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## **MANAGEMENT PLAN FOR BURNABY MOUNTAIN CONSERVATION AREA**

**Prepared for:**

**City of Burnaby  
Parks, Recreation and Cultural Services Department  
Suite 101 - 4946 Canada Way  
City of Burnaby, British Columbia  
V5G 4H7**

**by**

**AXYS Environmental Consulting Ltd.  
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**March 1999 (Revised)**



**PHILLIPS·FAREVAAG·SMALLENBERG INC.**  
PLANNING·URBAN DESIGN·LANDSCAPE ARCHITECTURE

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## **EXECUTIVE SUMMARY**

In September 1996, the Province, the City of Burnaby and Simon Fraser University (SFU) completed the transfer of 313 hectares of land below the university campus to the City of Burnaby. Continuing their commitment to protecting natural areas and public open space, the voters of Burnaby, by referendum, dedicated the area to be preserved as parkland in perpetuity. Now merged with the lands within the Burnaby Mountain Conservation Area, the addition of the former SFU lands increased the size of the conservation area to 576 hectares of primarily forested lands. Burnaby Mountain Conservation Area is now one of the most significant natural areas in the Lower Mainland and is the largest component of the Burnaby Parks System. The area has been recognized as an Environmentally Sensitive Area (ESA) in the City of Burnaby's Initial ESA strategy.

### **Ecosystem Background**

Burnaby Mountain is found in the Coastal Western Hemlock Biogeoclimatic Zone, and is in the Dry Maritime Subzone of this unit (CWHdm). While this zone is typically composed of forests dominated by western hemlock and other coniferous species, logging on the mountain around the turn of the century and again in the 1940s altered the structure and composition of the forest. The original forest was composed of large western red cedar, western hemlock and Douglas fir trees. Today the forest is dominated by deciduous species in their early successional stage. The mountain is comprised of nine unique vegetation communities and a number of sub-communities. Major tree species include: red alder, bigleaf maple, western hemlock, western red cedar, Douglas-fir, vine maple, western dogwood, and paper birch. None of the plant species recorded for Burnaby Mountain are listed on the provincial lists of rare species.

### **Fish and Wildlife Background**

Burnaby Mountain represents an important island of wildlife habitat in a predominantly urban area. In contrast to much of the surrounding environment, Burnaby Mountain is large enough to support populations of medium-sized mammals. Black-tailed deer have been known to inhabit the mountain since the end of the last logging episode. Other wildlife populations and occasional migrants include coyotes, foxes and raccoons. Black bears have been known to visit the mountain on rare occasions. More commonly found in the conservation area are small mammals such as bats, squirrels, rabbits, moles, voles, shrews and mice. Bird species found on Burnaby Mountain are typical of early successional coastal forest habitats. Burnaby Mountain provides good forest and early seral shrub habitat for birds and may also represent an important migration stop-over. Additionally, the conservation area provides year-round habitat for a range of songbirds such as dark-eyed juncos, spotted towhee, wrens, song sparrows, and chickadees. It also provides nesting and feeding opportunities for primary and secondary cavity nesters such as woodpeckers and nuthatches.



According to Conservation Data Centre (CDC) classifications, at least eleven species of provincially Blue- and Red-listed wildlife may be found at or near Burnaby Mountain based on the types of habitats present and the geographic ranges of the species. Listed species include four provincial Blue-listed bird species (the great blue heron, green heron, turkey vulture and Hutton's vireo); two Red-listed amphibians (Pacific giant salamander and the spotted frog); and four mammals including the Pacific water shrew (Red-listed), Trowbridge's shrew (Blue-listed), Townsend's mole (Red-listed), Keen's long-eared myotis (Red-listed) and Townsend's big-eared bat (Blue-listed).

Low order streams (i.e., tributaries or primary drainage) drain precipitation from the crest of Burnaby Mountain into surrounding watersheds. Watercourses found within the conservation area are concentrated on the southern and northern slopes of the mountain. The western and eastern slopes are generally devoid of major watercourses although ditches associated with trails or utility lines provide relatively stable drainage channels during periods of heavy runoff. Currently, storm drains remove excess water from the university campus, directing it to receiving creeks in the southeast portion of the mountain via a stormwater diversion system. The remaining precipitation is absorbed directly into the soil and forms sub-surface flow that is released into streams over a longer duration.

Watercourses such as Stoney Creek, Eagle Creek and Silver Creek on the south slope support fish populations. In particular, Stoney Creek is recognized as providing important salmon habitat in the Lower Mainland. On the north side of Burnaby Mountain, drainage systems flow directly into Burrard Inlet. Although Simon Creek does not currently support fish populations, it contains relatively good habitat for fish and may benefit from future enhancement efforts. Other watercourses on the north slope are less likely to sustain fish populations due to factors such as steep slopes, lower water flows, and human-made impediments.

### **Recreation Background**

In addition to its forest values and its benefits to fish and wildlife, Burnaby Mountain Conservation Area is an important community resource. The Centennial Pavilion area, with its spectacular views of the surrounding region, has traditionally been a focal point for tourists and local visitors to Burnaby Mountain. This developed recreation area is comprised of open meadows, walkways and other cultural and recreational resources such as horticultural displays, public works of art, a restaurant and a children's play area.

The dominant recreation resource on Burnaby Mountain is the trail network that provides access to most of the conservation area except for portions of the north-facing slope above the former target range sites and the steep slopes immediately to the east and west. This trail network currently provides a variety of trail types from gentle to difficult and is currently used for a variety of trail activities such as walking, hiking, jogging, nature observation, horseback riding, and cycling. Approximately 30 km of trails have been developed on the mountain. The trail network includes utility corridors, access roads, as well as named recreation trails



initiated by various user groups. The City of Burnaby has also recently approved routing the Trans-Canada Trail through the Burnaby Mountain Conservation Area. Some of these trails are used to access the university although the steep grades limit the degree of commuter traffic. Numerous informal trails also exist, particularly within the mature deciduous forest areas. Some of the trails have quite steep grades and some are built in inappropriate locations.

In addition to trail-based activities, other uses of the conservation area include nature study and appreciation, bird watching, picnicking, scenic viewing, flying kites, and winter activities such as tobogganing. The Centennial Pavilion area is also used as a tourist stop for larger groups who arrive at the conservation area by bus.

Three outdoor target ranges previously occupied a site along the north boundary of the conservation area adjacent to the Barnet Highway. The leases to operate these facilities have been terminated and the lands will be reverted to conservation and park uses. In addition to the cultural features located in the Centennial Pavilion area, the house from 1912 on the easternmost target range site could be assessed to determine its condition, significance and potential for future use.

#### **Management Issues**

A number of issues have been identified for Burnaby Mountain Conservation Area. These include biophysical resource management issues such as vegetation management and protection of wildlife and watercourses. Other issues are related to human use and management of the diverse types and levels of recreational use. Of concern are the effects of recreational use on the natural values of the conservation area, conflicts among different types of users, and determining the appropriate level of facility development including meeting the demand for trail-based activities such as hiking, mountain biking and equestrian use. Concerns about impacts on the conservation area from future development in the surrounding communities, and in particular, at Simon Fraser University have also been identified.

*Simon Fraser University*

#### **Vision Statement**

The role of Burnaby Mountain Conservation Area has partially been defined through the terms of the Land Transfer Agreement that allowed the former SFU conservation lands to be transferred to the City of Burnaby. The Covenant, which accompanies the Agreement, states that the lands will be used only as a public park within which the City may develop only a public trail system, small parking lots and other support facilities. The park will otherwise be used for the purpose of conservation. This mandate is reflected in the Management Plan in the form of a vision for the conservation area along with associated policies, guiding principles, and recommendations.

The vision statement outlines important values associated with the conservation area and sets the tone for discussing specific management objectives over the long-term. This statement will serve as a guide for reacting to changing demands for recreation or for incorporating new approaches to conservation management. The vision was developed in consideration of both the conservation and recreational



values of the conservation area. Burnaby Mountain is Burnaby's largest dedicated open space and is primarily undisturbed and undeveloped. It is a significant ecological reservoir in the Lower Mainland in addition to its considerable recreational values. The vision for Burnaby Mountain Conservation Area reads as follows:

*"Burnaby Mountain Conservation Area will be conserved in native forest cover and enjoyed through a system of public trails and related support facilities. Conservation area management will directly reflect the intent and principles of the City of Burnaby's Environmentally Sensitive Areas (ESA) Strategy and the recognition of Burnaby Mountain as an ESA of regional importance. The conservation area land will be managed to achieve the protection and enhancement of habitat for birds, animals, and fish in balance with trail-oriented and other recreational activities appropriate to the natural setting. The conservation area will be planned and managed to minimize conflicts among user groups, to serve as an educational setting regarding both natural and cultural history, and to monitor and mitigate environmental impacts from human use."*

The challenge of managing the conservation area for both conservation and recreation involves balancing the demands for recreational pursuits with the protection and enhancement of natural and heritage features. Preservation of the natural forest character of Burnaby Mountain will be of primary importance in securing the long-term viability of the conservation area for habitat and human appreciation. Preserving important habitats and protecting environmentally sensitive areas may require limiting or eliminating public access and recreation in some parts of the conservation area. Where appropriate, Burnaby may also implement sound management practices or techniques for the purpose of enhancing natural conservation area values. All management activities in the conservation area will be subject to the City's Environmentally Sensitive Areas principles and review process and will be compatible with the Covenant for the conservation area.

It is the intent of the City of Burnaby to provide a variety of recreational opportunities within Burnaby Mountain Conservation Area that are compatible with the environmental sensitivities of the site and are in accordance with the Conservation Covenant. Appropriate activities for Burnaby Mountain Conservation Area may include pedestrian, mountain biking and equestrian use on designated trails; nature study and observation; and use of the facilities of the Centennial Pavilion area for viewing, picnicking, walking and natural and cultural appreciation. All trail-based activities will be subject to monitoring of environmental impacts and user conflicts. In particular, mountain bike use will be conditional subject to regular review. Approval of mountain biking as a permanent use will be contingent on performance in accordance with Management Plan principles.

The plan is intended to set direction for the conservation area and serve as a framework for responding to changing environmental and social conditions over a ten-year time frame. The Management Plan defines a number of guiding principles that provide a broad framework for long-term protection and management of the



conservation area. Key principles include:

*All management activities and strategies, particularly those requiring alteration of the landscape, will respect the spirit and principles of the City's Environmentally Sensitive Areas Strategy.*

- *Burnaby will adopt a no-net-loss approach to habitat conservation within the conservation area whereby the development of new facilities with significant impacts will be off-set by preservation and enhancement of other areas for conservation and wildlife habitat.*

*Habitat loss and fragmentation will be minimized through the use of existing trails, rights-of-way, and clearings, and by managing access into important habitat areas. Continuous blocks of habitat will be maintained for their wildlife values, and in some cases, access to these areas may be restricted.*

*Sites within the conservation area which have been identified as especially sensitive for their vegetation, habitat or watercourse values will be given priority for implementation of management actions to improve and protect existing natural values and, where appropriate, recreational opportunities.*

*Efforts will be made to protect any sites, artifacts, structures or landscape features that are historically or culturally significant, or that may be identified as significant through further assessment and inventory.*

*The Centennial Pavilion area will continue to be a major attraction and focus of the conservation area. Existing cultural facilities and structures will continue to be maintained and interpreted, such as the rose garden and works of public art.*

*View corridor management will be assessed and implemented relative to the protection of significant environmental features. Scenic views and viewing opportunities will be maintained through vegetation management such as the selective thinning or removal of trees or tree branches to retain view corridors, or planting a different mix of species at important viewpoints to limit re-growth.*

*All trails formalized within the Management Plan will be improved and upgraded to meet environmental protection and public safety objectives including the closure of informal trails and restoration of native vegetation. Trail improvements, closures, and/or re-routing of trails in highly erosive areas or near watercourses will be given priority in the implementation strategy.*

*The creation of new trails is only proposed in areas where there is an opportunity to provide significant trail linkages, i.e., loops, within the*

*conservation area, to deflect users from unsafe or sensitive areas, or to manage user conflicts.*

*Parking will be encouraged only in existing clearings. With the exception of short-term parking at viewing locations, new parking areas will be located at the periphery of the conservation area near access points to trails.*

*Education and interpretive programs will promote public appreciation of the conservation area and its unique natural landscape as well as enhance awareness of conservation issues while discouraging activities that can lead to the destruction or disturbance of habitats.*

### **Management Recommendations**

In addition to these broad management guidelines, the Management Plan provides more detailed recommendation related to all aspects of park management. Key recommendations include:

#### ***Natural Resource Management***

- A comprehensive Vegetation Management Plan will be developed for Burnaby Mountain Park. The plan will focus on maintaining habitat diversity and forest health, but will also address issues of view management and public safety.
- Continuous blocks of habitat have been maintained for their wildlife values, and access to these areas is restricted or limited to pedestrian traffic.
- Existing clearings, open meadows, and rights-of-way will be used as much as possible to limit the disturbance and fragmentation of habitat.
- Parking will be encouraged only in existing disturbed areas and the creation of new trails has been proposed only in areas where there is an opportunity to provide significant trail linkages (i.e., loops), to deflect users from unsafe or sensitive areas, or to manage user conflicts.
- New developments or facilities are restricted to those identified as appropriate according to the Covenant establishing Burnaby Mountain Park, and to the vision, mandate and policies outlined in the Management Plan.
- Except where there is a threat to public safety, management recommendations encourage the retention of dead and decaying standing trees, as well as fallen trees, for use by wildlife as cover and forage sites.
- All trails or trail sections which lie within the creek bed of a permanent watercourse will be closed and restored.
- No access "buffer strips" will be maintained between streams and trails except where an adequate crossing is in place. Crossings will be designed to retain natural flow patterns of watercourses and to minimize erosion, sedimentation, and destruction of aquatic vegetation.

#### ***Trail Improvements***

- All trails formalized within the Management Plan will be designed or upgraded to meet environmental and public safety standards appropriate to the location and type of trail.
- To minimize and mitigate problems of erosion and slope instability caused by



natural factors or human use, all trails will be designed with appropriate surfacing and drainage measures.

- Trails in more environmentally sensitive areas and trails near watercourses will be given priority for treatment.
- Trails on very steep slopes, and soils highly prone to erosion, will be closed either temporarily (e.g., in wet conditions) or permanently to allow soils to stabilize.
- Site rehabilitation will occur in areas where trail closures are recommended. Ways to enhance habitat diversity in rehabilitated areas will be explored, for example, replanting native species or restoration of riparian vegetation.
- Trail linkages and safe access between Burnaby Mountain Park and regional neighbourhoods and parks, including SFU, will be provided.

### ***Recreational Use***

- Pedestrian use will be permitted on all trail routes except where a separate cyclist-only route is provided in a parallel location to a walking trail, or where a nearby trail with similar start and finish is available to walkers.
- Mountain bike use of selected trails is proposed to be conditional with regular review and renewal based on performance in accordance with Management Plan principles. A one-year review period is proposed along with implementation of a public education, monitoring, patrol and enforcement program.
- Destination equestrian use will be accommodated in the conservation area on select trails where multiple-use standards are feasible given terrain and slope constraints, and monitored.
- Off-leash dogs are incompatible with the conservation objectives of the park and are therefore not permitted.
- No motorized vehicles will be permitted on park trails or unpaved rights-of-way except for service and emergency purposes.
- The Centennial Pavilion area will continue to be maintained and managed as a significant recreational resource within the conservation area. Facilities within this area will be improved, upgraded or expanded as needed and based on demand.

### ***Education and Interpretation***

- Opportunities for interpretation of the park's natural and cultural resources will be provided through the development of an Interpretation Strategy that will include the placement of low-key signage, park maps, and other interpretive information at centralized locations.
- The interpretive program will make use of the extensive trail network to provide linkages between features and activity nodes.
- Displays and signs will be located in key areas (i.e., trail access points) and will depict environmental, scientific, historical or regulatory information. More detailed information will be presented in other areas of the conservation area which receive a concentration of users.
- The City may make use of information kiosks and, potentially, a small nature interpretive centre, which is proposed as part of the redevelopment of the

former target range sites.

- Signs and maps will be positioned at key locations directing visitors to complementary areas such as Barnet Marine Park, the Urban Trails System, or extensions of the Trans-Canada Trail.
- The City of Burnaby will work with institutions, agencies and/or community groups interested in becoming involved in research or educational programs such as guided nature walks, wildlife surveys, or school programs.

#### ***Public Advisory Committee***

- A Public Advisory Committee will be established including representatives from a range of community and park interest groups.
- The committee will participate in discussions on park issues and assist the City in evaluating progress towards Management Plan objectives. The role of this committee will be advisory in nature.
- The Advisory Committee will bring forward issues and engage in discussions to identify solutions; assist in setting priorities for the implementation of management recommendations and initiating programs and events; and assist in evaluating progress towards meeting the objectives of the Management Plan.

#### ***Research and Monitoring***

- Regular monitoring of environmental and trail conditions is to be conducted in all areas of the park.
- Prescriptive environmental programs are recommended in appropriate areas to encourage forest and habitat diversity. For example, planting a different mix of species, providing browse areas for deer, or initiating fish enhancement programs.
- As a priority, the design and implementation of more detailed studies on birds, fish and mammals are recommended to increase our understanding of wildlife populations on Burnaby Mountain.
- Other suggested areas for research include water quality monitoring; studies on human disturbance to wildlife; mapping wildlife migration corridors; inventory of wildlife trees; monitoring changes in the distribution or age of forest communities; human use counts on selected trails; and detailed visitor opinion surveys.

#### ***Trail Concept Plan***

A Trail Concept Plan (i.e., the recommended design elements) has been prepared for Burnaby Mountain Conservation Area (Figure O-1). This Concept Plan has evolved from extensive consultation with public interest groups through meetings with stakeholders, workshops, and three public Open Houses. The Trail Concept Plan was developed by combining options and ideas that received the greatest support during the public consultation process, and which best exemplified the management objectives and guidelines for the conservation area.

Given the limitations imposed by terrain and slope in some parts of the conservation area, particularly in areas that appear to be less sensitive with respect to other



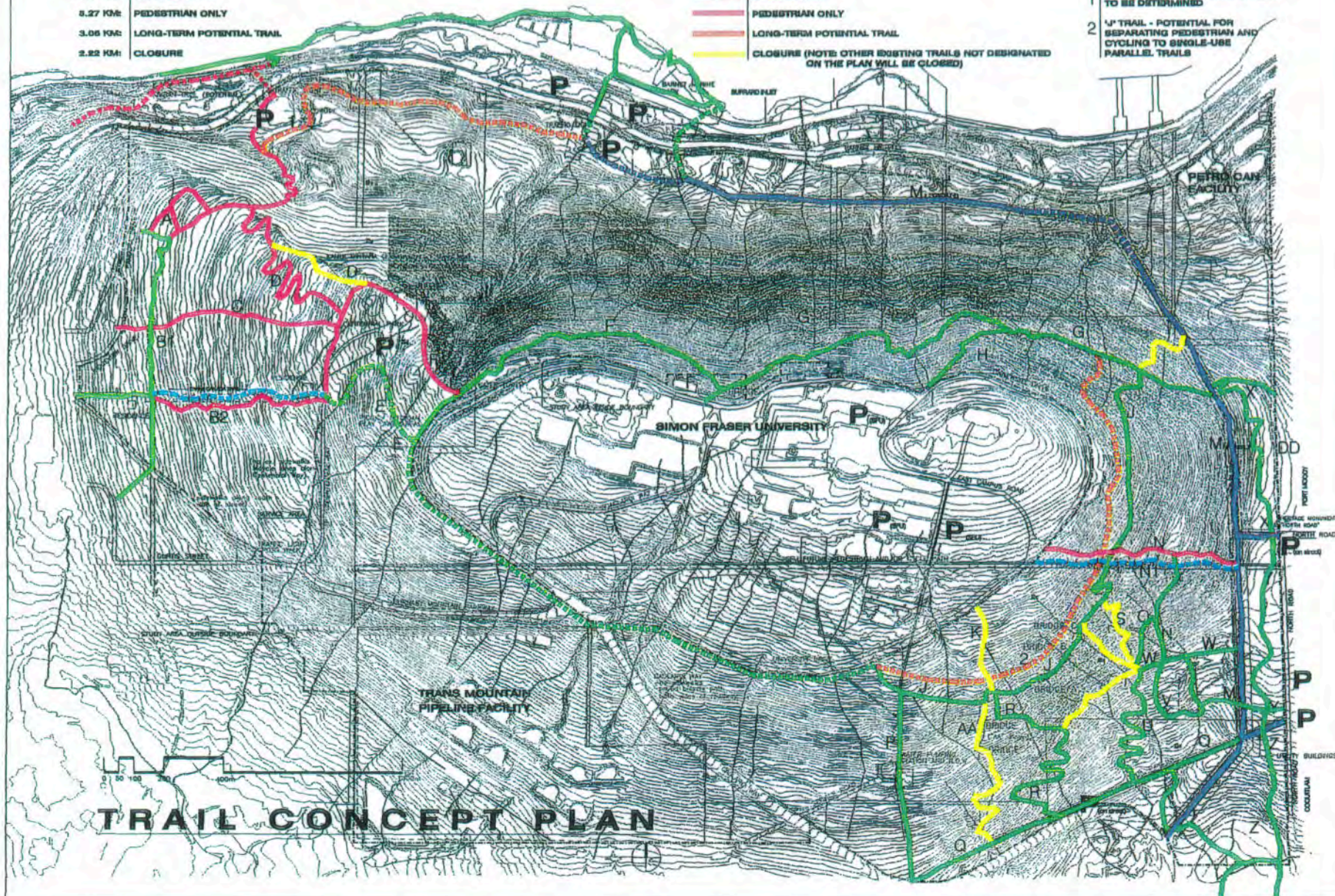
# TRAIL LENGTHS

4.46 KM:	MULTI-USE PEDESTRIAN / CYCLING / EQUESTRIAN
22.20 KM:	MULTI-USE PEDESTRIAN / CYCLING
1.27 KM:	CYCLING ONLY
5.27 KM:	PEDESTRIAN ONLY
3.05 KM:	LONG-TERM POTENTIAL TRAIL
2.22 KM:	CLOSURE

# TRAIL LEGEND

(Solid line)	MULTI-USE PEDESTRIAN / CYCLING / EQUESTRIAN
(Dashed line)	MULTI-USE PEDESTRIAN / CYCLING
	CYCLING ONLY
	PEDESTRIAN ONLY
	LONG-TERM POTENTIAL TRAIL
	CLOSURE (NOTE: OTHER EXISTING TRAILS NOT DESIGNATED ON THE PLAN WILL BE CLOSED)

(Solid line)	EXISTING TRAILS
(Dashed line)	PROPOSED TRAILS
1	VELODROME TRAIL - USER STATUS TO BE DETERMINED
2	'P' TRAIL - POTENTIAL FOR SEPARATING PEDESTRIAN AND CYCLING TO SINGLE-USE PARALLEL TRAILS





environmental factors (e.g., vegetation, wildlife and watercourses), it was inevitable that human use be concentrated in areas that are more suitable from a slope and public safety point of view. Nevertheless, a balance was sought in the more ecologically sensitive areas between protection and human activity. Highlights of the Concept Plan include:

#### ***Habitat Blocks***

The Trail Concept plan identifies and protects a number of habitat blocks defined as large areas that currently have no trails within them. From an environmental standpoint, it is desirable to retain these areas as wildlife refuge and to avoid making any new trails to prevent fragmentation and further human disturbance. A "modified" habitat block has also been identified on the northwest corner of the conservation area adjacent to the large contiguous block of habitat that makes up much of the north slope. This modified habitat area has been designated for pedestrian use only. Use is restricted to existing trails and there are no provisions in the plan for new trails in this area. These blocks represent intact habitat areas free from possible impacts from trail and, especially, cyclist activities.

#### ***Pedestrian Access and Opportunities***

The Conservation Area Management Plan is based on the premise that all trails should be available to hikers and that some trails should be designated as pedestrian only, including trails on sensitive, steep terrain, not suited to cycling. On this basis, pedestrians will not be excluded from trails unless there is a parallel pedestrian only trail in place.

#### ***Cycle Access and Opportunities***

Prior to development of the Conservation Area Management Plan, mountain bikers used all the trails within Burnaby Mountain Conservation Area. The Concept Plan identifies, on a temporary trial basis, a number of multi-use pedestrian / cycling trails. This type of trail is intended for shared use and could indicate a priority for one mode or the other, such as 'Cyclists Yield to Pedestrians' or 'Pedestrians Yield to Cyclists'. Cycling only trails have been identified only where a pedestrian route is available with similar start and finish. For example, the proposed link for the Trans-Canada Trail between the foot of Hastings Street and the Centennial Pavilion area is a parallel pair of trails, both adapted from existing trails so that one will suit hikers (stairs in steep sections) and one will suit cyclists (switchbacks in steeper places).

#### ***Equestrian Access and Opportunities***

The Trail Concept Plan identifies a number of suitable trails for equestrian use in a shared trail with other user groups. The Trans-Canada Trail, east of the Centennial Pavilion area was considered too narrow to accommodate the anticipated demand from pedestrians, cyclists and equestrian users without requiring significant and expensive trail improvements such as widening, retaining walls and other engineering works. A new equestrian route was identified which extends along the existing transmission line right-of-way, already popular with equestrians, to the former target range sites. This route offers equestrians a long trail opportunity with



appropriate grades and trail widths to accommodate all user groups due to its role as a service access for the transmission line.

### ***Loop Trails***

The Trail Concept Plan identifies two major trail loops and a number of smaller loop opportunities in the conservation area. The concept of loop trails was widely supported in discussions with interest groups and at the first Public Open House. Prior to the closure of the target range facilities, it was not feasible to provide a trail loop around the mountain. The Trail Concept Plan changes this by creating a long loop, which circumnavigates the mountain and links to Barnet Marine Park. The length of new trail sections needed to achieve these loops is minimized by utilizing existing service access corridors. Where new trails are introduced, their total length is less than the extent of trails that will be closed and decommissioned.

### ***Parking Opportunities***

The Concept Plan identifies a number of locations for public parking to serve the conservation area. The overall strategy is to have a number of small parking areas and to avoid expansion of parking in the vicinity of the Centennial Pavilion, or the creation of a new major parking lot. Reclamation of the former target range sites provides a new opportunity to create a major entry, parking, and interpretive node for the conservation area at a prominent location at the lower elevations of the mountain. Additional parking opportunities are identified in the plan to serve as options in the future. The intent is to limit and manage the number of new parking spaces made available to conservation area users as a way to manage the intensity of conservation area use into the future.

### ***Cleared Areas and Open Space***

The Concept Plan incorporates the assumption that no new clearings should be made in the forest cover of Burnaby Mountain. This objective implies that the existing cleared areas of the conservation area should be the focus for uses which require clearings, from deer browse areas to picnic meadows. Key clearings include:

**The former target range sites:** envisioned as clearings maintained for wildlife habitat and picnicking with continued use of existing gravel parking lots.

**Viewing area and other functions in the Centennial Pavilion area:** envisioned as having little change and as requiring some tree modification to keep key views available. Some expansion of the children's playground is noted as an opportunity supported by the first Public Open House.

**Open grassy area along the Ring Road:** noted as an opportunity for wildlife habitat and for providing views toward Port Moody.

### ***Long-Term Options***

Three long-term potential options are proposed for trails. These long-term options are intended to respond to an expected growth in recreational use of the conservation area, while recognizing that existing use levels may not warrant

implementation of such measures until well into the future, if at all. In consideration of conservation and recreation objectives, these future options will only be considered if the following criteria are met:

- a demand for the action is recognized and justifiable;
- an ability to steward Burnaby Mountain trails in an environmentally sensitive manner will have been demonstrated;
- an environmental and geotechnical assessment will be performed to determine impacts; and
- use of the trail will be determined at the time of development based on demand and environmental impacts.

The long-term options are:

**Lower Loop Trail:** Complete a lower loop of the Mountain by creating a new connecting trail between the former target range sites and the Harry Jerome Sports Centre. User status is to be determined at time of development. When presented to the public at the second Open House, 62.8% of respondents supported this option.

**Parallel Option for 'J' Trail (Mel's):** Potential for separating pedestrian and cycling to single-use parallel trails. When presented to the public at the second Open House, 66.3% of respondents supported this option.

**South Side Trails:** Designate trails on the southern slopes as pedestrian-only or cycle-only to separate pedestrians and mountain bikers in this high-use area. When presented to the public at the second Open House, 54.6% of respondents supported this option.

#### **Priorities for Implementation**

The Management Plan recommends that the following items be implemented within the first two years of plan implementation:

- Conduct an assessment of hazard trees following protocols established for other City of Burnaby parks.
- Commission a detailed survey and mapping of all trails.
- Decommission all trails subject to closure using physical barriers, signs, enforcement and public education.
- Construct adequate stream crossings over all formal trails which cross watercourses or major ravines.
- Assess all trail sections that fall within 15 metres of a major watercourse to determine feasibility for re-routing.
- Treat all trails or trail sections identified as requiring site-specific improvements such as slope stabilization and grading, and in accordance with user requirements.
- Complete sections of the Trans-Canada Trail within the Burnaby Mountain Conservation Area.



- Undertake immediate revegetation and stabilization of stream banks where trails have been closed or re-routed.
- Restore vegetation in areas where significant trail closures have been realized to stabilize slopes and re-establish vegetation.
- Complete studies on the condition of the former target range site and the projected costs for site rehabilitation.
- Rehabilitate the former target range site, including contaminated soils and watercourses.
- Complete heritage study and conservation plan for the 1912 house located at the former Barnet Rifle Range.
- Secure financial and human resources to ensure continued operation of the salmon rearing facilities at the former target range site.
- Erect safety signs and restrictive barriers along steep slopes and trails, as needed.
- Provide directional maps and signs, including signs denoting designated uses of each trail.
- Erect signs denoting the boundaries of protected habitat areas, or in pedestrian-only areas, signs explaining the rationale for restricted access.
- Establish a Public Advisory Committee and finalize their role and responsibilities.
- Finalize criteria for mountain bike conditional review period and initiate review program following implementation of necessary trail improvements and recommendations for education and enforcement.
- Evaluate mountain bike use of trails after one-year period.
- Complete the trail loop below the SFU Ring Road.
- Implement sections of the planned Urban Trail Network in the vicinity of Burnaby Mountain Conservation Area.
- Develop a comprehensive Vegetation Management Plan and related Fire Management Plan.
- Develop an Interpretive Plan and related implementation strategy.

