



# Stave Dam Forest Interpretation Trail

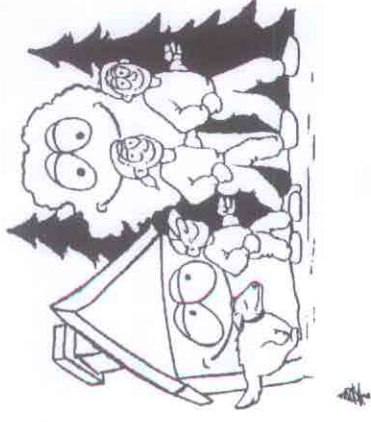
## Features

A self-guided trail with 10 numbered stops which show some of the forest management activities on the Mission Municipal Forest.

Moderate difficulty with some steeper sections.

## Description

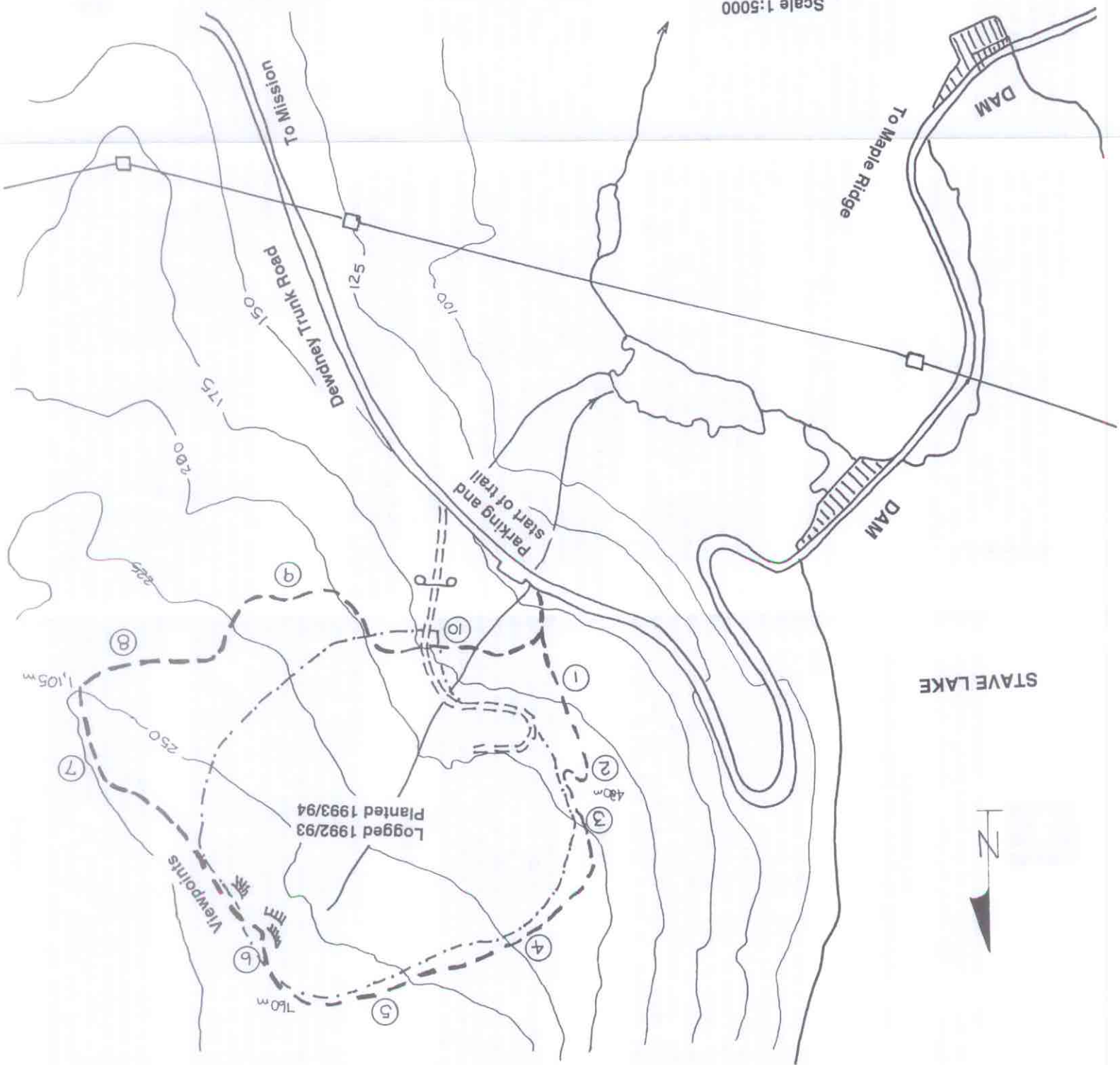
Located on Dewdney Trunk Road approximately 1 km east of Stave Dam.



Managed in cooperation with  
the Ministry of Forests



TRAIL FACTS		LEGEND	
Length of loop trail	1,680 meters	Trail route	- - - - -
Average grade	12% (range 5-25%)	Interpretation Stops	⓪
Elevation gain	150 meters	Logging Road	==
Hiking time	1 hour approximately	Logging Boundary	- . - . - .
Hiking difficulty	Moderate with some steep sections	Creek	~ ~ ~
Trail width	50-150 centimeters	Gate	⌋
Trail has a dirt surface		Contour	~ ~ ~
		Rock bluffs	⌋



Scale 1:5000

Logged 1992/93  
Planted 1993/94

Viewpoints

Parking and  
start of trail

To Mission

Dewdney Trunk Road

To Maple Ridge

STAVE LAKE



Welcome to the Stave Dam Forest Interpretation Trail located in the Mission Municipal Forest (MMF). Since 1958 the District of Mission has had the unique status of being the only municipality involved in managing a Tree Farm License (TFL No. 26). A TFL is a tenure granted by the provincial government for the management of various forest resources. The majority of the TFL's within the province belong to large forest companies. There are many benefits of a Municipal Forest including local control of the forest resource, community stability through local employment and revenue from the forest operation.

The current total gross area of the Mission Municipal Forest is 10,400 hectares (ha) of which approximately 1,200 ha is municipal and 9,200 ha is Crown land. The current sustainable Annual Allowable Cut (AAC) is 45,000 cubic metres (m<sup>3</sup>) which is equivalent to approximately 1,300 logging truck loads of logs. Each year the following silviculture activities take place: planting approximately 60,000 seedlings, spacing 50 ha, pruning 20 ha and brushing 30 ha. Intensive forest management helps to establish healthy young forests. Over the last 35 years about 1,000,000 m<sup>3</sup> have been harvested and 3,000,000 trees planted.

Recreation is one of the many benefits of a community forestry operation. The Stave Dam Forest Interpretation trail is a self-guided trail with 10 numbered stops that refer to the descriptions in this trail pamphlet. This hike will show you some of the forest management activities on the Mission Municipal Forest. Please read the following trail description and refer to the map on the back of this pamphlet before proceeding.

Trail length: 1,650 metre loop trail

Elevation rise: 150 metres

Average hiking time: 1 hour

Trail cautions: There are rock bluffs on the top of the ridge - wasps nest in the vegetation, and bears are in the area. Please

keep to the trail at all times.

Do not shortcut on the trail. Shortcutting causes erosion and damages the vegetation.

Emergency numbers: Ambulance and Police: 911

Mission Search and Rescue 820-3793

Forest Fire: 751-7150 or 1-800-663-5555



ENJOY YOUR HIKE AND PLEASE HELP US  
KEEP THE TRAIL CLEAN.

## STOP 5

Notice the cedar stumps in front of you. The large cedar stumps were logged in the early 1900's; the smaller stump to the right was from the recent logging. The notches in the larger stumps are called springboard holes. Tree fallers placed boards in these holes and stood on them to fall the tree. The older stumps were cut high because mills at that time could not handle the large diameter flared bottoms. More wood is utilized today as compared to the original logging. Before leaving this stop look for the young seedlings growing near the stumps. This is the start of the third forest. The rotation or growing period until the next harvest for this site is about 70 years. Western red cedar were extremely useful trees to the aboriginal people. They used them for shelter, clothing, tools and transportation.

## STOP 6

Congratulations you have made it to the top of the trail! Please be careful along this ridge; stay on the trail and keep away from the rock bluffs. Some of the spectacular views from left to right include:

- Red Mountain (part of MMF)
- Vancouver Island and the Gulf Islands (on a clear day)
- Hayward Lake and the Ruskin area
- Iron Mountain (part of the MMF), the small light green patches represent forested sites logged in 1986 and planted in 1987.

You are standing on the remnants of a geologic past dating back a million years. This volcanic neck of igneous rock from an extinct volcano has been exposed by the weight, pressure and advancement of the continental ice sheet which covered North America. This rock type is very angular compared to the rounded surfaces that exist with stream erosional processes.

This point offers a good view of the recently logged area. The majority of this opening was harvested using a skyline yarding system which lifts the logs off the ground minimizing soil disturbance. The logging debris (tree tops) left on the ground after harvesting provides habitat for small mammals and acts as a natural compost by slowly decaying and returning important nutrients to the soil. This 7.9 hectare opening was logged in 1993/94 and planted in 1994/95.

Harvesting volume = 6,260 m<sup>3</sup> (approximately 185 truckloads)  
Total seedlings planted = 8,300 (Douglas fir = 6,130, Western Red Cedar = 2,170)

## STOP 7

You'll notice there is a lot of natural wind damage in this 50 year old second growth stand. The shallow soils on this site and the presence of the hemlock dwarf mistletoe disease have made the trees more susceptible to wind damage. Mistletoe disease is common in coastal forests. Look up to see the clustering in the branches of the hemlock trees. The treatment for mistletoe is to remove the infected trees and plant more resistant species like Douglas fir and cedar.

## STOP 8

Here is an intensively managed young forest. The management activities on this site include planting, spacing and pruning. Spacing involves removing the smaller, unhealthy trees in a young forest to provide more water, nutrients and sunlight for the remaining trees. Pruning involves removing the lower branches on trees to produce knot-free wood which increases the value of the trees.

This site is a good example of "BIODIVERSITY" within a managed forest. BIO refers to all living things, and DIVERSITY refers to variety. Therefore biodiversity refers to the variety of all living things that make up a forest (such as trees, plants, animals, insects and even you). Managing the forest for biodiversity can be accomplished by logging smaller openings, planting a variety of tree species, and protecting fish and wildlife resources. On this site look for signs of animal use such as game trails and droppings. Compare the diversity of plants growing here with the stops you have been to and the others you will be visiting.

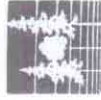
## STOP 9

Here you'll notice some windthrow or blowdown along the edge of the opening as a result of the adjacent logging. When the trees were logged the remaining trees along the boundary become more exposed to wind. In this area the edges of the opening could have been "feathered" to create a more windfirm boundary. This is done by thinning trees along the edge which creates openings to allow wind to move through the forest with less resistance.

## STOP 10

This section of trail goes through a mix of coniferous and deciduous trees. Look up at the two cedar trees and notice their unique growth patterns. What could have caused this? The original tops probably broke off in a wind storm and the abnormal growth of the new tops has resulted in this example of nature's art. The forest floor is covered with sword ferns which indicates a very moist and nutrient rich site and a very productive growing site for trees. As you continue to walk, notice on your right the sword ferns also growing on the side of the rock bluff. The ferns are able to grow in this type of environment because water drains over the rock face.

We hope you enjoyed your hike on the Stave Dam Forest Interpretation Trail.



If you have any questions or would like further information on the Mission Municipal Forest please call us at 820-3762 or visit our office at 33835 Dewdney Trunk Road (Public Works Building).