

A bald eagle is perched on a dark, textured tree branch. The eagle is facing left, with its head turned slightly towards the viewer. Its feathers are dark brown with some lighter, mottled patterns on its chest and wings. The background is a solid, clear blue sky. The text "GET TO KNOW THE BURNABY MOUNTAIN CONSERVATION AREA!" is overlaid in the center of the image in a bold, white, sans-serif font.

GET TO KNOW THE BURNABY MOUNTAIN CONSERVATION AREA!

prepared by the
Burnaby Mountain Preservation Society
April 2026

GET TO KNOW THE BURNABY MOUNTAIN CONSERVATION AREA!

In this document, we provide some general information about the Burnaby Mountain Conservation Area, followed by a description of the geology of the Burnaby Mountain Conservation Area, the vegetation found in the Burnaby Mountain Conservation Area and the Burnaby 200 Conservation Area; and the wildlife that inhabits the skies, watercourses and lands of Burnaby Mountain.

This document relies, in part, on the 1999 Management Plan for Burnaby Mountain that was prepared for the City of Burnaby by AXYS Environmental Consulting Ltd. and Phillips Farevaag Smallenberg, Planning, Urban Design and Landscape Architecture Inc., hereafter referred to as the AXYS report ([LINK to AXYS REPORT](#)).

1. DESCRIPTION OF THE BURNABY MOUNTAIN CONSERVATION AREA

The Lower Mainland contains provincial parks, regional parks, regional watersheds, provincial wildlife management areas and municipal “protected areas”.

In 2000, the City of Burnaby dedicated the area formerly known as Burnaby Mountain Park, along with lands that it had re-acquired from Simon Fraser University in 1996, as the **Burnaby Mountain Conservation Area**. It was reported at the time:

The 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.

Since the Province paid for Burnaby to re-acquire the SFU lands, the Province was granted a **Protective Covenant** over the transferred lands to ensure they would be used only for conservation purposes- see Attachment #1 to this document (Fig 1-2a from the AXYS Report) for a map showing the transferred lands subject to the Protective Covenant.

The Burnaby Mountain Conservation Area is stated to be 576 hectares and its smaller neighbor, the Burnaby 200 Conservation Area, is stated to be approximately 200 hectares. This means there is a total of approximately 776 hectares of protected lands on Burnaby Mountain. In 2000, the Burnaby Mountain Conservation Area was the second largest municipally owned and managed “protected area” in the Lower Mainland (Burns Bog Ecological Conservancy Area being the largest and Stanley Park being the third largest). See Attachment #2 to this document (Fig 3-8 from the AXYS Report) that shows the size of the most environmentally sensitive areas in the Burnaby Mountain Conservation Area.

Today, Simon Fraser University and its primarily residential neighbourhood, UniverCity, sit atop Burnaby Mountain. There is a “ring road” that encircles the university lands that can be

accessed by Gagliardi Way (a 4-lane highway on the southeast slope of the mountain) or by Burnaby Mountain Parkway (a 4-lane highway on the west slope of the mountain).

Part way down the south slope of the mountain lies the small residential neighbourhood of Forest Grove. This community is nestled between the Burnaby Mountain Conservation Area above and the Burnaby 200 Conservation Area below. Light industrial lands lie at the foot of the mountain. To the east, the Burnaby Mountain Conservation Area extends south along both sides of Stoney Creek.

The Trans Mountain “tank farm” is located on the southwest slope of Burnaby Mountain. The tanks, which are used to store diluted bitumen and other oil products, used to be surrounded by grasslands that were part of the Burnaby Mountain Conservation Area. In 2014, black-tailed deer could be seen grazing near the tanks. By 2024, there were 26 tanks, many significantly larger than the original ones, the grasslands were largely gone and the deer displaced.

It is unclear to us whether the boundaries of the Burnaby Mountain Conservation Area have been officially changed since 2014 (pre-expansion) to reflect that the tank farm area, formerly considered conservation lands, is now completely industrialized. Whatever the case, we believe that the Trans Mountain expansion further underscores the need to protect the rest of the Burnaby Mountain Conservation Area.

2. GEOLOGY OF THE BURNABY MOUNTAIN CONSERVATION AREA

Climate

The Burnaby Mountain Conservation Area lies in the Coastal Western Hemlock bio-geo-climatic zone, which in 1999 was characterized by abundant rainfall and mild temperatures. Mean annual precipitation in 1999 was 1270 mm on the mountain foot slopes and 2200 mm over the highest part of the mountain (the eastern prominence).

Wind and rain originating over the Pacific Ocean generally strike the south and southeastern slopes, making them the wettest slopes on the Mountain. In summer, sunlight warms the forest for longer, making these the warmest slopes on the Mountain and the most biodiverse.

Soil and topography

Burnaby Mountain is the highest point in the City of Burnaby at about 360 meters (1200 feet) above sea level. It is characterized by a moderate to steep north facing escarpment and a more gentle south facing slope.

The advance and retreat of glaciers over the last two million years removed many layers of sediment. Also, during this period, large blocks of sedimentary material slumped downhill leaving the north side of the mountain unstable. In 1999, the north slope was generally

thought to be in a state of equilibrium under the conditions that existed at that time. Slope movements or failures could recur on the north slope if conditions change. As stated on page 18 of the AXYS report: “... *the moderate to steep slopes found on the north side of the mountain have limited recreational use, which has created a block of relatively undisturbed habitat.*”

The northern and upper slopes of Burnaby Mountain were originally covered in coniferous forest, contributing to very acidic soil. The soil on the south facing slopes is less acidic. In 1999, it was recorded that the south facing slopes are mantled by a thin organic layer of topsoil, underlain by silty sands and gravel. This means that the soil on the south facing slopes is fragile.

Recreational activities where people have veered off designated trails have caused soil erosion that makes it difficult if not impossible for vegetation to re-establish itself. Construction and maintenance activities have also made the slopes more prone to surface water flows that wash away topsoil and affect existing drainage patterns.

Watercourses

According to the AXYS report, there exists very little information about groundwater on Burnaby Mountain. Much of the flow of water is sub-surface although wet and boggy areas can be observed during the winter months. Springs have been noted on the north side of the mountain where groundwater collected near the top of the mountain seeps below ground and reappears at lower elevations.

Watercourses that originate on the mountain drain into 3 main stream systems: Stoney Creek, Silver Creek and Eagle Creek. All are part of the Brunette River System, which drains much of Burnaby. Stoney Creek provides year round rearing habitat for salmon, steelhead and cutthroat trout. (In 2024, there were 3,295 returning chum and 1,149 returning coho.)

The Stoney Creek Environment Committee, a group of dedicated stream keeper volunteers, was co-founded by Jennifer Atchison in 1994. As the Stoney Creek Environment Committee website states:

Jennifer promoted and defended Stoney Creek, and her work paid off. Jennifer’s engagement and inclusion of young people from the schools and the Ganymede Explorers brought the community into the SCEC’s activities..... Gradually, through partnerships, with groups including the Cities of Burnaby and Coquitlam, Metro Vancouver, BC Hydro, BC Transmission, Simon Fraser University, Department of Fisheries and Oceans and the Burnaby School Board, Stoney Creek has transformed from a waterway blockaded to fish to a flourishing salmon rearing stream – a feat considering that salmon had been absent from its waters for nearly for 50 years!”

Stoney Creek is nowadays recognized by the Department of Fisheries and Oceans as the most important salmonid stream in the Brunette River watershed.



As stated on the [SCEC website under "History" \(LINK\)](#), "Today the membership of the SCEC carries on the work of protecting the watershed and engaging the community through events like the Great Salmon Send-Off. We also continue to monitor and enhance habitat through our projects and stewardship activities." Here, children touch "their" smolts before gently depositing them into Stoney Creek as part of "The Great Salmon Send Off".

3. VEGETATION

Forest

The original forest on Burnaby Mountain was composed of large western red cedar, western hemlock and Douglas fir trees. The forest was logged almost completely by 1912 and then again in the 1940s. However, some large stands of conifers on the steep north slope and the eastern slope survived logging. These large remnant fir trees are now over 110 years old.



According to the 1999 AXYS report, there are four types of forest in the Conservation Area:

1. Mixed deciduous and conifer forests (high biodiversity value)
2. Mature deciduous dominated forests (moderate biodiversity value)
3. Mature coniferous dominated forests (moderate biodiversity value)
4. Young seral forests (lesser biodiversity value)

Without human intervention, the typical succession path of the Burnaby Mountain forests to becoming mature conifer forests will be slow.

Today, major tree species include red alder, big leaf maple, western hemlock, western red cedar, Douglas fir, vine maple, Pacific dogwood and paper birch. Other species such as Sitka spruce and black cottonwood are also present in some areas. See Appendix G of the AXYS report for a list of vegetation species found on Burnaby Mountain.



Cascara trees, like the one in the photograph to the left, were once extensively harvested for their medicinal properties. Some can still be found in the Burnaby Mountain Conservation Area. Cascara is an important host plant for moths and butterflies like the western swallowtail. Leaves and berries provide food for insects and small mammals. The bark from Cascara trees was used by indigenous peoples for medicinal reasons, including as a laxative. The blue, seedy berries are edible but not highly regarded.

Trees provide shelter and nesting sites for birds and other animals, and perching sites for raptors. As well, they regulate air temperature and humidity, slow down runoff, and improve soil aeration and drainage.

While discussing trees, it should be mentioned that coarse woody debris (CWD) from trees, consisting of logs, root wads, bark, limbs and stumps in various stages of decay, is found on the forest floor, providing food sources, transit corridors and shelter for many small inhabitants.

Understorey Plants

Understorey vegetation in the Conservation Area includes many species of shrubs including red elderberry, salmonberry, thimbleberry, devil's club, salal and Oregon grape; low growing trees such as vine maples; and ground covers such as foamflower, bleeding heart and

western trillium, as well as a variety of ferns and mosses.

According to the AXYS report, a number of provincially rare vegetation species occur in the vicinity of Burnaby Mountain and may be found in the Conservation Area- see Attachment #3 to this document (Table 3-1 from the AXYS Report).



Pacific bleeding heart

Bleeding heart is a common plant on the forest floor. It has pinkish-purple, heart-shaped flowers with a spicy fragrance. Seeds contain an oil that attracts ants. The ants carry the seeds back to their ant nest. In this manner, the plant is dispersed through the forest.



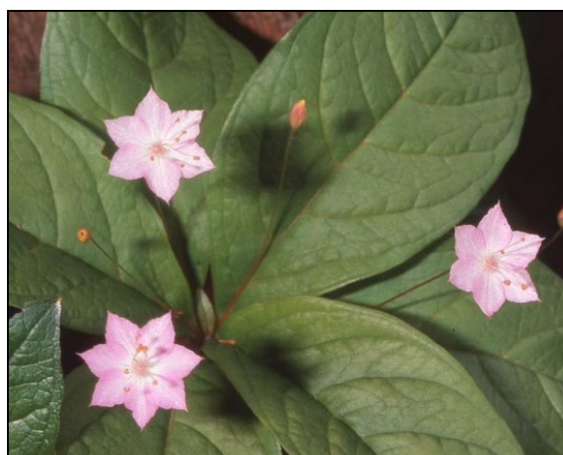
Western trillium (left), a member of the lily family, is found in the moist forests and along stream banks on Burnaby Mountain. It is a beautiful, three-petaled flower that is a harbinger of spring. Western trillium are very long lived and can take as long as 10 years to flower from seed. As the flowers age and following pollination, the white flowers change to pink or even burgundy. While not blue-listed, western trillium is protected under the Dogwood, Rhododendron and Trillium Protection Act, which makes it illegal to pick, cut, or dig them up on private or Crown land without consent.

Bunchberry (right), a creeping groundcover, is the smallest member of the dogwood family. In the summer, bunches of edible red berries appear that are a favourite of bears and songbirds. Bunchberry roots and bark were used by indigenous peoples for medicinal purposes.



Heart-leaved claytonia (left), also known as heartleaf springbeauty, thrives in the shady moist environment on Burnaby Mountain. From May to September, it produces delicate white five-petalled flowers that grow on stems that may reach 40 cm. Claytonias such as this, with broad, succulent leaves, have edible, sweet-tasting foliage. Like its cousin, true miner's lettuce, heart-leaved claytonia is often used in salads.

The broad-leaved starflower (right) is a member of the primrose family. Their dainty flowers appear to hang in the air like forest stars which is how the plant gets its name. They like the moist shady habitat on Burnaby Mountain. Coastal indigenous peoples gathered their tubers for food.





Red elderberry (left) bushes grow to a height of 10 feet high. In the spring yellowish-white flowers grow in clusters. It produces red berries in the fall that are relished by birds.

Trailing blackberry (right) is a beneficial native plant, unlike invasive Himalayan blackberry that crowds out other species. Trailing blackberry is a “pioneer species”, meaning that it is one of the first organisms to colonize barren, newly created, or disturbed ecosystems, initiating biological succession. Trailing blackberry runs five meters or more along the ground. It produces small, elongated, very tasty berries.



Salmonberry (left) is a large bush in the rose family. It has pink to red flowers and in the spring it produces yellow to orange to red fruit. Salmon roe (salmon eggs) mixed with salmonberries was, and is, a delicacy for many indigenous people. The berries are similar in colour to the salmon roe which may be how the salmonberry got its name. The sweet-tart taste of the berries pairs well with the rich savory flavor of the roe or fish.

Black twinberry bushes (right) are in the honeysuckle family. They can grow to three meters tall with shiny green deciduous leaves. Black twinberry produces yellow tubular flowers followed by pairs of black berries surrounded by four red bracts. The berries provide food for birds (especially grouse), bears, and other animals. Deer browse the twigs and leaves. The peeling bark is used by birds and small mammals as nesting material. Hummingbirds pollinate black twinberry.



Fungi

Fungi can be found throughout both the Burnaby Mountain Conservation Area and the Burnaby 200 Conservation Area, especially in the Fall! Fungi are the forest's decomposers and recyclers, breaking down dead plant and animal material and returning bound-up nutrients such as carbon, nitrogen and phosphorus to the soil and atmosphere, thus cycling nutrients through the ecosystem and contributing to forest health.



Golden Pholiota (*Pholiota aurivella*) growing in the Burnaby Mountain Conservation Area, September 28, 2023. Photograph courtesy of Ernest Harrop.



Conifer tufts (*Hypholoma capnoides*) on Burnaby Mountain, October 24, 2025. Photograph courtesy of Ernest Harrop.

4. WILDLIFE

Birds

AXYS Environmental Consulting Ltd. stated that it was limited by the seasonality and duration of its study. It listed in Appendix I of its report “Potential and Confirmed Bird Species Occurrence on Burnaby Mountain”. In the body of its report, AXYS stated at least 50 species of birds could be found on Burnaby Mountain. In fact, there are a great many more bird species than that!

Burnaby Mountain is what some describe as a “burning hotspot” for birds – resident birds and migratory birds. According to eBird, 140 different species of birds have been identified on Burnaby Mountain ([LINK](#)). (According to A.I., eBird is the world’s largest online database of bird records, launched in 2002 by the Cornell Lab of Ornithology. It allows birdwatchers to record sightings via a website or mobile app, creating a global database used for science, conservation, and personal list-keeping.)

For many years, George Clulow, Burnaby’s “bird guy”, has led groups of people on bird-watching and nature expeditions around Burnaby. For some years, Mr. Clulow also wrote an online blog called “Burnaby Outdoors – birds, nature, parks”. [See here \(LINK\)](#) for Mr. Clulow’s posting for May 16, 2013 and the photographs of birds he took that morning.

As Mr. Clulow’s posting states, Burnaby Mountain is one of the few places in Metro Vancouver where Sooty Grouse may be spotted. This notable resident species is a ground nester. It lives in the Douglas fir forests near the top of the Burnaby Mountain Conservation Area.



Photograph of Sooty Grouse on Burnaby Mountain courtesy of George Clulow.

The Burnaby Mountain Conservation Areas provides year round habitat for a range of songbirds such as dark-eyed juncos, spotted towhees, wrens, song sparrows and chickadees.

Members of the Burnaby Mountain Preservation Society have seen the above-named birds in the Burnaby Mountain Conservation Area as well as many others: the varied thrush, Swainson's thrush, winter wren, red-eyed vireo and the blue listed Hutton's vireo to name a few.

There are places In the Burnaby Mountain Conservation Area where clearings and forest meet. As AXYS Environmental Consultants Ltd. explain:

Where clearings and forests meet, edge habitats are created. Edge habitats have value for some species of birds and wildlife as they provide a greater diversity of habitat than an interior forest. For example, trails and right of ways constitute a special edge habitat for a variety of bird species, offering food and shelter in close proximity..... Fly catchers and warblers are commonly found around such sites. Other species that benefit from edge habitats include robins, hummingbirds, towhees, wrens, song sparrows and bats. However excessive edge is a feature of habitat fragmentation and can lead to a reduction in overall diversity. (AXYS report, p. 38)



Some songbirds, like the varied thrush (left), hop on the ground or may flit in shrubs and trees. The varied thrush, like most songbirds, eats mainly insects, seeds and berries. When he matures, this varied thrush chick photographed in the Conservation Area will sing his haunting trilling song to attract a mate!

Song sparrows (right) can be found at the forest edge in the Burnaby Mountain Conservation Area. They flit through low vegetation or low branches and forage on the ground. They feed on insects and seeds and berries. They make sweet trilling sounds.



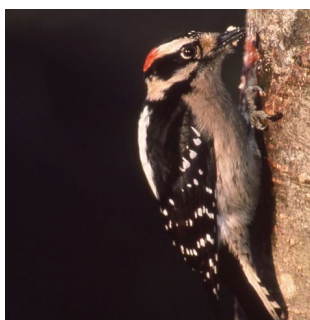
Cute and curious, black-capped chickadees are permanent residents in the mixed forests of Burnaby Mountain. They flit in low vegetation or fly from tree to tree making their cheery “chick a dee dee dee” sounds or whistling “fee bee”. They are social with other songbirds in the Burnaby Mountain Conservation Area such as nuthatches, creepers and kinglets. Black-capped chickadees are often seen upside down searching the undersides of leaves for insects. They nest in tree cavities.



Evening grosbeaks

The forests on Burnaby Mountain provide nesting and feeding opportunities for cavity nesters such as woodpeckers and nuthatches.

Below we have photographs of two of the five types of woodpeckers that are found in the Burnaby Mountain Conservation Area: the non-migratory downy woodpecker (left) and the migratory northern flicker (right). All woodpeckers possess sharp claws and strong, stiff tail feathers that act as a brace allowing them to cling to vertical tree trunks. Males make a drumming sound on trees with their beaks.



Downy woodpeckers (left) grow to 6 to 7 inches from head to tail, making them the smallest type of woodpecker found on the mountain. Downy woodpeckers can often be seen moving upside down a tree trunk in search of ants, caterpillars and other insects. They excavate cavities in dead or dying trees up to 50 feet above the ground.

The Northern flicker on the right is a highly migratory bird that ranges through North America, middle America and the Caribbean. The northern flicker is often seen probing the ground with its beak to find ants. The northern flicker has three calls. The “kleer” call is used to sound the alarm that a predator, like a barred owl, is nearby.



Great horned owls and, more commonly, barred owls, have been seen and heard in the Burnaby Mountain Conservation Area (at left is a photograph of a juvenile great horned owl.)

The Burnaby Mountain Conservation Area is a known habitat for raptors, including Cooper’s hawks, red-tailed hawks, sharp-shinned hawks and northern goshawks. They are part of the mountain’s ecosystem, frequently hunting for small mammals and birds in the forested areas. Like hawks, bald eagles are also an important part of Burnaby Mountain’s ecosystem.



Juvenile bald eagle surveying the Burnaby Mountain Conservation Area for prey.

Standing four or more feet tall and with wing span of approximately 6 feet to 7.5 feet, these birds of prey are the largest bird species likely to be seen in coastal British Columbia. They are not bald as their name would suggest; the heads of mature eagles are covered in white feathers that gleam in contrast to the rest of their dark brown body and wings.

The iconic bald eagle is a common sight in the Burnaby Mountain Conservation Area, soaring overhead in solitude or in the company of one or more other bald eagles. It is also common to hear their piercing cries. If one is lucky, it may be possible to watch two bald eagles engaged in a courtship ritual known as a cartwheel display, with the birds locking talons, then flipping, twirling and spiralling downwards through the air until seemingly just before they hit the ground when they break apart and mate. (Bald eagles can reach speeds up to 160 km/h when diving.)

Small mammals

As there are few mature forest stands in the Lower Mainland, Burnaby Mountain represents a relatively large proportion of remaining habitat for bats that use mature forest stands. The “wildlife trees” found in the Conservation Area provide natural roosting opportunities.

Bats are not rodents! They are mammals – the only flying mammal species. Bats typically produce one baby bat or “pup” per year. They give milk to their young. Mother bats are highly devoted, nursing and protecting their pup for weeks or months until the pup is strong enough to fly and forage on its own.

Bats may be pollen-eating bats or insect-eating bats. In Canada, all our bats are insectivores. Insect-eating bats in North America save farmers billions of dollars every year in pesticides because bats can eat their weight in insects, such as midges and mosquitos, each night (up to 1,000 insects per hour!). Moths and beetles are considered bat delicacies. (Bats do not eat bumble bees or butterflies or other diurnal insects.)

The expression “blind as a bat” is incorrect. Bats have very good eyesight. While bats use echolocation to hunt in the dark, they use vision for long-distance navigation and in twilight.

Five or more different species of bats live year-round in the Conservation Areas on Burnaby Mountain and two other species migrate through the area. The bats that live on Burnaby Mountain include the Little Brown Myotis, the Western Long Eared Myotis, the Yuma Myotis, the Silver-haired Bat, the Hoary Bat and Townsend’s Big-eared Bat, and likely the Big Brown Bat. The Little Brown Myotis is listed as endangered under the federal Species at Risk Act due to White-nose Syndrome, a fungus that is killing hibernating bats across North America. Townsend’s Big-Eared Bat is a “species of concern” under BC law and the Hoary Bat and the Silver-haired Bat have been assessed as endangered by COSEWIC, the independent Committee that advises the federal government on wildlife that is at risk of extinction.

Bat populations are declining all over the world, in large part due to loss of habitat or fragmentation of habitat, often associated with artificial light pollution. Bats have evolved to avoid light for several critical survival reasons. One reason is that brighter conditions, such as light from streetlights, make it harder for bats to hide from predators such as owls. Another reason is that many bat species have a physiological sensitivity to short wavelength, white or green light.

Lights along natural routes, like tree lines or water sources, act as barriers, forcing bats out of an area or requiring them to take longer, more energy-consuming routes around the lighted area that weakens them and limits their time and energy for foraging.

Not only are bats superheroes when it comes to eating pesky insects, it has been noted that they do not get sick when they eat a diseased insect. According to A.I.,

Bats are increasingly used as emerging model organisms in biomedical and evolutionary research, particularly for studying unique longevity, flight, virus resistance, and echo-location. While not traditional lab animals like mice, they provide critical insights into disease tolerance, cancer resistance, and healthy aging due to their 20–40 year lifespans.

Although bats are highly resistant to disease because of their incredible immunity, one in 200 bats may carry rabies. For this reason, people are advised not to touch bats, even if they appear to be dead. Instead, it is recommended that they report stationary bats to bcbats.ca.



This photograph of a Blue-listed Townsend's Big Eared Bat has been provided courtesy of the Burnaby Wildlife Rescue Association of BC.

Besides bats, small mammals that live in the Burnaby Mountain Conservation Area include weasels, squirrels, chipmunks, mice, voles, and moles. Eastern cottontail rabbits and grey squirrels are introduced species that are difficult to remove.

Although Douglas squirrels have been displaced in the city of Burnaby by non-native grey squirrels, Douglas squirrels are still found in the Burnaby Mountain Conservation Areas. Douglas squirrels feed on the seeds of coniferous trees such as Douglas fir. They take the Douglas fir cones in their paws and strip away the scales with their teeth to get to the seed. They also eat berries and mushrooms. They store their food in a single location larger known as a midden.



These two baby Douglas squirrels (above) were spotted in Forest Grove, just outside the Burnaby Mountain Conservation Area.



The endangered Pacific water shrew and Townsend mole (both Red-listed) are believed to live in the Burnaby Mountain Conservation Area.

A member of the Burnaby Mountain Preservation Society spotted this Blue-listed Trowbridge's shrew (left) in the Conservation Area.

Medium to large size mammals



In 1999, there were reported to be 30-40 deer living in the Conservation Area. Since the expansion of the Trans Mountain tank farm, the deer have been observed near Squint Lake Park and, in the summer of 2025, a group of white-tailed deer were observed resting in the grass near the intersection of Burnaby Mountain Parkway and Gaglardi Way.

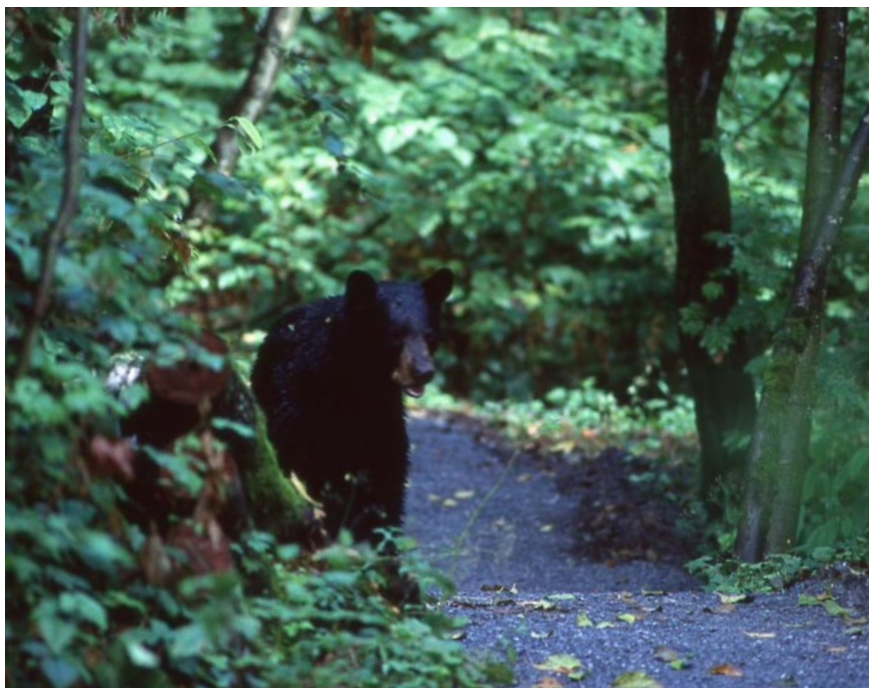
Burnaby Mountain is also home to coyotes, foxes, raccoons and bobcats. This coyote (right) was photographed in its natural habitat in the Conservation Area.



Although bobcats are still sighted with some regularity in the Burnaby Mountain Conservation Area, there are few good photographs of them. Therefore, with Mr. George Clulow's permission, we include on the left his photograph of a bobcat taken at nearby Deer Lake Park instead.

Bobcat photograph courtesy of George Clulow

Black bears were rarely seen in the Burnaby Mountain Conservation Area in 1999. Over the last couple of decades, however, they have become regular visitors to the Conservation Area. It is believed they swim over from Belcarra Regional Park to reach Burnaby Mountain. In the summer months, they are lured by the smell of human food into the Centennial Park picnic area and into the community of Forest Grove. This usually ends badly for the bears, which may be euthanized by conservation officers who are uneasy about the bears' high level of familiarity around humans.



Reptiles and amphibians



Long-toed salamander



Pacific tree frog

This long-toed salamander was photographed in the Burnaby Mountain Conservation Area, confirming the area is home to salamanders. It is possible but not confirmed as far as we know that the endangered Pacific Giant salamander and/or the Spotted Frog may also inhabit the Burnaby Mountain Conservation Area. The Pacific tree frog has been observed in both the Burnaby Mountain Conservation Area and the Burnaby 200 Conservation Area.

Insects and pollinators

Insects play a vital role in the health of the Burnaby Mountain Conservation Areas.

The Burnaby Mountain Conservation Areas are home to various pollinator species. Western Honey Bees and native Black-tailed Bumble Bees are active pollinators on the mountain. Butterflies such as the Western Tiger Swallowtail Butterfly and the Cabbage White Butterfly pollinate the plants in the Conservation Areas by day.

At night, the moths continue this work. There are many more moths than there are butterflies so the role of moths in pollination should not be underestimated. Moths are also a favourite food source for the bats that live in the Conservation Areas. Moth species include large, native Silk Moths and Sphinx Moths.



Ladybug pupa



Spotted skimmer dragonfly



Bee



Tiger Swallowtail butterfly

Ladybugs are another essential ecological species. They feed on aphids, mites, scale insects and mealybugs, thereby protecting plants from damage. These natural pest controllers are said to be biodiversity indications, their presence signalling a healthy, balanced ecosystem. Ladybugs are also a source of food for birds, spiders, and frogs.

Hovering over the Conservation Areas' creeks and waterways, dragonflies (including skimmers) consume large numbers of mosquitos and other insects, providing natural pest control. They, in turn, are a food source for birds, bats, spiders, reptiles, amphibians, and fish. Dragonflies need clean, unpolluted, and oxygen-rich water to survive so their presence around streams and waterways indicates a healthy aquatic ecosystem.

Even ants are vital for the local ecology. Many plants have evolved to have their seeds dispersed by ants. Bleeding Heart is just one example. Ants also provide a food source for bears in the fall if there is a shortage of berries.

5. CONCLUSION

According to scientists, we are now experiencing the 6th mass extinction of biodiversity on the planet – the last mass extinction being the one that wiped out the dinosaurs 65.5 million years ago. <https://www.worldwildlife.org/resources/explainers/what-is-the-sixth-mass-extinction-and-what-can-we-do-about-it/>. Unlike previous mass extinctions, this one is human-caused.

Biodiversity – that big word that includes all living things – is at risk due to climate change caused by human alteration of the earth's atmosphere. It is also at risk due to natural habitats being lost to cities, roads, industry and industrial agriculture. It is at risk due to plastics and pollution. The biggest risk to biodiversity though may be ignorance and indifference.

In Burnaby and the Metro Vancouver region, how can people see what is happening to biodiversity? How can people be inspired to care about and protect the natural world? We believe the answer can be found on Burnaby Mountain.

When people begin to see and understand the biodiversity on Burnaby Mountain – the beautiful shapes, colours, sounds and interconnections – they cannot help but admire it. They may also be reminded of the ways humans have been part of nature for millennia, learning to source food and medicine, and find friendships, emotional and spiritual wellbeing in nature. They may consider the ways that humans are still learning about nature.

We hope this document has given you a small flavor of why the Burnaby Mountain Conservation Area and the Burnaby 200 Conservation Area should be celebrated and deserve to be protected for generations to come.

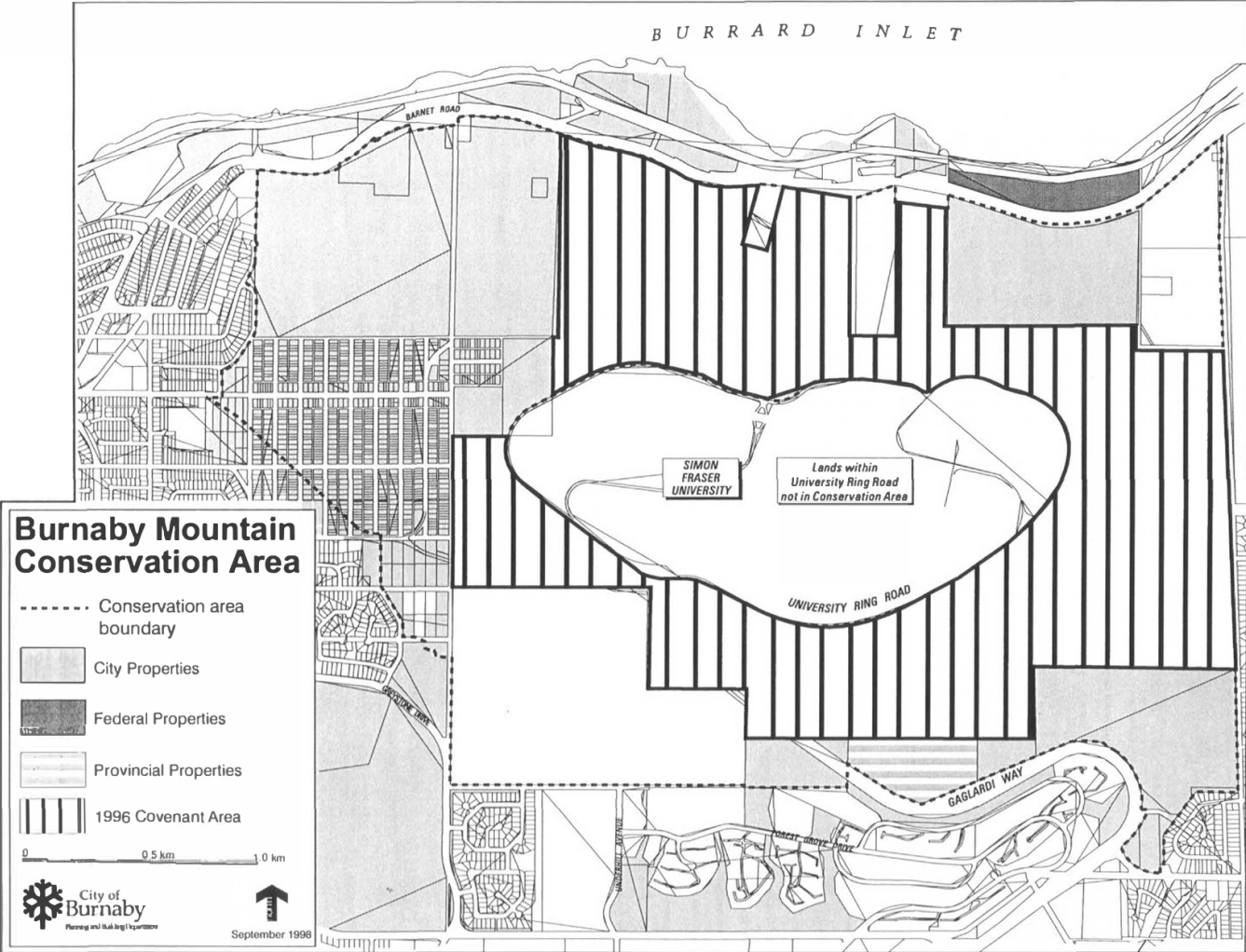


Figure 1-2a: Covenant Area

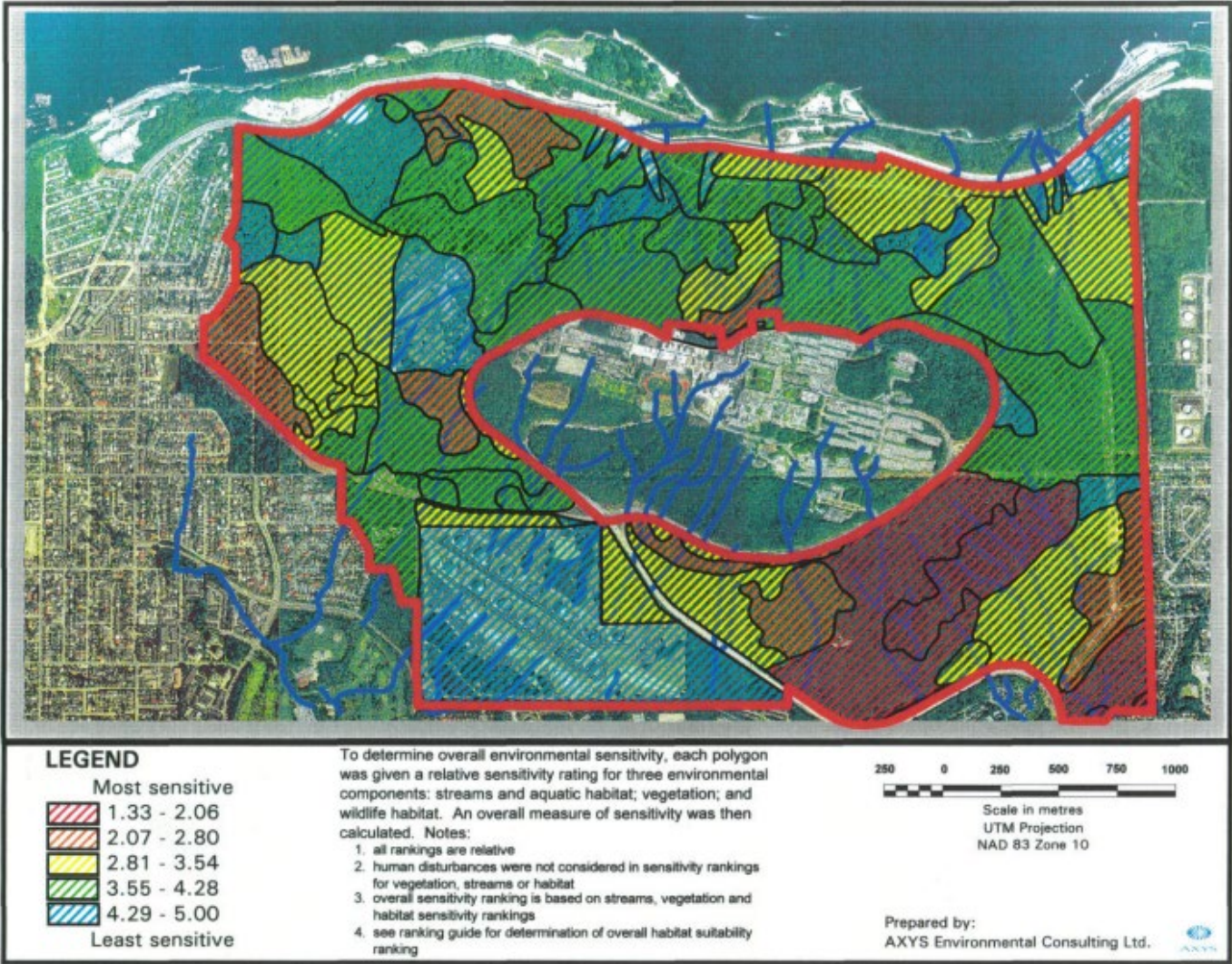


Figure 3-8: Relative Sensitivity based on Vegetation, Watercourses and Wildlife Habitat

Attachment #3 (Table 3-1 from the AXYS Report)

Management Plan for Burnaby Mountain Conservation Area

A number of provincially-rare species occur in the vicinity of Burnaby Mountain and may potentially occur in the conservation area. These are listed in Table 3-1.

Table 3-1. List of Provincially Rare and Endangered Plant Species Known or Expected to occur in the Vicinity of Burnaby Mountain

<i>Species</i> (common name)	<i>Provincial</i> <i>Designation</i> ¹	<i>Known to occur</i> <i>in the vicinity of</i> <i>Burnaby</i> <i>Mountain</i>	<i>Expected to</i> <i>occur on Burnaby</i> <i>Mountain</i>
<i>Apocynum sibiricum saligrum</i> (Clasping-leaved dogbane)	Blue	X	X
<i>Callitriche anceps</i> (Two-edged water starwort)	Blue	X	X
<i>Carex scoparia</i> (Pointed Broom sedge)	Red	X	X
<i>Chenopodium leptophyllum</i> <i>oblongifolium</i> (Narrow-leaved goosefoot)	Red	X	X
<i>Oblongifolium elatine rubella</i> (Three-flowered waterwort)	Blue	X	X
<i>Eleocharis parvula</i> (Small spike-rush)	Blue	X	
<i>Epilobium leptocarpum</i> (Small-flowered willowherb)	Blue	X	X
<i>Impatiens capensis</i> (Spotted touch-me-not)	Blue	X	X
<i>Leersia orzoides</i> (Rice Cutgrass)	Blue	X	X
<i>Liacea scilloides</i> (Flowering Quillwort)	Blue		X
<i>Lindernia anagallidea</i> (False-pimpernel)	Red	X	X
<i>Lupinus rivularis</i> (Stream-bank lupine)	Red	X	X
<i>Myriophyllum ussuriense</i> (Ussurian water-milfoil)	Blue	X	
<i>Polygonum punctatum</i> (Dotted smartweed)	Blue	X	
<i>Salix sessilifolia</i> (Sessile-leaved sandbar willow)	Blue	X	
<i>Wolffia borealis</i> (Water-meal)	Red		X

Source: B.C. Conservation Data Centre (CDC 1998)

Notes:

- Provincial Designation from MELP and Conservation Data Centre
 - Red List: indigenous species considered to be extirpated, endangered, or threatened.
 - Blue List: indigenous species considered to be vulnerable in British Columbia.
- There are no known federally-listed plant species (COSEWIC) on Burnaby Mountain.