

**Poland Lake-Shawatum Creek Trail Assessment
E.C. Manning and Skagit Valley
Provincial Park**

**prkservices
North Vancouver, BC
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DRAFT

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Skagit Environmental Endowment Commission
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1. Introduction

E.C.Manning Provincial Park, Skagit Valley Provincial Park and the Cascades Provincial Recreation Area contain some 200 kilometres of riding trails, many on historic trails used to connect the Coast with the Interior of the Province and to access old mining workings. In Skagit Valley Provincial Park, the Centennial Trail, the Skagit River Trail, the Shawatum Trail and the western portion of the Skyline Trail all are designated horse trails. In the Cascades Recreation Area, the Dewdney and the Hope Pass Trails are designated for horses and in E.C.Manning Provincial Park, the Skagit Bluffs Trail, the Poland Lake Trail, the North Gibson Trail, the Monument 78 Trail, the Monument 83 Trail and the Similkameen River Trail are designated for horse use. These trails are supported by trailheads at Boyd's Meadow, Cayuse Flats, Snass Creek, Shawatum Day Area, Sumallo Grove and Strawberry Flats. The Manning Horse Corral and the Whitworth Ranch in the Skagit Valley provide staging facilities to encourage horse use. In total, a wide variety of riding opportunities are available in these three provincial protected areas in the Northern Cascades.

However, a major limitation of the use of these trails is their lack of connection to one another. Trails in Skagit Valley Provincial Park do not connect with either of the other two protected areas and horse trails in the Cascades Recreation Area only connect with the horse trails north of Highway #3 in E.C.Manning Park. This lack-of-connectivity element was recognized and addressed in the 1998 *Skagit Valley Park Management Plan* and a recommendation to "study the potential for a horse trail along Nepopekum Creek that will connect the Centennial Trail with E.C.Manning Park." was approved as part of the overall park management plan approval.

In 2008, the Skagit Environmental Endowment Commission expressed an interest to consider funding this recommended trail study as part of their mandate to encourage the development of recreation opportunities in the Skagit River watershed. In 2009, a study (*Nepopekum Creek Trail Assessment*) was approved and completed.

That study revealed that the potential Nepopekum Creek route presented significant physical and financial obstacles for the construction of a BC Parks' Type II standard horse trail and recommended that other options to connect the existing horse trail systems be investigated. These other options included designating all of the existing Skyline Trail for horses and/or conducting another study on another possible route: linking the existing Shawatum Trail in the Skagit Valley with the Poland Lake Trail in E.C.Manning Park through a series of interconnecting sub-alpine ridges and a shallow valley.

The Commission decided to support this latter recommendation and this study is the result.

2. BC Parks' Trail Standards

The assessment is based on the potential establishment of a horse/hiker trail along the general route of the interconnecting ridges between the western end of the Poland Lake Trail and the Shawatum Trail. The potential trail would be constructed to BC Parks' trail standards as a Type II horse trail. Type II horse trails range in length from 5 to 30 kilometres and are suitable for day use or overnight trips. Uniform grades, generally less than 10%, are sought; sustained grades of 15% are avoided and existing soils form the trail base. The trail tread is 0.5 to 1 metre in width with a 2.5 metre clearing width and a 3 metre clearing height.

A Type IV or V hiking trail, the standard for overnight wilderness trips, would fit within the standards for a Type II horse trail.

3. Horse Trail Route Description

The proposed horse trail lies within the Natural Environment Zone of Skagit Valley Provincial Park and the Wilderness Recreation Zone of E.C.Manning Park. Horse trails are compatible park developments in both zones.

The proposed trail would link the existing Shawatum Creek horse trail with the existing Poland Lake horse trail, generally using the interconnecting ridges and drainages between the two. In the Skagit Valley, the trail would leave the Shawatum Trail east of Antimony Creek and follow the old mining road leading to the southeast shoulder of Mount Andrews, then, on new trail, gain the ridge and drop into the headwaters of Twentysix Mile Creek. From the ridge, the proposed trail would reach the low divide between Twentysix Mile creek and NS Creek, a tributary of Nepopekum Creek, passing along a small tarn that could provide backcountry camping opportunities and water for the horses.

The trail would then drop 370 metres into NS Creek valley to the vicinity of the wetlands at the valley bottom before ascending some 490 metres on a prominent ridgeline to the headwaters of Poland Creek. From there, the proposed trail would follow the interconnecting ridgelines separating the Poland Creek watershed from the Daynor Creek and Memaloose Creek watersheds to the existing Poland Lake horse trail. In total, the trail would be some 30 kilometres in length.

The route (Figure 1) would traverse four biogeoclimatic zones in the Cascade Mountains and offer a variety of landscapes including interior and subalpine forests, subalpine parkland meadows, old burns, wetlands, tarns and talus slopes.

FIGURE 1 Trail segments for proposed route

3.1 Segment 1

The first segment of the route begins at the Shawatum Trailhead in Skagit Valley Provincial Park. Commencing at 530 metres in elevation, the route follows the series of old logging/mining roads east up Shawatum Creek before gaining the ridgeline south of Mount Andrews. This 10 kilometre section traverses forests representing the Interior Douglas-fir Zone at the Shawatum Trailhead, climbing eastward through the Western Hemlock Zone and Subalpine Mountain Hemlock Zone and terminating at elevation 1600 metres at the end of the mining road.

The initial five kilometres of Shawatum Creek Trail to Antimony Creek, already designated as a horse trail, is some 4 metres wide, averaging 6% in grade and is generally clear except for recent windfalls. From Antimony Creek, the trail narrows to 3 metres and is relatively level as it works its way east. This 2 kilometre section is heavily covered by young fir and hemlock conifers, slide alder and cottonwood saplings. In three locations, slides have covered the trail necessitating rerouting above the slides.



FIGURE 2 Shawatum Trail at Shawatum Trailhead

At Star Group Creek, remnants of an old mining road, reflecting the mining history of this part of the Skagit Valley, leaves the main Shawatum Trail, gaining elevation to the north and switching back seven times. The mining road is also heavily covered in similar vegetation to the uncleared portion of the Shawatum Trail but the tread and surface is generally in good condition. The old road is generally 2-3 metres in width and less than a 10% grade.

Work on this overall segment would be directed to clearing of the vegetation, clearing of minor rock falls and re-routing of the trail above the three slides.

There is one crossing of Antimony Creek and several crossings of Star Group Creek as the old mining road switchbacks up the slope. All of these crossings are currently serviced by bridges and culverts in good repair.

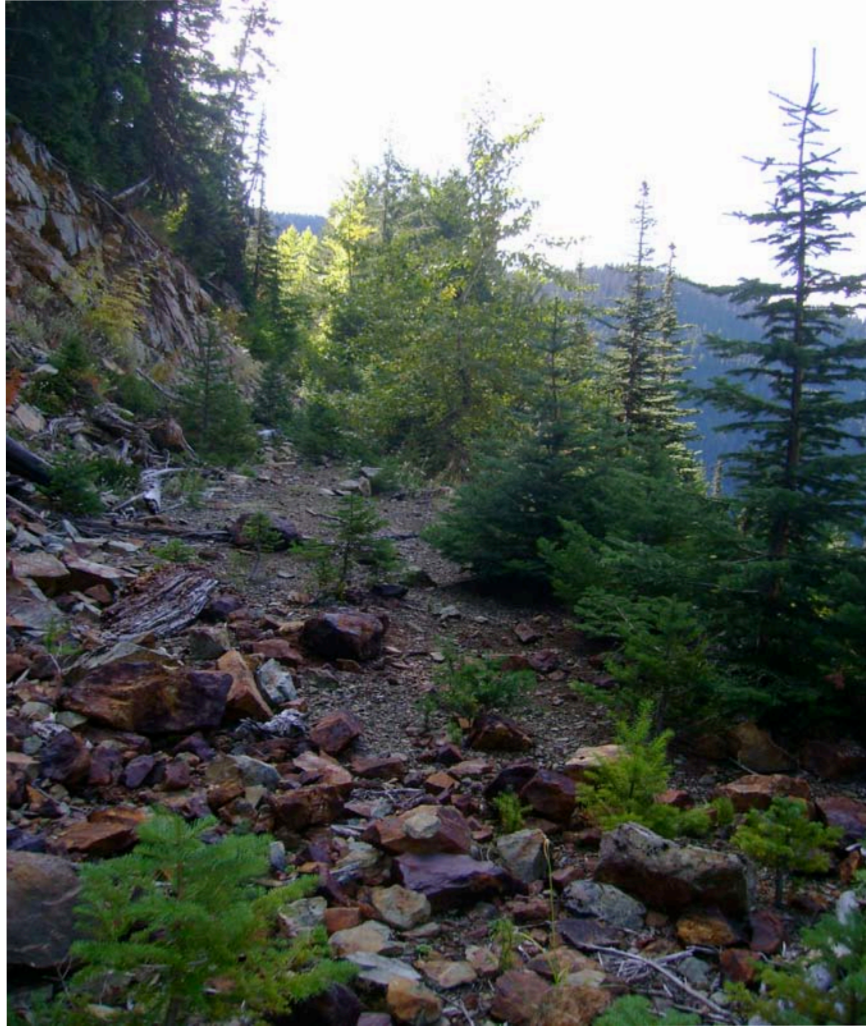


FIGURE 3 Old Mining Road

3.2 Segment 2

The second segment of the route begins at the end of the old mine road on the south shoulder of Mount Andrews. Located on a south-facing slope, this 2.3 kilometre segment traverses an old burn and gains some 130 metres onto the east ridge of Mount Andrews, offering sweeping views towards Shawatum Mountain and its associated ridges to the north, Shawatum Creek, the Skagit Valley and the mountains to the west including Whitworth Peak and Mount Finlayson. After a short section on the east ridge of Mount Andrews, the route drops 30 metres and ends at a rock defile.

New trail, averaging less than a 10% grade, is required from the end of the mining road across the south slope of the burn to the ridgeline and then to the defile. Because of the

extensive burns and the openness of the ridgeline, trail construction in this segment requires limited clearing, mostly on the ground. No bridging is required.



FIGURE 4 Burn on the east ridge of Mount Andrews. Defile is located at centre.



FIGURE 5 Rock Defile at the east end of the east ridge with Silverdaisy Mountain in the background.

3.3 Segment 3

This 1.2 kilometre segment begins at the defile and ends at a small tarn, nestled in the headwall of a tributary of Twentysix Mile Creek. Dropping some 30 metres in elevation from the defile, the route crosses three distinct rock talus and rock chutes, interspersed with sub-alpine forest. This entire segment is on a north-facing slope, resulting in late season use due to snow accumulations. This segment is outside the boundaries of both the Skagit Valley Park and E.C. Manning Park, lying within the Skagit Provincial Forest.

The three talus slopes present the most challenging trail construction along the route. The trail tread will need to be one metre wide through the talus slopes to ensure safe passage for horses and will need to be located at the top of the talus slope to minimize maintenance. No creeks are crossed in this segment.



FIGURE 6 Rock talus slopes. Mount Andrews is in the background and the defile to the left.

The small tarn and its adjacent forested bench offers a backcountry camping location to support the route.

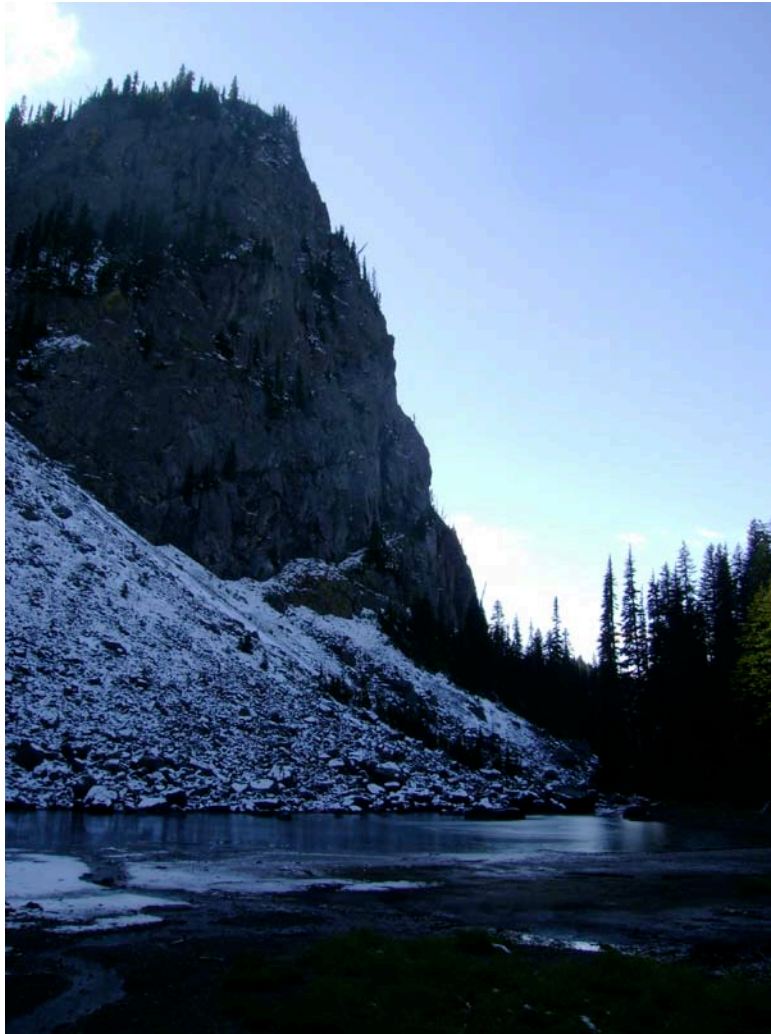


FIGURE 7 Small tarn and headwall

4.4 Segment 4

The fourth segment of the route commences at the tarn, initially climbs easterly some 50 metres in elevation to the pass and then descends through Englemann Spruce-Subalpine fir forest 370 metres into NS Creek Valley, parallels the wetlands containing NS creek as it flows south to join Nepoekum Creek and then ascends a prominent ridge through Englemann Spruce-Subalpine fir forest some 500 metres before reaching the subalpine ridge separating NS Creek and Poland Creek watersheds.

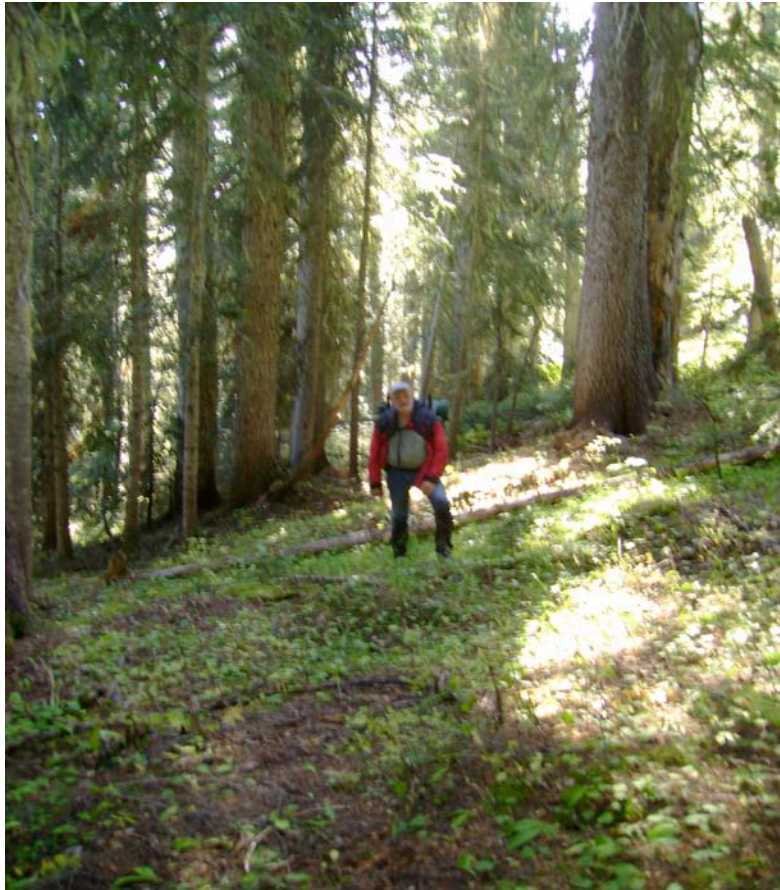
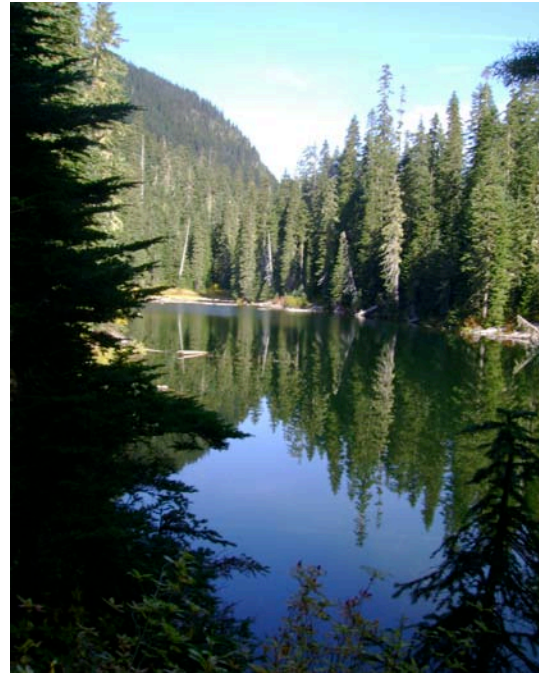


FIGURE 8 Typical Englemann Spruce-Subalpine fir forest on NS Creek valley slopes

The openness of the forest on both slopes allows minor clearing and most construction will involve designation of trail tread. The route will bridge the wetlands south of the lake on a narrow (5 metre wide) outwash before gaining a bench on the east side and the prominent ridge. Some 8.6 kilometres in length, this segment will average a 10% grade for both its ascent and descent along the valley slope.



FIGURES 9 & 10 Wetlands at bottom of NS Creek

4.5 Segment 5

Some 7.6 kilometres in length across undulating, interconnecting ridgelines, this segment is characterized by open Englemann Spruce-Subalpine Fir forest and meadows.

Following the interconnecting ridgeline or the south slope of the ridgeline to ensure the driest soil conditions possible and taking advantage of the viewscape, the route would go easterly until crossing the outlet of Poland Lake at the existing hitching post at the end of the Poland Lake Trail.



FIGURE 11
Meadows on Ridgeline



FIGURE 12 Poland Lake

The majority of trail construction on this segment would involve clearing of windfalls and branches for width and height along those portions of the route in the forested areas. No clearing would be required through the numerous meadows.

There is only one obstacle to trail construction along this segment: a rocky bluff on the ridgeline between the Poland Creek watershed and the Daynor Creek watershed. Trail construction would involve significant rockwork.



FIGURE 13
Rocky bluff
on ridgeline

4. Trail Costs¹

The costs reflect the construction of a Type II horse trail from the Shawatum Trailhead in Skagit Valley Park to Poland Lake in E.C. Manning Park.

TRAIL SEGMENT	PROJECT MANAGEMENT	LABOUR	EQUIPMENT & MATERIALS	TRANSPORTATION
	4 days/month \$1000/day all found	4 person crew \$850/day all-found 35 hour week 10 days in/4 out	<ul style="list-style-type: none"> • Camp/Phone • Signage • Clearing tools/Fuel 	<ul style="list-style-type: none"> • Helicopter \$1500 • Truck rental
1 9.9Km 400m/day	4,000	22,000	10,000	6000
2 2.3Km 150m/day	4,000	13,000	Included in Segment 1	3000
3 1.2Km 50m/day	6,000	21,000	Included in Segment 1	10,000
4 8.6Km 150m/day	8,000	49,000	10,000	15,000
5 7.6Km 250m/day	6,000	30,000	Included in Segment 4	6000
TOTAL \$223,000	28,000	135,000	20,000	40,000

¹ Costs are derived from 2009 Ministry of Forests Protection Branch's all-found costs for remote fire crews on auxiliary status.

In total, the construction for a Type II horse trail would take one, four person crew some 120 days based at four stations: Poland Lake, NS Creek, small tarn and Antimony Creek. The Poland Lake and Antimony Creek stations would be serviced by vehicle and stations at the small tarn and NS Creek by helicopter. If only one crew completed the project, over 2 years due to the higher elevation, materials and equipment costs would be reduced to one-time costs except for fuel and any equipment replacement.

5. Conclusions and Recommendations

This assessment of a possible horse trail connecting the existing horse trails to Poland Lake and to Shawatum Creek has shown that this proposed route can accomplish the planning goal to connect the horse trails of the two parks. As some 2 kilometres of the proposed route falls in the Skagit Provincial Forest, the Ministry of Forests and the Ministry of Tourism, Culture and the Arts will need to be consulted. The proposed route is significantly less expensive, by 65%, than the Nepopekum Creek route studied previously and provides additional trail connectivity opportunities to Cayuse Flats and the horse trails in the Cascade Recreation Area by using the ridgelines between Daynor Creek, Big Burn Creek and Twentysix Mile Creek.

The assessment was also to recommend two accesses off the route: one to access Mount Andrews and the other to access Shawatum Mountain.

Mount Andrews can be reached from the second segment of the proposed horse trail as shown in Figure 1. Shawatum Mountain has historically been reached from the Shawatum Creek Trail. The trail, as noted in Segment 1, is currently heavily covered in brush. The proposed horse trail would see the trail cleared to the old mining road but further clearing of the Shawatum Creek Trail would be required to the head of Shawatum Creek to assist an ascent of Shawatum Mountain.

This assessment should be considered as part of the preparation of an overall trail system plan as called for in the *E.C.Manning Park/Cascades Recreation Area Management Plan* and as part of a review of the management plans for E.C.Manning and Skagit Valley Provincial Park. This assessment should also be considered along with the opportunity to designate the existing Skyline Trail as a horse trail, as noted in the *Nepopekum Creek Assessment* study, and/or connect Poland Lake horse trail with Cayuse Flats along the ridgelines of Daynor, Big Burn and Twentysix Mile Creek. After consideration of all the options, the route(s) selected should undergo both an environmental impact and archaeological assessment in keeping with BC Parks' policies. If the proposed trail fits within the planning reviews and if the impacts are manageable, the route should be considered for financial support by the Skagit Environmental Endowment Commission.