



Benson Creek Falls Regional Park Management Plan Update

**FINAL PLAN
FOR BOARD REVIEW
January 2014**

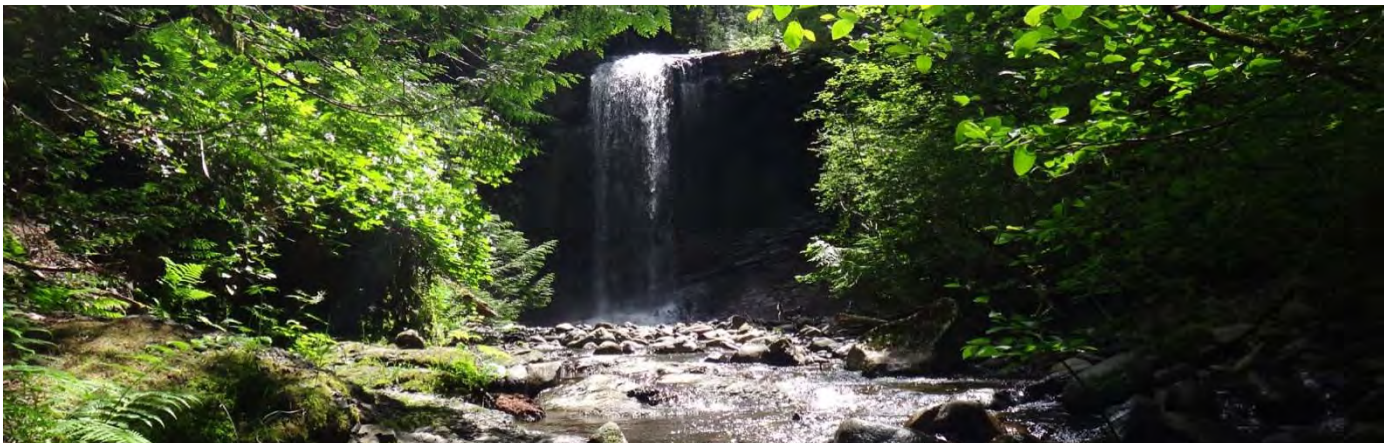




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ACKNOWLEDGEMENTS

This plan has been prepared under the guidance of the Benson Creek Regional Park Staff Working Group, which included:

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Input into plan development and review of draft materials was provided by the Benson Creek Falls Regional Park Advisory Committee, which included the following members of the Regional Parks & Trails Select Committee:

Brian Dempsey, Regional District Board Director

Maureen Young, Regional District Board Director

The support, commitment and vision of the members of these committees were central to the development of the project.

Review of the final plan was provided by the Regional Parks & Trails Select Committee.

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To the many citizens, neighbours, organizations and park users who provided input and ideas for the management plan through the online park survey, public open houses and comments on the draft plan – thank you for your time, insights and ideas.

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1.0 EXECUTIVE SUMMARY

The first Management Plan Brief for Benson Creek Falls Regional Park (BCFRP) was prepared by the Regional District of Nanaimo (RDN) in 1999. This initial plan set a framework for the park's vision, use and future development. To achieve the vision, the plan outlined recreation and environmental objectives and recommended actions.

The 2014-2024 Benson Creek Falls Regional Park Management Plan updates the 1999 Benson Creek Falls Management Plan Brief. Specifically, this updated plan:

- fills information gaps;
- provides an updated long-term vision; and
- identifies a focused set of short-term policies and actions for the period of 2014 - 2024.

Park Overview

Benson Creek Falls Regional Park is forested in character, with second-growth trees and understorey. Key features within the park are the steep-sided ravines, which are 20 m to 50 m deep and follow Benson Creek and Flynnfall Creek, the two main watercourses that traverse the park.

Flynnfall Falls, located at the confluence of these two creeks are approximately 10 metres high. Upstream from the confluence along Benson Creek are Benson Creek Falls, also known as Ammonite Falls. These falls are 15 m to 20 m in height and are a main park attraction.

The park contains an established network of unmaintained trails. These trails are predominately used by residents for dog walking, recreational hiking, mountain biking, trail running and bird watching.

Park Vision & Goals

The following vision guides the Management Plan:

Benson Creek Falls Regional Park is a Regional Natural Area with high habitat value, environmentally sensitive areas and regionally significant geological and ecological features. The Park will continue to provide nature-based recreation and stewardship activities to nearby residents and visitors and be a place to connect with nature for many years to come.



Park Concept

In the next phase of park development, it is envisioned there will be several improvements to trails, facilities, signage and promotion of the park. A primary 'maintained' trail route from Weigles Road, crossing Benson Creek, extending to the Ammonite Falls, and out to Jameson Road is a future goal for the park. Secondary trail loops will provide park users with alternate trail options. Negotiation of agreements to cross adjoining crown and private lands will allow proper signage and trail building to support this system.

Trailheads, kiosks with trail maps and trail markers along the main routes will reinforce the network and support navigation for visitors. Interpretive signage will promote appreciation and respect of the park and provide educational value for key park assets such as, environmental and habitat values, geology and land uses.

Proposed upgrades and addition of amenities will support user safety, limit liability and reduce ongoing erosion and vegetation damage associated with access to steep slopes and sensitive areas. In the short-term, a viewing platform and stair access to Ammonite Falls will support safe access to the main destination of the park. In the longer-term, a proper bridge crossing is envisioned at Benson Creek to replace the current fallen log crossing.

To maintain and improve access to the park from the south, the plan proposes to establish an official park entry point at Jameson Road. This entry is anticipated as a managed access point with a formal trail route, off-road parking and trail signage.

Map 5 outlines an overall summary of the key recommended Benson Creek Park Management Plan for the next phase of park management and development.

Key Actions

Seven immediate actions (1-2 year timeframe), seven short-term priority actions (3-5 year timeframe) and eight medium priority (5-10 year timeframe) capital and operational actions are identified in the Implementation Plan (Section 7.0). In addition, four ongoing actions are identified, which do not have a specific timeframe or budget requirement, but involve RDN staff time, and possible partnerships, volunteers, or external participation from consultants or contractors.



Key immediate implementation actions (1-2 years) include:

- Application to MFLNRO for renewal of the lease and exploration of options for tenure (staff time and potential legal costs)
- Development of off-road parking area at the Jameson Road access area (\$10,000 - \$20,000)
- Geotechnical engineering review for both the Ammonite Falls descent and the Benson Creek crossing (\$20,000)
- Engineering design and environmental management planning for stair access to Ammonite Falls (\$30,000)
- Development of stair access to Ammonite Falls including remediation for eroded slopes (\$245,000 - \$295,000)

Key short-term implementation actions (3-5 years) include:

- Formalization and development of a Jameson Road access route to RDN Parks standards (\$19,000)
- Design and implementation of a signage program for the park that includes park entry, park maps, trail markers, regulatory and cautionary signage and boundary markers (\$19,000)

Key medium-term implementation actions (5-10 years) include:

- Engineered design (\$25,000) and construction of a bridge crossing over Benson Creek (\$320,000 - \$440,000)
- Trail improvements to the Benson Creek bridge descent and slope remediation (\$40,000)
- Improvements to Weigles Road parking and trailhead development at both Weigles and Jameson Access routes (\$23,000)
- Other trail improvements (\$9,000)





2.0 INTRODUCTION

2.1 About the Plan



*Ammonite Falls at Benson Creek
Regional Park.*

The first Management Plan Brief for Benson Creek Falls Regional Park (BCFRP) was prepared by the Regional District of Nanaimo (RDN) in 1999. This initial plan set a framework for the park's vision, use and future development. To achieve the vision, the plan outlined recreation and environmental objectives and recommended actions. To date, several of the 1999 actions have been implemented. See **Appendix A: 1999 Plan Action Summary** for a summary of implementation actions from the 1999 Plan, the current status of these actions and a cross-reference to the 2013 Plan.

The 2014-2024 Benson Creek Falls Regional Park Management Plan updates the 1999 Benson Creek Fall Management Plan Brief. This Plan builds upon previous studies and investigates current conditions and priorities for the park that will help guide future recreational management, environmental stewardship and development actions.

Specifically, this updated plan:

- fills information gaps;
- provides an updated long-term vision; and
- identifies a focused set of short-term policies and actions for the period of 2014 - 2024.

The Management Plan Update has been informed by a public and stakeholder consultation process to review and explore with stakeholders, community groups and residents relevance of the existing vision, objectives and actions in the 1999 Brief and where new ideas and directions were desirable for the park's next phase of development. The consultation process is described in **Section 3.0: Planning Process**.

The BCFRP Management Plan is to be reviewed after five years (2019) and updated formally at ten years (2024).



2.2 Park Overview

Benson Creek Falls Regional Park is located less than 2 km from the Nanaimo City limits), at the confluence of Benson Creek and Flynnfall Creek, within Electoral Area C: Extension, Arrowsmith-Benson, East Wellington, Pleasant Valley of the Regional District of Nanaimo.

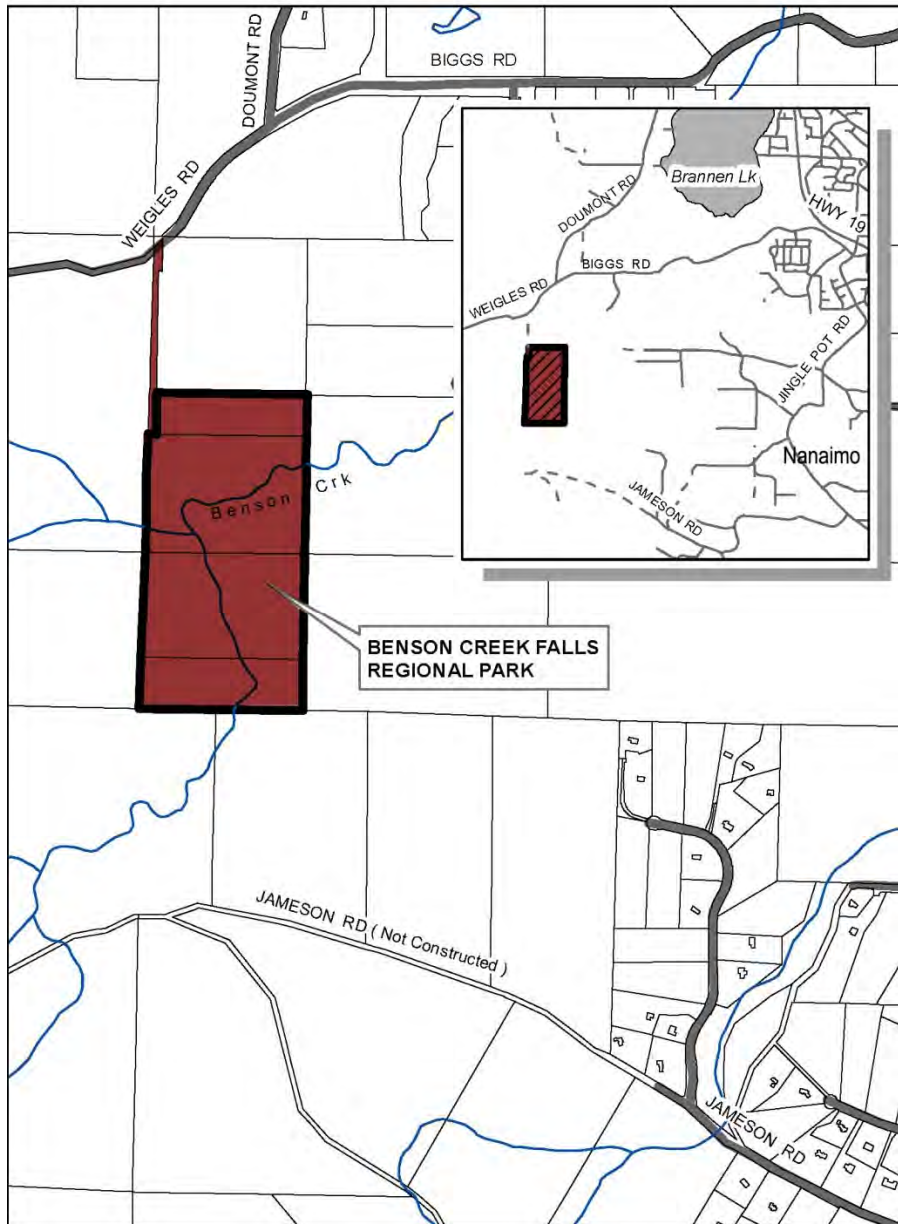


Figure 1: Location & Context Map



Benson Creek Falls was first identified for Park Status consideration in the early 1960s when a 201.8 acre section of land was proposed for Provincial Park. As a result of these early proposals, in 1969, a BC Map Reserve (Recreation) was designated for 80 acres of the land. The Map Reserve designation remained until 1984.

When the designation was cancelled, the Regional District of Nanaimo began negotiations with the Province to preserve the area around Benson Creek Falls as Regional Park. On August 1, 1991 the Province issued Lease #103987 to the RDN for Benson Creek Falls to be used for regional park purposes for a period of 30 years. Benson Creek Falls Regional Park was the second designated Regional Park created in the RDN.



Typical forest character at BCFRP.

Benson Creek Falls Regional Park is forested in character, with second-growth trees and understorey. Key features within the park are the steep-sided ravines, which are 20 m to 50 m deep and follow Benson Creek and Flynnfall Creek, the two main watercourses that traverse the park. Several other tributary streams occur within the park, but are typically dry in summer, including Hoskins Creek which flows eastward through the park near the north boundary.

Flynnfall Falls, located at the confluence of these two creeks are approximately 10 metres high. Upstream from the confluence along Benson Creek are Benson Creek Falls, also known as Ammonite Falls. These falls are 15 m to 20 m in height and are a main park attraction.

The park contains an established network of unmaintained trails. These trails are predominately used by residents for dog walking, recreational hiking, mountain biking, trail running and bird watching. In addition to informal use, a number of community and recreational groups use the park for tourism and recreation.



2.3 Park Planning Context

The Regional District of Nanaimo (RDN) manages approximately 2,026 hectares of regional park, trail and conservation lands in the mid-Vancouver Island area along with another 584 hectares of neighbourhood or community park and trails.

A Regional Parks and Trails Plan, completed in 2005, sets out the goals of the RDN in respect to land management, stewardship and recreational use of regionally significant properties. The RDN seeks to protect and steward the lands while at the same time, provide rewarding and educational outdoor recreational experiences. An overarching management goal for these lands is to strike a sustainable balance between environmental protection and human use.



3.0 PLANNING PROCESS

3.1 Approach Overview

The BCFRP Management Plan Update was completed in three phases. The three phases and key steps in the planning process are described below and shown in **Figure 1: Planning Process Diagram** (next page).



Phase 1 of the project included site reviews to observe and collect information about the park today.

Phase 1: Project Initiation

Phase 1 of the process involved mapping park areas, completing site reviews and collecting information about the park's current use. This phase was an opportunity to identify key issues and develop a greater understanding of the current vision for the park. Consultations during this phase included an initial park user survey, stakeholder engagement and a public open house to gather input and ideas.

Phase 2: Draft Master Plan Concept & Management Plan

Phase 2 used the information collected in Phase 1 to prepare an initial draft plan. This plan contained background about technical information (e.g. environmental values, existing trails, etc.) and park uses. Using input from park users, residents and stakeholder groups, the draft plan outlined an updated vision and set of proposed actions for managing BCFRP over the coming decade. The draft plan was provided for review at public open house #2, where public and stakeholders were asked for their feedback on the draft plan and areas for refinement.

Phase 3: Final Management Plan

In Phase 3, the draft plan was refined in response to public and stakeholder feedback and internal review. The final management plan was presented to the Regional District of Nanaimo Parks & Trails Select Committee for review and consideration.

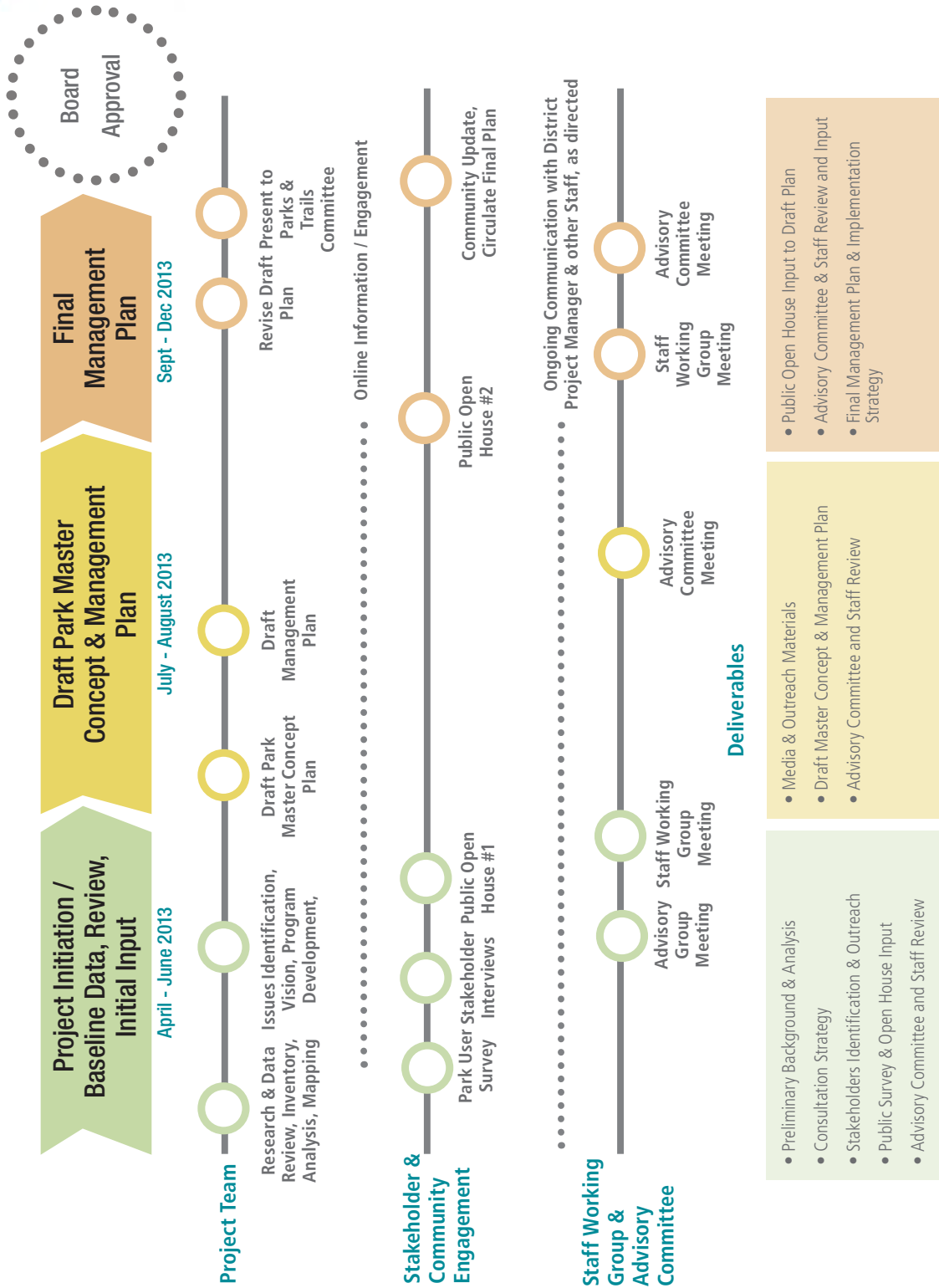


Figure 2: Panning Process Diagram



3.2 Outreach



A key component of Phase 1 was outreach to let people know about the planning process and how to participate. As part of the outreach process, signs were posted at BCFRP to inform park users.

A key component of the planning process was to undertake outreach to solicit input from nearby residents, park users and others with an interest in the park. Outreach for the process occurred at the following key milestones in the project, these were:

- 1) Introduction and notification of the planning process initiation
- 2) Advertisement for public events
- 3) Notification of the draft plan and opportunity to provide comment
- 4) Notification of the final plan and approval

Messaging was provided through the following means:

- Project webpage hosted on the RDN Parks website, with regular updates and postings
- Signage within BCFRP, including a QR code link to take people to the project webpage
- Email communications to stakeholder groups and phone/meeting follow-up with key stakeholder groups
- Email communications to park user groups and other community group email/list-serves
- Door to door notification for nearby residents
- Flyer/post card drops at community parks/facilities
- Newspapers, community publications, social media ads and local radio ads to notify people about public events
- Posters on local area bulletin boards and postal boxes

3.3 Summary of Consultations

Several engagement strategies were used to solicit input about the plan update:

- Project Webpage & Social Media
- Park User Survey
- Public Open Houses
- Stakeholder Consultations
- Staff Working Group & Advisory Committee

Each consultation strategy is summarized below and further details about the events and outcomes are available in **Appendix B: Summary of Public and Stakeholder Consultation**.



Project Webpage & Social Media:

The RDN website hosted a BCFRP Management Plan Update page which hosted background information about the park, information about the planning process, the online survey and summaries of input and events. Throughout the process the page was updated to maintain current information.

In addition to the project webpage, regular updates and notification of events were posted to the RDN's Facebook Page and on Twitter.

Park User Survey:

A survey was launched at the onset of the project to opportunities for community members to record their ideas about park use, current issues, opportunities and updates to the vision statement. This early feedback, combined with input from the first open house, was used to identify key management plan issues and recommend directions for the plan update.

Survey Summary:

| | |
|----------------------|--|
| Dates: | Open from May 27 th through June 29 th , 2013 |
| Locations: | Available online and in hard copy at the first public open house and the RDN offices. |
| Responses: | 106 completed surveys |
| Key Feedback: | <p>Vision:</p> <ul style="list-style-type: none"> 1999 Vision remains applicable today Expanded recreation uses such as mountain biking and trail running could be considered <p>Key Issues:</p> <ul style="list-style-type: none"> Navigation & park signage Park access Parking Trail improvements |

Management Plan

Benson Creek Falls Regional Park
Management Plan Update 2013

Management Plan Update

From June to December, 2013, the Regional District of Nanaimo will be updating the Management Plan for Benson Creek Falls Regional Park. This will involve a review of the 1999 plan, a park user survey, an extended 'Open House', two public user houses, and online / social media presence. We invite you to provide feedback on the process.

Snapshots from the Park

Background

Benson Creek Falls Regional Park is a 22 hectare (55 acre) regional park located at the confluence of Benson Creek and Dymally Creek in District Area C - Courtenay, Armstrong, Courtenay, and Nanaimo, Pleasant Valley of the Regional District of Nanaimo. The park is forested with steep-sided ridges and a fairly established network of unimproved trails. The main trail park uses include dog walking, recreational walking, mountain biking and trail walking. In addition, a number of community and recreational uses are also used.

1999 Park Plan and Vision

The park was first established in 1991 through a lease with the Province of British Columbia, Land Branch for a period of 20 years to 2011. A Management Plan for the park was prepared in 1999. This plan set out a framework for the park's vision, use and future development and activities.

The 1999 park plan focused on the following five priorities:

1. Offering nature-based recreation such as walking, hiking, and watching.
2. Providing access to the park and adjacent regional agricultural features, landforms, geology, plants, fish and wildlife communities.
3. Protecting ecologically sensitive areas.
4. Providing a degree of connectivity between adjacent areas with relatively high habitat value, which helps to counteract ongoing habitat loss and fragmentation in the area.
5. Fostering understanding and appreciation of the park environment, by providing opportunities for basic, family, village, school and special interest groups to participate in stewardship activities such as maintenance or nature interpretation.

In effort to have the vision as outlined above, the plan set out a number of specific recreation and environmental objectives and recommended actions, some of which have been implemented.

1) To see the full 1999 Management Plan file please click here.

2013 Management Plan Update

The Regional District of Nanaimo is now preparing to update the Management Plan for the park. The planning process will be to review and develop with stakeholders, community groups and residents, whether the vision, objectives and actions outlined in the 1999 plan are still applicable and where changes in use, goals and actions are needed. The resulting plan for 2013 will confirm a long-term vision and updated set of goals for Benson Creek Falls Regional Park. This will include identifying both short-term and long-term management objectives and actions for the period 2013-2026.

Management Plan Update Process

There are three phases in the update process. These are:

Phase 1: Project Initiation - Phase 1 of the process will involve mapping of the park areas and collecting information about the park's current use, identification of key issues and developing a greater understanding of the vision for the park overall. Consultation for this phase will include a park user survey, stakeholder engagement and an extended public open house to gather input and ideas on the park.

Phase 2: Draft Plan - Phase 2 involves all the information collected in Phase 1 to prepare a draft plan. This plan will contain necessary background and technical information about park areas, environment, trails, etc. and park uses (hiking, mountain biking, etc.). Using input from park users, residents and other stakeholder groups, the draft plan will outline an updated draft vision and set of objectives and actions for the park. Once complete, the draft plan will be available for review at public open house #2, where we will ask for feedback on the draft plan and determine whether we got it right.

The project website hosted information about the project, process and events over the course of the project.



Public Open Houses:

Over the course of the project, two public open houses events were completed.

Open House #1



Open House #1

A public open house was early in the process to obtain input on issues, opportunities, vision and program development and provide the public with an opportunity to record and discuss their ideas with RDN staff, the consulting team and each other.

Open House #1 Summary:

| | |
|----------------------|---|
| Date: | Saturday, June 22, 2013 10:00am – 1:00pm |
| Locations: | Main Venue – Creekside Place Community Park Satellite Venues – Weigles Road Park Entry and Jameson Road Access |
| Participants: | Approximately 75 contacts |
| Key Feedback: | <ul style="list-style-type: none"> ▪ Improve accessibility to Ammonite Falls. Suggestions primarily focused on addition of stairs and a safer viewing platform. ▪ Improve signage throughout the park. Suggestions indicated directional signage as a top priority, but also included park boundary information and park maps. ▪ Improve parking and access into park. Ideas included improvements at the Weigles Road entry (with an improved route to Ammonite Falls), parking/access from Galloway Gulch, formalized parking/access at Jameson Road or potential access through the adjacent gravel quarry. ▪ Add/improve connections to adjacent public lands (e.g. Creekside Place Community Park and Mount Benson Regional Park). ▪ Address parking issues and garbage at Jameson Rd. access. Many residents adjacent to the park indicated the Jameson access was problematic due to roadside parking restricting vehicle passage, nuisance and garbage. ▪ Protect and acknowledge geological history. Several residents told stories about fossils found in the park. |



Open House #2

A second public open house was held after the Draft Plan development to obtain input and confirmation on proposed vision and directions. Participants were asked to provide feedback on the plan through a series of interactive boards, as well as through a feedback form.

Open House #2 Summary:

| | |
|----------------------|--|
| Date: | Wednesday, October 23, 2013 5:00pm – 8:00pm |
| Location: | Mountain View Elementary School |
| Participants: | Approximately 45 attendees |
| Key Feedback: | <ul style="list-style-type: none"> ▪ Support for the proposed vision and goals for the park. ▪ General support for actions and priorities. ▪ Caution should be exercised when increasing public access to BCFRP. If access becomes too easy there is risk of overuse and damage. ▪ The RDN should consider opportunities to obtain more land to expand the park. ▪ Signage improvements should include distance markers, trail maps and information about level of difficulty. ▪ If use increases, issues between motorized and non-motorized use may occur. While conflicts weren't identified as an existing major concern within the park, the trails accessing the park may have more potential conflicts. ▪ Parking options: <ul style="list-style-type: none"> ○ Even support for Option 1 (Creskide Place Community Park) and Option 2 (Corner of Creskide Pl. and Jameson Road) ○ Little support for Option 3 (within woodlot) ○ Alternate suggestions included having access only from Weigles Road or moving the north access to Galloway Gulch or Longview Road ○ Concern that improved parking will attract more traffic to the area |



| | |
|--|---|
| | <ul style="list-style-type: none">▪ Priority Actions:<ul style="list-style-type: none">○ Developing stair access and viewing platform to Ammonite Falls○ Designing and Implementing a comprehensive park sign system▪ Priorities for amenities at trailheads included:<ul style="list-style-type: none">○ Jameson Road: Trail maps, signage, restrooms○ Weigles Road: Signage, bench○ Mixed support○ Concerns there could be trail user conflicts○ Some current users like the challenge of the steeper slope and that it takes some effort to access the park▪ Feedback on the proposed new Jameson Road Access Route (to avoid steep slopes):▪ Alternate routes suggested |
|--|---|

Stakeholder Consultations:

Adjacent land owners, first nations and a variety of organizations, agencies and individuals were contacted to inform them about the process and seek their input about Benson Creek Falls Regional Park. See **Appendix C: Stakeholder Consultation List** for a list of stakeholders contacted during the planning process. The purpose of stakeholder engagement was to gain input on issues and opportunities relevant to the stakeholders and obtain feedback on draft plan directions.

Initial contact with all stakeholders was established through email to inform stakeholders about the management plan process and invite participation in the online survey and initial public open house. Subsequent contacts and meetings were undertaken during the draft plan development to meet with key stakeholders and review emerging draft plan directions.

First Nations with traditional territories in the vicinity of the park were contacted to invite their engagement in discussing any interests and concerns for the park. Letters of invitation signed by Joe Stanhope were sent in May 2013 to the Snuneymuxw, Snaw-naw-as, Stz-uminus First Nations and the Te'Mexw Treaty Association and were followed up by email and phone calls. The First Nations were also directly invited by email letters and by phone in October 2013 to review and relay any concerns about the



Draft Management Plan. No direct concerns or issues were received during the project term.

Staff Working Group & Advisory Committee:

Two committees were involved with the development of the plan update:

- **Staff Working Group:** This group was comprised of RDN parks staff and members of the consulting team. The working group met regularly over the course of the project to review ongoing project developments and directions.
- **BCFRP Advisory Committee:** This group was comprised of members of the Staff Working Group, along with representatives of the Regional District of Nanaimo's Parks & Trails Select Committee. Three meetings were held with this group at key project milestones to gain initial input on issues and opportunities and review outreach and engagement materials, review the draft plan and review the final plan.



4.0 EXISTING PARK CONDITIONS

This section outlines key aspects of the current park use, condition and facilities.

4.1 Park Lease

See Map 1: Park Area and Context.

Map 1 shows the Benson Creek Falls Regional Park boundary and surrounding context. The park originally encompassed 22 ha of Crown land and was established in 1991 through Lease #103987 to the RDN with the Province of British Columbia, Lands Branch. Since this initial lease was negotiated, two additional Crown land areas were added to the lease in 2007 – on north and south boundaries of the original park area. The current lease area is for 31.33 ha and designated for Regional Park purposes. The existing 30-year lease will expire in 2021.

The lease maintains a number of standard covenants, including requirements to:

- Work with the neighbouring properties and land owners on adjacency issues;
- Maintain adequate insurance and manage liabilities within the leased lands,
- Be responsible for facilities built on the land area;
- Maintain and/or improve access to the park lands as needed and determined required to meet obligations set out in the lease;
- Follow applicable Provincial legislation (Lands Act, Forest Act, Mineral Tenure Act, Wildlife Act, Water Act, etc.)

In addition, the lease maintains one special provision stating that the RDN shall not fill, build or remove vegetation within 7.5 metres of the top of the stream banks without prior written consent of the Province.

The RDN will seek to renew the 30-year lease before or at the time of expiry. Discussions with the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) during this project did not identify known barriers to lease renewal.



4.2 Park Access

See Map 2: Park Access & Adjacent Land Use

4.2.1 Adjacent Land Use

Map 2 shows existing adjacent land uses around BCFRP. The park is mostly surrounded by large tracts of privately leased or owned resource lands. There are forestry woodlots to the north, south and west of the park and gravel extraction operation to the east. The VIU-leased woodlot to the south of the park is actively used for logging. In the foreseeable future, it is likely these areas' land uses will remain resource-based, but long-term change, including conclusion of resource extraction activities, could result in potential changes in the long-term. Should land use changes occur, the RDN should endeavour to maintain public access to BCFRP and should encourage compatible adjacent land uses.

Woodlots are accessible to the public for recreational purposes. Users are asked to respect the forest environment by staying on roads and trails and keeping pets under control. Several popular trail routes, including access from Jameson Road require crossing of woodlot properties.

To the south east of the park at Jameson Road there is a rural residential area. This neighbourhood consists primarily of large single family lots (over 2 acres), zoned RU1. To the north and north east of the park and along Biggs Road there are established single family residential areas, as well as some community use areas (such as a Scouts Camp).

Landowners were contacted as part of the planning process to identify issues related to private lands and access to the park.

4.2.2 Park Access Routes

A challenge identified during the planning process was a lack of awareness about the extents of the park boundary. Because park access points cross through private property before entering the park and trails traverse the park boundary, it is difficult for park users to understand where the park boundaries end and private land begins. Many park users failed to realize they were actually using private lands when they believed they were within the park boundary.

During plan development, two main access routes to BCFRP were identified:



Weigles Road Park Entrance

The Weigles Road trailhead is a formal, signed entrance for people arriving at BCFRP. A parking lot that accommodates approximately 6-10 vehicles is located about 400 metres east from the Biggs-Doumont intersection. The majority of park users entering at the Weigles Road Entrance are accessing loop trails on the north side of BCFRP, including mountain bike trails that are outside the park boundary. To a less extent, this entrance is used to access Ammonite Falls, although steep terrain and a challenging crossing at Benson Creek make it a more difficult route to the falls.

Jameson Road Access

Most people visiting Ammonite Falls within BCFRP access the park from Jameson Road at the corner of Jameson Road and Creekside Place. People using this access typically parallel park along Jameson Road and cross privately-leased woodlot to access the trail to the falls. While this route is not secured as public land, it is well-known and popular. The Woodlot Licence Plan for W0020 identifies this route as a trail. During this process, concerns were identified about managing this park access.

Other Access Routes

Over the course of consultations, other informal park entry routes including a trail from Galloway Gulch and various logging roads and mountain bike trails were also identified as park access routes.

4.2.3 Fire and Emergency Service Access

Emergency services for the park are provided by the RCMP, Nanaimo Fire Rescue Department and Nanaimo Search and Rescue, a registered non-profit society.

The East Wellington Firehall responds to fire reports in BCFRP, accessing the park via logging roads. Anecdotal information suggests that the emergency responders have assisted in rescuing injured people in the park. They have also assisted with campfire reports within the park.

Improvements to information and signage, including route identification and clear mapping would support the department's ability to respond quickly to emergency requests. Ideas like trail distance markers would help park users provide a better indication of their location in case of emergency.

Emergency responders identified congestion related to the on-street parking on Jameson Road as an issue with potential impacts to emergency access



to Creekside Place. Parking improvements similar to those completed at Witchcraft Lake were recommended as a potential model.

4.3 Park Features

See Map 3: Trails & Destination Points

4.3.1 Trail Routes & Destinations

Map 3 shows current commonly-used trail routes and key destinations within the park. Current park use includes walking, hiking and trail running, nature appreciation and walking dogs off-leash. In the summer, Benson and Flynnfall Creeks are destinations for picnicking, and in some cases, swimming.



Park trail.

In 2013, a Risk Control Survey for the park was completed¹. The survey identified four key recommendations for Benson Creek Falls Regional Park:

- 1) Consideration should be given to erecting barriers/fencing along the cliff edge which is used for viewing.
- 2) The fallen log crossing should either be made safer to use or removed.
- 3) To provide clear direction; trails leading to the waterfall(s) should be clearly marked.
- 4) Consideration should be given to installing adequate steps with railings at the Benson Creek Falls and along certain trails at the side of a ravine.

Roadbeds from historical logging activities form some routes in the park, while others have been developed through use over time. To date, the RDN has not been active in trail development. Trail maintenance is undertaken as needed by RDN staff or volunteers. Some of the more challenging trail routes, notably the ravine crossing at Benson Creek and the trail down to Ammonite Falls, are classified as ‘unmaintained’ or ‘hazardous,’ and use is discouraged. Though these trails are signed as closed, park visitors continue to use the routes. The Risk Control Survey identifies these trails as hazardous and recommends consideration for installation of steps, handrails or some other adequate support system for climbing down the steep embankments.

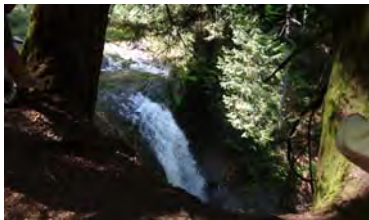
¹ Risk Control Survey, Municipal Insurance Association of British Columbia. Provided by Risk Management Services to the Regional District of Nanaimo.



4.3.2 Infrastructure



Footbridge on the north access route.



Steep drop-off at lookout area. Fence installation completed in summer 2013.

Infrastructure in BCFRP is limited, due to the natural setting of the park. In 2000, four foot bridges were built on the north access route from Weigles Road. A park entrance sign has been installed at the Weigles Road entrance and the route from the Jameson Road access on the south side of the park has some directional signage.

In addition to infrastructure installed by the RDN, several ad hoc installations have been observed within the park, including rope aids along steep slopes in the ravines at Ammonite Falls and the Benson Creek crossing. These unsanctioned installations are a liability concern.

In 2013 a fence was installed at the Ammonite Falls overlook to discourage people from standing close to the edge of a dangerous drop-off. The Risk Control Survey identified the risk of falling in this location as a high risk and recommended barriers at the edge, along with signage warning users not to stand close to the cliff edge.

4.3.3 Park Users

Park users come from both nearby residential areas as well as from the Nanaimo area, Vancouver Island, off-Island and beyond. The majority of park visitors are individuals or small informal groups; there are some organized groups and small businesses (e.g. dog walkers) that use the park seasonally or regularly. The park is used in all seasons, although the summer months see slightly higher visitation rates.

The park, and in particular, Ammonite Falls, is well-known locally and is also advertised as a key visitor attraction on tourist websites. Most of these sites advertise access from Jameson Road, which is an unofficial and unmarked entrance. While promotion of the falls builds the park's profile, it also increases risk of liability, as many tourists may not be prepared for the physically-demanding terrain and may not be familiar with trail routes. The Risk Control Survey identifies a "duty of care" to tourists that have been drawn to the natural attraction, to be provided with clear directions. The plan recommends clear and visible signage that clearly marks the trail that should be used to reach the falls.

In recent years, use of trails in the park area for mountain biking has increased. Some mountain bikers stage at Jameson Road or Weigles Road and ride the south ridge lines on Crown and private forestry lands, crossing through the park in some locations. The mountain biking community has established a significant network of trails, which in some cases can make navigation of the park routes more challenging for those unfamiliar with the



trail networks. This community is active in trail building, maintenance and management of trails, in many cases having agreements for trail use and building. Opportunities for collaboration may exist.

4.4 Environment

See Map 4: Environmental Overview

This section summarizes key findings outlined in the report: **'Environmental Overview of Benson Creek Falls Regional Park'** submitted by Ursus Environmental to the Regional District of Nanaimo, March, 2013. See **Appendix D** for a copy of the report.

The report builds upon information provided in an initial overview by J.C. Lee & Associates in 1999 and discusses observable impacts to the park in the past 14 years since the first overview.

The most valuable, diverse and ecologically sensitive habitats within the Park are the deep, steep-sided ravines and associated Benson Creek and Flynnfall Creek stream beds. The park encompasses several threatened forest ecosystem types, which are under-represented in regional protected areas due to the historical pattern of development and logging. Management of the park endeavours to protect these ecosystems.

4.4.1 Plants & Plant Communities

Native plant species identified during the February 2013 field review included 10 tree species, 17 shrub species and 25 non-woody plants. Five non-native species were also observed and included English Holly, Spurge-laurel, Yellow Archangel, Herb-Robert and Hairy Cat's-ear. It was noted that additional plant species could likely be identified during different seasons.

Three regionally uncommon plants were recorded within the park: *Taxus brevifolia* (Pacific yew), *Adiantum pedatum* (Maidenhair fern) and *Vaccinium ovatum* (Evergreen huckleberry). *Pinus contorta* (Shore pine), although common in other parts of the region, is found very infrequently in BCFRP.

The Ursus report suggests park ecosystems are more representative of the CWHxm Variant² than the CDFmm variant³. At least seven CWHxm Variant plant communities have been identified with the park, four of which are upland forest ecosystems and three are wetlands.

² CWHxm Variant is Coastal Western Hemlock, Eastern Very Dry Maritime.

³ CDFmm Variant is Coastal Douglas-fir, Moist Maritime.



The four upland forest ecosystem types⁴ are as follows (see Map 4 for extents of each ecosystem type):

- **HwFd-Kindbergia**⁵ – This is the most extensive plant community type in BCFRP. It is red-listed and assigned the highest conservation priority (Priority 1) under the Provincial Conservation Framework. It is dominated by Douglas-fir and Salal, with a lesser occurrence of Dull Oregon Grape and Bracken Fern.
- **FdPI-Cladina**⁶ – This type is broadly distributed across the park and typically occurs along ridge crests and on the steep slopes of the ravines. It is red-listed, but is a Priority 2. The tree canopy is dominated by Douglas-fir, with a lesser occurrence of Arbutus and Lodgepole Pine. The forest understorey is dominated by Salal, with Baldhip Rose, Prickly Rose, Trailing Blackberry and Dull Oregon Grape.
- **Cw-Sword Fern**⁷ – This community is located on benches and lower slopes near creeks. It is blue-listed and Priority 2 under the Provincial Conservation Framework. It has a mixed canopy of conifers and Red Alder, sword fern dominates the understorey.
- **Cw-Foamflower**⁸ – This community is in some locations on lower slopes next to Benson and Flynnfall Creeks. It is red-listed and Priority 2. It has a mixed canopy of firs, cedar, Big Leaf Maple and Red Alder, with a sword-fern dominated understorey with a minor cover of Oregon Grape, Salmonberry, Lady Fern and Foamflower.

4.4.2 Mammals

Columbian Black-tailed deer occur at fairly high densities within BCFRP and a moderate level of deer use was evident by browsing of preferred shrubs. The park contains limited wetlands and narrow riparian wetlands which are attractive habitat for elk. As such, no evidence of Roosevelt Elk was reported.

Black bear and cougar occur infrequently in the local area. No sign of either was detected during the 2013 fieldwork. Grey wolf is primarily associated with major river valleys and is not expected to be seen in BCFRP.

⁴ Ecosystem types are described by a combination of dominant tree and key ground species. For example, the HwFd-Kindbergia ecosystem is dominated by Western Hemlock (Hw) and Douglas-fir (Fd) with Kindbergia oregana moss.

⁵ HwFd-Kindbergia: Western Hemlock and Douglas-fir with Kindbergia oregana moss.

⁶ FdPI-Cladina: Douglas-fir and Lodgepole Pine with Cladina rangiferina lichen.

⁷ Cw-Sword Fern: Western Redcedar with sword fern understorey.

⁸ Cw-Foamflower: Western Redcedar with foamflower understorey.



Raccoon, mink and river otter are expected to occur in the park as they prefer riparian habitats. Mammals associated with upland forest are also expected within the park and include Eastern Cottontail, Marten, Red Squirrel, Deer Mouse and Dusky shrew. During the fieldwork only signs of squirrel presence were observed.

4.4.3 Avifauna

BCFRP contains a diverse range of bird species with a strong representation of raptors, sparrows, warblers/vireos, thrushes, corvids and finches. During the 2013 fieldwork, 12 resident species were noted around BCFRP; however, earlier work by Cousens et al (1999) documented an additional 56 bird species. The park also supports several 'Regionally Important' bird species including the Coopers Hawk, Sharp-shinned Hawk, Pileated Woodpecker and the Brown Creeper. The 2013 report indicates that the Woodpecker and Brown Creeper use the park extensively. The Band-tailed Pigeon, Northern Pygmy owl and the Olive-sided Flycatcher are Blue-listed species and have been recorded in the park in recent decades. No red-listed species have been recorded recently.

No nesting raptors or Great Blue Herons were detected during the 2013 fieldwork; however, two Great Blue Heron nests have been recorded within 1000m of BCFRP. The nearest known Bald Eagle nests are located near Brannen Lake to the north and Jingle Pot Road to the south east.

The 2013 report recommends additional field work to update the occurrence of Conservation Data Centre's (CDC) listed birds and regionally-important raptors.

4.4.4 Herptiles

The 2013 fieldwork observed one native amphibian species, the ubiquitous Pacific Treefrog. The Red-legged Frog, a Provincially Blue-listed species was recorded fairly recently (2003) in the lower portion of Flynnfall Creek (outside but close to the BCFRP boundary). The breeding of this species would be restricted to the few small wetland areas within the park.

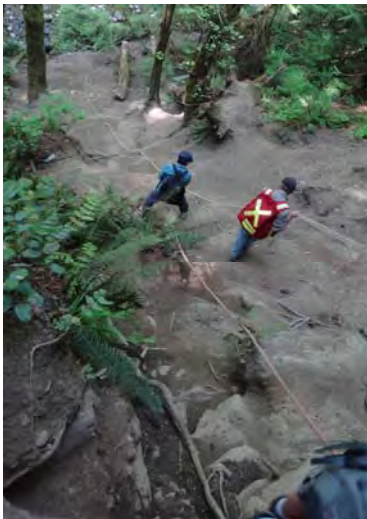
Although not observed during the fieldwork, several other amphibian species are likely to occur in the park, including the Rough-skinned Newt, Northwestern Salamander and the Long-toed Salamander. Native salamanders may occur within the moister areas of the park.



Amphibian field inventory information for this area is largely lacking and the 2013 report recommends future surveys to determine the presence of at risk species and other amphibians.

4.4.5 Fish

Fisheries values were summarized in 1999 by J.C. Lee and Associates. Cutthroat Trout and juvenile Coho Salmon were document in the lower reaches of Benson Creek in the late 1990s. The report suggested it is expected that these salmonids would be present to the first significant obstacle in Benson Creek, a short falls downstream of the Fallen Log crossing.



Erosion on the spur trail to the base of Ammonite Falls was identified as an issue in 1999. Since that time, erosion issues appear to have increased.

Despite fish not being present higher in the creek, these ravines are considered sensitive because they flow directly into fish habitat. Erosion issues at Ammonite Falls and the Fallen Log Crossing within the ravine may impact water quality within the downstream fish habitat.

4.4.6 Observations about Change

The Environmental Overview notes that limited photographic documentation of the site conditions from 1999 make it difficult to determine whether impacts from park use, windthrow events, and exotic invasive vegetation have increased, stabilized or decreased with BCFRP since that time.

One notable issue that was first identified in 1999 and remains today is the short, steep spur trail that leads to the base of Ammonite Falls. Since 1999, the trail has had no opportunity to naturally re-vegetate due to ongoing use and the damaged area has widened over the years. Erosion in this location remains a significant source of environmental concern.

4.5 Landform & Geology

4.5.1 Landform

Elevations within the park range from 110m – 210 m above sea level. Benson Creek and Flynnfall Creek generally have steep gradients with riparian areas situated along ravines 20m – 50m deep and bluffs. There are two major water falls within the park: Flynnfall Falls – a 10m grade change and Ammonite Falls (on Benson Creek) – a 15m – 20 m grade change. Outside the ravines, the park's terrain is typically gently undulating, with some steeper slopes near the northern boundary.



The park's topography limits access by park users with mobility limitations and has contributed to the development of ad hoc climbing aids such as ropes, being constructed by park users to access difficult areas of the park. As visitors to BCFRP continue to increase, slope erosion along the steep ravines and in trail areas is becoming increasingly prevalent.

4.5.2 Geology & Fossils

Historically, the park was known to contain significant ammonite fossils. At one time there was a 16" diameter ammonite fossil located near the Ammonite Falls; however, this fossil was destroyed by vandals in the 1960s. This event provided the impetus for a group of local supporters to seek protection for the area's unique geology, along with the dramatic ravines and waterfalls.

The RDN is responsible for protecting fossils under the Community Charter and Local Government Act.



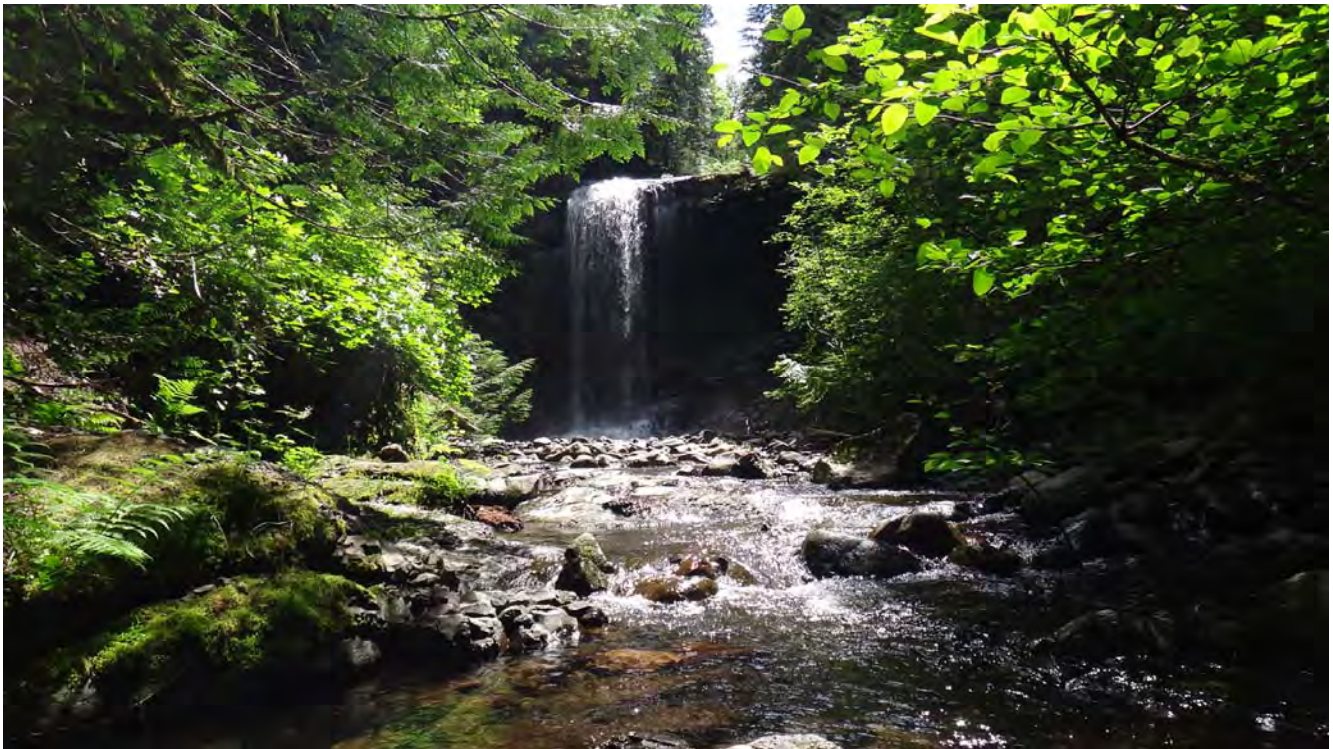
5.0 VISION, GOALS & PRINCIPLES

5.1 Vision for Benson Creek Falls Regional Park

A vision is a guiding statement by which decisions about the future of Benson Creek Falls Regional Park are made and which measures management and progress. Public input revealed that the 1999 vision remains viable today and reflects the fundamental objective of protecting and enhancing the park's valuable environmental aspects in balance with its high recreational value through the management of uses and addition of basic amenities.

Vision:

Benson Creek Falls Regional Park is a Regional Natural Area with high habitat value, environmentally sensitive areas and regionally significant geological and ecological features. The Park will continue to provide nature-based recreation and stewardship activities to nearby residents and visitors and be a place to connect with nature for many years to come.





5.2 Goals

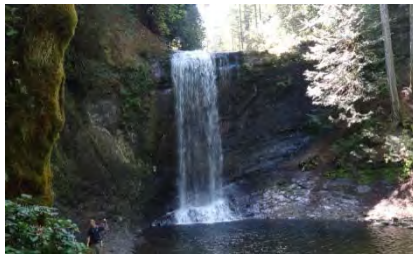
Goals provide a framework for the vision by providing specific guidance for park management and development. These goals act as a 'checklist' for proposed park improvements; if a proposed project meets these goals it will support the spirit and intent of the vision for BCFRP.

Balanced Recreational Use



Ensure that the park continues to be a place for nature-based recreation such as walking, hiking and bird-watching and foster a limited amount of responsible active recreational use, such as hiking, trail running and mountain biking.

Regionally Significant Features



Provide visitors the opportunity to see and learn about regionally significant features, landforms, geology, plant, fish and wildlife communities.

Environmental Protection



Recognize the environmental significance of the park and continue to protect environmentally sensitive areas, including the establishment of park facilities to manage access and use of known sensitive and valuable areas.

Environmental Connectivity



Provide a degree of connectivity between adjacent areas with relatively high habitat value to help offset ongoing habitat loss and fragmentation in the area.

Park Stewardship



Promote understanding and appreciation of the park environment by providing opportunities for visitors, schools or special interest groups to participate in stewardship activities such as research, restoration planting, or guided walks.



5.3 Management Principles

Principles represent the basic constraints that underlie this Management Plan and which all management policies and actions must observe.

Park Lease

Improvements or changes to the park will be consistent with the terms of the park lease.

On August 1st, 1991, the Regional District of Nanaimo secured Lease #103987 for regional park purposes at Benson Creek Falls Regional Park for a period of 30 years (to 2021). The lease includes standard lease conditions and one special provision:

- The RDN shall not fill, build or remove vegetation within 7.5 metres of the top of the stream bank without prior written consent of MOELP (today MFLNRO).

RDN Regional Parks & Trails Plan

Management of Benson Creek Falls Regional Park will be consistent with the RDN Regional Parks and Trails Plan vision.

The RDN's Regional Parks and Trails Plan sets out the future directions, policies, priorities, and actions for regional parks and trails. The vision of the plan is for a system that protects and stewards natural values while providing rewarding recreational opportunities; fostering education and appreciation of the natural environment; and, enhancing the liveability of the Region.

RDN Park Use Regulations Bylaw No.1399

Management of park use at Benson Creek Falls Regional Park will be guided by the RDN's Park Use Regulations Bylaw.

The RDN's Park Use Regulations Bylaw no.1399 (2009) regulates park use in community and regional parks including public conduct, vehicles, parking, permits, camping, domestic animals and more.



5.4 Park Management Site Plan

See Map 5: Park Concept Plan

Map 5 outlines an overall summary of the key recommended Benson Creek Park Management Plan for the next phase of park management and development. Actions related to the site plan are summarized in Section 6.0.

In the next phase of park development, it is envisioned there will be several improvements to trails, facilities, signage and promotion of the park. A primary 'maintained' trail route from Weigles Road, crossing Benson Creek, extending to the Ammonite Falls, and out to Jameson Road is a future goal for the park. Secondary trail loops will provide park users with alternate trail options. Negotiation of agreements to cross adjoining crown lands will allow proper signage and trail building to support this system.

Trailheads, kiosks with trail maps and trail markers along the main routes will reinforce the network and support navigation for visitors. Interpretive signage will promote appreciation and respect of the park and provide educational value for key park assets such as environmental and habitat values, geology and land uses.

Proposed upgrades and addition of amenities will support user safety, limit liability and reduce ongoing erosion and vegetation damage associated with access to steep slopes and sensitive areas. In the short-term, a viewing platform and stair access to Ammonite Falls will support safe access to the main destination of the park. In the longer-term, a proper bridge crossing is envisioned at Benson Creek to replace the current fallen log crossing.

To maintain and improve access to the park from the south, the plan proposes to establish an official park entry point at Jameson Road. This entry is anticipated as a managed access point with a formal trail route, off-road parking and trail signage.



6.0 MANAGEMENT POLICIES & ACTIONS

The management planning process identified several issues present in Benson Creek Falls Regional Park today. This section outlines policies and actions to address these issues over the next 10 years and into the future. These policies and issues align with the vision and goals for the park.

6.1 Park Lease

The Issue: The current park lease will expire in 2021.

Discussion with MFLNRO representatives identified two options for lease renewal:

- Renew the lease at the expiration of the current lease; or
- Apply for early renewal of the lease, initiating the process prior to the expiry.

No known barriers to renewal of the lease were identified during the management planning process. However, due to the level of investment being considered for BCFRP, it is recommended that early lease renewal be pursued to help protect RDN investments for the future. It is also recommended that the RDN work with MFLNRO to explore alternatives for securing alternative tenure for the park, including potential for a Crown grant.

Policy 1:

Maintain Benson Creek Falls Regional Park as a Regional Park property for the foreseeable future.

Action 1:

Submit a lease renewal application to MFLNRO. As part of the renewal process, explore tenure options with MFLNRO.

Public input suggested it would be desirable to expand the park boundaries if opportunity arises. While currently no opportunities for park expansion are identified, the RDN should recognize opportunities that arise to increase park area and access.

Policy 2:

Monitor opportunities to expand the park boundary with a focus on securing recreational and habitat corridors.



6.2 Park Access

The Issue: Benson Creek Falls Regional Park has two main access routes: Weigles Road on the north side of the Park and Jameson Road on the south side of the park. Both of these primary access routes have limitations.

In Spring 2013, the RDN installed trail counters at the Weigles Road and Jameson Road access points. **Table 1** shows the number of people accessing BCFRP between May and August 2013.

Table 1: Trail Counter Data – May to August 2013

| Access Route | May | June | July | August | Total ⁹ (4 months) |
|--------------|-------|-------|-------|--------|----------------------------------|
| Weigles Road | 1,388 | 1,108 | 1,118 | 1,580 | 5,194 |
| Jameson Road | 1,023 | 1,218 | 1,256 | 1,158 | 4,655 |

Trail counts suggest that both routes to BCFRP are well-used. While further counts will identify trends, it appears that Weigles Road may be used more consistently throughout the year as a destination for regular visitors, such as dog walkers. The Jameson Road route may have more frequent use during summer as a popular route for visitors accessing Ammonite Falls.

Policy 3:

Secure two public access routes to Benson Creek Falls Regional Park – one to the north side of Benson Creek and one to the south side.

Weigles Road Access (North Access)

The Weigles Road Park Access is the official entrance to Benson Creek Falls Regional Park. There is a small existing parking lot with space for about 8-10 vehicles and the RDN has a lease that provides trail access from the parking lot to the main area of the park.

The parking lot is small, poorly organized and, on busy days, overflow parking spills onto Weigles Road. The lot is also in relatively poor condition with uneven grade and potholes.



Disorganized parking at the Weigles Road parking lot.

Action 2:

Upgrade, reorganize and expand the Weigles Road parking lot.

⁹ Trail counts may include both park entry and exit of an individual during a single park visit.



To help keep people from parking on Weigles Road, expansion and improvements to the organization of the parking lot are recommended. Key considerations when planning parking lot improvements:

- Connect with the adjacent Crown Lot lease-holder of Woodlot #W0012 regarding opportunities for aligning future forestry access with parking lot improvements.
- Confirm the legal boundaries of the parking area to determine if the lot falls within the BCFRP lease area or within the road ROW.
- Contact the adjacent gravel quarry to identify opportunities for obtaining gravel for parking lot development.

Jameson Road Access (South Access)



Woodlot gate at the Jameson Road Access Route.



Informal parking on Jameson Road and Creekside Place.

Jameson Road is a popular park access point, but currently does not have official access agreements in place and does not have sufficient parking.

The north access at Weigles Road is popular for park users accessing shorter trail loops or bike routes at the north end of the park; however, people destined for Ammonite Falls typically enter the park from an unofficial access point at the end of Jameson Road on the south side of the park. The trail to Ammonite Falls in this location is shorter and easier than the route from Weigles Road. However, park users must cross privately-leased Crown woodlot (Woodlot Licence W0020) to access the trailhead.

There is no formal parking at the Jameson Road entrance which results in roadside parking at the intersection of Jameson Road and Creekside Place, a concern for local residents. On busy days at the park, on-street parking may restrict access for large vehicles, including emergency vehicles.

During the management planning process, several options to address the access and parking issues were considered, including:

- Securing official parking at Jameson Road and a formalized access route through the woodlot into the park;
- Improved trail access to Ammonite Falls from the Weigles Road access to make it a more attractive and easier route; and
- Identifying an alternative access point to the park from the east.

A review of these options identified that the best short-term solution for public access to Ammonite Falls was from Jameson Road. While improvements to the trails from Weigles Road are planned (see Section 6.3.1), the terrain through Benson Creek Ravine will continue to be a barrier for those with lesser mobility. Several access points from the east were also investigated, but land ownership and parking were identified as deterrents to



these routes. It was also determined that Jameson Road provides the best emergency access point to the park and surrounding area.

Action 3:


Develop an off-road parking area at the Jameson Road Access point.

Because it is anticipated that Jameson Road will remain a popular park access point for the foreseeable future, a parking solution is required to resolve on-street parking concerns. During the plan development, three potential parking lot options were identified. **Table 2** shows preliminary analysis of the three options.

Table 2: Summary of Parking Options

| Option | Potential Layout Study | Potential Pros | Potential Cons |
|--|------------------------|---|---|
| P1: Creekside Place Community Park using the Existing Parking Lot | | <ul style="list-style-type: none"> ▪ Lowest cost ▪ Could be implemented immediately at low cost ▪ Minimal disturbance | <ul style="list-style-type: none"> ▪ Could affect available parking for Community Park ▪ Longer walk to Park |
| P2: Corner of Jameson Road and Creekside Place | | <ul style="list-style-type: none"> ▪ Very close to existing informal parking on Jameson Road ▪ Easy to access ▪ Safe sightlines ▪ Keeps traffic out of residential area | <ul style="list-style-type: none"> ▪ Higher cost including costs for grading and building new lot ▪ Retaining walls may be needed at edge of ravine |



| Option | Potential Layout Study | Potential Pros | Potential Cons |
|----------------------------------|---|--|--|
| P3: Inside Woodlot Gate |  | <ul style="list-style-type: none"> ▪ Closest to the park entrance | <ul style="list-style-type: none"> ▪ Highest cost, including costs for clearing, grading, retaining and road access to parking ▪ Requires agreements with Crown/MOTI ▪ No passive surveillance/potential security issues ▪ Potential closures during fire season |

The three parking options were presented for public review and feedback during Open House #2. Feedback suggested that:

- Option P1: Creekside Place Community Park using the Existing Parking Lot and Option P2: Corner of Jameson Road and Creekside Place were equally preferred.
- Option P3: Inside Woodlot Gate received the lowest support due to challenges with access, cost, potential conflict with Woodlot uses and potential security issues.

Based on this feedback the following approach to parking at the Jameson Road Access is provided:

- 1) Complete minor improvements at Creekside Place Community Park to upgrade surfacing and potentially expand the existing parking area (Option P1).
- 2) Install 'No Parking' signage at corner of Jameson Road and Creekside Place (where people are currently parking and blocking access) with direction to parking at Creekside Place Community Park.
- 3) Monitor parking demand through one summer season and identify if people are parking at the park and if parking in that area is sufficient.
- 4) If demand exceeds capacity in that location, or people do not abide by 'No Parking' signs, consider development a new parking lot at the corner of Creekside Place and Jameson Road (Option 2). Parking lot in this location will require design development for grading and creek protection prior to development.



Action 4:

Obtain a formal agreement with MFLNRO, with support from the Woodlot #0020 Manager, for a public access route from Jameson Road to BCFRP.

Typical components of the trail application will include:

- Completed application form
- Updated Management Plan
- Rationale for selecting the route
- Information that addresses potential issues (e.g. parking impacts) that could arise through formalization of the route

Public input noted that the existing Jameson Road Access Route has several steep and difficult slopes. During development of the Management Plan, an existing alternate route with gentler slopes was identified and supported by the Woodlot manager. See **Figure 3: Potential Jameson Route Alignment** for an approximate alignment for this route.

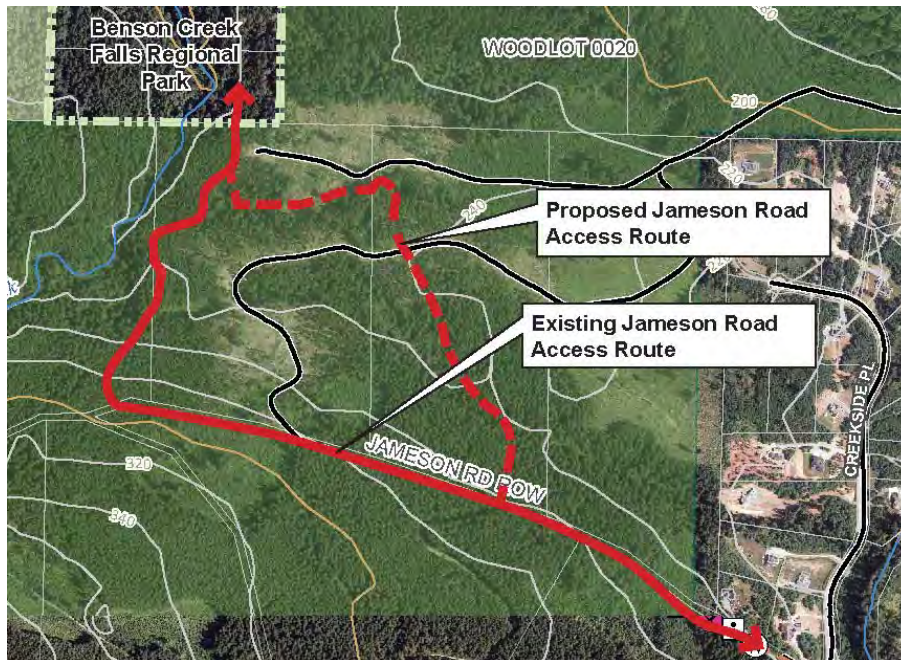


Figure 3: Potential Jameson Route Alignment



During Open House #2, public feedback about the proposed alternate route was mixed – with participants both supporting and not supporting the route.

Concerns about the route included:

- Potential conflicts with motorized/equestrian users on the alternate route.
- Development of an alternate, easier route may make it ‘too easy’ to access the park – inviting increased use and potential impacts to the environment and local neighbourhood.
- Some prefer the challenge of the existing route.

It is recommended that the RDN investigate potential route alternatives prior to identifying and securing the preferred access to the park.

A Section 56 Provincial Trails Partnership Agreement for this route may warrant consideration to establish this route and require its consideration during future resource planning.

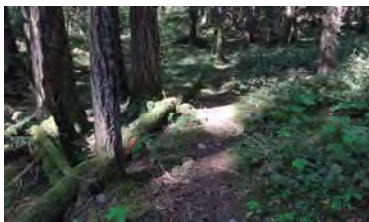
6.3 Park Trails

The Issue: Commonly used trail sections within the park have identified challenges to public use.

Three priority trail routes within BCFRP were identified during the management planning process. See **Figure 4: Priority Trail Routes** (next page) for approximate alignment of each route.

These routes are the most commonly used and were identified as having the highest priority for improvements:

- The North-South route from the Weigles Road parking lot to the south boundary of the park (just past Ammonite Falls);
- The Jameson Road access route from Jameson Road to the south boundary of the park (connecting with the north-south route); and
- The short trail loop at the Weigles Road entrance that includes the BCFRP access and an existing trail through Woodlot W0012.



Small side trail that intersects with the north-south route.

Beyond these major routes, several minor trail routes cross or link to trails within the park. These routes are typically used by the mountain biking community as part of their larger Doumont trail network. While these routes are not as popular amongst BCFRP users, they can confuse users if they are not familiar with the area.

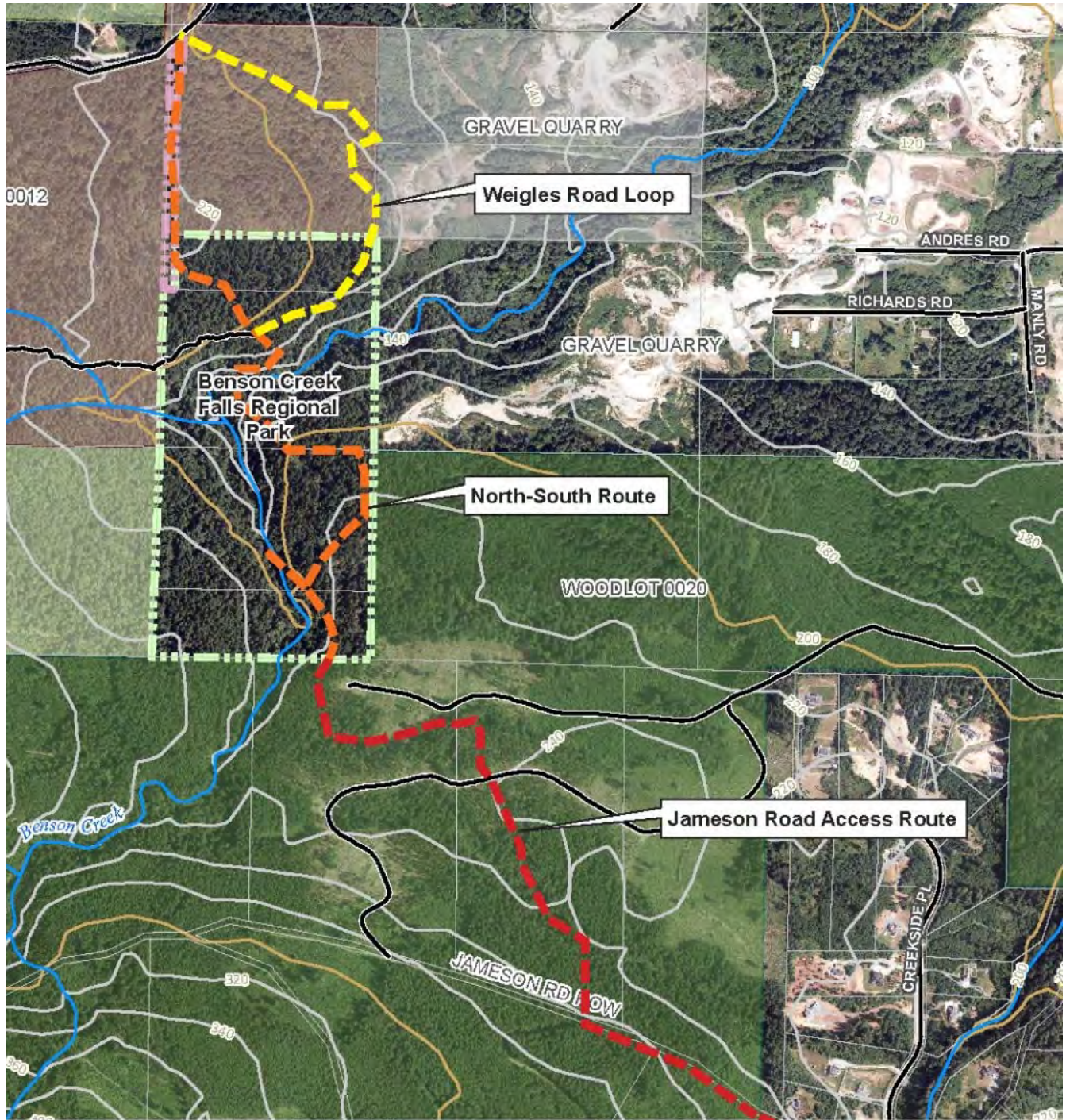


Figure 4: Priority Trail Routes



Policy 4:

Improve and maintain trail access on the three priority trail routes identified in this plan.

North-South Route

The trail route between the Weigles Road parking lot and south boundary of the park has potential to provide access to Ammonite Falls; however, two notable gaps exist:

- At Benson Creek Ravine, steep-sided banks (approx. 50 m deep) require switchback trails and the creek crossing is a fallen log that is used for crossing the creek. These barriers are a challenge and safety issue for many park users. Due to these issues this route is not currently identified as a route for accessing the falls – it is signed as an “unmaintained trail”. On the north side of the creek, bank erosion is especially present, largely due to informal “short-cut” trails that have been created to shorten the switchbacks down the slope.
- A portion of trail route, approximately 250m in length, on the south side of Benson Creek Ravine previously crossed private land and has been decommissioned by the private land owner. An alternate route has been flagged, but has not yet been cleared or constructed.



Unmaintained Trail sign at the top of Benson Creek Ravine.



Flagged, but undeveloped alternate route.

Action 5:

Undertake trail improvements or relocation of the ravine descent to Benson Creek in conjunction with a new bridge crossing over the ravine (See Section 6.5: Park Infrastructure). Consult with MFLNRO for review and selection of the preferred crossing location.

As a first step in the process, it is recommended that the ravine area be reviewed to determine if an alternate route exists that has better grades and safety. MFLNRO should be consulted during the crossing location review process for input on potential alternative routes. If a new route can be identified, the existing route should be closed and remediated.

If the existing route is determined to be the preferred route, trail improvements should include enhanced delineation of the switchbacks and closing and rehabilitation of short-cut routes using techniques such as staked small-diameter logs and native shrub planting and signage – especially on the north side of the creek¹⁰.



Improvements to the Benson Creek ravine trail should include closing and rehabilitation of short-cut routes.

¹⁰ Per Ursus Environmental Overview of Benson Creek Falls Regional Park.



Action 6:

Clear and develop the flagged trail route to reconnect the Weigles Park Access to Ammonite Falls. Trail construction should be routed to avoid larger standing trees and their drip-lines¹¹.

Jameson Road Access Route

Action #3 of this plan recommends securing formal public access from Jameson Road. The most commonly-used route from Jameson Road has a steep section of trail, approximately 250 m in length. It is recommended that the formalized public access follow an existing trail about 600 m west of the woodlot gate (see Map 5), as this route has easier grades. A small bridge over an intermittent creek may be required as part of the trail development.

Action 7:

Once a formalized agreement with MFLNRO has been obtained (See Action #4), develop and sign the Jameson Road access route as an entrance to BCFRP.

Weigles Road Loop

Many users entering BCFRP from Weigles Road are using a 1.3 km trail loop that starts and finishes at the parking lot. Approximately 500 m of this loop is on Woodlot W0012, outside the park boundary. Trail users are not generally aware that a portion of the loop is outside the park.

Public input suggested that this loop route is very popular and efforts should be made to support its continued availability for public use. Recognizing that it is on privately-leased Woodlot land, the RDN should work closely with the woodlot owner to maintain trail access in the event of logging activities.

Action 8:

Work with MFLNRO and the Woodlot owner to secure an agreement for the Loop Route at the Weigles Road Entrance as a recreational trail and maintain its use during woodlot activities. Sign the trail to inform users when they are outside the park boundary.



The Weigles Road Loop traverses a small stream at the northeast corner of the park before crossing onto Woodlot W0012.

¹¹ Per Ursus Environmental Overview of Benson Creek Falls Regional Park, p.17.



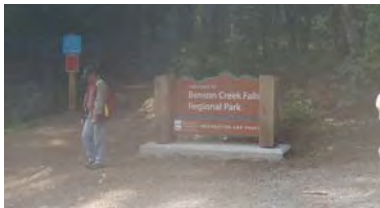
6.4 Signage, Information & Communications

The Issue: Navigation of Benson Creek Falls Regional Park is challenging, especially for those unfamiliar with the park.

Park Signage

Currently in BCFRP, signage, trail maps and markers are very limited. Current signage includes:

- A park entry sign at the Weigles Road Access;
- 3 small directional signs from the Jameson Road Access;
- Regulatory signs about 'unmaintained trails' and hazard areas.



Existing park entry sign.



Existing small directional sign.

During the public and stakeholder consultation process, several issues about insufficient information were identified:

- The lack of signage, mapping or a clear trail hierarchy could make navigation a challenge.
- Most park users do not know where the park boundary is or when they have crossed a park boundary while on a trail route. This can be confusing, especially related to the woodlot activities occurring on adjacent properties.

The Risk Control Survey recommends installation of clear and visible signage that clearly marks trails that should be used to reach park destinations.

Policy 5:

The RDN will endeavour to develop a park information system, including signage within the park, along with external information that is clear and easy to understand.



Action 9:

Design and implement a park signage system that includes:

- A park entry sign at the Jameson Road Access Route (once agreement has been obtained – See Action #3);
- Park maps and information signs at the two main park access routes – Weigles Road and Jameson Road;
- Trail markers and location maps at intersections that provide clear direction to help people navigate the main park routes;
- Interpretive information about the park's history and natural features;
- Regulatory and cautionary signage that encourages safe and respectful use of the park; and
- Park boundary signage that informs people when they are entering private lands. Opportunities to design park boundary signs in consultation with Woodlot owners should be explored to help inform users about Woodlot activities and rights.

Park Information

BCFRP is well known and is advertised on many tourism websites as a destination. However, much of this information is 'ad hoc' and can fail to provide sufficient information on park access, trails, user preparedness or the level of physical ability needed to access the park.

Action 10:

Develop park user information about BCFRP that can be posted on the RDN's website or provided in hard copy. Distribute official information to key organizations that post or provide tourism information about the park.

Communications

During the planning process, communications with key stakeholders occurred. These communications were informative and helpful for park planning. It is recommended that the RDN continue positive working relationships with these stakeholders through ongoing communications.

Action 11:

Establish an annual check-in meeting with the Woodlot managers to discuss changes, ideas and actions related to Regional Parks, including, but not limited to, Benson Creek Falls Regional Park and promote inclusion of key trail routes acknowledged in Woodlot Licence Plans.



The recently completed Mount Benson Regional Park trailhead sign is a strong precedent.

Park information signs should include components such as:

- Maps;
- Time, distance and level of difficulty for reaching key destinations;
- Rules of the trail and etiquette;
- Personal safety and emergency preparedness; and
- Interpretive information about the geological and environmental features of the park.



6.5 Park Infrastructure

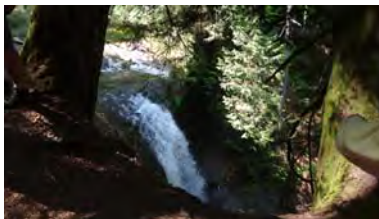
The Issue: Challenging slopes and conditions within key park use areas have potential safety concerns and environmental impacts.

Policy 6:

Infrastructure improvements will be completed to support environmental protection and public safety. However, park and trail use will continue to be ‘use at own risk.’

During the consultation process, three key sites were identified as potential safety concerns and environmental impact areas.

Viewing Area above Ammonite Falls



The Viewing area above Ammonite Falls has a steep drop-off.

Prior to descending to the falls, there is a popular overlook sight that provides a view of the falls from above. This site has a steep drop-off and an unreinforced earth overhang that could pose safety concerns. The Risk Control Survey recommends fencing or other barriers at the edge of the cliff with signs to warn people not to stand close to the cliff edge.

Action 12:

Develop a barrier structure that restricts access to the edge of the overlook on the overhang. Consider incorporating interpretive signage as a part of the overlook area.

Access to the Base of Ammonite Falls



Significant erosion is occurring on the slopes to Ammonite Falls.

One of the top activities at BCFRP is descending the ravine to view Ammonite Falls from their base. Ongoing use of the steep descent has contributed to significant erosion of the ravine bank and park users have installed ad hoc rope climbing aids to assist with the climb. The 2013 Ursus Environmental Overview identified that no natural regeneration of vegetation has occurred on the slopes since the erosion issue was identified in 1999.



Rope climbing aids have been installed ad-hoc.

Public input suggested that stair access down to the falls would be supported, although some concerns included that it may impact the ‘natural challenge’ that appeals to park users. However, given the ongoing environmental impacts and increasing use of the park by people with a wide range of physical abilities, development of stair access is recommended as a short-term priority¹². This recommendation is supported by the 2013 Risk Control Survey that recommends installation of adequate steps, handrails

¹² The Ursus Environmental Overview of Benson Creek Falls Regional Park recommends stair construction to reduce environmental impacts related to human use within the riparian area.



and/or some other adequate support system for climbing down the steep embankments.

Design of the staircase should consider use of long-lasting, low maintenance materials, durability, character and safety. Aluminium construction, while having a higher initial cost, typically has much lower requirements for long-term maintenance. Detailed design should investigate and provide costing for material alternatives.

Design development should include creation of an environmental management and slope remediation plan by an R.P. Bio to identify, mitigate and/or compensate for environmental impacts. MFLNRO should be consulted early in the design development process to identify concerns and potential issues and reviews for mitigation or compensation.

The RDN may also consider exploring partnership with VIU's welding or construction programs for design and/or build of the staircase.

Action 13:

Complete geotechnical engineering review for both the Ammonite Falls descent and the Benson Creek crossing to identify options and potential issues related to developing stair access to Ammonite Falls and a bridge crossing over Benson Creek.

Action 14:

Complete an engineered design and environmental management plan for stair access to Ammonite Falls that helps manage the steep grades and provides safer access. Consult with MFLNRO during the design and submit required applications.

Action 15:

Develop stair access with viewing platforms to Ammonite Falls, including slope remediation for eroded slopes.



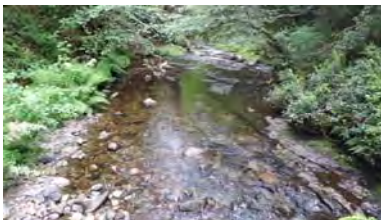
Example of stair access at Cowichan River in the CVRD.



Benson Creek Fallen Log Crossing



The fallen log and adjacent log jam at Benson Creek Ravine.



Benson Creek downstream of the fallen log crossing.

Currently the trail route through Benson Creek Ravine is unmaintained and not advertised as a park trail due to the safety concerns related to steep slopes and the fallen log crossing. The 2013 Risk Control Survey recommends either removal of the fallen log or modifications such that the crossing can be safely used for crossing the creek.

The 1999 Management Plan discussed the potential of a bank to bank ravine bridge crossing; however, this bridge would be approximately 160 m in length and is considered to be prohibitively expensive to construct in the foreseeable future. Preliminary discussions with MFLNRO identified that a bridge crossing within the ravine may be possible, but would require the following challenges to be addressed:

- An environmental assessment of the proposed crossing would be required to determine the environmental impacts and mitigation measures of bridge development.
- Accessibility to the bridge site for construction equipment could be a limitation and may have cost implications. An alternate entrance option is from Galloway Gulch.
- The log jam near the existing fallen log crossing may have to be dislodged to limit future damage to a constructed structure.
- There is potential for damage to a future bridge related to other flowing debris if the log jam is removed.

It is recommended that in the medium to long-term, a pedestrian bridge crossing be established over Benson Creek.

Design of the bridge crossing should make use of long-lasting, low maintenance materials. Design development should follow the *Standards and Best Practices for Instream Works* as well as the Terms and Conditions of the Habitat Officer for the West Coast Region. Design will include creation of an environmental management and slope remediation plan by an R.P. Bio, in consultation with MFLNRO.

Action 16:

Complete an engineered design and environmental management plan for an improved crossing at Benson Creek. Consult with MFLNRO during the design and submit required applications.

Action 17:

Develop a bridge crossing over Benson Creek.



6.6 Park Amenities

Amenities

The Issue: Benson Creek Falls Regional Park is a nature park and therefore visitor amenities are minimal.

During the consultation process, park users identified that garbage receptacles at the trailheads would be a desirable amenity. Other amenities such as washroom facilities and benches did not receive extensive input, but could be considered in the future if need is identified.

Action 18:

Develop trailheads at Weigles Road & the Jameson Parking Area to RDN Parks Standards if need is identified.

Camping & Campfires

The Issue: Evidence of camping and campfire use is present at the clearing near Ammonite Falls.

The clearing is relatively distant from populated areas, but is still readily accessible by foot, bike or motorized vehicle. Under Park Use Regulation Bylaw No. 1399, camping is only permitted in Regional Parks with constructed camping areas, which does not include Benson Creek Falls Regional Park. Camping and fires have potential hazards including wildfire risks, limited emergency access and environmental damage.

Policy 7:

Camping and campfires are not permitted in Benson Creek Falls Regional Park.

Viewpoint

The Issue: A knoll on the eastern boundary of the park provides views out to Nanaimo, but is directly adjacent to a private gravel quarry.

Southeast of Benson Creek Ravine, a small spur trail leads to a knoll that has views over the private gravel quarry to the City of Nanaimo and surrounding areas. This viewpoint is an appealing rest stop along the trail.



Evidence of campfire use at the clearing near Ammonite Falls.



The viewpoint on the eastern boundary of the park provides view over Nanaimo.



Action 19:

In consultation with the adjacent landowner, develop signage that provides direction from the trail to the viewpoint and advises people not to venture beyond the viewpoint into the gravel quarry.

6.7 Park Users



Off-leash dogs are common in BCFRP, but the public process identified relatively few concerns about conflicts.

The Issue: Public consultation and observation identified a number of different user groups in BCFRP, including, but not limited to: hikers, trail runners, dog-walkers, mountain bikers and ATV users. Generally public input did not identify conflicts between users groups; in most cases terrain dictates user groups within the park. As popularity of the park grows, a plan for managing the different user groups may be required.

Policy 8:

Use of Benson Creek Falls Regional Park will be governed by RDN Park Use Bylaw No. 1399 that provides that:

- Pets must be under human-control at all times in the park. Pets may be off-leash, but must respond to their owner's commands. Information regarding this policy should be posted at the park entrances.
- Motorized vehicle use is not permitted within Regional Parks. It is recognized that this use occurs in the woodlot and vicinity and it is recommended that signage be posted at the park boundaries to inform trail users that motorized vehicles are not permitted within the park boundary. Information should also be posted to let users know that these uses may be encountered when using trails outside the park.
- Mountain biking is permitted within Regional Parks. The RDN should work with the mountain biking community to identify routes within the park that are being used by the mountain biking community and to provide signage that communicates where multiple uses exist.

6.8 Habitat & Environmental Protection

The Issue: Public use of BCFRP continues to increase, which if not managed, could lead to negative environmental impacts.

Key environmental concerns identified through this process included erosion and habitat impacts within the steep ravine and riparian zones along Benson



Creek ravine and near Ammonite Falls. As park development occurs, care should be taken to protect the environmental assets of BCFRP.

Policy 9:

Construction activities within steep slope and ravine areas should include design development, review and monitoring by a R.P. Bio.

Policy 10:

If new trails within the park are planned (beyond those identified in this plan), detailed study to identify environmental constraints such as erodible slopes, “at-risk” species and ecosystems, nesting birds, archaeological and paleontological assets and veteran trees/snags could be completed¹³.

Ongoing monitoring and regular review of park ecosystems and wildlife in the park will support protection and conservation. Monitoring activities can be connected with educational and stewardship programming to create a more meaningful experience for park users and offer opportunities for educational institutions. For example, recent Vancouver Island University coursework included assessment and monitoring of Benson Creek fish habitat. Such connections should be fostered and continued for the park’s next phase of development.

Policy 11:

The RDN will support and encourage stewardship activities that promote ecological health within the park and/or compile knowledge about the natural systems of the park.

Action 20:

Encourage and support connections with educational institutions (such as VIU) to undertake relevant coursework that includes survey and monitoring of habitat and wildlife within the park or assessment of impacts of recreational use on sensitive sites within the park. Where research and survey is completed within BCFRP, the RDN should request copies of data and analysis.

As described in Section 4.5, a recent inventory of habitat, wildlife and sensitive ecosystems was conducted by Ursus Environmental. A number of actions were recommended within this report to support the development of a better understanding of natural values within BCFRP and address potential park management issues.

¹³ Per Ursus Environmental Overview for Benson Creek Falls Regional Park.



Action 21:

Maintain a map and list of environmentally sensitive areas and CDC-listed species identified within the park boundary.

Action 22:

Complete targeted surveys to determine the presence of two potential “at-risk” amphibian species within the park; the Northern Red-legged Frog and Clouded Salamander.

Action 23:

Complete a modest invasive species inventory and removal program to remove Yellow Archangel at the Weigles Road Trailhead over the short-term, along with periodic removal of English Holly along the northern trail network, as resources allow.

Action 24:

Undertake long-term monitoring of key areas within the park including the Ammonite Falls access and the Benson Creek crossing to assess erosion management and habitat re-establishment using standardized forms, GPS locations, and digital photographs updated at 3 to 5 year intervals.

6.9 Landform & Geology

The Issue: Ammonite fossils have been known to exist at Benson Creek Falls Regional Park.

The park’s inception is linked with a major finding, and subsequent vandalism, of a significant Ammonite fossil within the park. While no particular fossil sites have been identified to date, more fossils may exist within the park boundaries. With continued park use, erosion and park development, there is a potential to uncover additional fossils in the future. At present, the RDN does not have a policy for how to deal with fossil finds.

Action 25:

Develop a policy and protocol for potential fossil discoveries. A recommended policy is as follows:

“Fossils discovered within BCFRP are not to be moved or damaged. The RDN will report any found fossils to the Vancouver Island Paleontological Society for analysis.”



Action 26:

Include the policy and protocols on information for the park, including on park entry signs and online/print information. Sign wording as follows:

“Fossils discovered within BCFRP are not to be moved or damaged. The location of all potential discoveries should be reported immediately to the RDN.”

7.0 IMPLEMENTATION SUMMARY

The following section summarizes the management goals and actions outlined for the park within an implementation framework. Each management goal and list of actions are linked to a recommended timeframe, estimate of a magnitude of cost to implement and an assigned priority responsibility and/or additional parties involved in completing the actions.

7.1 Summary of Actions by Management Section

Table Headings

Recommended Timeframe:

Timeframe recommendations are based on consideration for anticipated budget, safety, public demand and environmental protection. Implementation timing may change depending on other demands within the Regional Parks system. Proposed timeframes are as follows:

| | |
|--|-------------------------------|
| | Immediate: 1-2 Years |
| | Short-Term: 3-5 Years |
| | Medium-Term: 6-10 years |
| | Ongoing: No Defined Timeframe |

Estimated Capital Costs:

Capital costs are outlined to provide an order of magnitude for budgeting purposes. Cost estimates are based on historical cost information and are provided for planning purposes only. Estimates should be reviewed and updated at the time of project implementation.

Parties Involved:

Outlines at a high level the parties that will be involved in the implementation of the action.

Table 3: Implementation Recommendations

| Management Section | Action | Recommended Timeframe | Estimated Capital Cost | Parties Involved |
|------------------------|--|-----------------------|---|--|
| 6.1 Park Lease | 1. Submit a lease renewal application to MFLNRO. As part of the renewal process, explore tenure options with MFLNRO. | Immediate | Staff Time* * Potential legal costs may arise over the course of the lease renewal, depending on process outcomes. | RDN Staff MFLNRO |
| 6.2 Park Access | 2. Upgrade, reorganize and expand the Weigles Road parking lot. | Medium-Term | \$7,000 | RDN Staff Woodlot Owner W0012 MOT |
| | 3. Develop an off-road parking area at the Jameson Road Access point. | Immediate | \$10,00 - \$20,000* * Cost will depend on Parking Option selected (see Section 6.2: Park Access). | RDN Staff MFLNRO Woodlot Owner W0020 |
| | 4. Obtain a formal agreement with MFLNRO, with support from the Woodlot #0020 Manager, for a public access route from Jameson Road to BCFRP. | Short-Term | Staff Time | RDN Staff MOT Woodlot Owner W0020 |
| 6.3 Park Trails | 5. Undertake trail improvements or relocation of the ravine descent to Benson Creek in conjunction with a new bridge crossing over the ravine (See <i>Action #17</i>). Consult with MFLNRO review and selection of the preferred crossing location. | Medium-Term | \$40,000 | RDN Staff R.P. Bio MFLNRO |

| Management Section | Action | Recommended Timeframe | Estimated Capital Cost | Parties Involved |
|--|--|-----------------------|------------------------|--|
| | 6. Clear and develop the flagged trail route to reconnect the Weigles Park Access to Ammonite Falls. Trail construction should be routed to avoid larger standing trees and their drip-lines. | Medium-Term | \$6,000 | RDN Staff |
| | 7. Once a formalized agreement with MFLNRO has been obtained (See Action #4), develop and sign the Jameson Road access route as an entrance to BCFRP. | Short-Term | \$19,000 | RDN Staff R.P. Bio |
| | 8. Work with MFLNRO and the Woodlot owner to secure an agreement for the Loop Route at the Weigles Road Entrance as a recreational trail and maintain its use during woodlot activities. Sign the trail to inform users when they are outside the park boundary. | Immediate | \$3,000 | RDN Staff MFLNRO Woodlot Owner W0012 |
| 6.4 Signage, Information & Communications | 9. Design and implement a park signage system that includes: <ul style="list-style-type: none"> ▪ A park entry sign at the Jameson Road Access Route (once agreement has been obtained – See Action #3); ▪ Park maps and information signs at the two main park access routes – Weigles Road and Jameson Road; ▪ Trail markers and location maps at intersections that provide clear direction to help people navigate the main park routes; ▪ Interpretive information about the park’s history and natural features; ▪ Regulatory and cautionary signage that encourages safe and respectful use of the park; and ▪ Park boundary signage that informs people when they are entering private lands. Opportunities to design park boundary signs in consultation with Woodlot owners should be explored to help inform users about Woodlot activities and rights. | Short-Term | \$19,000 | RDN Staff |
| | 10. RDN’s website or provided in hard copy. Distribute official information to key organizations that post or provide tourism information about the park. | Short-Term | Staff Time | RDN Staff Tourism Organizations |
| | 11. Establish an annual check-in meeting with the Woodlot managers to discuss changes, ideas and actions related to Regional Parks, including, but not limited to, Benson Creek Falls Regional Park and promote inclusion of key trail routes acknowledged in Woodlot Licence Plans. | Short-Term | Staff Time | RDN Staff Woodlot owners |
| 6.5 Park Infrastructure | 12. Develop a barrier structure that restricts access to the edge of the overlook on the overhang. Consider incorporating interpretive signage as a part of the overlook area. | Immediate | Complete | |
| | 13. Complete geotechnical engineering review for both the Ammonite Falls descent and the Benson Creek crossing to identify options and potential issues related to developing stair access to Ammonite Falls and a bridge crossing over Benson Creek. | Immediate | \$20,000 | RDN Staff Consultant |
| | 14. Complete an engineered design and environmental management plan for stair access to Ammonite Falls that helps manage the steep grades and provides safer access. Consult with MFLNRO during the design and submit required applications. | Immediate | \$30,000 | RDN Staff Consultants R.P. Bio MFLNRO |

| Management Section | Action | Recommended Timeframe | Estimated Capital Cost | Parties Involved |
|--------------------|---|-----------------------|--|--|
| | 15. Develop stair access with viewing platforms to Ammonite Falls, including slope remediation for eroded slopes. | Immediate | <p>Option 1: Aluminum Substructure + Aluminum Treads/Handrail \$375,000</p> <p>Option 2: Aluminum Substructure + Wood Treads/Handrail \$295,000</p> <p>Option 3: Wood Substructure + Wood Treads/Handrail \$245,000*</p> <p>* All options assume concrete footings over an 80m distance with 1-2 landings.</p> | RDN Staff R.P. Bio Contractor Consultants |
| | 16. Complete an engineered design and environmental management plan for an improved crossing at Benson Creek. Consult with MFLNRO during the design and submit required applications. | Medium-Term | \$25,000 | RDN Staff Consultants |
| | 17. Develop a bridge crossing over Benson Creek. | Medium-Term | <p>Option 1: Steel Girders \$190,000</p> <p>Option 2: Steel Trusses \$250,000</p> <p>* Both options assume 2m wide, 40m long clear-span bridge with timber decking and handrails over steel substructure. Option 1 includes steel girders which have lower cost, but provide less clearance between the bridge and watercourse. Option 2 includes steel trusses which have higher cost and better clearance.</p> | RDN Staff R.P. Bio Contractor Consultants |
| 6.6 Park Amenities | 18. Develop trailheads at Weigles Road & the Jameson Parking Area to RDN Parks Standards if need is identified. | Medium-Term | \$16,000 | RDN Staff |
| | 19. In consultation with the adjacent landowner, develop signage that provides direction from the trail to the viewpoint and advises people not to venture beyond the viewpoint into the gravel quarry. | Medium-Term | \$3,000 | RDN Staff |

| Management Section | Action | Recommended Timeframe | Estimated Capital Cost | Parties Involved |
|---|--|------------------------|------------------------|---|
| | 20. Encourage and support connections with educational institutions (such as VIU) to undertake relevant coursework that includes survey and monitoring of habitat and wildlife within the park or assessment of impacts of recreational use on sensitive sites within the park. Where research and survey is completed within BCFRP, the RDN should request copies of data and analysis. | Ongoing | Staff Time | RDN Staff Educational Institutions Stewardship Groups |
| 6.8 Habitat & Environmental Protection | 21. Maintain a map and list of environmentally sensitive areas and CDC-listed species identified within the park boundary | Ongoing | Staff Time | RDN Staff |
| | 22. Complete targeted surveys to determine the presence of two potential "at-risk" amphibian species within the park; the Northern Red-legged Frog and Clouded Salamander. | Medium-Term | \$8,000 | RDN Staff R.P. Bio |
| | 23. Complete a modest invasive species inventory and removal program to remove Yellow Archangel at the Weigles Road Trailhead over the short-term, along with periodic removal of English Holly along the northern trail network, as resources allow. | Short-Term and Ongoing | Staff Time | RDN Staff Volunteers |
| | 24. Undertake long-term monitoring of key areas within the park including the Ammonite Falls access and the Benson Creek crossing to assess erosion management and habitat re-establishment using standardized forms, GPS locations, and digital photographs updated at 3 to 5 year intervals. | Ongoing | Staff Time | RDN Staff |
| 6.9 Landform & Geology | 25. Develop a policy and protocol for potential fossil discoveries. | Immediate | Staff Time | RDN Staff Paleontology Society |
| | 26. Include the policy and protocols on information for the park, including on park entry signs and online/print information. | Ongoing | Staff Time | RDN Staff |



7.2 Summary of Actions by Priority

Table 4: Recommended Immediate Actions (1 - 2 Year Timeframe)

| Actions | Estimated Capital Cost |
|--|-------------------------------|
| 1. Submit a lease renewal application to MFLNRO. As part of the renewal process, explore tenure options with MFLNRO. | Staff Time* |
| 3. Develop an off-road parking area at the Jameson Road Access point: | |
| 3A Complete minor improvements to the parking lot at Creekside Place Community Park. Provide 'No Parking' signage at the corner of Creekside Place and Jameson Road (where people currently park) and direct parking to Creekside Place Community Park. | \$10,000** |
| 3B If demand exceeds capacity in that location, consider development a new parking lot at the corner of Creekside Place and Jameson Road (Option 2). Parking lot in this location will require design development for grading and creek protection prior to development. | \$20,000* |
| 8. Work with MFLNRO and the Woodlot owner to secure an agreement for the Loop Route at the Weigles Road Entrance as a recreational trail and maintain its use during woodlot activities. Sign the trail to inform users when they are outside the park boundary. | \$3,000 |
| 12. Develop a barrier structure that restricts access to the edge of the overlook on the overhang. Consider incorporating interpretive signage as a part of the overlook area. | Complete |
| 13. Complete geotechnical engineering review for both the Ammonite Falls descent and the Benson Creek crossing to identify options and potential issues related to developing stair access to Ammonite Falls and a bridge crossing over Benson Creek. | \$20,000 |
| 14. Complete an engineered design and environmental management plan for stair access to Ammonite Falls that helps manage the steep grades and provides safer access. Consult with MFLNRO during the design and submit required applications. | \$30,000 |
| 15. Develop stair access with viewing platforms to Ammonite Falls, including slope remediation for eroded slopes. | \$245,000 - \$375,000*** |
| 24. Develop a policy and protocol for potential fossil discoveries. | Staff Time |
| TOTAL, ESTIMATED CAPITAL COST FOR IMMEDIATE ACTIONS | \$308,000 - \$458,000 |
| (25% CONTINGENCY) | \$77,000 - \$114,500 |
| TOTAL RECOMMENDED ALLOCATION | \$385,000 - \$572,500 |

* Potential legal costs may arise over the course of the lease renewal, depending on process outcomes.

** Cost will depend on Parking Option selected (see **Section 6.2: Park Access**).

*** Cost will depend on Stair Substructure Option selected (see **Table 3, Action #15**).



Table 5: Recommended Short-Term Actions (3 - 5 Year Timeframe)

| Actions | Estimated Capital Cost |
|--|---------------------------|
| 4. Obtain a formal agreement with MFLNRO, with support from the Woodlot #0020 Manager, for a public access route from Jameson Road to BCFRP. | Staff Time |
| 7. Once a formalized agreement with MFLNRO has been obtained (See Action #4), develop and sign the Jameson Road access route as an entrance to BCFRP. | \$19,000 |
| 9. Design and implement a park signage system that includes: <ul style="list-style-type: none"> ▪ A park entry sign at the Jameson Road Access Route (once agreement has been obtained – See Action #3); ▪ Park maps and information signs at the two main park access routes – Weigles Road and Jameson Road; ▪ Trail markers and location maps at intersections that provide clear direction to help people navigate the main park routes; ▪ Interpretive information about the park’s history and natural features; ▪ Regulatory and cautionary signage that encourages safe and respectful use of the park; and ▪ Park boundary signage that informs people when they are entering private lands. Opportunities to design park boundary signs in consultation with Woodlot owners should be explored to help inform users about Woodlot activities and rights. | \$19,000 |
| 10. Develop park user information that can be posted on the RDN’s website or provided in hard copy. Distribute official information to key organizations that post or provide tourism information about the park. | Staff Time |
| 11. Establish an annual check-in meeting with the Woodlot managers to discuss changes, ideas and actions related to Regional Parks, including, but not limited to, Benson Creek Falls Regional Park and promote inclusion of key trail routes acknowledged in Woodlot Licence Plans. | Staff Time |
| 23. Complete a modest invasive species inventory and removal program to remove Yellow Archangel at the Weigles Road Trailhead over the short-term, along with periodic removal of English Holly along the northern trail network, as resources allow. | Staff Time |
| TOTAL, ESTIMATED CAPITAL COST FOR SHORT-TERM ACTIONS | \$38,000 |
| | (25% CONTINGENCY) \$9,500 |
| TOTAL RECOMMENDED ALLOCATION | \$47,500 |



Table 6: Recommended Medium-Term Actions (5 - 10 Year Timeframe)

| Actions | Estimated Capital Cost |
|--|-------------------------------|
| 2. Upgrade, reorganize and expand the Weigles Road parking lot. | \$7,000 |
| 5. Undertake trail improvements or relocation of the ravine descent to Benson Creek in conjunction with a new bridge crossing over the ravine (See Action #17). Consult with MFLNRO review and selection of the preferred crossing location. | \$40,000 |
| 6. Clear and develop the flagged trail route to reconnect the Weigles Park Access to Ammonite Falls. Trail construction should be routed to avoid larger standing trees and their drip-lines. | \$6,000 |
| 16. Complete an engineered design and environmental management plan for an improved crossing at Benson Creek. Consult with MFLNRO during the design and submit required applications. | \$25,000 |
| 17. Develop a bridge crossing over Benson Creek. | \$190,000 - \$250,000* |
| 18. Develop trailheads at Weigles Road & the Jameson Parking Area to RDN Parks Standards if need is identified. | \$16,000 |
| 19. In consultation with the adjacent landowner, develop signage that provides direction from the trail to the viewpoint and advises people not to venture beyond the viewpoint into the gravel quarry. | \$3,000 |
| 22. Complete targeted surveys to determine the presence of two potential "at-risk" amphibian species within the park; the Northern Red-legged Frog and Clouded Salamander. | \$8,000 |
| TOTAL, ESTIMATED CAPITAL COST FOR MEDIUM-TERM ACTIONS | \$295,000 - \$355,000 |
| (25% CONTINGENCY) | \$73,750 - \$88,750 |
| TOTAL RECOMMENDED ALLOCATION | \$368,750 - \$443,750* |

* Cost will depend on Bridge Crossing Substructure Option selected (see Table 3, Action #17).



Table 7: Recommended Ongoing Actions (No Defined Timeframe)

| Actions | Recommended Timeframe |
|--|------------------------------|
| 20. Encourage and support connections with educational institutions (such as VIU) to undertake relevant coursework that includes survey and monitoring of habitat and wildlife within the park or assessment of impacts of recreational use on sensitive sites within the park. Where research and survey is completed within BCFRP, the RDN should request copies of data and analysis. | Staff Time |
| 21. Maintain a map and list of environmentally sensitive areas and CDC-listed species identified within the park boundary | Staff Time |
| 24. Undertake long-term monitoring of key areas within the park including the Ammonite Falls access and the Benson Creek crossing to assess erosion management and habitat re-establishment using standardized forms, GPS locations, and digital photographs updated at 3 to 5 year intervals. | Staff Time |
| 26. Include policy and protocol information about fossil discoveries, including on park entry signs and online/print information. | Staff Time |



8.0 REPORT MAPS

The report maps provide a visual description of the information described in the Management Plan.

Maps:

Map 1: Park Area and Context.

Map 2: Park Access & Adjacent Land Use

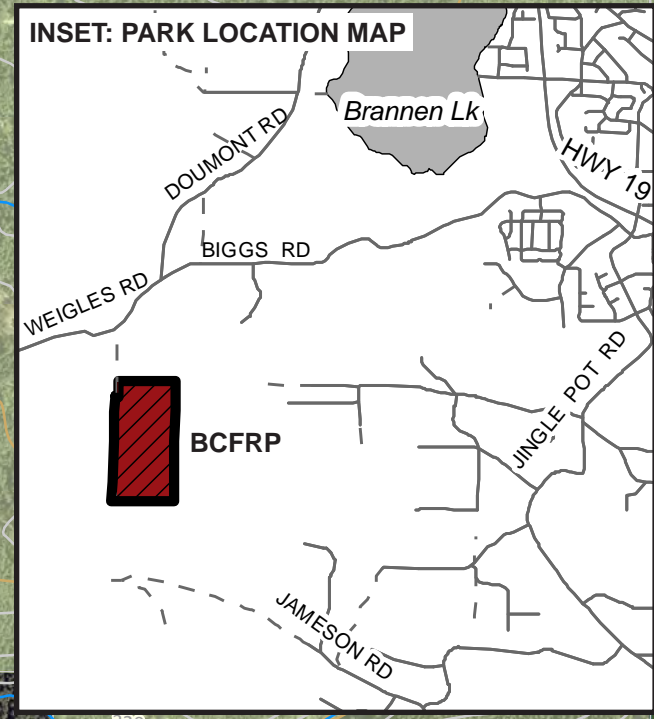
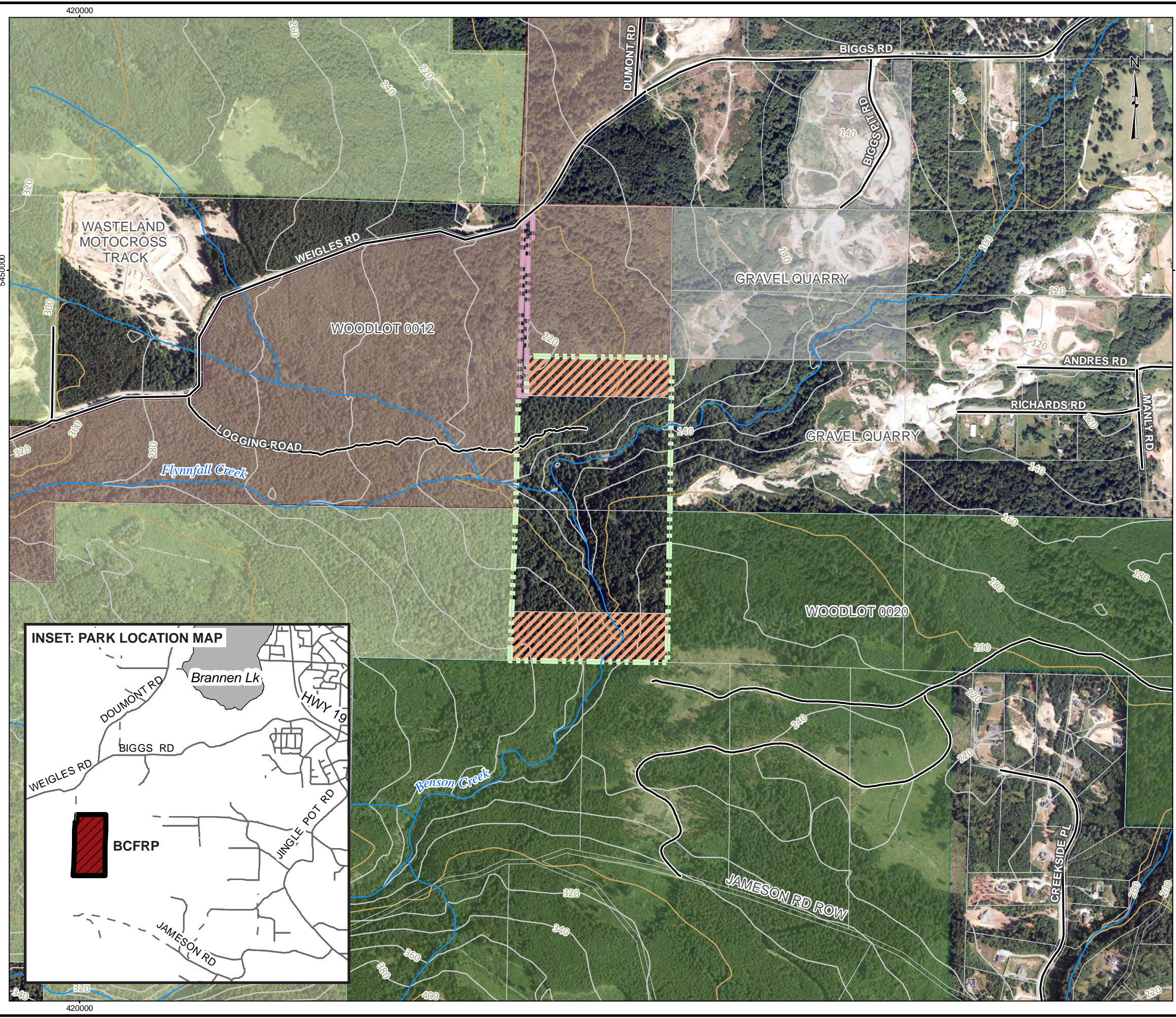
Map 3: Trails & Destination Points

Map 4: Environmental Overview

Map 5: Park Concept Plan



N:\CAD-GIS\VAN\2013\13-1444\13-1444-0019 Regional District of Nanaimo Benson Parks Management Plan\GIS\Mapping\MXD\General\Figure 1 - Park Area and Context.mxd



LEGEND

- 20m. CONTOUR
- 100m. CONTOUR
- ROAD
- WATERCOURSE

BENSON CREEK PARK

- 2007 PARK EXPANSION
- LEASE BOUNDARY
- PARK BOUNDARY

PROPERTIES

- WOODLOT W0012 - CROWN LAND
- WOODLOT W0020 - CROWN LAND
- WOODLOT W0020 - PRIVATE LAND
- PROPERTY BOUNDARY - PRIVATE LAND
- LEASED CROWN LAND

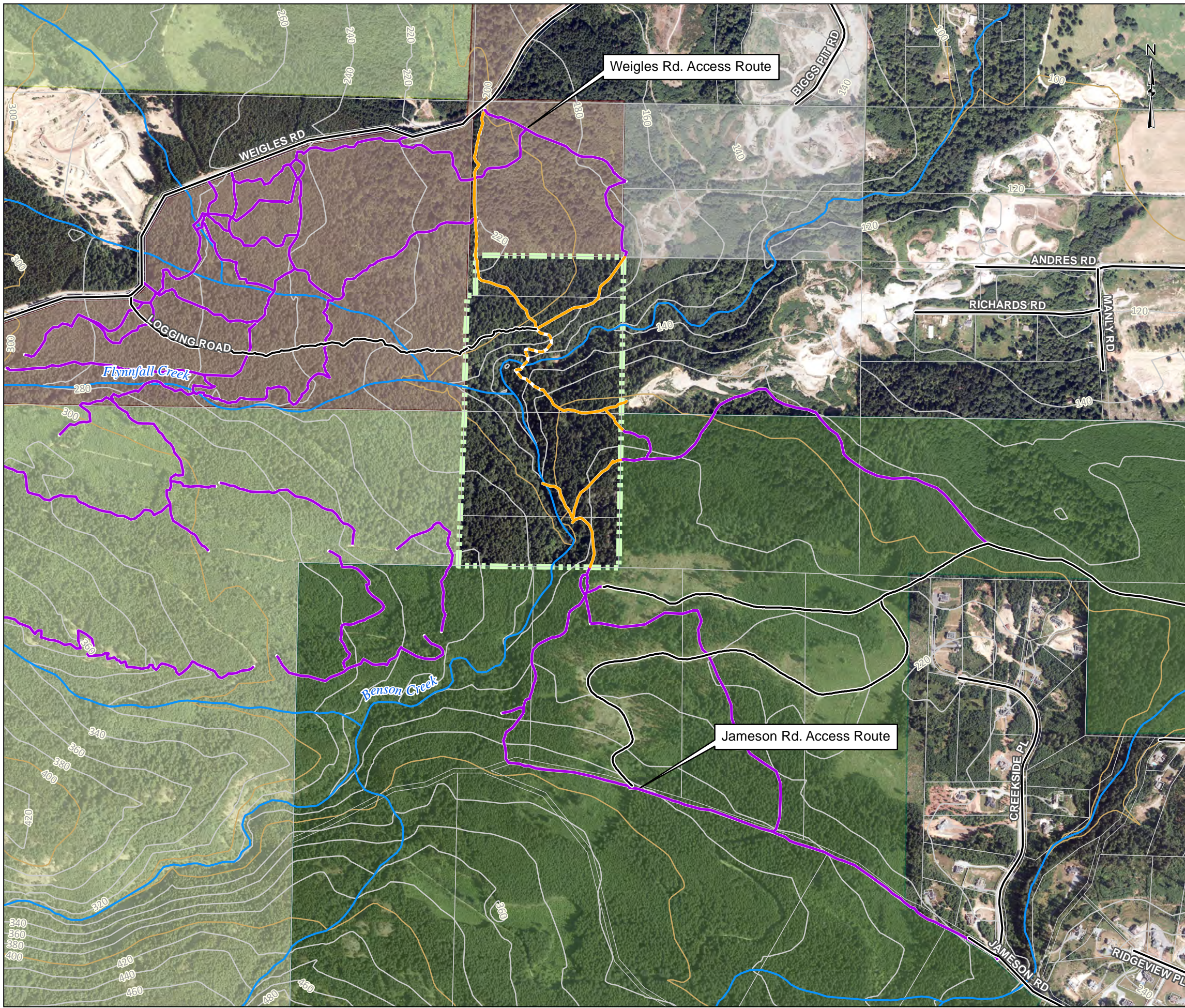
REFERENCE

DATA PROVIDED BY REGIONAL DISTRICT OF NANAIMO.
 WOODLOT AND CROWN LAND DATA PROVIDED BY THE PROVINCE OF BRITISH COLUMBIA UNDER THE OPEN GOVERNMENT LICENSE FOR GOVERNMENT OF BC INFORMATION V.BC1.0
 DATUM: NAD83 PROJECTION: UTM ZONE 10

400 0 400
 SCALE 1:10,000 Metres

| | | | |
|---------|--|---------------|-----------------------|
| PROJECT | Regional District of Nanaimo Benson Creek Falls Park Nanaimo, BC | | |
| TITLE | PARK AREA AND CONTEXT | | |
| PROJECT | 13-1444-0019 | FILE No. | |
| DESIGN | JZ | 15 MAY 2013 | SCALE AS SHOWN REV. 0 |
| GIS | AD | 23 SEPT. 2013 | |
| CHECK | | | |
| REVIEW | | | |

MAP: 1



LEGEND

- 20m. CONTOUR
- 100m. CONTOUR
- ROAD
- WATERCOURSE

TRAILS

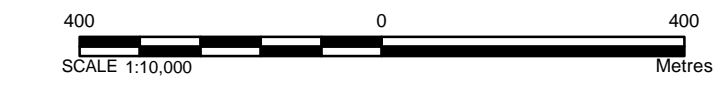
- PARK TRAIL
- - - UNMAINTAINED TRAIL
- INFORMAL TRAIL
- - - PARK BOUNDARY

PROPERTIES

- WOODLOT W0012 - CROWN LAND
- WOODLOT W0020 - CROWN LAND
- WOOTLOT W0020 - PRIVATE LAND
- PROPERTY BOUNDARY - PRIVATE LAND
- LEASED CROWN LAND

REFERENCE

MAP IS FOR INFORMATION PURPOSES ONLY. DATA LOCATIONS MAY NOT BE EXACTLY AS SHOWN. DATA PROVIDED BY REGIONAL DISTRICT OF NANAIMO. SECTIONS OF TRAILS DIGITIZED FROM [HTTP://WWW.ISLAND.NET/~PMCGARRI/](http://www.island.net/~pmcgarr/) BY PHIL MCGARRI ON JUNE 06 2013. IMAGERY PROVIDED BY ESRI ARCGIS ONLINE MAP SERVICES.

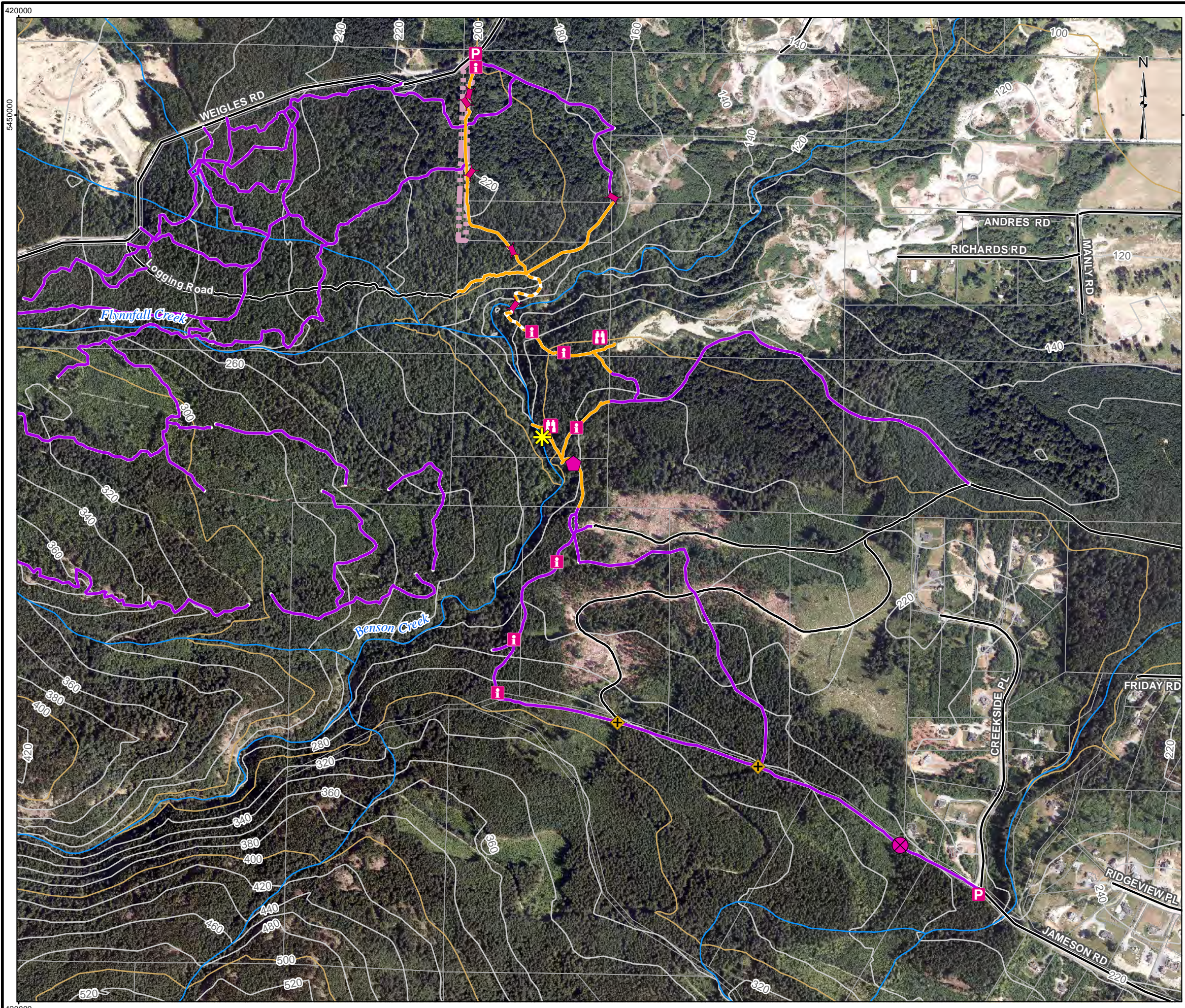


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|---------|--------------|--|----------------|
| PROJECT | | Regional District of Nanaimo Benson Creek Falls Park Nanaimo, BC | |
| TITLE | | PARK ACCESS AND ADJACENT LAND USE | |
| PROJECT | 13-1444-0019 | FILE No. | |
| DESIGN | JZ | 15 MAY 2013 | SCALE AS SHOWN |
| GIS | AD | 23 SEPT. 2013 | REV. 0 |
| CHECK | | | |
| REVIEW | | | |



MAP: 2

N:\CAD-GIS\VAN\2013\13-1444\13-1444-0019 Regional District of Nanaimo Benson Parks Management Plan\GIS\Mapping\MXD\General\Figure 3 - Trails and Destination Points_new.mxd



LEGEND

EXISTING POINTS OF INTEREST

- FOOTBRIDGE
- AMMONITE FALLS
- EXISTING GATE
- CLEARING
- VIEWPOINT
- EXISTING PARKING
- ROAD JUNCTION
- INFORMATION SIGN

TRAILS

- PARK TRAIL
- UNMAINTAINED TRAIL
- INFORMAL TRAIL
- ROAD
- WATERCOURSE
- 20m. CONTOUR
- 100m. CONTOUR
- LEASE BOUNDARY
- PARK BOUNDARY
- PROPERTY BOUNDARY

REFERENCE

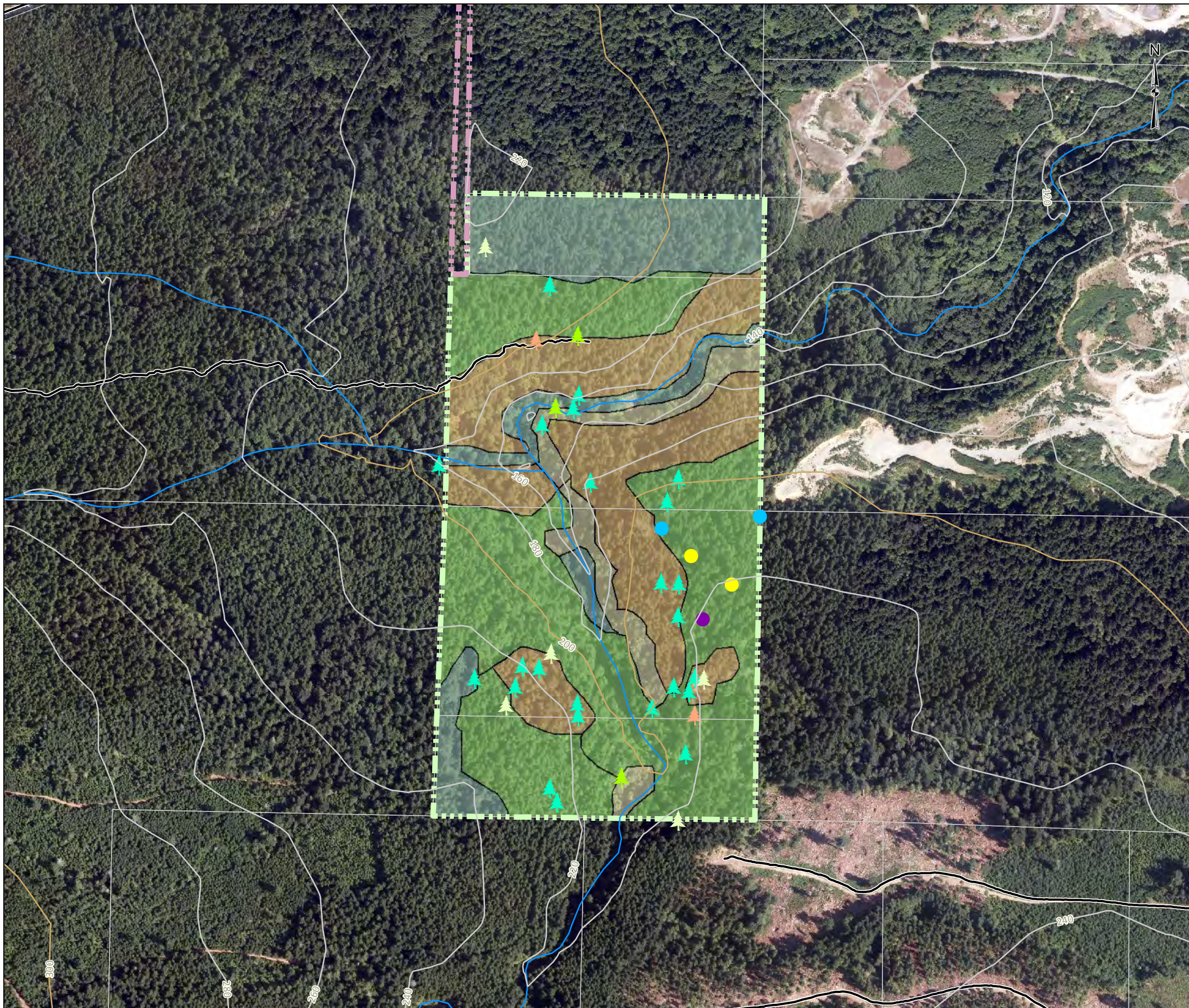
MAP IS FOR INFORMATION PURPOSES ONLY. DATA LOCATIONS MAY NOT BE EXACTLY AS SHOWN.
 DATA PROVIDED BY REGIONAL DISTRICT OF NANAIMO. SECTIONS OF TRAILS DIGITIZED FROM [HTTP://WWW.ISLAND.NET/~PMCGARRI/](http://www.island.net/~pmcgarr/) BY PHIL MCGARRI ON JUNE 06 2013.

DATUM: NAD83 PROJECTION: UTM ZONE 10

400 0 400
 SCALE 1:10,000 Metres

| | | | |
|---------|--|------------------|----------------|
| PROJECT | Regional District of Nanaimo Benson Creek Falls Park Nanaimo, BC | | |
| TITLE | TRAILS AND DESTINATION POINTS | | |
| | PROJECT | 13-1444-0019 | FILE No. |
| | DESIGN | JZ 15 MAY 2013 | SCALE AS SHOWN |
| | GIS | AD 23 SEPT. 2013 | REV. 0 |
| | CHECK | | |
| | REVIEW | | |

MAP: 3



LEGEND

WETLAND ECOSYSTEMS

- Cw - SLOUGH SEDGE
- HARDHACK FEN
- SEDGE FEN

SIGNIFICANT TREES

- ▲ SNAG
- ▲ UNCOMMON
- ▲ VETERAN
- ▲ WILDLIFE USE

- 20m. CONTOUR
- 100m. CONTOUR
- ROAD
- WATERCOURSE

- LEASE BOUNDARY
- PARK BOUNDARY
- PROPERTY BOUNDARY

FOREST ECOSYSTEMS

- Cw - FOAMFLOWER (RED LIST, CF PRIORITY 2)
- Cw - SWORDFERN (BLUE LIST, CF PRIORITY 2)
- FdPI - CLADINA (RED LIST, CF PRIORITY 2)
- HwFd - KINDBERGIA (RED LIST, CF PRIORITY 1)

REFERENCE

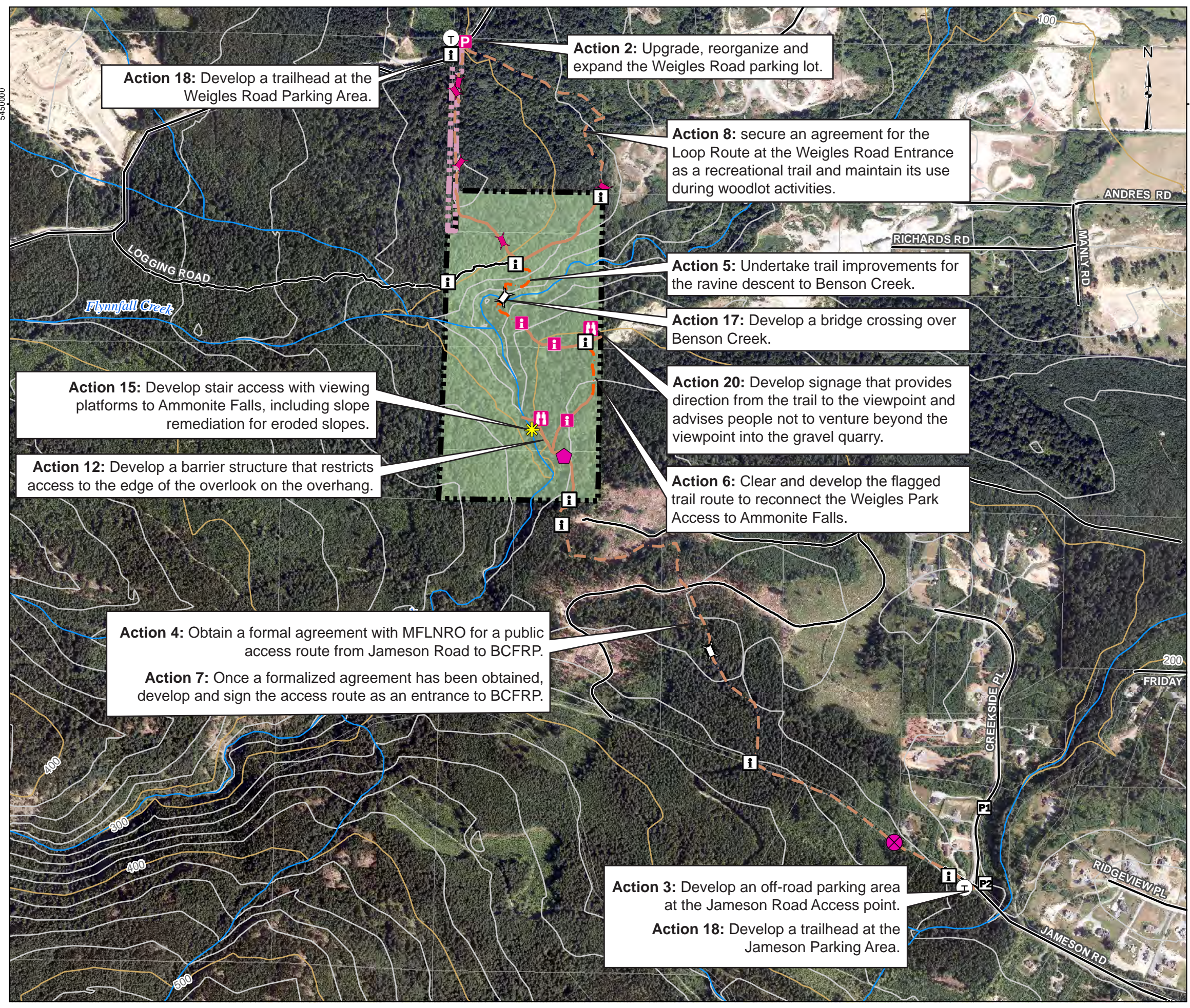
DATA PROVIDED BY REGIONAL DISTRICT OF NANAIMO. ECOSYSTEM DATA PROVIDED BY URSUS NANAIMO.

DATUM: NAD83 PROJECTION: UTM ZONE 10



| | | | |
|---------|-----------------|--|----------------|
| PROJECT | | Regional District of Nanaimo Benson Creek Falls Park Nanaimo, BC | |
| TITLE | | ENVIRONMENTAL OVERVIEW | |
| | PROJECT | 13-1444-0019 | FILE No. |
| | DESIGN | JZ 15 MAY 2013 | SCALE AS SHOWN |
| | GIS | AD 23 SEPT. 2013 | REV. 0 |
| | CHECK REVIEW | | |
| | | | MAP: 4 |

N:\CAD-GIS\VAN\2013\13-1444\13-1444-0019 Regional District of Nanaimo Benson Parks Management Plan\GIS\Mapping\MXD\General\Figure 5 - Park Concept Plan_new.mxd



LEGEND

PROPOSED

- PROPOSED INFORMATION SIGN
- PROPOSED NEW FOOTBRIDGE
- PROPOSED TRAILHEAD

PARKING

- PARKING LOT (OPTION 1)
- PARKING LOT (OPTION 2)

PRIMARY ROUTES

- PROPOSED NEW/UPGRADED
- EXISTING
- OUTSIDE PARK BOUNDARY

EXISTING

- FOOTBRIDGE
- AMMONITE FALLS
- EXISTING GATE
- CLEARING
- VIEWPOINT
- EXISTING PARKING
- EXISTING INFORMATION SIGN
- ROAD
- WATERCOURSE
- 20m. CONTOUR
- 100m. CONTOUR
- LEASE BOUNDARY
- PARK BOUNDARY
- PROPERTY BOUNDARY

REFERENCE

MAP IS FOR INFORMATION PURPOSES ONLY. DATA LOCATIONS MAY NOT BE EXACTLY AS SHOWN. DATA PROVIDED BY REGIONAL DISTRICT OF NANAIMO. SECTIONS OF TRAILS DIGITIZED FROM [HTTP://WWW.ISLAND.NET/~PMCGARRI/](http://www.island.net/~pmcgarr/) BY PHIL MCGARRI ON JUNE 06 2013.

DATUM: NAD83 PROJECTION: UTM ZONE 10

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SCALE 1:10,000 Metres

PROJECT: Regional District of Nanaimo
Benson Creek Falls Park
Nanaimo, BC

TITLE: **PARK CONCEPT PLAN**

| | | | |
|---------|-----------------|----------------|--------|
| PROJECT | 13-1444-0019 | FILE No. | |
| DESIGN | AW 19 AUG. 2013 | SCALE AS SHOWN | REV. 0 |
| GIS | AD 09 OCT. 2013 | | |
| CHECK | | | |
| REVIEW | | | |

Golder Associates

MAP: 5