

HCTF Enhancement Proposal 2019-20

New Single Year Project: Premier Lake Park & adjacent Crown land Prescribed Burn

Proponent Information

Author of Proposal: Amanda Weber-Roy

Project Leader: Amanda Weber-Roy

Title: Kootenay Conservation Specialist

Organization: Ministry of Environment & Climate Change Strategy - BC Parks

Address: 205 Industrial Road G

City: Cranbrook

Province: British Columbia

Postal Code: V1C 7G5

Phone: 250 489 8563

Cell: 250 489 9211

Email Address: amanda.weber-roy@gov.bc.ca

Additional Proponents:

- Marc Trudeau, Coordinator - Rocky Mountain Trench Natural Resources Society
- BC Wildfire Service

Proponent Qualifications:

Amanda Weber-Roy has a degree in Natural Resource Science and is a Professional Agrologist and a Biologist in Training and has been employed by BC Parks for 18 years. For the past three years Amanda has been in the role of Conservation Specialist specializing in Ecosystem Restoration, Fuel Management Projects and Invasive Plant Treatments, etc.

Marc Trudeau is a Registered Forest Technician and is in good standing with the Association of British Columbia Forest Professionals since 2003 and has extensive experience in the forestry sector as a project manager. He has implemented/coordinated large scale forestry and ecosystem restoration projects for the Ministry of Forests and the Forest Industry.

BC Wildfire Service supports planning for circumstances and situations where managed, low-risk wildfires are allowed to burn for the benefit of the ecosystem and under the close observation of experienced wildfire management personnel. BC Wildfire Service experts identify areas which are free of values at risk such as infrastructure, timber, or ecologically sensitive areas and which would benefit ecologically from fire. The assessment and planning process for managed wildfires also includes fire growth projections and other modeling and helps to ensure that burning is facilitated under appropriate fire weather indices and conditions.

Project Overview

Project Description:

In partnership with the Rocky Mountain Trench Natural Resources Society (RMTS) and the Rocky Mountain Trench Ecosystem Restoration Program (RMTERP) and the BC Wildfire Service (BCWS), BC Parks will be conducting a 300 ha prescribed burn on 150 ha of park land as well as 150 ha of adjacent Crown land in the spring of 2019. This project aims to enhance habitat for wildlife in the Premier Lake Park area and on adjacent Crown land by restoring grassland and open forest habitats. Restoration of grasslands and open forests contributes to the region's rich biodiversity by providing habitat for a wealth of wildlife species, many of which are at risk because habitat has been lost or degraded.

Project Group: Wildlife [except grizzly or wild sheep]

Project Location: Premier Lake Provincial Park 12km east of Skookumchuk, BC

Project Map Location: 49°54'50.7"N 115°39'03.0"W

Species Enhanced: whitetail deer, mule deer, elk, moose, black bear, grizzly bear, Rocky Mountain bighorn sheep

Link to previous HCTF project #: 4-299

Was this previous project funded by HCTF as a Seed project?: No

If yes: provide a summary of Seed project activities and outcomes. (max 250 words):

Have you discussed this project with the BC regional Ministry Fish/Wildlife/Habitat Biologist?: Yes

Please provide the name of this person and any relevant comments:

Pat Stent – FLNRO Wildlife Biologist

Irene Teske – FLNRORD Wildlife Biologist

Allana Oestreich - FLNRORD Senior Habitat Biologist

Ariana McKay - FLNRORD Habitat Biologist

Shawna Larade – FLNRORD Range Officer

Larry Ingham – FWCP Wildlife Biologist

Jennifer Grant – BC Parks Provincial Ecologist

Sharilynn Wardrop - BC Parks Provincial Ecologist

John Trehwitt – BC Parks Regional Director – Kootenay – Okanagan Region

Scott Hicks – FLNRORD Stewardship Forester

Executive Summary/Issue

Executive Summary of this proposal:

In the East Kootenay region, the importance of low intensity prescribed burning increases as grassland and open forest habitats are lost, degraded, or become uninhabitable for wildlife use. Critical wildlife habitats that support big game species (bighorn sheep, elk, mule deer, moose, etc.) are lost annually due to forest ingrowth, invasive plants, lack of wildfire, land alienation and development, and numerous human-caused access impacts, which can individually or cumulatively reduce carrying capacity. Such factors can impact critical life stages, which ultimately contributes to the health and reproductive success of populations. Prescribed burns funded by HCTF directly benefit wildlife through increasing carrying capacity in critical wildlife habitats and the benefits transcend long-term for the survival of populations.

The overall objectives of this project are: to enhance high-priority habitat through a low intensity prescribed burn during the spring of 2019 to support critical populations and biodiversity values; to monitor the burn to maximize efforts, safeguard investments, and to inform next steps. Success will be measured by: pre and post-treatment monitoring of vegetation, prescribe burn objectives, and invasive plant infestations.

This project will build upon past efforts and will maximize results of HCTF's investments through maintenance of key priority habitats for wildlife. Previous habitat enhancement work funded by HCTF has included: tree and vegetation removal during the winter of 2016/17; slashing and pile burning of non-merchantable timber/vegetation; invasive plant treatments; wildlife tree creation; and monitoring. The overall objective of this year's proposed work is to conduct a 300 ha prescribed burn for the benefit of wildlife and biodiversity in and adjacent to Premier Lake Park and the surrounding area in collaboration with the Rocky Mountain Trench Natural Resources Society and Ecosystem Restoration Program and BC Wildfire Service.

This project aligns with HCTF's Strategic Plan goal of increasing conservation outcomes for wildlife and their habitats. Specifically, the focus areas of 'habitat restoration, enhancement, and maintenance' through prescribed burning and 'keeping common species common' through promoting favorable conditions for native species (including invasive plant removal). This project also aligns with HCTF's core values to maintain the intrinsic value of nature, and to collaborate with partners to extend conservation actions and includes linkages with other HCTF funded projects and working with provincial FLNRORD wildlife biologists to identify key priority habitats and to determine wildlife utilization of restored habitats. Collaboration and partnerships are helping move this project towards a broader landscape-level approach. This includes broadening the scope of this project from the Rocky Mountain Trench, to focusing on transitional habitat and migration corridors linking valley bottom winter habitat to high elevation summer habitat.

The total cost of the project is estimated at \$174,100. Funding requested from HCTF this year is \$129,100.00; partnership funds already obtained are \$25,000.00. HCTF funding enables Ministry staff to leverage funding from strategic partners. This project is maximized by co-investments including partnership with FWCP, Park Enhancement Fund, Land Based Investment Strategy.

Issue:

Critical wildlife habitat in the East Kootenay region is lost and degraded annually due to wildfire suppression, forest ingrowth, invasive plants, land alienation and development, and additional anthropogenic impacts. Existing habitats in critical locations (i.e., Class One winter range, key species migration routes, summer ranges) are urgently in need of maintenance, restoration, and enhancement for increased conservation outcomes. FLNRORD wildlife biologists have indicated that some historically high-use areas are being under-utilized due to degraded habitat. Lack of management threatens the long-term health of ungulate populations and the conservation of grassland-dependent species and ecosystems.

This prescribed burn will restore habitats to open range/open forest conditions to increase carrying capacity thereby improving forage and browse availability for wildlife, enhancing visibility for ungulates to detect predators, protecting biodiversity, and promoting an ecologically-stable condition which provides favorable habitat for endangered wildlife and plant species. This project intends to collaborate with partners to prevent habitat loss and enhance critical wildlife habitat through emulating a natural disturbance while limiting non-native invasive plant spread at a landscape level.

During the winter of 2017 BC Parks and BCTS took the first step in conducting a landscape-level partnership Ecosystem Restoration project by conducted 300ha of tree removal/harvesting at the south end of Premier Lake Park and on the adjacent Crown land. Stakeholders as well as Decision Makers were assured that the 300 ha project would be prescribed burned within two years post-tree removal activities to meet the objectives of the Ecosystem Restoration project.

Objectives, Activities, Measures and Timelines

#	Activities	Measures of Success	Timeline
Objective 1:			
Prepare the treatment unit for a prescribed burn			
1.1	Build a fire guard on the western boundary of the treatment unit where required and as identified in the Burn Plan	5km of guard successfully installed with a cat	Spring 2019
1.2	Protect wildlife trees and retention patches as required and identified in the Ecological Restoration Prescription	Hand guard successfully installed around high value wildlife trees and retention patches	Spring 2019
1.3	Deactivate and seed the fire guard	5km boundary fire guard successfully reclaimed, recontoured and seeded	late summer/fall 2019
1.4			
1.5			
Objective 2:			
Conduct a 300 ha low intensity prescribed burn			
2.1	Enhance vegetation community; rejuvenate native shrubs and grasses	post-burn vegetation monitoring at pre-exisitng vegetation plots	summer 2019
2.2	pre-treatment burn and photo monitoring	pre-burn baseline data gathered and photos taken	spring 2019
2.3	post-treatment burn and photo monitoring	burn area evaluated to determine if burn objectives were met and take post-burn photos	4 weeks post-burn
2.4			
2.5			
Objective 3:			
Decrease invasive plant abundance			
3.1	monitoring of known invasive plant sites	IAPP survey forms completed	Summer 2019
3.2	Invasive plant herbicide treatment	IAPP treatment forms completed	Summer/fall 2019
3.3			
3.4			
3.5			

Objective 4:

4.1			
4.2			
4.3			
4.4			
4.5			

Objective 5:

5.1			
5.2			
5.3			
5.4			
5.5			

Objectives and Activities Details

Objective 1:

In order to be a successful prescribed burn and to meet prescribed burn plan objectives a machine guard must be installed on the western boundary of the treatment unit. All high value wildlife trees and retention areas must also be protected from fire to retain high quality biodiversity values. In order to prevent the establishment of invasive plants and to discourage unauthorized motorized use the guard will need to be fully reclaimed, recontoured and seeded.

Objective 2:

Fire return studies in the area refer to low intensity fires burning through the Douglas fir and ponderosa pine forests every 5 to 20 years (Gray et al.2007; Daniels et al 2011); few have burnt through the trench in the last 70 years leading to nearly 50% of open forests and grasslands being lost since 1950 (Gayton, 1997). More recent studies (Gray et al. 2007; Greene 2011) show that mid-slope forests surrounding the Rocky Mountain Trench have similar disturbance regimes characterized by light impact fires at 40 to 60 year intervals. This coincides with interest by wildlife biologists in opening transitional habitat and migration corridors linking valley bottom winter habitat to high elevation summer habitat (Bircher et al. 2001; Davidson 1991, 2006; Kinley 2007)."

There is an Old Growth Management Area (OGMA) in close proximity to the proposed burn boundary on the eastern Crown land side of the treatment unit. The burn area will not include the OGMA.

BC Parks and the Rocky Mountain Natural Resources Society and Trench ER Program work closely with Habitat Management Branch, Fish and Wildlife Compensation Program (FWCP) and BC Wildfire Service (BCWS) to plan and conduct prescribed burning. Burn planning is underway and the FWCP is developing the site management plan (SMP) required on the Crown land portion of the prescribed burn. There is already a prescription in place for the BC Parks side of the planned prescribed burn. Burn planning will consider habitat burn suitability, habitat capability for all wildlife, and high-value transitional habitat, as well as advice from wildlife biologists and BCWS.

The Rocky Mountain Trench ER Program is working with the Land Manager/ Decision Maker to obtain appropriate approvals for the prescribed burn through the Rocky Mountain District Stewardship Division. The Forest Protection Technician with BCWS in conjunction with BC Parks staff, FLNRORD Forest Stewardship, FWCP, and Habitat Management Branch will determine the burn perimeter and allowable burn area.

The Prescribed Fire Burn Plan will be developed by BCWS and will require a helicopter flight to assess the area and establish containment lines. BC Parks and the Rocky Mountain Trench ER Program have begun stakeholder consultation and will work with the Rocky Mountain Trench ER Program and BCWS for media coverage and local awareness of the burn day. The fire will be ignited with PSD balls , and may require black-lining by ground crews. The BCWS professionally execute large-scale prescribed fires with great success.

BC Parks and the Rocky Mountain Trench ER Program have a positive relationship with the local First Nations. Annually, First Nations consultation occurs on all ecosystem restoration projects. BC Parks has already concluded First Nations engagement on the ER program at Premier Lake Park. Local First Nations have been supportive of precious habitat enhancement work, including the tree removal/harvesting/slashing within the area. Prior to the burn, the BCWS will inform landowners and identify structures near the burn site. BCWS will use its media outlets and communication portals for awareness of the burn

and public comments.

Meeting appropriate conditions to ignite and carry a fire is very challenging, which threatens the success of every prescribed burn. Treatment scheduling is at the mercy of varying environmental conditions, including the weather, moisture levels, vegetation response, and melt/drying patterns affect timelines and can cause delays and havoc in well laid planning. Often a prescribed burn will not occur if conditions vary too far from ideal and threaten the achievement of outcomes and intended burn response. This is a particularly difficult situation to accommodate without funding flexibility. Dealing with the issues involves planning, patience, the ability to delay a project until windows improve and good communications with the citizens affected.

Vegetation monitoring plots are already installed in Premier Lake Park as a result of the tree removal project and those monitoring plots will be utilized to monitor vegetation after burning. Standardized pre and post burn monitoring will also take place to evaluate burn intensity and determine the degree to which burn plan objectives are met.

Objective 3:

In partnership with the East Kootenay Invasive Species Council, BC Parks has been treating invasive plants in Premier Lake Park for many years and has a very good understanding of where the infestations are in the park. BC Parks and the Rocky Mountain Trench Natural Resources Society & ER Program will work with the East Kootenay Invasive Species Council to monitor known invasive plant locations post-burn as well as conduct an inventory of the entire burn area post-burn to determine required herbicide treatment.

Ongoing treatment for invasive plants will be completed by qualified contractors to minimize spread and control infestations and to ensure a natural, resilient and functioning desired plant community effectively rehabilitated with little to no unfavorable/unpalatable species

Objective 4:

Objective 5:

Conservation Benefits

Extent and security of conservation benefits:

Premier Lake Provincial Park is protected in perpetuity and is well suited as ungulate winter/spring range. The presence of valuable grass, forb and browse species together with the corridors and connectivity provided by the complex terrain provide an ideal combination of foraging, bedding, hiding and travel sites. The Park provides habitat for elk, mule deer, white-tailed deer, bighorn sheep, badgers and painted turtles.

Relevant regional plans include: Kootenay Boundary Land Use Plan, Purpose Statement and Zoning Plan for Premier Lake Park, Premier Lake Park ER Plan (attached), Blueprint for Action, Biodiversity Guidebook, Kootenay-Boundary Mule Deer and Elk Management Plans, Provincial Moose Enhancement Plan.

The tertiary role of the park is to provide an opportunity for grassland/open forest ecosystem restoration as well as associated research. Given the interest by NGO's and other agencies, this park is ideally located to allow for jointly funded ecological-based projects.

Given that this project is a landscape-level partnered ER project that ties into other ER projects in the Rocky Mountain Trench the benefits to wildlife of this project extend beyond the park to increase connectivity and links to different habitat types that benefit a suite of wildlife species and other biodiversity values.

There is reasonable assurance of the longevity of the investment as the ER program in the Rocky Mountain Trench is robust with many partners that take a structured approach to ensure specific goals and objectives are met over the course of intended timelines.

ER Plans and programs specify an ongoing commitment monitoring to ensure project areas are meeting intended objectives and to ensure maintenance treatments happen in a timely fashion.

Communication/Outreach

Project Communications:

The communication plan for this project will build upon past efforts to disseminate information to a wide audience. It is important to spread awareness locally within the East Kootenay, as well as provincially so that other groups may benefit from knowledge and experience gained with this project. HCTF plays a key role in the success of this project, thus contributions made will be recognized whenever information is shared.

We will provide information about the project to other Ministries and resource managers (wildlife/ range/ forest industry/ ER/ NGO's), resident hunters, guide outfitters, and general public and interested community member through information signage, interviews with local media, meetings, and AGM's of wildlife partners that are interested and want to be involved in a wildlife and habitat first approach.

Key opportunities to communicate out about the project locally and provincially include:

- Press releases
- Information booth at the Backcountry Hunters and Anglers annual meeting
- Preparing a technical report for distribution
- Professional organizations – BC Institute of Agrologists, College of Applied Biology, etc.

Audience/members include local hunting enthusiasts, guides/outfitters, local government, forest industry, cattle/farming industry, other government agencies, and interested community residents. Presentations will include broad scale habitat enhancement information, progress to date, photos from remote cameras, monitoring results, project accomplishments, etc. Results and benefits of this project will be disseminated widespread across the region through this variety of communication. HCTF will be acknowledged in all presentations and in all articles.

Community Engagement:

The Friends of Premier Lake and Wildsight have been involved in extensive engagement regarding this project and fully support the use of prescribed fire. It is imperative that we follow through with prescribe burn commitments to these stakeholders.

Other groups engaged on this project are:

- Local First Nations
- Ecosystem Restoration steering and operations committee
- Rocky Mountain Trench Society
- Fish Wildlife Compensation Program
- BC Wildfire Service
- Other Natural Resource Sector Ministries
- Forest Licensees
- Local residents near treatment areas
- Wildsight

Public and stakeholders must be consulted prior to operations and their issues dealt with prior to operations. As an example the tree removal and road construction in Premier Lake Park required one meeting a week for 6 months, all attended by BC Parks staff, consultants and the public. Note that communications is not just the reporting out of operations but communicating plans and issues prior to operations so as to create a social license to carry out those projects. All communication helps build the consensus and in fact more time is spent in communications prior to treatment than is spent after the treatment.

Literature Cited

Literature Cited:

Ecological Restoration Prescription Premier Lake Provincial Park

Premier Lake Provincial Park Purpose Statement and Zoning Plan

Premier Lake Provincial Park Ecological Restoration Plan

BC Parks Conservation Policy

Rocky Mountain Trench Ecosystem Restoration Program website

FLNRORD Prescribed burning website

Budget

This is Year 1 of 1.

If the unconfirmed partnership funding is not available, the project will: Not proceed

In-Kind Contributions:

BCWS staff time burn plan development - there has been extensive consultation during the Burn Plan (goods) development and many partner meetings. It is estimated that BCWS staff have spent 10 days on this initiative at \$250/day.

FWCP contributed \$10,000 to the cost of a Site Management Plan (goods) to be developed on the Crown land portion of treatment unit.

FLNRORD Forest Stewardship staff have and will spend approximately 5 days on this project at \$300/day.

Rocky Mountain Trench NR Society staff have and will spend approximately 5 days on this project at \$300/day.

3 BC Parks Staff have and will spend approximately 5 days on this project at \$300/day.

Response to Technical Committee and Board Comments

If the Technical Review Committee and/or the HCTF Board expressed some concerns or provided suggestions on your proposal last year, please explain below how you have addressed these comments. If you have addressed the concerns elsewhere in the proposal, please state that here.:

Attachments

Map Description:

The attached overview map shows the harvest/tree removal boundaries of both treatments (BC Parks - 150ha and BCTS - 150ha) that are to be prescribed burnt together in the spring of 2019.

Description of File Attachments:

- Support letter from the Rocky Mountain Trench Natural Resources Society
- Premier Lake Provincial Park Ecological Restoration Plan
- Support email from BCWS

Content Type: Proposal

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