2.3.3 Investigate options for acquiring rights-of-way over private land for public trails.



Trail Network and Use

3.1 Current Status

Trail Network

The North Shore has a long history of logging and recreation activity. Over time, the mountainsides have become crisscrossed with trails and access roads, many of which are now integral links in the overall trail network. Historic trails include Brothers Creek, Lawson Creek and the old trail from top of 26th Street to the Hollyburn Ridge cabin area. These trails were not necessarily built to sustain the high levels of use they receive today.

Many of the trails have become well established and known through years of extensive community use. They provide exceptional opportunities for West Vancouver residents to experience the natural environment close to where they live. While there are some excellent distinct trails, connectivity of trails throughout the District is lacking.

Trails used by the public consist of authorized District trails on public land and many unauthorized historic trails that are on private land. The public is generally not aware that many of the trails are on private land.

The District maintains mapping and inventory data for all trails on public land. The inventory includes information on surface type, and assets such as bridges, benches, and garbage bins.

The District does not maintain an official inventory of trails on private land; however, key trail connections on private land are in the mapping system. Stakeholder groups publish trail maps and maintain trail data on private websites such as Trailforks.com and VancouverTrails.com.

New unauthorized trails are frequently built by trail users, and the District has trouble keeping up-todate with this information. Many of these trails are built on private land.

Authorized new trails are constructed mostly through development processes, e.g., Rodgers Creek. Other trails are developed through regional trail programs (Spirit Trail, Baden Powell Trail) or individual park planning processes, e.g., Whyte Lake Trail.

Trail systems in natural areas are highly interrelated with ecology and the environment. It is standard practice to route trails to minimize negative impacts to important environmental resources and to provide opportunities to experience significant environmental features where this can be designed to minimize impacts. The District does not have a comprehensive environmental inventory of the Upper Lands to help guide this work.

Trail Use

Trails receive significant levels of use, and the characteristics of use are changing. As Metro Vancouver grows, more people are using trails, and this trend is expected to continue. The capacity of the District's mountainside to accommodate all demands is limited, without compromising the integrity of natural ecosystems.

Trail use is increasing among hikers, naturalists, runners, and private and commercial dog walkers. Casual recreation is on the increase and there is an increased demand for outdoor recreation experiences.

The District's trails are part of the "Shore", a world-renowned mountain-biking area on the North Shore that is popular among novice and experienced riders. West Vancouver's mountain bike trails are considered some of the more technically challenging trails in this area. There has been mountain biking on District trails (and private lands) for decades, but this use has not been officially recognized or acknowledged.

The popularity of the trails is causing impacts such as parking congestion, litter, and environmental degradation. As the numbers of trail users grow in size and diversity, the potential for conflicts also increases. Safety issues and user conflicts are already occurring, especially when there are speed differences between users, different types of users or restricted sightlines.

Some concerns have been expressed about motorized uses on trails, e.g., electric assist bicycles, scooters, dirt bikes, ATVs. While there does not appear to be much motorized use at this time, this could be a significant concern in the future, especially as more types of motorized devices are designed for steep slopes and rugged terrain. For example, "e-bike" is used to refer to a wide range of transportation devices. Bicycles with motor assist are just one type. E-bikes range all the way up to what are essentially motorcycles that are electric, and these could have significant impacts on trails. Therefore, more work is required regarding the impacts of potential motorized uses on trails and determination of appropriate policies.

The population in the District of West Vancouver is aging, confirmed by the recent census, and there is increasing demand for accessible trails in forested settings. These are generally limited to locations with gentle terrain, which are in short supply in the District.

Some concerns were expressed about dogs on trails, particularly in areas with sensitive ecosystems. Observation shows that dogs and people cause impacts on natural vegetation close to trails, and there are instances when dogs enter environmentally sensitive areas such as wetlands.

3.2 Strengths and Challenges

Strengths	Challenges
Trails are well used and highly appreciated by the community and visitors	Environmental degradation is occurring in some areas
Connectivity of trails in neighbourhoods is very much appreciated	Some trail uses have been well established but they have not been acknowledged
There are significant and interesting environmental resources in the Upper Lands	Conflicts between user groups are occurring
Some new trails are getting established through the development process and park planning	Connectivity is lacking in some locations
	There is little documentation of environmental resources to assist in planning the trail network
	There has been a significant amount of unauthorized trail building by user groups

- 3.3.1 Continue to collect data on trail use on public land.
- 3.3.2 Collaborate with landowners to conduct a trail inventory and to gather data on trail use on private land where possible.
- 3.3.3 Identify existing trails or potential trails on private and public lands with high potential for recreation use and/or connectivity improvements, and identify the appropriate means of protecting these corridors.
- 3.3.4 Conduct comprehensive mapping of environmental resources on the Upper Lands.
- 3.3.5 Analyze the public trail network for potential gaps and unnecessary (duplicate) trails.
- 3.3.6 Recognize mountain biking as an existing trail use and incorporate it into trail planning and management.
- 3.3.7 Work with user groups to convey the importance of not building unauthorized trails, and establish a process for consideration of future trails that user groups may want to build. Prepare criteria to be used when considering trails for potential decommissioning.
- 3.3.8 Assess the potential impacts of motorized uses on trails.
- 3.3.9 Recognize and promote the accessibility of trails that are easier to use such as Juniper Loop in Lighthouse Park, the Spirit Trail, Rodgers Creek Mountain Path and Seaview Walk.



Trail Management System

4.1 Current Status

There are a number of tools that can be used by municipalities to plan and manage trail systems. These are described below, along with the current status in the District.

Trail Network Map

A District publication called the "District Map and Guide" includes information about some District trails and is made available to the public to enhance their experience. The District has digital mapping of the trails that is used internally (see Map of Existing Trails at back), and some site-specific map brochures that show certain parks and trails, but no overall trail network map for public use. Other maps used by the public include online resources, a summer hiking map provided by Friends of Cypress Provincial Park Society and BC Parks, and maps prepared by private companies.

Trail Classification and Design Guidelines

Trail classification systems identify distinct trail types. Most classification systems identify the appropriate uses for each trail type and are often accompanied by design and construction guidelines that identify trail widths, materials, maximum grade, clear zone, and trail infrastructure. Classification systems are useful as a planning tool and to guide operations, which can also be linked to the trail type. The District has trail design guidelines and established construction practices that are used for new trail construction in the development permit process, but these are for walking/hiking trails only. There are no comprehensive trail classification systems nor design and construction guidelines that organize all trails based on type and designated uses.

Trail Rating Systems

Trail rating systems help the user navigate trail networks by providing information on trail difficulty. The District's website rates individual trails as easy, intermediate or expert; however, there are no maps that show the locations of trails with their ratings. The current rating system addresses only walking, not other types of uses.

Communication

Various types of information are communicated to trail users to improve their experience, in addition to trail ratings, as follows:

- Wayfinding, including maps and signs to aid in navigation
- Regulatory information, including bylaws, warnings about risks, etc.
- Interpretive, including information on natural and cultural/heritage resources
- Trail etiquette for the various types of uses

Several methods can be used for communicating this information, as follows:

- Printed material, including maps and brochures
- Signs, including large signs with maps and other information at trailheads, trail identification signs, interpretive signs, and small marker signs that point the way to destinations
- Online information, including maps and the four types of information listed above
- Apps for navigation and sharing information

The District's current trail communication resources include the following:

- Individual trail maps, with some information on trail amenities
- A map brochure of parks and some trails
- Several interpretive signs provided by stewardship groups
- Abbie's Guide: A Dog's Life in West Vancouver brochure
- Minimal information on the District's website with links to North Shore Rescue and volunteer stewardship groups

Trail Monitoring

Trail monitoring on public lands is conducted regularly by trails crew staff, for safety, maintenance and data collection purposes. The District also has a park ranger program that involves monitoring of trail use during the warmer seasons. The ranger provides information to trail users regarding resources, regulations and etiquette as required.

4.2 Strengths and Challenges

Strengths	Challenges
The District has geographic information survey mapping of most of the trails	Trail network maps, classification and rating system, design and construction guidelines and established trail etiquette are lacking
There are some communication materials offered by the District, supplemented with some from stakeholder groups	Communication material is incomplete and uncoordinated
The park's staff and park ranger conduct trail monitoring and interpretation	There is only one seasonal park ranger to cover all trails and parks

- 4.3.1 Consolidate trail inventory data into GIS, including all known trails, along with land ownership and management information, to facilitate future planning and maintenance.
- 4.3.2 Work with user groups to establish a trail classification system for District trails according to type of use, e.g., walking/ hiking primary, mixed-use, mountain biking primary or single use designation, and apply it to all trails.
- 4.3.3 Develop a rating system, e.g., easy, intermediate and expert, to assist trail users in making informed decisions, and apply it to all trails.
- 4.3.4 Establish a coordinated and consistent trail wayfinding system for the Upper Lands.
- 4.3.5 Update design and construction guidelines for trails and trail infrastructure.
- 4.3.6 Develop a trail etiquette program, potentially consistent with those of neighbouring jurisdictions.
- 4.3.7 Once trail classification and rating are complete, prepare a trail network map suitable for public distribution.
- 4.3.8 Establish communication materials to convey regulatory and interpretive information, including signs, online information, and apps.
- 4.3.9 Expand the park ranger program to provide more coverage in the evenings and throughout the week in warm seasons.
- 4.3.10 Work with partners and stakeholders on interpretive initiatives that provide information on the natural environment and cultural history of the areas.



Stakeholder Groups

5.1 Current Status

Stakeholder groups provide important services to West Vancouver parks. Some of the groups are focused on the environment and others on a recreation activity. Members of environmental groups sometimes act as educators, stewards and protectors of the District's natural environment and parkland. The groups may be focused on specific parks, ecosystems, or plant or animal species.

Recreation groups represent specific recreation interests, e.g., hikers, mountain-bikers, dog walkers, trail runners, etc. Mountain-bikers are involved in building and maintaining trails, but are not involved with the District in any formal way because no means currently exist. Many of the environmental and recreation groups maintain a high level of involvement in District processes.

There are 10 community groups listed on the District website and several of these offer volunteer opportunities related to trails. The District supports several stewardship groups with their activities (invasive plant removal, planting, garbage clean-up etc.), and also organizes some events. There are community grants available for new and innovative services, programs, and infrastructure that support health, vitality and community.

There are nearby jurisdictions that have innovative management models for trails involving the user groups, with potential for application in West Vancouver.

5.2 Strengths and Challenges

Strengths	Challenges
The District has dedicated stewardship groups that contribute a lot to the community, and active trail user groups involved with trail management on the North Shore	West Vancouver does not offer a formal volunteer opportunity for trail-building or maintenance
Volunteer groups represent and work to protect certain aspects of the environment and recreation opportunities	West Vancouver does not have a procedure for guiding or coordinating volunteer groups that wish to build, plan or maintain trails
Community grants help to support volunteer efforts	Trail user groups that are actively building trails are not currently working in collaboration with the District of West Vancouver because there is no formal way to do so

- 5.3.1 Work to establish relationships with the local trail user groups with a view to creating a program for volunteer involvement in trail management.
- 5.3.2 Work with community volunteers to establish a trail watch monitoring program
- 5.3.3 Establish a system for permitting volunteer work on building and maintaining trails, including guidelines and procedures for trail construction and maintenance, and volunteer training.

Operations and Maintenance

6.1 Current Status

Currently, the District of West Vancouver manages over 135 km of trails on public land. This large trail inventory has been acquired in a variety of ways—some historic trails were created by users in decades past, and some have been created through the development process. There is a strong desire expressed by the public to retain and even to expand the trail inventory.

There will be opportunities to acquire new trails as a function of development. Generally, new trails that are acquired through the planning process are well designed and built to support intended uses. This helps to increase the longevity and to reduce maintenance requirements for these trails in the future. Whether the pressure to create trails is through users or development, the key will be to ensure all new trails are built to a high standard to help ensure easy maintenance in the future.

The Parks Department is responsible for taking care of trails within parks. The Roads & Transportation Department also plays a role in maintaining some major trails and multi-use pathways, e.g., Spirit Trail. Currently, the District's trail maintenance is focused on replacing and/or repairing failing trails and trail structures, with priority given to areas where there is high public use or safety concerns. The District has not had sufficient resources to proactively manage trails.

Regular maintenance is critical for a trail's sustainability and to reduce impacts on the surrounding environment. For example, regular clearing of drainage features can minimize trail erosion and environmental damage. This helps to preserve the area around the trail by encouraging users to remain on the intended trail surface. Regular trail assessments and prompt attention to maintenance issues can add to a trail's longevity. The District can benefit from interest by volunteers who are willing to assist with trail stewardship.

As use increases and new activities occur, trails are experiencing more braiding, widening, and water/ erosion impacts. Unauthorized trails are particularly challenging to manage, and may have negative environmental impacts. Once trails experience these challenges, they are more difficult to maintain.

An important part of the trail maintenance program is monitoring. Monitoring allows the District to track trail condition and damage and to collect data, which helps to set priorities for maintenance efforts. Trails are currently monitored by users and District staff through an informal process.

Special Events and Filming

The District has many special events, some of which incorporate the use of trails. Well-subscribed race events like the Knee Knackering North Shore Trail Run rely on access to the District's trail network.

The District's Special Events Policy allows events on public land and facilities subject to specified procedures. The policy requires a damage deposit and before-and-after inspections of public facilities. Trails are not specifically mentioned as part of this policy.

Filming is an important local industry that provides revenue to the District. Filming does take place in parks and can impact trails within parks. Filming permits are used to regulate and manage filming activity in the District.

6.2 Strengths and Challenges

Strengths	Challenges
Parks staff does annual work on trails	Resources (funding and staff) are insufficient to monitor and maintain trails and associated infrastructure, and condition is decreasing due to high use
Volunteers are willing to help with monitoring and maintenance (section 5)	Trail monitoring and maintenance procedures are lacking
	The public is concerned about levels of maintenance
	Trails are not incorporated within special events or filming policies

- 6.3.1 Review funding strategies for trail maintenance, potentially including grants, volunteer contributions, and partnerships.
- 6.3.2 Establish a trail maintenance program that identifies maintenance standards, procedures, and frequency of maintenance.
- 6.3.3 Maintain an inventory of trail conditions and priorities for improvement.
- 6.3.4 Incorporate requirements related to the use of trails within the special events and filming policies.

Implementation

7.1 Implementation Plan

The Trails Plan will be implemented in phases over time (pages 28-30). The proposed phasing of the recommendations in this plan is based on community priorities, combined with costs, existing and potential budgets, and other factors. The following is a key to the implementation plan:

Priority

- Low
- Medium
- High

Phasing

- Immediate: year 1
- Short: 1-3 years
- Medium: 4-6 years
- Long: 7-10 years
- Ongoing: occurs regularly over time

Relative Cost

- N/A: part of everyday work
- Low: under \$50,000
- Medium: \$50,000 to \$200,000
- High: over \$200,000

		Priority	Phasing	Relative Cost		
Planning	Planning Framework					
2.3.1	Collaborate with private landowners to develop a strategy for managing authorized and unauthorized trails on private lands.	High	Medium	Low		
2.3.1	Collaborate with neighbouring jurisdictions on trail management and trail planning.	Low	Ongoing	N/A		
2.3.3	Investigate options for acquiring right-of-way over private land for public trails.	High	Short	Low		
Trail Net	twork and Use					
3.3.1	Continue to collect data on trail use on public land.	Medium	Ongoing	Low		
3.3.2	Collaborate with landowners to conduct a trail inventory and to gather data on trail use on private land where possible.	Medium	Ongoing	Low		
3.3.3	Identify existing trails or potential trails on private and public lands with high potential for recreation use and/or connectivity improvements, and identify the appropriate means of protecting these corridors.	Medium	Short	Low		
3.3.4	Conduct comprehensive mapping of environmental resources on the Upper Lands.	High	Short	Medium		
3.3.5	Analyze the public trail network for potential gaps and unnecessary (duplicate) trails.	High	Short	Low		
3.3.6	Recognize mountain biking as an existing trail use and incorporate it into trail planning and management.	High	Immedi- ate	N/A		
3.3.7	Work with user groups to convey the importance of not building unauthorized trails, and establish a process for consideration of future trails that user groups may want to build.	High	Medium	Low		
3.3.8	Assess the potential impacts of motorized uses on trails.	Medium	Ongoing	Low		
3.3.9	Recognize and promote the accessibility of trails that are easier to use such as Juniper Loop in Lighthouse Park, the Spirit Trail, Rodgers Creek Mountain Path and Seaview Walk.	Medium	Ongoing	N/A		

Trail Ma	nagement System			
4.3.1	Consolidate trail inventory data into GIS, including all known trails, along with land ownership and management information, to facilitate future planning and maintenance.	High	Short	Low
4.3.2	Work with user groups to establish a trail classification system for District trails according to type of use, e.g., walking/hiking primary, mixed-use, mountain biking primary, or single use designation, and apply it to all trails.	High	Short	Low
4.3.3	Develop a rating system, e.g., easy, intermediate and expert, to assist trail users in making informed decisions, and apply it to all trails.	High	Medium	N/A
4.3.4	Establish a coordinated and consistent trail wayfinding system for the Upper Lands.	High	Immedi- ate	Medium
4.3.5	Update design and construction guidelines for trails and trail infrastructure.	Medium	Medium	Medium
4.3.6	Develop a trail etiquette program, potentially consistent with those of neighbouring jurisdictions.	Medium	Long	Low
4.3.7	Once trail classification and rating are complete, prepare a trail network map suitable for public distribution.	Medium	Medium	Low
4.3.8	Establish communication materials to convey regulatory and interpretive information, including signs, online information, and "Apps".	Medium	Medium	Medium
4.3.9	Expand the park ranger program to provide more coverage in the evenings and throughout the week in warm seasons.	High	Ongoing	Medium
4.3.10	Work with partners and stakeholders on interpretive initiatives that provide information on the natural environment and cultural history of the areas.	Low	Long	Low
Stakeholder Groups				
5.3.1	Work to establish relationships with the local trail user groups with a view to creating a program for volunteer involvement in trail management.	High	Short	N/A
5.3.2	Work with community volunteers to establish a trail watch monitoring program.	Medium	Medium	Low

5.3.3	Establish a system for permitting volunteer work on building and maintaining trails, including guidelines and procedures for trail construction and maintenance, and volunteer training.	High	Short	Low
Operations and Maintenance				
6.3.1	Review funding strategies for trail maintenance, potentially including grants, volunteer contributions, and partnerships.	High	Immedi- ate	N/A
6.3.2	Establish a trail maintenance program that identifies maintenance standards and procedures, and frequency of maintenance.	High	Medium	Low
6.3.3	Maintain an inventory of trail conditions and priorities for improvement.	Medium	Ongoing	N/A
6.3.4	Incorporate requirements related to use of trails within the special events and filming policies.	Medium	Immedi- ate	N/A

7.2 Next Steps

The 2018 Plan for Trails on Public Land will form the basis for the District's actions related to trails for the next ten years.

Upon approval by Council, the recommendations in the Plan for Trails on Public Land will be incorporated into staff work plans beginning in 2018, and into the budget process for 2019 and for subsequent years.