REGIONAL DISTRICT OF CENTRAL OKANAGAN
GOVERNANCE AND SERVICES COMMITTEE MEETING
AGENDA

Thursday, February 11, 2021
8:30 a.m.
Woodhaven Board Room
1450 K.L.O. Road, Kelowna, BC

Pages

1. CALL TO ORDER

Chair Given acknowledged that this meeting is being held on the traditional territory of the syilx/Okanagan peoples.

In accordance with the most recent Provincial Health Officer Order regarding gatherings and events, the public is currently not permitted to attend Board meetings in-person.

As an open meeting, a live audio-video feed is being broadcast and recorded on rdco.com.

Roll Call

2. ADDITION OF LATE ITEMS

3. ADOPTION OF THE AGENDA

Recommended Motion:
THAT the Agenda be adopted.

4. ADOPTION OF MINUTES

4.1. Governance & Services Committee Meeting Minutes - January 14, 2021 — 1 - 5

Recommended Motion:
THAT the Governance & Services Committee meeting minutes of January 14, 2021 be adopted.

5. DELEGATIONS

5.1. Okanagan Film Commission Update - Jon Summerland, Commissioner 6 - 15

Recommended Motion:
THAT the Okanagan Film Commission presentation be received for information.

5.1.1. PowerPoint 16 - 23

6. COMMUNITY SERVICES

6.1. Regional Growth Strategy Priority Projects Plans 2021 24 - 75

Recommended Motion:
THAT the Governance and Services Committee receive for information the Regional Growth Priority Projects Plan report dated February 11, 2021.

7. PARK SERVICES

7.1. RDCO Parks Community Wildfire Protection Plan 2020 Update 76 - 189

Consultant: Kyle Broome, Cabin Resource Management

Recommended Motion:
THAT the Governance and Services Committee recommend that the Regional Board receive the RDCO Parks Community Wildfire Protection Plan (2020) as prepared by Cabin Resource Management.

8. ADJOURN

Minutes of the ***GOVERNANCE & SERVICES COMMITTEE*** meeting of the Regional District of Central Okanagan held at Regional District Offices, 1450 KLO Road, Kelowna, BC on Thursday, January 14, 2021

Directors: J. Baker (District of Lake Country)
M. Bartyik (Central Okanagan East Electoral Area)
C. Basran (City of Kelowna)
W. Carson (Central Okanagan West Electoral Area)
M. DeHart (City of Kelowna)
C. Fortin (District of Peachland) *(attended electronically)*
G. Given (City of Kelowna)
C. Hodge (City of Kelowna) *(attended electronically)*
S. Johnston (City of West Kelowna) *(attended electronically)*
G. Milsom (City of West Kelowna)
B. Sieben (City of Kelowna)
L. Stack (City of Kelowna) *(attended electronically)*
L. Wooldridge (City of Kelowna)
J. Coble (Westbank First Nation) *(attended electronically)*

Staff: B. Reardon, Chief Administrative Officer
J. Foster, Director of Communication & Information Services
C. Griffiths, Director of Economic Development
D. Komaike, Director of Engineering Services
M. Kopp, Director of Parks Services *(attended electronically)*
K. Mallory, Manager of Economic Development
M. Rilkoff, Director of Financial Services *(attended electronically)*
M. Drouin, Manager-Corporate Services (recording secretary)

1. CALL TO ORDER

Chair Given called the meeting to order at 8:50 a.m. and acknowledged the meeting is being held on the traditional territory of the syilx/Okanagan peoples.

In accordance with the most recent Provincial Health Officer Order regarding gatherings and events, the public is currently not permitted to attend Board meetings in-person.

As an open meeting, a live audio-video feed is being broadcast and recorded on rdco.com.

2. ADDITION OF LATE ITEMS

There are no late items for the agenda

3. ADOPTION OF THE AGENDA

#GS01/21 BARTYIK/MILSOM

THAT the agenda be adopted.

CARRIED unanimously

4. ADOPTION OF MINUTES

4.1 Governance & Services Committee Meeting Minutes – November 12, 2020

#GS02/21 MILSOM/WOOLDRIDGE

THAT the Governance & Services Committee meeting minutes of November 12, 2020 be adopted.

CARRIED unanimously

5. CORPORATE SERVICES

5.1. North Westside Community Communications & 2021-2022 Electoral Area Communications Strategy

Staff report dated January 6, 2021 provided an update on current community communication activities resulting from the 2017 North Westside Services and Community Issues Review. In consideration of same, a review was completed of the goals, objectives and activities for future communications in the electoral areas.

Staff reviewed the background and outlined additional communications which have occurred since that time. Although work is being done mostly in the North Westside area, there is also work being done in both electoral areas.

This two-year plan has been developed and will be reviewed in 2022 which also coincides with the end of term of the current Board. The goals and considerations were outlined.

A statistically valid citizen's survey will be completed in 2021 (going forward bi-annually) which will assist in hearing and understanding what residents want to know about the services they receive.

Current activities were outlined: electoral area webpages, media relations, social media, project specific engagement, live-stream and recording of Regional Board meetings, and an upgraded RDCO website to be rebuilt in 2021 with more intuitive architecture.

New/proposed (electoral area specific) activities were identified: advocacy, in-person open houses, annual newsletter in 2nd quarter highlighting budget information, service directory, investigation of online engagement platform in 2022.

A general discussion ensued.

#GS03/21 BARTYIK/CARSON

THAT the Governance and Services Committee receive for information the North Westside Community Communications report dated January 6, 2020 from the Director of Communication and Information;

AND FURTHER THAT the Governance and Services Committee recommend the Regional Board endorse the 2021-2022 Electoral Area Communications Strategy

CARRIED unanimously

6. ECONOMIC DEVELOPMENT SERVICE

6.1 Economic Development Commission 2021 Priorities Plan (presenting: Allan Neilson)

Allan Neilson addressed the Committee outlining the process today which is to ask for input and feedback on the 2021 Priorities Plan.

Staff provided an outline of the following:

- The EDC role and mandate
- Central Okanagan unemployment rates from 2015-2020
- Economic recovery trajectory in terms of COVID-19
- Economic stakeholders 'ecosystem' which includes: Support Services (ie: Chambers, SIDIT, TOTA, Tourism Kelowna); Talent (ie: Okanagan College, UBCO); Accelerators (ie: Accelerate Okanagan); Capital & Financing (ie: BDC, Community Futures)
- COVID-19 specific support and initiatives
- Staff have had ongoing direct outreach in 2020 including:
    - 8 industry roundtables
    - 10 Advisory Committee meetings
    - Business walk survey
    - Strategic Planning Sessions
- Building business is the number 1 priority
    - Support the region's business through one-on-one business guidance
    - Create and connect businesses to resources, tools, support programming and market information
    - Gather industry intelligence through direct connections with the region's businesses to identify need and opportunities
    - Partner with region's business service providers to address needs and opportunities of businesses.
- Priorities table for 2021 highlighted (a two-page plan)
    - Building business
    - Growing sustainability
    - Fostering a vibrant workforce
    - Competing globally

Discussion ensued:

- Business such as tourism, hotels, restaurants, personal services continue to struggle during the pandemic. Huge job losses with closure of casinos. How will EDC assist these industries going forward post COVID-19? What opportunities are there for staff to support?
- Advocacy work has occurred on having an BC Economic Diversification Office in Kelowna (in support of the Western Economic Diversification which currently focuses on Manitoba to BC). This is a long term strategy-ensuring the Central Okanagan is always on the map—not only Vancouver and Victoria.
- Want to hear what types of topics/information does the Board want to hear from on a more regular basis?

Allan Neilson facilitated a discussion on what may be missing in the Plan.

- Reviewed the groups being brought together to see what's needed.
- What further information does the Board want to hear.
- What others are doing and use that for advocacy.
- Make sure partner groups have the information to be ready when to hit GO when pandemic restrictions are over.
- While focusing on the 4 pillars, are there other areas.
- Consumer confidence – how do we gather information to determine when consumers are more confident post COVID.
- What does support look like? Specifics not included in the priorities.
- In crisis situation what would fall off the table – staff cannot do everything.
- What are the how's—ie: partnering with business. How? This is outlined in the operational plan.
- More staff resources will be required if priorities are expanded.

A summary of today's discussions includes:

- Focus on information—collecting, preparation, advocacy
- Focus on identifying action – bring back to this and other groups
- Bring forward request for resources, if required
- More explicit focus on vulnerable industries
- Are we reaching unorganized groups
- Labour needs in response to COVID

#GS04/21 BAKER/WOOLDRIDGE

THAT the Governance and Services Committee receive the 2021 COEDC Priorities Plan;

AND FURTHER THAT the Governance and Services Committee recommends the RDCO Board approve the Central Okanagan Economic Development Commission's 2021 Priorities Plan.

CARRIED unanimously

7. NEW BUSINESS

No new business

8. ADJOURN

There being no further business the meeting was adjourned at 11:15 a.m.

CERTIFIED TO BE TRUE AND CORRECT

_____
G. Given (Chair)

_____
B. Reardon (Chief Administrative Officer)

okanagan
FILM COMMISSION

CONTENTS INCLUDE:

"Jon Summerland provides a deep understanding of production requirements coupled with extensive knowledge of the Okanagan valley. As such, a producer is really able to fully understand the possibilities of filming within the valley."

Charles Leslie – Production Supervisor " The Trial of the Chicago" Producer "The Last Victim"

FILM ANIMATION NEW MEDIA

1450 KLO Road
Kelowna, BC
V1W 3Z4

p: 250.717.0087
f: 250.868.0512
e: info@okanaganfilm.com

okanaganfilm.com

Our Mandate:

To generate a positive economic impact by enabling the growth of the Okanagan-Similkameen-Boundary region as a film and animation centre. The Okanagan Film Commission will continue to attract and build the entertainment industry in this region through infrastructure development, strategic partnering, marketing and promotion

Summary

OKANAGAN IS OPEN FOR BUSINESS!

The region welcomes all production activity to restart, resume, or begin with employers' COVID-19 Safety Plans implemented and in place–from domestic production companies to international studios. Our job here at the Okanagan Film Commission (OFC) is to facilitate requests from Film, TV, and Animation producers. It is key that the OFC undertakes any requests in a time sensitive manner and ensures all inquiries are brought to the correct party and decisions are expedited quickly. Often the OFC is the middleman, the agent, the fixer. We make it happen because we are committed to making decisions in a timely manner. Each request could yield a multi-million-dollar production, providing local jobs within our communities. The challenge for the Okanagan Film Commission is to secure enough resources to not only serve the existing demand, but also attempt to grow the industry by recruiting specific types of production companies that might be viable for the region, while also working towards increasing the infrastructure needed to support film, TV, and animation production. As investors in in the provinces creative industries, the OFC is committed to supporting a healthy ecosystem that thrives in a culture of mutual respect, dignity and inclusivity that is free from any form of harassment. The OFC is constantly working with various schools, bands and governments trying to encourage those that assume the jobs are unattainable that there is indeed positions ready for them. We are also at the in the frontlines on educating the government on the importance of tax credits to these clean industries. It is no longer about simply finding the right location but rather we have to sell the all the incentives in the region. Productions will change a location in a script to suit a region that offers better incentive. Our incentives are our tools, be it a crewmember, a location, a studio, a truck, or a film office each piece makes it easier to do business here. We now have a very full tool belt now. One of the tools of great importance is our competitive labor based tax incentives: Continually competitive tax incentives for International Productions Tax Incentive: (In the Okanagan you can stack all BC Tax Credits)

TAX CREDIT VALUE TAX CREDIT CALCULATION BASED ONPSTC

Basic International Production-- 28%

PSTC Regional- 6%

PSTC Distant Location Regional- 6%

DAVE - 16%

FIBC Basic Canadian Production- 35%

Regional- 12.5%

Distant Location Regional- 6% DAVE- 17.5% *These credits can be stacked.

The qualified BC labour expenditure of the corporation pro-rated by the number of days of principal photography in BC outside of the designated Vancouver area to the total days of principal photography in BC. This tax credit must be accessed in conjunction with the Basic tax credit. **The distant location regional tax credit is added to the regional tax credit for principal photography done outside of the Lower Mainland region, north of Whistler and east of Hope.** It is pro-rated by the number of distant location principal photography days to the total BC principal photography days and must be accessed in conjunction with the

The BC labour expenditures directly attributable to digital animation or visual effects activities. This tax credit must be accessed in conjunction with the Basic PSTC. Qualified Canadian labour expenditures of the corporation.

Servicing interested productions is an extensive process. Each production has specific needs and related logistical considerations. All producers are working within very tight time frames and our office is in competition with film commissions from other areas. Within BC, North America and around the world. In order to be considered for production, the Film Commission must respond efficiently and thoroughly.

The Okanagan, Boundary, and Similkameen Valleys have a proven track record for providing exceptional value for the producers' dollar. We have the talent, energy, and heart to meet most production needs and the tools that will help bring it in on time and on budget. We offer a full range of services for film producers and production companies interested in what our region has to offer. The Okanagan Film Commission provides strategic leadership and assistance to the film, television, animation and digital screen-based media sectors in the Okanagan, Boundary and Similkameen.

At the Okanagan Film Commission we are aggressively looking for new clients. There is no time spent waiting for the next client to come to us. We follow many companies in film, animation, book, graphic novel, etc. using their websites, industry websites, tradeshows, and social media. We are always first to know if a book has been optioned for film or an animation or company is expanding. We contact companies that currently outsource work to foreign companies and sell our region as a local outsource that comes with expertise and savings without the hassle of working abroad. We will contact any and all leads using individually designed marketing, all built especially for the project.

Sincerely, Jon Summerland, Film Commissioner

okanagan
FILM COMMISSION

2020 Production

Project Name	Total Spend
Vintage Hearts	$ 1,500,000.00
For Fetter or for Worse	$ 1,500,000.00
Hyundai Tuscon	$ 150,000.00
The UnKnown (BlomKamp)	$ 1,750,000.00
Dicks Sporting Goods	$ 25,000.00
To The Bone	$ 75,000.00
A Change Of Pace	$ 4,500,000.00
Love And Romance Oregon	$ 1,800,000.00
12 Tweets Of Christmas	$ 2,000,000.00
Under A Lovers Moon	$ 1,500,000.00
A Christmas to Savour	$ 1,500,000.00
Love On The Vine	$ 1,500,000.00
Shot at Love	$ 1,500,000.00
Romance at Crystal Cove	$ 1,500,000.00
Snatched from Mommy	$ 1,500,000.00
The Angel Tree	$ 1,500,000.00
Dangerous	$ 11,000,000.00
Claire	$ 2,200,000.00
The Last Victim (PickUps)	$ 250,000.00
WW2 Short Heritage Film : Promises	$ 80,000.00
YULE BLOG	$ 1,500,000.00
Yetifarm	$ 8,000,000.00
Bardel	$ 2,000,000.00
	$ 48,830,000.00

**estimates based on industry averages and/or confirmed production numbers and includes labour, accommodations and supplier*

okanagan
FILM COMMISSION

PROPOSED BUDGET

Central Okanagan Regional District	140,000 $10,000 in-kind)
Regional District of Okanagan Similkameen	45,000
North Okanagan Regional District	44,000
Enderby	1,500
Boundary EDC	7,500
Province of British Columbia	45,000
TOTAL REVENUE	**$283,000**
EXPENSES	
Wages & Benefits	183.000
Scouting	30,000
Advertising	10,000
Bank Charges	1,500
Dues, Fees and Memberships	2,500
Legal & Insurance	4,500
Supplies	3,000
Rent	-
Telephones/Wireless	4,500
Board and administrative expenses	3,000
Office equipment	7,000
Accounting	5,000
Promotions/Scouting/FAM	11,000
Tradeshows	4,000
Local and Regional Travel	5,000
Website	9,000
TOTAL EXPENSES	**$283,000**

BOARD OF DIRECTORS AND STAFF

Board Of Directors:

Paul LaGrange Chair
Member At Large

Riley M. Gettens
Director, Electoral Area "F" RDOS Appointee

Vicki Gee
Boundary Economic Development Appointee

Bill Baird
Treasurer - Member At Large
Member At Large

Tracy Wright
CFO

Loyal Wooldridge
Councilor | City of Kelowna- RDCO Appointee

Brian Quiring
City of Vernon RDNO Appointee

Anne Denman
Member At Large

Jon Summerland
Film Commissioner

Gord Wylie
Location Services Officer

okanagan
FILM COMMISSION

HOW A FILM COMMISSION WORKS

The Association of Film Commissioner International (AFCI) has set some standards and definitions for member film commissions globally. The following information from AFCI literature describes how film commissions are structured and the importance of their ties to government. While private business interests are key partners to film commissions, film commissions are only recognized by the AFCI if they are supported by government.

Film commissions, set up by cities, counties, states, provinces or federal governments are generally operated and funded by various agencies of government, such as the governor's

office, the mayor's office, the county board of supervisors, chambers of commerce, convention and visitors bureaus, travel commissions and business and economic development departments.

The film commission must **provide core services, without fee, including (a) location scouting assistance,** (b) liaison to and among the community, production companies and government. **The film commission must be endorsed and supported as the film commission for a defined geographic area**, by the respective national, state, provincial or local government, and must verify and document such affiliation.

A film commission's primary responsibility is to attract film and video production to their area in order to accrue locally-realized benefits from hiring local crews and talent, renting local equipment, using hotel rooms, rental cars, catering services, or any number of goods and services supplied on location.

While attracting business to their area, they also attract visitors. Film scenes at a particular location are in themselves "soft-sell" vehicles that also promote that location as a desirable site for future tourism and industry.

For well over a century, film and television have been integral to the social and cultural fabric of Canada. And while film and television have left an indelible cultural contribution on Canadian society, they have also made a significant contribution to the Canadian economy. The economic contribution of Canada's film and television sector begins with the development and production stages of the value chain. Once a film or television program is completed, it enters distribution and is ultimately released in theatres, on television and, more recently, in the increasing number of online platforms. Each of these subsequent stages of distribution and content consumption adds economic value to film and television

content. These value-adding processes create thousands of jobs for Canadians and generate gross domestic product (GDP) for the Canadian economy.…

The economic contribution of the film and television sector does not stop with the economic and tax revenue impacts originating from activity in the value chain. The sector's economic contribution also manifests itself over time through industry development, and through spillover effects captured by the construction and tourism sectors.

1450 KLO Road
Kelowna, BC
V1W 3Z4
p: 250.717.0087
f: 250.868.0512
e: info@okanaganfilm.com

okanagan
FILM COMMISSION

ECONOMIC IMPACT TRACKING SYSTEMS FOR ON-LOCATION PRODUCTIONS
(As produced by the AFCI)

Determining an accurate calculation of the economic impact a film or media project brings to an area is an important task. In a perfect world, a commission can establish a good working relationship with the production accountant on each project to arrive at an accurate assessment of the economic impact. However, it is understood that this information is not always available.

In the event actual reports cannot be secured, the formulas listed below have been recognized by the AFCI as reasonable guides for calculating the economic impact (per shooting day) of certain projects. These formulas are based on an analysis of studio accounting records, exit reports submitted to film commissions and generally accepted estimates from film commissioners with experience on a wide range of film, television, print and other media projects.

Feature Films

High-end budget motion picture full crew union scale $100,000 per day (USD)
Average budget motion picture full crew, mixed crew $75,000 per day
Low-end budget motion picture minimal crew, non-union $ 35,000 per day

TV Movie/Series
Network Cable/Broadcast$ 85,000 per day

Commercials, Music Videos
Commercial Event (expensive director, helicopters, misc. F/X and special equipment) $100,000 per day
High-end budget full crew, union scale $ 75,000 per day
Average budget full crew, mixed or non-union $ 50,000 per day Low-end budget minimal crew, non-union $ 25,000 per day*all dollar amounts are in US currency.

FILM ANIMATION NEW MEDIA

1450 KLO Road
Kelowna, BC
V1W 3Z4

p: 250.717.0087
f: 250.868.0512
e: info@okanaganfilm.com

okanaganfilm.com

okanagan
FILM COMMISSION

Film & TV Production Booming in the Okanagan
Productions Booked into Summer 2021

For Immediate Release

Kelowna BC — Film production is booming in the Okanagan and there is no end in sight of the projects coming to the region. There have been non-stop films and television being shot locally since the 3rd week of lockdown and productions are booked well into the summer of 2021.

Jon Summerland, Okanagan Film Commissioner states, "Because the Okanagan Film Commission initiated a pro-active approach to Covid-safe film production and worked with Work Safe BC to create protocols for the industry, which continue grow now from the initial strategies, the South Okanagan set an industry standard by being in the forefront of safe production and hence became the first region in Canada 'to go to camera' during Covid."

The economic impact of film production in the South Okanagan in 2020 will be upwards of $45 million, which will surpass previous years. Jon continues, "We developed a slate of MOW's (movies of the week) and Hallmark and Lifetime films and television that are booked and will take production in the region significantly into 2021." In addition, there are more productions being lined up to film here including two reality shows, dozens of additional MOW's, and multiple features (timing dependent on cross border talent).

Currently filming: "Christmas Au Pair" in Kelowna
-30-

For more information on the Okanagan Film Commission visit okanaganfilm.com

Media Contact: Jon Summerland, jon.summerland@cord.bc.ca, 250-717-0087

AN INVITATION TO WRITERS AND PRODUCERS
IMAGINE OUTSIDE A STUDIO BOX
Safety, Global Looks, Experience, Infrastructure, The Future

In response to Covid 19 safety protocols our three Film Commissions in the southern interior of British Columbia are working collectively to encourage producers and writers to look at alternatives to producing scripts to be written for stages. Our regions, the Okanagan, Thompson-Nicola and Columbia Shuswap, are where you can film safely in our wide open spaces.

We are thinking proactively for when the film industry reopens. We invite you to create and design your future projects for our British Columbia regions, for outside in open spaces and fresh air locations. To film the world, consider exploring our extensive variety of global looks. You can shoot international stories close to home.

Far from ordinary and closer than you think, our BC regions have thousands of square miles of cinematic landscapes. From arid to rainforest and everything in between, they offer mountains, grass and ranch lands, farms and vineyards, lush valleys, lakes, rivers, charming towns, and world class wine regions and tourism facilities. And, the micro climates of each region have four distinct seasons.

These vast and extraordinary locations are easily accessible directly by air with an international airport in Kelowna, a regional airport in Kamloops, and via the Trans-Canada Highway system. All three regions are in the same time zone as California and even our remote areas have well serviced communications. Plus all our regions are known for their vibrant world-class tourism and hospitality sectors.

We offer unique and distinctive locations, innovative funding incentives, experienced crews, great infrastructure and amenities, and years of experience. You will be filming in Canada's renowned playgrounds and top international tourist destinations, safe and worry free, and being taken care of by people who have done this before and know what you need.

We know that "the virus" is smart and here to stay for some time, so we are thinking to a future. We invite you to imagine your future here with us by creating and designing your projects for our vast open spaces.

Okanagan Film Commission, Kelowna
www.okanaganfilm.com / JSummerland@okanaganfilm.com
250-707-0087 / Jon Summerland

Thompson-Nicola Film Commission, Kamloops
www.filmThompsonNicola.com / VWeller@tnrd.com
250-377-8673 / Victoria Weller

Columbia Shuswap Regional District, Salmon Arm
www.filmcolumbiashuswap.com / sgoodey@csrd.bc.ca
250-833-5947 / Stephanie Goodey

Additional Regional Tax Incentives for all three regions: www.creativebc.com/programs/tax-credits/

okanagan
FILM COMMISSION

Okanagan Film Commission

Okanagan's Motion Picture Industry is important to the Province

Mandate:

To generate a positive economic impact by enabling growth of the Okanagan-Similkameen-Boundary region as a film and new media center. The Okanagan Film Commission will continue to attract and build the film industry in this region through infrastructure development, strategic partnering, marketing and promotion.

Set of Dangerous

okanagan FILM COMMISSION

2021 ANNUAL REPORT: OKANAGAN FILM COMMISSION

Regional Government Funding : $255,224.44
The economic impact : $48,830,000

The Okanagan is a globally renowned filming destination. The motion picture industry is a significant contributor to the economy and a generator of jobs.

okanagan FILM COMMISSION

Board of Directors

Paul LaGrange, Kelowna, Chair

Riley M. Gettens Director, Electoral Area "F“ RDOS Appointee

Director Loyal Wooldridge City Councilor - City Kelowna RDCO Appointee

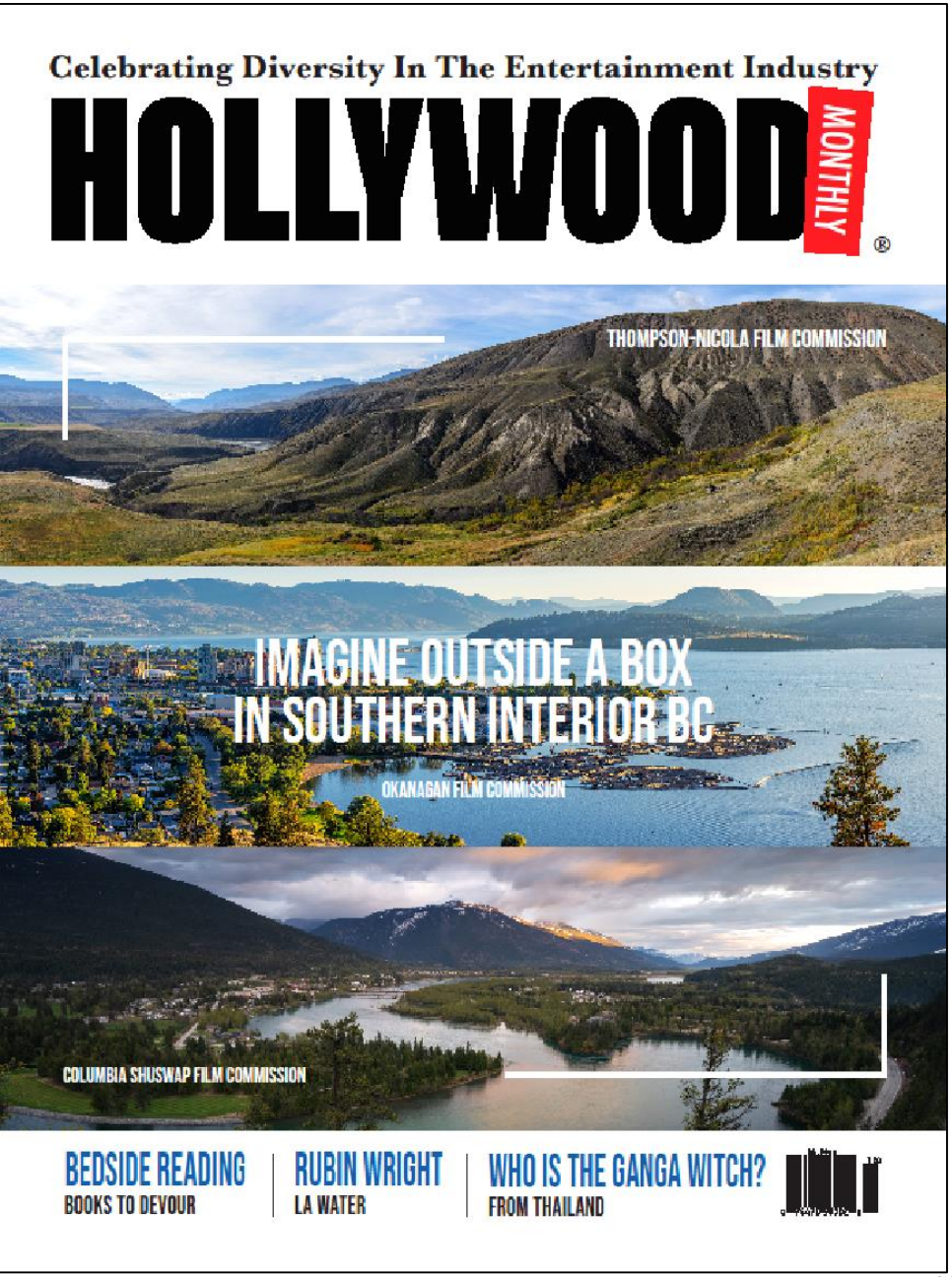
Director Dalvir Nahal City Councilor, Vernon RDNO Appointee

Vicki Gee, RDKB Appointee

Bill Baird Greenwood, Member at Large

Anne Denman, Kelowna, Member at Large

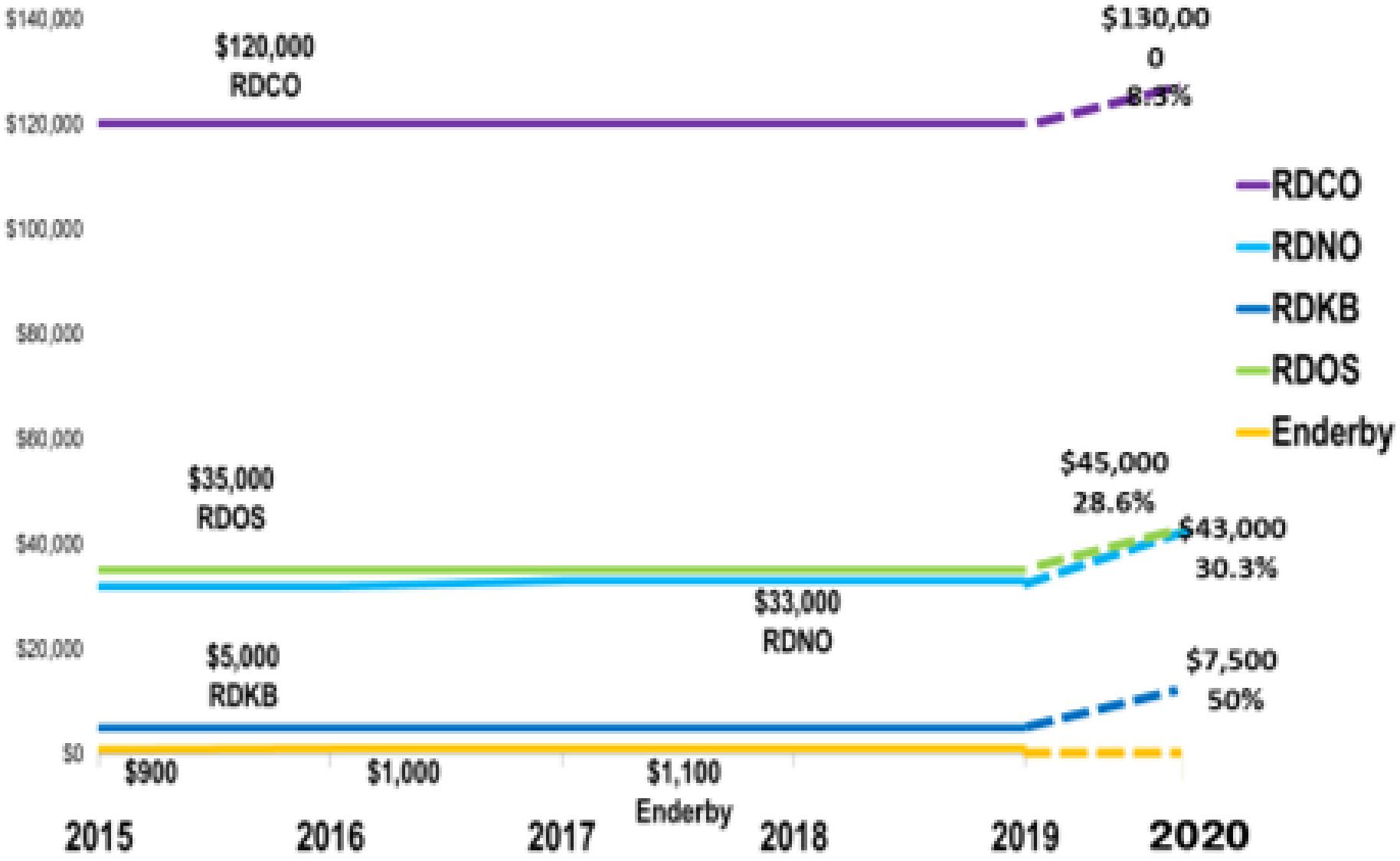
okanagan
FILM COMMISSION



2020 Production Expenditure Statistics

Vintage Hearts
$1,500,000
For Fetter or for Worse $1,500,000
Hyundai Tuscon
$150,000
The UnKnown (BlomKamp) $1,750,000
Dicks Sporting Goods $25,000
To The Bone
$75,000
A Change Of Pace $4,500,000
Love And Romance Oregon $ 1,800,000
12 Tweets Of Christmas $2,000,000
Under A Lovers Moon $1,500,000
Shot at Love $1,500,000
Romance at Crystal Cove $1,500,000
A Christmas to Savour $1,500,000
Love On The Vine $1,500,000
Snatched from Mommy $1,500,000
The Angel Tree
$1,500,000
Dangerous
$11,000,000
Claire $2,200,000
The Last Victim (PickUps) $250,000
WW2 Film : Promises $80,000
YULE BLOG
$1,500,000
Yetifarm $8,000,000

Historical Contributions



2020 Location Requests Serviced: 104

2020 Productions Filmed: 25

Filming is time sensitive and requires expedited decision making. The OFC is committed to making these decisions and following through in a timely manner.

okanagan FILM COMMISSION

QUESTIONS

okanagan FILM COMMISSION

Governance & Services Committee

TO: Governance and Services Committee

FROM: Todd Cashin
Director of Community Services

DATE: February 11, 2021

SUBJECT: Regional Growth Strategy Priority Projects Plan: 2021 Projects

---

Purpose: To provide the Governance & Services Committee with an annual update on the implementation of the Regional Growth Strategy and an overview of the projects outlined in the Priority Projects Plan.

Executive Summary:

On June 23, 2014, Regional Growth Strategy Bylaw No. 1336 (RGS) was adopted, and on July 24, 2017, the Regional Board endorsed the Regional Growth Strategy Priority Projects Plan. This five-year Action Plan outlines priority initiatives for the RDCO to implement based on commitments defined in the RGS. Regional planning projects in the five-year Action Plan were approved in principle by the Regional Board with projects requiring RDCO funding being reviewed annually through the budget deliberation process.

A number of successful initiatives and projects related to the implementation of the RGS have been completed. Others are in process or have been identified for future consideration. Planning staff is suggesting several regional planning projects in this report that are identified as having significant strategic investment values supporting the RGS. These projects have been selected and scoped to provide regional coordination and collaboration with our member municipalities in support of regionally shared needs.

RECOMMENDATION:

THAT the Governance and Services Committee receive for information the Regional Growth Priority Projects Plan report dated February 11, 2021.

Respectfully Submitted:

Todd Cashin
Director of Community Services

Prepared by: Danika Dudzik, Senior Planner

Approved for Committee's Consideration

Brian Reardon, CAO

Implications of Recommendation:

Strategic Plan: Receiving the RGS Priority Projects Plan – 2021 Projects for information achieves the following Regional Board Strategic Priorities 2019-2022:

- Transportation and Mobility
- Sustainable Communities
- Environment

Policy: Receiving the RGS Priority Projects Plan – 2021 Projects for information complies with numerous policies outlined in the Regional Growth Strategy Bylaw No. 1336.

Legal/Statutory Authority: Receiving the RGS Priority Projects Plan – 2021 Projects for information adheres to *Local Government Act*, Section 452

- 1) "A regional district that has adopted a regional growth strategy must
  (a) establish a program to monitor its implementation and the progress made towards its objectives and actions, and
  (b) prepare an annual report on that implementation and progress."
- 2) "At least once every 5 years, a regional district that has adopted a regional growth strategy must consider whether the regional growth strategy must be reviewed for possible amendment."

Background:

Regional Growth Strategy

The RDCO adopted Regional Growth Strategy Bylaw No. 1336 on June 23, 2014. A regional growth strategy is a long-range planning tool governed by Part 13 of the *Local Government Act* that assists local governments to plan a coordinated future for their communities while dealing with regional issues and decisions that cross local political boundaries. The RGS is also a collective vision from the regional partners for the future in order to create a region that promotes growth that is economically, environmentally and socially healthy over a twenty (20) year time horizon.

RGS Steering Committee

The RGS Steering Committee, created in 2016, is a forum for senior representatives of regional and municipal planning departments, First Nation and agencies with an interest in regional planning to coordinate the strategic priorities around the region and align the priorities with the goals and policies of the RGS.

RGS Priority Projects Plan

In accordance with the RGS, through a collaborative process, RDCO staff, RGS Steering Committee members and elected officials developed a 5-year action plan to outline the priority initiatives to implement the RGS. The action plan is the framework for RGS implementation and based on the regional initiatives identified within the RGS. The Priority Projects Plan was endorsed by the Regional Board on July 24, 2017.

The Plan contains nine projects supporting over 25 policies, across eight Issue Areas of the RGS. These projects are a framework for maintaining momentum toward RGS goals and policies. The projects have been selected and scoped to support regional coordination and

collaboration in support of regionally shared needs and goals, and with the expectation that there will be efficiencies from conducting work at the regional level.

The Plan is not a rigid five-year work plan. Each year, the RDCO Board will be asked to consider the recommended projects and approve the requisite resource allocations on a case-by-case basis. As new opportunities or unexpected demands arise, the projects in this Plan can be revised, re-sequenced or replaced as needed.

It should also be noted that this document does not identify all high priority projects to be undertaken to implement the direction in the RGS. Many projects are underway supporting RGS priorities in environmental, transportation, water stewardship, economic and other areas. The projects highlighted in this Plan are based on gaps identified by the RGS Steering Committee in RGS implementation.

Projects - Status Update

- Regional Planning Labs are ongoing.
- The Regional Housing Needs Assessment and Regional Growth Strategy Monitoring Program were completed in 2019.
- The Okanagan Climate Projections Report was completed in 2020.
- Phase 2 of the Regional Floodplain Management Plan was completed in 2020.
- The Regional Board endorsed the RGS 5-Year Review Consultation Plan in 2020.
- Phase 3 of the Regional Floodplain Management Plan is currently underway.
- The Central Okanagan Poverty and Wellness Strategy is currently underway.
- In 2021, the Regional Board will decide on whether or not to undertake a 5-Year Review of the RGS.
- The Regional Board has previously allocated resources for the Regional Housing Strategy and Citizen Survey which are anticipated to commence in 2021.

To date, there are a number of projects identified in the Priority Projects Plan that have not been completed and may be considered by the Regional Board through a future budget deliberation process. These projects include a Review and Update of the RGS, Regional Agricultural Strategy, and Regional Employment Lands Inventory (see attached summary).

Projects Summary

- Project Number 1: **Regional Flood Management Plan: Phases 2 and 3**

  Description and Rationale: Flooding is a serious concern for developed areas in the Central Okanagan and will only become more of a risk with the effects of climate change. Given this, the RDCO has outlined a three-phase Regional Floodplain Management Framework with the objective of developing a better understanding of flood risk in order to reduce and mitigate damage and impacts from future floods in our region. Completed in June of 2016, the Regional Floodplain Management Plan: Phase 1 Final Report identified flood hazards within the Central Okanagan and established the scope and priorities of Phases 2 and 3.

  Phase 2 focused on delineation and confirmation of the flood-prone streams and floodplains identified in Phase 1. Through various funding sources and partnerships, the following projects were completed:

- LiDAR and Aerial Image Acquisition for the Okanagan Valley Watershed: With multiple funding partners, OBWB and GeoBC teamed up to manage the capture of LiDAR and digital aerial imagery for the Okanagan watershed.
- Okanagan Mainstem Flood Mapping: A joint project with RDCO, OBWB, Regional District of Okanagan-Similkameen and Regional District of North Okanagan for flood modeling and mapping for the Okanagan mainstem lakes shorelines and reaches of the Okanagan river (completed May 2020).
- The joint initiative by RDCO and Black Mountain Irrigation District to complete the dam inundation study for Ideal (Belgo) Lake Dam (completed June 2018).
- The joint initiative by RDCO and District of Lake Country to complete the dam inundation study for Crooked Lake Dam (completed June 2018).
- The RDCO's Peachland / Trepanier Creeks Floodplain Mapping Project (completed November 2019).
- The joint initiative by RDCO and the City of Kelowna to complete the Mill Creek Flood Mitigation Planning & Mapping Project (completed April 2020).
- The joint initiative by RDCO and the City of Kelowna to complete the Mission Creek Flood Mitigation Planning & Mapping Project (completed May 2020).

It is anticipated that a dam inundation study for Rose Valley Reservoir will be completed in 2021 which is a joint initiative by RDCO and City of West Kelowna.

Phase 3 seeks to use the information collected through Phases 1 and 2 to create mitigation strategies. The project will include an extensive outreach component to gain input from member local governments, *Syilx* communities in the region, stakeholders and the public to ensure that the proposed mitigation options are acceptable and supported. This project will be completed in 2021 through funding support of UBCM.

- Project Number 2: **Regional Planning Labs**

Description and Rationale: Planners from across the region are regularly struggling with common challenges and developing effective solutions. However, the collective experience and lessons-learned from this work is not always shared. Further, particularly stubborn challenges often require creative approaches and ideas for problem solving that can only come from multiple perspectives, discussions among experienced professionals, and the lesson learned from piloting potential solutions.

A Regional Planning Lab is a forum for planners and other professionals from around the region to meet (once or several times over a series of meetings) to work through difficult technical challenges related to a specific planning topic, or the production of regionally significant projects. As a forum for discussion and relationship building, the Lab is strengthening the foundation of regional knowledge-sharing and consistency. As a space to identify and test possible solutions to shared problems, the existence of the lab continues to expand the opportunities for collaboration. This latter point is key: the labs begin with an exploration of the challenges faced, and end with actions that can be implemented, learned from, and improved upon.

Since 2018, the RDCO has hosted six Regional Planning Labs. Feedback received from participants continues to demonstrate that there is great interest and value in working collaboratively together to tackle regional issues; the September 2020

Regional Planning Lab provided an overview of the changes to the ALR Exclusion Process as a result of Bill 15, and provided an opportunity to discuss the implications of this change, opportunities for regional consistency and next steps as it may relate to approaches, policies, and procedures throughout the region.

- Project Number 5: **Regional Citizen Survey**

  A Regional Citizen Survey is a way of collecting data that cannot be attained any other way, and can be an invaluable resource for staff and elected officials in decision-making, as well as a strong communications tool for raising awareness about regional issues. As area surveys are completed regularly in some local jurisdictions or for other projects, care will be taken to ensure survey tools and questions are not repetitive or redundant; however, parallel projects may also provide an opportunity to leverage resources by combining survey tools.

  Similar work has been completed by Regional District of North Okanagan, Metro Vancouver and Regional District of Comox Valley.

- Project Number 6: **Regional Housing Strategy**

  The Strategy is a continuation of the Regional Housing Needs Assessment, and would develop an Implementation Plan with goals, targets, or planning objectives. Such a plan would identify and clarify roles that different groups would take toward achieving regional housing goals, including the Regional District, member municipalities, First Nations communities, non-profit partners, and other governmental agencies (e.g. Interior Health Authority).

  This work can support development of new housing plans/initiatives in communities that do not have them by demonstrating the specific aspects of the housing continuum where they can have the most impact. For communities that already have housing plans in place, the regional level implementation plan can support coordination of groups working on local level actions. Additionally, it may provide the rationale for pooling regional resources to support implementation of actions from a local level housing plan. For example, where some areas lack resources to provide certain services themselves (such as emergency shelters and transitional housing), it may make sense to expand that service in a neighbouring community to support a larger population.

  Similar work has been completed by Metro Vancouver and Capital Regional District.

- Project Number 7: **Regional Growth Strategy Five-year Review**

  The RDCO has a statutory obligation under Section 452(2) and (3) of the *Local Government Act* to consider, at least once every five years, whether the RGS should be reviewed for possible amendment and to provide opportunity for input into the need for review. This requirement provides an opportunity for the Regional District to periodically assess the RGS and gather feedback from stakeholders to determine if a review of the RGS is warranted. Subsequent to receiving input from the public, affected local governments, First Nations, provincial ministries and agencies, and other levels of government, the Regional Board will decide on whether or not to undertake a 5-Year Review.

Should the Regional Board decide to proceed with a 5-Year Review, the Priority Projects Plan identified that this would be completed at a high-level with input from affected agencies, member municipalities, First Nations, the public, and other stakeholders as listed in the LGA. The review process would include an assessment of the strengths and weaknesses of the growth strategy, performance and re-evaluate solutions to persistent region-wide issues and responses undertaken

Similar work has been completed by Regional District of Okanagan-Similkameen and Metro Vancouver.

Other Projects

- **Central Okanagan Poverty and Wellness Strategy**

As the current Plan is not a rigid five-year work plan, an opportunity was provided to further the work that has been completed by regional community partners over the last several years and build on resources such as the Central Okanagan Community Wellness Analysis.

In February 2020, the RDCO Regional Board approved a collaborative grant application to be submitted to the Union of B.C. Municipalities for the development of a Central Okanagan Wellness and Poverty Reduction Strategy on behalf of the District of Lake Country, City of West Kelowna, District of Peachland, and the City of Kelowna.

This strategy is complementary to many action areas within Regional Growth Strategy priorities, including the development of a Regional Housing Strategy. Further, the strategy aligns with the Regional Board priority of Community Sustainability to initiate and support efforts to create a healthy built environment in which all people throughout the region enjoy access to a diverse range of housing options, remain safe in the face of emergencies and experience a high quality of life. The project also aligns with other priorities and strategies identified by our partner communities.

RDCO has partnered with United Way Southern Interior BC on the strategy development process. As the primary applicant, the RDCO will manage the grant funding on behalf of the regional partners. The RDCO will assume responsibility for the completion of the project, reporting requirements and maintaining proper fiscal management.

- **Okanagan Lake Responsibility Planning Initiative**

An additional project which presented the RDCO with a unique opportunity was the Okanagan Lake Responsibility Planning Initiative. This project is being co-led by the Okanagan Nation Alliance (ONA), Okanagan Collaborative Conservation Program (OCCP), the South Okanagan Collaborative Conservation Program (SOSCP), and the Regional District of Central Okanagan. The Project Team will include members and representatives of *Syilx* Okanagan Nation, provincial and federal agencies, local governments, academia, conservation organizations, and others who will be identified throughout the process.

The aim of this project is to develop a visioning and experiential learning process that will create a greater awareness and understanding of the challenges and opportunities for protecting the environmental, cultural, and economic values of Okanagan Lake. The visioning process will lead to the development of a strategy that will enhance the ways of caring for, protecting, and restoring the values and interests of Okanagan Lake's foreshore and associated tributaries within the watershed. The work generated through this project will provide the knowledge and expertise to inform important decisions regarding how natural areas are cared for and managed, help address climate impacts, support sustainable development, and help secure resources and funding to carry out the actions that will be identified in the strategy.

The project is addressing current challenges of shoreline protection, and planning for the region's future at a multi-regional scale. The main objectives are to identify the most pertinent issues impacting Okanagan Lake and collaborate to develop a practical and enforceable strategy.

- **Five Year Action Plan 2022-2026**

  Being accountable for progress towards achieving the goals of the RGS requires a commitment to implementation. The existing RGS framework provides flexibility for implementation. Subsequent to the current action plan (2017-2021), to ensure continued momentum of the RGS, it is anticipated that a new work plan will be developed which would provide opportunity to assess priorities within the existing framework.

Financial Considerations:

Where applicable, staff has applied for external funding to offset the cost of projects. Any financial considerations for RDCO will be considered as part of the 2021 budget process.

External Implications:

The RGS Priority Projects Plan received direction from staff representing the RDCO, District of Peachland, City of West Kelowna, Westbank First Nation, City of Kelowna and District of Lake Country. In addition, detailed input was received from specialized staff of organizations that may be affected by proposed projects, and an early draft was circulated to affected agencies.

In addition to receiving input from the Regional Board and Governance & Services Committee, a draft was also presented for input to all member municipality Councils and Westbank First Nation Chief and Council.

This process allowed a number of opportunities to provide direction and feedback to influence the development of the Plan.

Considerations not applicable to this report:

- *General*
- *Organizational Issues*
- *Alternative Recommendation*

Attachment(s):

- Regional Growth Strategy Priority Projects Plan
- Five-Year Action Plan Summary and Status Update

REGIONAL DISTRICT OF CENTRAL OKANAGAN

REGIONAL GROWTH STRATEGY: PRIORITY PROJECTS PLAN

July 31, 2017

RDCO FUTURE OK 31

50 YEARS 1967-2017 REGIONAL DISTRICT

RDCO REGIONAL DISTRICT of CENTRAL OKANAGAN

This page left intentionally blank.

Table of Contents

Executive Summary

About the Regional District of Central Okanagan's RGS Priority Projects Plan

The Regional District of Central Okanagan's (RDCO) RGS Priority Projects Plan is a Five-year Action Plan that outlines priority initiatives for the RDCO to implement based on commitments defined in the RDCO's Regional Growth Strategy Bylaw No. 1336 (RGS). It contains nine projects supporting over 25 policies, across eight Issue Areas of the RGS, all of which have been selected and scoped to support regional coordination and collaboration in support of regionally shared needs.

This Plan is driven by the RGS, which specifies the collaborative development of a Five-year Action Plan as part of the individual and joint responsibility of the Regional District partners for the "effective management of the future growth of the region." Beyond the RGS, a coordinated regional response continues to be the most sensible, economic, and effective approach to collective challenges. This is further recognized by provincial, federal and non-governmental funding initiatives that prioritize projects which can demonstrate regional benefits or connections to regional strategic initiatives, even for local and small-scale projects.

Though the nine projects have been prioritized and sequenced, this is not meant to be a rigid five-year workplan - it may need to be revised in coming years to suit the needs of the region. Every year the RDCO Board will be asked to consider the projects recommended in this Plan and approve the requisite resource allocations on a case-by-case basis. The Plan identifies potential funding opportunities which may offset costs of projects to local government.

Process

The RDCO engaged EcoPlan International (EPI) to work with RDCO staff and the RGS Steering Committee (SC) to develop and prioritize the list of projects in this Plan. A collaborative and iterative approach was utilized and a significant amount of consultation took place with RDCO staff, the SC, the RDCO Board, municipal partners, area non-governmental organizations, and other governmental agencies.

Five-Year Action Plan

Since adoption of the RGS, the RDCO and its regional partners have completed a significant amount of work towards achievement of its goals and policies. As part of the Plan development, projects were considered covering all Issue Areas of the RGS. Many of these Issue Areas (including Our Land, Our Water Resources, Our Ecosystems, and Our Transportation) were found to be well supported by a significant amount of recent and ongoing work. The projects listed below were selected to supplement and support this work. As such, some RGS Issue Areas are not directly represented by the selected projects in this Plan. However, given the interconnected nature of regional issues, it is often the case that an Issue Area or its policies are indirectly supported by a project.

The following table outlines the final nine priority projects and their sequence in the Five-year Plan. It provides high-level estimated start dates and duration of prioritized projects. Dark green indicates one-time projects of limited duration; light green indicates projects that, once initiated, will be ongoing or recurring.

#	Project	2017	2018	2019	2020	2021
1	Regional Flood Management Plan: Phases 2 and 3					
2	Regional Planning Lab					
3	Regional Housing Needs Assessment					
4	Regional Growth Strategy Monitoring Program					
5	Regional Citizen Survey					
6	Regional Housing Strategy					
7	Regional Growth Strategy Five-year Review					
8	Regional Agricultural Strategy					
9	Regional Employment Lands Inventory					

1. Overview

1.1 Purpose

In 2014, the Regional District of Central Okanagan (RDCO) adopted Regional Growth Strategy Bylaw No. 1336 (RGS). Section 4.1.2 of the RGS emphasizes that the RDCO and its member municipalities are, "individually and jointly, responsible for effective management of the future growth of the region." Since adoption of the RGS, the RDCO and regional partners have fulfilled this commitment in a number of ways. While the RGS five-year review will provide a more definitive account, it is already clear that significant progress has been made toward RGS goals and policies by staff and elected officials working at both regional and local levels.

However, after several years of hard work on the initiatives identified in 2014, now is the time to consider how momentum can be maintained through the years ahead. RGS Section 4.1.2 anticipates this need when it specifies that staff and elected officials should collaboratively develop a "5-year action plan to outline the priority initiatives to implement the RGS."

By developing this RGS Priority Projects Plan, and implementing its initiatives, the RDCO and its partners are not only fulfilling the commitments of the RGS, but echoing its most central insight: many of the challenges we collectively face are best addressed at the regional level.

This insight has already seen success on the ground in the services collaboratively provided for the region. For example, solid waste management has been successfully administered across the region for many years, and the plan is currently being updated with full regional involvement. More topically, with the 2017 flooding events, the Emergency Operations Centre (EOC) has shown itself to not only be a critical regional service for responding to the crisis, but an example of how successful the regional partners can be in coordinated, region-wide action. Indeed, the EOC is recognized as a model for regionally coordinated emergency response throughout the province.

Extending this coordination beyond these core services to a broader set of shared regional challenges is the basis of regional planning, the RGS, and this *Priority Projects Plan.*

The purpose of this document is to identify priority projects to support implementation of the RGS for the next five years, and to describe the process undertaken to select those projects.

1.2 Description

The RDCO engaged EcoPlan International (EPI) to work with RDCO staff and the RGS Steering Committee (SC) in developing and prioritizing a list of projects into a Five-year Action Plan. Project work consisted in a series of research, analysis and consultations steps beginning in September 2016, concluding with endorsement of the final report by the RDCO Board on July 24, 2017.

The final Action Plan contains nine projects supporting over 25 policies, across eight Issue Areas of the RGS. These projects are a framework for maintaining momentum toward RGS goals and policies. The projects have been selected and scoped to support regional coordination and collaboration in support of regionally shared needs and goals, and with the expectation that there will be efficiencies from conducting work at the regional level.

The plan is not a rigid five-year workplan. Each year, the RDCO Board will be asked to consider the recommended projects, and approve the requisite resource allocations on a case-by-case

basis. As new opportunities or unexpected demands arise, the projects in this plan can be revised, re-sequenced or replaced as needed.

It should also be noted that this document does not identify all high priority projects to be undertaken to implement the direction in the RGS. Many projects are underway supporting RGS priorities in environmental, transportation, water stewardship, economic and other areas. The projects highlighted in this Plan are based on gaps identified by the SC in RGS implementation.

A summary timeline of the Five-year Action Plan is provided (Section 4.2) followed by detailed project descriptions and rationale, including approximate budgets, potential partners, and applicable RGS policies (Section 4.3).

2. Process

This section describes the process used for developing, evaluation, and screening potential projects.

2.1 Overview

The development of the list of priority projects advanced through an iterative process involving research and technical analysis conducted by EPI, consultation with the SC, and follow-up research and consultation with staff from the RDCO, municipal partners, area non-governmental organizations, and other governmental agencies. The general process consisted in the following six steps:

1. **Document inventory and high-level analysis:** EPI reviewed over 65 documents that were likely to have information about past and ongoing work, or a potential source for new projects. These included regional and local plans and strategies, annual reports and relevant background documents. These documents represent the RDCO, and its member municipalities; Westbank First Nation and the Okanagan Indian Band; other regional bodies; and provincial agencies and ministries. For a full list of the documents reviewed, see Appendix A.

   In reviewing these documents, EPI conducted a high-level analysis of past and current initiatives that support RGS Issue Areas and related policies. This provided an overview of existing and past work supporting RGS implementation as a tool to support discussion with the SC.

2. **Identifying Priorities:** Priority areas for the development of potential actions were identified primarily working with the SC. Results from background analysis and other tools were used to support discussion about past and recent work, urgent issues, or which RGS Issue Areas could benefit from more work.

   The focus areas coming out of this process (discussed in Section 3.1) were reviewed with other staff from member municipalities and regional organizations in order to be confirmed, detailed, or revised as needed.

3. **Developing a long list:** A long-list of 44 potential projects cutting across nearly all RGS Issue Areas was developed. Projects were identified primarily through consultation with the SC, area staff, and review of other existing initiatives.

   Given the importance of momentum and buy-in for successful implementation, it was acknowledged early that the first source for potential projects should be those already identified as under consideration by one of the many departments, organizations and partnerships already at work in the region. Otherwise, where some urgent matter or critical need had been identified that had no existing response, new projects were identified with the help of the collective experience and expertise of the project team and other staff in the region. Where needed, this was supplemented by research into examples from other jurisdictions.

4. **Project screening – creating the short list:** Moving from a long list of 44 potential projects to the final nine recommended for inclusion in the RGS Priority Projects Plan occurred through multiple phases, involving close review by the SC and other staff in the region. An iterative process, each phase, while ultimately shortening the list, resulted in revisions to the projects, and research into new options as issues and priorities were clarified. More detail on the phases of evaluating and screening projects, projects removed, and rationale are provided in Section 3.2.

5. **Prioritization and sequencing:** The remaining nine projects were prioritized and sequenced over a five-year action plan based on SC identified priorities, existing momentum, external circumstances (e.g. funding opportunities), and whether the project could be considered a “keystone” (i.e. necessary for other work to be completed). More detail on prioritization and sequencing rationale is provided as part of project descriptions (Section 4.1).

6. **Report drafting and review:** The Priority Project Plan report went through an extensive review process, with the first draft prepared in mid-December 2016 and the fifth and final draft submitted for RDCO Board endorsement on July 24, 2017. In addition to the SC, staff and representatives from a number of departments of the RDCO, member municipalities, other regional organizations and agencies were provided an opportunity to review and comment. More detail on consultation is provided in Section 2.2.

2.2 Consultation

Consultation was used throughout project work to clarify project expectations and direction, identify priority areas, supplement research with the expertise and specialized knowledge of local area staff, and provide feedback on deliverables.

Most consultation took place through meetings held with RDCO staff and the SC. The SC provided initial project direction and input on action prioritization and the first drafts of the plan, including participation from the following Committee members:

- Dallas Clowes, Senior Planner, City of West Kelowna
- Graeme Dimmick, Senior Planner, Westbank First Nation
- Ron Fralick, Manager of Development Services, RDCO
- Cory Gain, Director of Planning & Development Services, District of Peachland
- Nancy Henderson, General Manager of Development Services, City of West Kelowna
- Mark Koch, Director of Community Services, District of Lake Country
- Ross Soward, Planner Specialist, City of Kelowna
- Janelle Taylor, Planner 1, RDCO

The following schedule outlines the meetings held and their contribution to project work:

Participants	**Date**	**Purpose**
EPI, RDCO staff, and SC	October 12, 2016	Project scope, gap analysis review, and priority setting
RDCO staff and SC	November 16, 2016	Screen long-list of potential actions
Presentation to G&S Committee	February 9, 2017	Review of RGS Priority Projects Plan – draft #3.2
Presentations to member municipality and First Nations Councils	March - April, 2017	Review of RGS Priority Projects Plan – draft #4
Presentation to RDCO Board	July 24, 2017	Final input on RGS Priority Projects Plan – draft #5

In addition to these meetings, staff from various RDCO departments, City of Kelowna, area non-governmental organizations, and other governmental agencies were contacted for more detailed input on specific projects, including:

- Margaret Bakelaar, Environmental/Land Use Planner, RDCO
- Nancy Mora Castro, Regional Air Quality Coordinator, RDCO
- Michelle Kam, Sustainability Coordinator, City of Kelowna
- Mike Kittmer, Active Transportation Coordinator, City of Kelowna
- Rafael Villarreal Pacheco, Manager, Integrated Transportation Department, City of Kelowna
- Jerry Dombowsky, Transit and Programs Manager, City of Kelowna
- James Moore, Long Range Policy Planning Manager, City of Kelowna
- Scott Boswell, Program Manager, Okanagan Collaborative Conservation Program
- Corie Griffiths, Director, Central Okanagan Economic Development Commission
- Jack Stuempel, Communications Manager, Ministry of Transportation and Infrastructure
- Pam Moore, Environmental Health Officer, Healthy Built Environment Team, Interior Health Authority

Input from these sources was used to clarify context, confirm the status of ongoing initiatives, and detail potential projects.

An early draft of the report was also circulated to the following agencies and key personnel as part of a referral process:

- Ministry of Forests, Lands & Natural Resource Operations
- Ministry of Environment
- Ministry of Transportation & Infrastructure (eDAS)
- Ministry of Agriculture
- Ministry of Community, Sport and Cultural Development
- Agricultural Land Commission
- Interior Health Authority
- Black Mountain Irrigation District
- Glenmore Ellison Improvement District
- Rutland Waterworks Irrigation District
- South East Kelowna Irrigation District
- University of British Columbia Okanagan
- Okanagan College
- School District No. 23
- Okanagan Indian Band
- Westbank First Nation
- City of Kelowna
- City of West Kelowna
- District of Lake Country
- District of Peachland
- Regional District of Thompson-Nicola
- Regional District of North Okanagan
- Regional District of Kootenay Boundary
- Regional District of Okanagan-Similkameen
- APC (Central Okanagan West)
- Agricultural Advisory Commission
- Environmental Advisory Commission
- Okanagan Collaborative Conservation Program
- Okanagan Basin Water Board
- CATCH
- BC Transit
- R. Fralick, Manager of Development Services
- C. Radford, Director of Community Services
- R. Andrews, Manager of Facilities and Fleet
- M. Bakelaar, Environmental/Land Use Planner
- S. Mah, Parks Planner
- D. Merenick, Chief Bylaw Enforcement Officer
- C. Griffiths, Director of CO Economic Development Commission
- N. Mora Castro, Regional Air Quality Coordinator
- R. Villarreal, Integrated Transportation Department Manager
- C. Walsh, Manager of Police and Community Support Services
- M. Drouin, Manager of Corporate Services
- P. Rotheisler, Manager of Environmental Services

3. Findings

3.1 Focus Areas

The RDCO and its partners have a history of successful coordination of regional services and action. One example is solid waste management, and the current process taking place to update the 2006 Regional Solid Waste Management Plan. The Plan is currently being updated with full regional involvement, and will provide guidance with regards to solid waste management in the region for the next 10 years. The Emergency Operations Centre (EOC), a body specifically designed to coordinate region-wide actions and resources, is another example of this success. During flooding events of 2017, the EOC has demonstrated the value of regional partners working together with a common purpose.

Beyond these core services areas, a number of successful initiatives related to the implementation of the RGS have also been undertaken. As part of this project's work, RGS Issue Areas and associated policies were explored through consultation to identify areas that are well supported by these successful efforts, and areas that should be the focus of the RGS Priority Projects Plan. These focus areas were used to support development of the long-list of potential projects for later screening and evaluation.

Organized according to RGS Issue Areas, the following summarizes the focus of discussion, including general context, work completed or ongoing, and potential gaps to be filled. The only exception is the omission of Issue Area "Our Land", which was identified early as sufficiently supported through Official Community Plans and regional context statements.

Our Economy: The regional economy is well supported by the work of the Central Okanagan Economic Development Commission (COEDC). The COEDC supplies a wide variety of the economic development services for the region, including business retention and expansion initiatives, investment attraction, marketing and promotions, and sector specific support (e.g., agriculture – see notes under "Our Food" below).

One area that could be more thoroughly addressed appears to be regional land use planning specific to the protection and provision of employment lands. Ensuring the timely availability of suitable and affordable employment lands is critical to maintaining competitiveness, particularly in high value sectors such as manufacturing, value-added agricultural, and the rapidly growing tech sector.

Our Water and Our Ecosystems: With environmental land protection and water stewardship as long-held priorities, the RDCO has been accomplishing a great deal of successful work, and has a number of projects and initiatives still underway. These Issue Areas continue to be among the most strongly supported aspects of the RGS. Some key initiatives are outlined here.

The RDCO is an active member in a variety of conservation and stewardship organizations operating in the valley, including the Okanagan Collaborative Conservation Program (OCCP), the Okanagan-Similkameen Stewardship Society, the Local Government Working Group on Species and Ecosystems at Risk (LGWGSER), and the Okanagan Water Stewardship Council.

Planning for Ecosystem Connectivity in the RDCO is an ongoing collaborative project which supports RGS implementation. The RDCO regularly invests in restoring and protecting sensitive

areas, such as the recent Mission Creek Restoration Initiative, establishment of Black Mountain/ sntsk'il'ntən, Goats Peak and Johns Family Regional Parks, or as described in the Central Okanagan Regional Parks Legacy Program – Ten Year Park Land Acquisition Strategy (2007 – 2017).

The RDCO Parks Services Strategic Services Plan 2011 – 2016 supports conservation through appreciation and education about natural spaces, natural history, and the protection of community natural resources.

Given the importance of data in good decision-making and policy development, RDCO staff (often in collaboration with partners) have been highly active in maintaining quality mapping and databases of the local ecosystem. This includes the recent updates to foreshore mapping of Lake Okanagan, ongoing updates to the Sensitive Habitat Inventory Mapping for the Central Okanagan, and upcoming updates to the Sensitive Ecosystem Inventory for the Central Okanagan.

Other ongoing environmental initiatives not specifically noted in this document, including those identified through the RDCO Environmental Planning Program, RDCO Parks Services, local municipalities and the Okanagan Collaborative Conservation Program, will continue and will address the RGS goals of managing and protecting water resources and protecting, enhancing and restoring biodiversity in the region.

Our Health: As a topic that cuts across multiple policy areas, there are a number of ways that health is already being addressed such as through active transportation planning by the STPCO; environmental protections and water stewardship by OBWB, OCCP, RDCO Planning Section, and RDCO Parks Services; and promotion of active lifestyles as through the Parks Services Strategic Services Plan. As such, a considerable amount of work is already being done in health (or will be) as part of other Issue Areas, and the Interior Health Authority and School District No.23 provide regular input on land use planning bylaw and decisions related to public health for the RDCO and partner communities. Indeed, the RDCO is a leader in the province in supporting health at the local government level as one of the only regional districts with a health specific chapter in its RGS.

However, there are still significant challenges identifying ways to incorporate principles of a healthy built environment into comprehensive plans (i.e. operationalizing the research) as supported by the RGS (Our Health, Policy 8). At the same time, there are opportunities to leverage the good position of the RDCO with regards to health by building stronger working relationships with the Interior Health Authority.

Our Food: Agriculture is a key part of the regional economy, quality of life, and community identity in the Central Okanagan. While there is some work being done in agriculture across the region, this is primarily in the form of agricultural plans. Despite the importance of agriculture to the region, the current regional Agricultural Plan is more than 10 years old. As such, there appears to be need to re-establish regional agricultural goals, and coordinate planning to achieve them.

Agricultural businesses have more support: the COEDC has an agricultural support worker that assists farm operators and other agriculture businesses, providing consultation, support and customized services. The COEDC also works with the ministry and agricultural bodies in the area to put on agricultural awareness and agricultural related events, such as seminars to provide business development assistance or events to increase the profile of agriculture in the region.

Our Housing: Housing affordability is a growing issue across British Columbia and Canada. The provincial government and many local jurisdictions have begun to take action to address record growth in home prices, rental costs, and low rental vacancy rates. The Central Okanagan is no exception where the strong tourism industry can have adverse effects on the availability of rental stock and affordable housing for locals. The average home price in the Central Okanagan exceeded $500,000 in 2015 and is significantly above average prices in the North and South Okanagan (at approximately $335,000 and $385,000, respectively). There is also some concern that the recent provincial tax targeted at foreign buyers in Metro Vancouver could increase demand in nearby markets like the Central Okanagan, driving up real estate prices, further exacerbating affordability issues.

Affordable housing is also a primary issue for community health. In the Provincial Health Services Authority's *Health Built Environment Linkages* toolkit, housing is one of five key components of a healthy community. Indeed, as part of Kelowna's *Healthy City Strategy* - a project conducted in partnership with Interior Health – the second phase of work (scheduled for 2017) is focused on affordable housing. Indeed, many communities across the region are contributing to their community health through policies that support affordable housing options.

Given regional commuting patterns and the strong connections between Central Okanagan communities, a regional approach to housing and housing affordability makes the most sense. While housing policy exists in OCP's across the region, there is no initiative that takes a regional perspective to affordable and accessible housing.

Our Climate: Climate change and its effects are a well-documented global problem and the urgency of mounting a response is now broadly accepted at all levels of government. Response comes in two forms: mitigation, through reduction of GHG emissions; and adaptation, which depends on the nature of the locally experienced effects of climate change.

Given the cross-cutting nature of climate change, the numerous ways that the RDCO and communities of the Central Okanagan have worked to mitigate and adapt to climate change effects is not necessarily apparent. For example, work has been done in activities as broad as land use planning, (e.g. through OCP policy revisions), housing policy, urban forestry initiatives, parkland acquisition and other park management initiatives (as outlined in the RDCO Park Services Strategic Service Plan), and sustainable and active transportation, all of which contribute to mitigate GHG emissions or support adaptation efforts.

Additionally, there has been significant climate change specific work. With an already significant flood hazard risk expected to increase in the future, and a large amount of vulnerable agricultural land, the Central Okanagan has already begun work in mitigation and adaptation, including Phase 1 of the Regional Flood Management Plan, and the B.C. Agriculture & Climate

Change Regional Adaptation Strategies. Further, a number of clean air initiatives have been underway under the guidance the Central Okanagan Clean Air Strategy (2015) and the Regional Air Quality Coordinator.

There is significant work to be done through the remaining phases of the Regional Flood Management Plan.

Our Transportation: Transportation, like land use, is a keystone activity for managing how communities grow and develop. As the population in the Central Okanagan continues to grow, having an efficient and effective transportation network will be critical to maintaining economic growth, reducing GHG emissions and air pollution, and supporting community health and wellbeing.

As such, transportation has been well-established as a regional priority and is very-well supported by existing initiatives as a result. Key activities include development of the Regional Transportation Plan (currently underway), an update planned for the 2012 Regional Active Transportation Plan, and variety of other initiatives of the Sustainable Transportation Partnership of the Central Okanagan.

Our Governance: Discussion with the SC, and RDCO and City of Kelowna staff revealed a need for new ways of sharing resources, ideas, and addressing common technical challenges. As many jurisdictions face common challenges, having no way to collect and communicate lessons-learned and innovative solutions is a lost opportunity to improve the quality of technical solutions, information for decision-making, and make best use of limited resources.

3.2 Project Screening and Evaluation

With so many important initiatives underway or planned in support of RGS priority areas (as described in Section 3.1), an effort was made to identify projects that were both an important aspect of RGS implementation, as well as filling gaps in ongoing work. Moving from a long-list of 44 potential projects to the final set of nine came about as part of a multi-phase process of screening and evaluation. These phases are as follows:

Phase 1: The long-list of 44 actions, including description and rationale, was reviewed by the SC. Each action was flagged to be maintained, removed, revised, or researched further with accompanying rationale. Research and staff consultation resulted in further revision, removals and additions. This phase resulted in the removal of 18 potential projects.

Phase 2: The remaining 26 projects were detailed and sequenced into a five-year schedule as part of the first draft of the RGS Priority Projects Plan. During review of this plan, the SC further refined the list, removing projects that were sufficiently supported elsewhere (i.e., well-resourced and budgeted as part of other initiatives), better characterized as a budgetary item, or were better combined with other projects.

Phase 3: A short-list of 12 projects was circulated for review as part of the second draft of the RGS Priority Projects Plan. This draft was reviewed by a number of agencies, organizations and key personnel as part of the referral process. This phase of review resulted in the removal of three more actions, bringing the final action plan to nine priority projects

Table 1 summarizes the results of this process, describing candidate projects that were considered and removed, including rationale for their removal. The projects are organized according to RGS Issue Areas. The projects that were retained following the screening are described in Section 4.

Table 1: Eliminated Candidate Projects

Candidate Project	***Project Description***	***Rationale for Removal***
Our Water and Our Ecosystem		
Sustainability Checklist for new development.	A checklist using sustainability objectives from various regional plans and strategies to give new developments a quantitative sustainability rating.	Concerns that such a checklist would hinder development as an added requirement. This project was revised for further consideration as a "Sustainable Development Streamlining Checklist".
Sustainability/ biodiversity audit of existing policies and regulatory processes.	A methodical and structured assessment of existing bylaws to flag any "grandfathered" policies that obstruct achievement of sustainability objectives.	This project determined to be too onerous and potentially prescriptive for municipal level policy. Aim should be more to consolidate existing policies and processes, not add. A streamlining checklist that supports sustainability preferred.
Regional Parkland Acquisition Strategy	A strategy that identifies and prioritizes locations where acquisition of land for park and greenspace would maximize benefits to recreation, connectivity and other biodiversity objectives.	Already complete: "A Central Okanagan Regional Parks Legacy Program – Ten Year Park Land Acquisition Strategy (2007 – 2017)"
Develop sample water resource objectives/policies for consideration in OCPs.	A set of sample water resource objectives/policies for consideration in OCPs to make it easier to incorporate water sustainability into land use planning and decision-making as indicated in the *Water Sustainability Act*.	Supported by SC, but seen as best included in the RGS Priority Projects Plan as possible topics/activities of Regional Planning Lab (Project 2). *The "Sustainable Development Streamlining Checklist" was revised to "Sustainable Development Streamlining Tools" to allow for development of different solutions specific to local contexts.
Sustainable Development Streamlining Checklist*	The checklist would be a non-obligatory tool to support developers in understanding expectations of developing in certain conditions, and preparing a project and development application that will meet standards set out in a range of sustainability focused regulations. Intent is to make adherence to these regulations simple and streamlined.	
Our Health		
Host a workshop on incorporating principles of a Healthy Built Environment into the development of comprehensive plans.	A one-day workshop co-facilitated by staff from the Interior Health Authority would allow planners from around the region to learn about available resources and help strengthen working relationships between the two groups.	Supported by SC, but seen as best included in the RGS Priority Projects Plan as possible topic/activity of Regional Planning Lab (Project 2).

Candidate Project	***Project Description***	***Rationale for Removal***
Our Food		
Develop agricultural plans for underutilized ALR land.	Identify underutilized ALR land and conduct agricultural feasibility assessments and market opportunities.	Determined to be too jurisdiction specific; not sufficiently regional.
Consider re-establishing an Agricultural Support Officer position as a 2-year pilot project.	A recommendation from the RDCO Agriculture Plan, responsibilities would include: -Business Planning; -Facilitating Educational Programs; -Information Resource; and -Community Liaison for Agriculture.	While supported by the SC, as the previous termination of this position was seen as a loss, there was some concern that this might constitute a duplication of a position at the COEDC. The COEDC agricultural and tourism specialist positions do the following: • work with one-on-one farm operators and other agriculture businesses who provides consultation, support and customized services; and • work with the ministry and agricultural bodies in the area to put on agricultural awareness and agricultural related events (e.g., seminars to provide business development assistance or events to increase the profile of agriculture in the region). The COEDC also provides content and digital marketing to help increase the profile of agricultural-driven businesses in the region and is currently exploring topics around succession. Before pursuing a new support position, it was determined that a more comprehensive understanding of the assets and needs of agriculture and farmers in the region would be required (hence the Regional Agricultural Strategy recommended as part of Project 8).
Encourage increased cooperation in promotion and support of agricultural activity in the region.	Work with other local governments, Chambers of Commerce and Business Associations to support agricultural sector promotion.	Work already being done by the COEDC.
Determine cross-sector objectives for drought planning.	Drawn from Agriculture and Climate Change Regional Adaptation Strategies: Consult with the agricultural sector to facilitate dialogue on priorities for key water issues and adaptation in drought planning.	The BC Climate Action Initiative is implementing and monitoring the programs outlined in the Okanagan Adaptation Strategies document. RDCO is a member of the Working Group and participates sufficiently through this mechanism. As such, all these actions, while supported, were removed as potential projects for this plan.
Develop a framework for engaging agricultural water users in local drought planning processes.	Identify sector representatives for drought planning processes and determine ways to maintain consistent sector participation.	

Candidate Project	***Project Description***	***Rationale for Removal***
Support the agriculture sector's participation in drought planning.	Primary concern is ensuring sufficient water supply for sector activities.	
Develop information materials on agricultural water use.	Improve knowledge of agricultural water use/practices through videos, websites, mail-outs, events and workshops.	
Establish Invasive Species Roundtable.	Annually bring sector organizations and agencies together to share information on agriculturally significant invasive species.	
Identify agricultural areas where wildfire solutions are needed.	Identify high risk level areas on agricultural land base from Community Wildfire Protection Plans.	
Promote area farms where established farmers are willing to mentor young people.	Assist young people in gaining agricultural skills and experience.	While could have been part of the Agricultural Support Worker position, should now be considered as part of recommended regional agricultural planning (Project 8).
Our Housing		
Housing Action Forum	A one or two-day forum to brainstorm and prioritize actions to address housing needs.	To be included as part of development of Regional Housing Strategy (Project 6)
Affordable Housing Strategy	More focused strategy, targeted to people who are low/average income earners, i.e., minimum wage or receiving government assistance.	
Attainable Housing Strategy	More focused strategy, attainable housing focuses on average/medium income households priced out of the market or struggling with higher rents.	
Our Climate		
Investment in forced air technology burners.	Purchase one or two Air Curtain Burners for use by area agriculturists.	While supported by the SC, these activities were considered to be more appropriately categorized as budgetary items, not projects.
Top-up of rebate budget for woodstove exchange.	Regional funding to supplement annual provincial funding to support more woodstove exchanges by certain date.	
Regional Hillside/ Slope guidelines/ policies	A set of standards that can be applied by local governments to OCP/ DPA policy to mitigate risk to slope hazards in new development.	Supported by SC, but seen as best included in the RGS Priority Projects Plan as possible topic/activity of Regional Planning Lab (Project 2).
Our Transportation		
Develop a regional Active Transportation Network map.	Development of a regional network map (paper and/or digital) showing all active transportation routes and connections.	Already completed and included as part of Regional Active Transportation Plan
Update of the Regional Active Transportation Plan.	An Update of the AT Plan to account for new conditions and policy context (COPS, RTS, etc.).	Already included as part of developing Regional Transportation Strategy.

Candidate Project	***Project Description***	***Rationale for Removal***
Advance West side Trail Collaboration.	Move forward on next steps in technical brief to get Westside Trail "shovel ready", including engineering studies, cost estimates, partnership opportunities.	While strongly supported by the SC, this activity is seen to be already supported by the work of the STPCO and will likely be incorporated into the upcoming Regional Strategic Transportation Plan.
Regional Transportation Impact Assessment Framework	A set of guidelines that can be applied in the case of local developments, but provide considerations to capture potential impacts to the regional transportation network.	In the short term, this project was determined to be very difficult to implement, as there is not a regulatory framework in which it would operate. The project could be revisited following completion of the Regional Strategic Transportation plan.
Forum on impact of new automotive technology.	A forum of relevant stakeholders to explore the implications of new automotive technology (electric, automation, etc.) on transportation behaviour in the region.	Supported by SC, but seen as best included in the RGS Priority Projects Plan as possible topic/activity of Regional Planning Lab (Project 2).
Principle-based review of Ministry of Transportation and Infrastructure (MOTI) Central Okanagan Planning Study (COPS).	A structured review of preliminary options conducted to ensure community values and the work of local planning departments is understood and incorporated into MOTI's larger planning process. The review would use local community objectives (e.g., from OCPs or other planning processes) and broadly accepted best-practice planning principles to identify potential impacts to community connectivity, cohesion, health, and wellbeing that are concrete and measurable.	The SC has been very pleased with the work conducted by MOTI on the COPS project. Given the opportunities for input provided, the SC is confident that the final analysis and recommendations will reflect the concerns, values, objectives of local communities, as well as planning best-practice.
Our Governance		
Grant Coordinator	A full or part-time position dedicated to finding and securing grants. Mandate could be scaled depending on focus: RDCO, Regional members, community organizations.	Members already have personnel assigned for this at local level. Seen as an administrative/human resources decision for the RDCO to support their work, not a project specific to supporting RGS implementation.
Create a central inventory of policy examples.	An inventory (online) of policy language/ regional standards for updating OCP and other bylaws.	This project was revised. Original intent was to support sharing of expertise and knowledge of planners around the region on challenges they face in common. Given concerns about up keep and administration of central inventory/database, project has been replaced by the Regional Planning Lab (Project 2).
Relocate all regional services being completed by the City of Kelowna to the RDCO Office.	Relocate Regional Air Quality and Regional Transportation Services from City of Kelowna offices to RDCO offices at KLO Road.	Review from stakeholders identified the loss of existing economies of scale and other efficiencies of the current location of these services; there is no business-case or budgetary rationale for relocating to the KLO offices.

4. Priority Projects

4.1 Evaluation and Prioritization

The remaining nine projects were prioritized and sequenced over a five-year action plan based on the following considerations:

- The extent to which the project addresses ranked priorities of the SC
- The extent to which the project builds on existing momentum, requiring little additional work to build "buy-in"
- Whether the projects are related to some critical external circumstance that requires initiation or completion by a certain year
- Where projects were understood as "keystone" activities (i.e., they were requisite or highly important to other projects), they were identified as "primary" or "secondary" in relation to each other, and sequenced accordingly

Table 2: *Five-Year Action Plan Summary and Timeline*, outlines all the priority projects according to their sequence in the five-year plan. Section 4.3 provides the following for each priority project:

- A detailed description and rationale
- An identification of RGS policies supported by the project
- Rationale for prioritization
- Budget estimates and potential partnerships[1] (Potential partnerships are only provisionally identified here. The full range of partners and stakeholders that may be involved will only be identified as part of project specific engagement planning.)
- Comparable projects from other jurisdictions in B.C.

Where appropriate, descriptions were based on an assessment of similar projects from different jurisdictions in B.C.

[1] Budget estimates and partnership involvement are provisional as part of this draft report – further research being conducted to validate assumptions

4.2 Five-Year Action Plan

The Gantt chart below indicates high-level estimated start dates and duration of prioritized projects. Dark green indicates one-time projects of limited duration; light green indicates projects that, once initiated, will be ongoing or recurring.

Table 2: Five-Year Action Plan Summary and Timeline

#	Project	2017	2018	2019	2020	2021	Page
1	Regional Flood Management Plan: Phases 2 and 3						18
2	Regional Planning Lab						19
3	Regional Housing Needs Assessment						21
4	Regional Growth Strategy Monitoring Program						23
5	Regional Citizen Survey						25
6	Regional Housing Strategy						26
7	Regional Growth Strategy Five-year Review						28
8	Regional Agricultural Strategy						29
9	Regional Employment Lands Inventory						32

This timeline is to be understood as a flexible guide, not a fixed schedule. While the projects are allocated to specific years, an adaptive management approach will be taken so that in the event that an opportunity presents itself (e.g., through new funding opportunities), RDCO staff and the Board will be able to make informed decisions about re-prioritization. Additionally, it is anticipated that some activities – like the Regional Planning Lab – will result in the emergence of new initiatives and activities for consideration in future years.

4.3 Project Descriptions

2017: Year 1 Projects

1) Regional Floodplain Management Plan: Phases 2 and 3

Description and Rationale: Flooding is a serious concern for the Central Okanagan and its developed areas and will only become more with the effects of Climate Change. In response to this risk, the RDCO has outlined a three-phase Regional Floodplain Management Framework (RFMP) with the objective of developing a better understanding of flood risk in order to reduce and mitigate damage and impacts from future floods regionally. Completed in June of 2016, the first phase of the management plan identified and prioritized the criteria for further study of flood hazard areas. Continuing work on the RFMP has been identified as a high priority and is scheduled to proceed through to 2019.

Funding has been obtained for Phase 2 and the RFP is scheduled to be issued during the summer of 2017. In addition to incorporating lessons-learned from the 2017 flood event, this second phase will focus on the delineation and confirmation of the flood-prone streams and floodplains identified in Phase 1, with the purpose of ensuring that there is a comprehensive understanding of watercourses for both local government bylaws and the Flood Plan. Phase 3 will use this new understanding to build on and expand the flood risk mitigation strategies already in place within the region. Further details on recommendations and priorities for Phase 2 of the RFMP are outlined in the "Regional Floodplain Management Plan: Phase 1 Final Report". The expected outcomes of the RFMP are to reduce flood risk, improve emergency response and increase resiliency to climate change in a collaborative manner throughout the entire region.

RGS Policies Covered:

- 3.2.3 Our Water Resources - Policy 3
- 3.2.4 Our Health – Policy 5
- 3.2.7 Our Climate – Policy 8

Prioritization Rationale:

- RFMP Phase 2 was funded along with Phase 1 as part of a single ongoing project.

Implementation:

- **Budget**
  - Estimated Phase 2 budget: ~$150,000
  - $25,000 in funding has already been provided for Phase 2 of the plan from the OBWB Water Conservation and Quality Improvement Grant Program as well as $25,000 from the Regional District
  - RDCO will lead the project with support from contracted consultants
- **Partnerships**
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Okanagan Basin Water Board

Examples from other Jurisdictions

- Lower Mainland Flood Management Plan (Phase 1 complete)
- Sea-to-Sky Floodplain Management Plan
- Cowichan Valley Regional District - Lower Cowichan/Koksilah River Integrated Flood Management Plan

2) Regional Planning Labs

Description and Rationale: Planners from across the region are regularly struggling with common challenges and developing effective solutions. However, the collective experience and lessons-learned from this work is not always shared. Further, particularly stubborn challenges often require creative approaches and ideas for problem solving that can only come from multiple perspectives, discussions among experienced professionals, and the lesson learned from piloting potential solutions.

A Regional Planning Lab would be a forum for planners and other professionals from around the region to meet (once or several times over a series of meetings) to work through difficult technical challenges related to a specific planning topic, or the production of regionally significant projects. As a forum for discussion and relationship building, the lab would strengthen the foundation of regional knowledge-sharing and consistency. As a space to identify and test possible solutions to shared problems, the existence of the lab would expand the opportunities for collaboration. This latter point is key: the labs should begin with an exploration of the challenges faced, and end with actions that can be implemented, learned from, and improved upon.

The topics of focus would be established by the SC (with input from their respective staff), and set for a certain period or number of meetings. Through development of options for this RGS Priority Projects Plan, a number of possible activities were identified, such as the following:

- Hosting a one-day **Healthy built environment workshop** co-facilitated by staff from the Interior Health Authority to allow planners from around the region to learn about available resources and help strengthen working relationships between the two groups. The workshop could also be structured so that the group can better understand each others' work, and develop some novel solutions for incorporating a health perspective into local government planning and decision making.
- Creating a **Sustainable Development Streamlining Tools** to help developers navigate various regional sustainability regulations. This would support a streamlined development process without sacrificing critical environmental, social or economic values.
- Developing a set of **sample water resource objectives/policies for consideration in OCPs** to make it easier to incorporate water sustainability into land use planning and decision-making as indicated in the *Water Sustainability Act*.
- Holding a **forum (or a series of forums) on the impact of new automotive technology** that will bring together relevant experts and stakeholders for the purpose of exploring the implications of new automotive technology (electrification, automation, etc.) on transportation behaviour in the region, and appropriate approaches for local government to engage with them.

- Create a **central inventory of policy examples** through amalgamation of existing examples from partners around the region. An inventory of sample policy language for updating OCPs and other bylaws would alleviate the workload of local planners, and supports regional coordination and standard setting.
- Hosting workshops to **explore means of strengthening the connection between local and regional planning initiatives** in the Central Okanagan, including clarifying how the jurisdictions are related and can be coordinated to better support mutual objectives.

Depending on the project, different planners, professionals, and experts working for other area partners would be invited to participate, including staff from other government departments and ministries (e.g. Interior Health), non-profit organizations, and researchers from higher education. As these groups develop solutions to their common challenges, the Regional Planning Lab may result in in the emergence of new initiatives.

The RDCO'S Regional Planning Lab should also be understood as a pilot project. It's format and focus will be determined and adapted based on the needs of the group involved. Format and practices that work can be carried forward in later labs, and those that do not will be revised and eliminated as needed.

RGS Policies Supported:

- Depending on topics covered during Regional Planning Lab, policies from several RGS sections could be supported, including policies under 3.2.10 Our Governance.

Prioritization:

- As a recurring activity for working through various planning issues, the Regional Planning Lab should start as soon as possible.
- As the Regional Planning Lab may result in the emergence of new initiatives, beginning early will allow opportunity to consider add promising projects for implementation during later years of this Plan.
- The first topic and the timing of the first lab will depend on input from the SC and readiness of potential partners.

Implementation:

- **Budget**
    - Accomplished by in-kind staff support and meeting space at RDCO office. Should projects be proposed out of the Lab that require budget, these projects will be brought forward and approved through the budget deliberation process.

- **Partnerships**
  Various potential partners depending on topic, but may include the following groups:
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Interior Health Authority
  - UBC-O
  - Okanagan College
  - Urban Development Institute
  - Okanagan Collaborative Conservation Program
  - Okanagan Basin Water Board

Examples from other Jurisdictions:

There are examples of one-off initiatives that are somewhat comparable to the Regional Planning Lab proposed, including the following:

- Ministry of Agriculture's "Meeting of the planning Minds"
- Nature Conservancy of Canada's "Meeting of Minds" in Cranbrook
- Central Okanagan Temporary Farm Worker Housing Initiative

However, the closest comparison comes from the City of Vancouver's Staff Hub Solutions Lab. This lab is currently in its soft launch phase (from January to August 2017) and was originally identified as a priority in the City of Vancouver's Healthy City Strategy as a way to bring City staff together to collaborate on complex city challenges. The lab plans to thoroughly explore and understand City issues, and then "rapidly prototype and test new responses to see what [they] can learn, adapt, and scale". All of this will be done with an emphasis on risk taking and experimentation.

2018: Year 2 Projects

3) Regional Housing Needs Assessment

Description & Rationale: As real estate prices rise faster than household incomes, access to affordable housing is a growing concern regionally as it is in much of the Province. With speculation that the new tax on foreign homebuyers in Metro Vancouver could push demand into other areas of B.C., affordability challenges may become more acute.

Unaffordability affects people of a diverse set of backgrounds and profiles. As such, the provision of affordable housing can come through a number of mechanisms and solutions that cut across a range of types and tenures of housing. This is often referred to as the housing continuum.

Figure: Housing Continuum

Emergency Shelters	Transitional Housing	Supportive Housing	Subsidized Housing	Market Rental Housing	Market Homeownership Housing

Given the proximity of Central Okanagan communities and their integration through the transportation network (i.e. commuting patterns), the supply and demand of the housing market is best considered at the regional level. Indeed, anything less than a regional assessment would provide only a partial picture of the housing situation. This is particularly the case when considering the needs across the housing continuum, as it is unlikely that any single community in the Central Okanagan could address the full range of affordable housing needs of the region (nor would likely need to).

The study would examine needs across the housing continuum incorporating data and input from across the region. With the larger regional situation defined, each community's role in the contribution to the solution can be better understood. This will support a coordinated and consistent response toward regional housing goals (See Regional Housing Strategy, Project 6).

One key component of work will be a comparison of regional housing supply and demand would help identify where along the housing continuum the greatest needs are (or may be in the future) throughout the region. This will likely include:

- Population estimates and growth projections
- Analysis of regional real estate/ rental trends including impacts from vacation rentals (including Airbnb) and foreign investment on overall affordability and supply
- Housing demand, including analysis of households by size and income; including a consideration of how current and future demographic change (e.g. an ageing population) and population movement affects demand among communities
- Housing supply for market and non-market types (from across the continuum) and broken down by estimates of monthly rent/mortgage
- Needs assessment, matching supply and demand and determining key gaps in the continuum
- A consideration of how housing supply, demand, and needs will be affected by the Regional Transportation Strategy (currently underway)

Another important component will be an assessment of the needs in terms of administrative, institutional, and governance function related to the supply of housing. This could include assessment of the following:

- Data collection roles and gaps (e.g., comprehensive regional homelessness counts)
- The role of non-profit organizations in the provision of housing and related services, including how they are coordinated with local governments
- Coordination on financing mechanisms, funding, and BC Housing partnerships
- The impact of a lack of coordinated and comparable policy on the provision of affordable housing (e.g., inconsistent incentives for the development industry, criteria for locating affordable housing, a lack of long-term regional targets)

The study may include broad engagement or be conducted as a technical exercise. The results of this study, and the housing needs identified, will provide a strong foundation for the Regional Housing Strategy (Project 6).

RGS Policies Supported:

- 3.2.2 Our Economy – Policy 8
- Depending on content, may support various policies under 3.2.6 Our Housing
- 3.2.4 Our Health – Policies 1 & 5

Prioritization:

- Affordable Housing was identified as high priority issue by the SC.
- The City of Kelowna developing a Healthy Housing Strategy and Homelessness Strategy in 2017. Completing Regional housing initiatives (this needs assessment and the strategy identified for Project 6) soon after will allow easier integration of data, support coordination of implementation, and improve chances for funding applications to higher level government (for regional level initiatives and City of Kelowna).
- With the National Housing Strategy to be released in 2017, there may be funding opportunities for conducting housing projects in subsequent years.

Implementation:

- **Budget**
  - ~$30,000 - $40,000
- **Partnerships**
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Healthy City Partnership
  - Interior Health Authority staff
  - Urban Development Institute
  - Okanagan Mainline Real Estate Board
  - CATCH

Examples from other Jurisdictions:

- Saanich Peninsula Affordable Housing Needs Assessment Report, 2016 (budgeted ~$40,000)
- Cowichan Valley Regional District Affordable Housing Needs Assessment, 2014 (budgeted ~$30,000 - $35,000)
- Housing Needs Assessment, City of Vernon, 2013

4) Regional Growth Strategy Monitoring Program

Description and Rationale: Provincial legislation requires that once a RGS is adopted, ongoing monitoring must be established to assess implementation and measure progress being made towards the stated objectives. A monitoring program would help identify areas where RGS goals and policies are successful, where more work needs to be done, or where adjustments and adaptations to current initiatives need to be made.

The RDCO has a strong base for this work in the recently completed Okanagan Basin Interregional Indicator's project. This project resulted in a set of roughly 40 indicators and

measures across 10 theme areas that correspond to common RGS policy areas. The work for this project will primarily consist in assessing the interregional indicators for their fit with the RGS goals, identifying gaps, and developing new indicators and measures to fill those gaps. The final product will likely have 30 to 40 indicators and associated measures to monitor the key goals and policies of the RGS.

This project will be an important contribution to the RGS Five-year review (Project 7, scheduled for 2019), and would also play an important role in developing the Citizen's Survey (Project 5, scheduled for 2018).

RGS Policies Covered:

- 3.2.10 Our Governance - Policies 1, 2, 3, 6 & 7

Prioritization Rationale:

- There is significant momentum from RDCO's participation in the Okanagan Basin Inter-Regional Monitoring Program. While a Central Okanagan specific program is not scheduled until 2018, the RDCO will meet legislative requirement by utilizing the Inter-Regional Monitoring Program until then. Waiting until 2018 will also allow the use of the latest (2016) census data, parts of which are not released for one or two years after the census.
- The RDCO's Five-year RGS review is slated to begin in 2019. By beginning the review with a thorough assessment of M&E indicators and the value of their respective results, this project will support an evidence-based assessment of the RGS and its policies.

Implementation:

- **Budget**
    - $20,000, assuming significant amount of work from interregional monitoring program can be applied; excludes data collection

- **Partnerships**
    - RDCO
    - City of Kelowna
    - City of West Kelowna
    - District of Lake Country
    - District of Peachland
    - Westbank First Nation
    - Okanagan Indian Band
    - Interior Health Authority
    - Okanagan Collaborative Conservation Program
    - Central Okanagan Economic Development Commission
    - City of Kelowna Healthy City Partnership

Examples from other Jurisdictions:

- Regional District of North Okanagan Monitoring & Evaluation Program (budgeted approximately ~$40,000 for M&E framework including data collection)
- Regional District of Okanagan-Similkameen Regional Growth Strategy Snap Shots
- Metro Vancouver RGS Performance Measures (budgeted ~$30,000 for framework without data collection)

5) Regional Citizen Survey

Description and Rationale: A citizen (or community) survey is a way of collecting data that cannot be attained any other way, and can be an invaluable resource for staff and elected officials in decision-making, as well as strong communications tool for raising awareness about regional issues. It can also be used to supplement the RGS Monitoring Program's objective indicators (Project 4) with the experiences and perceptions of the public. The survey can include questions to collect:

- Baseline data gathering for the RGS Monitoring Program for topics where no readily available, objective measures exist (e.g., quality of life, health and wellbeing, facilities usage)
- Experiential or perception data
- Citizen satisfaction data
- Public input on regional priorities (in support of the Five-year RGS Review)

Comparisons between perception data and objective indicators can highlight areas where their might be gaps in the monitoring program, or show where education and communications are needed (i.e., the public is not aware of RGS progress).

As area surveys are completed regularly in some local jurisdictions or for other projects, care will have to be taken to ensure survey tools and questions are not repetitive or redundant. For example, RDCO Parks Services initiated a Regional Parks Visitor Use Survey Program in 2016 for the network of 28 regional parks. In 2016, surveys were conducted for 3 regional parks and future surveys of other regional parks will take place through to 2019. Also, the Regional Housing Needs Assessment (Project 3, scheduled for the same year) may also involve a survey.

However, these parallel projects may also provide an opportunity to leverage resources by combining survey tools. For example, instead of multiple regional surveys, questions and data could be incorporated into a single tool. Or, where location specific topics are of interest, the survey could have a modular design, with a set of regional level questions in one section that is delivered in all communities, and a community or project-specific section with questions customized to the local context or the needs of the project (e.g. questions on housing needs). This may allow for pooling of resources to improve sampling and coverage for more defensible results.

A Regional Citizen Survey conducted every five years in the RDCO could support the RGS Monitoring Program (Project 4) and RGS five-year review (Project 7).

RGS Policies Covered:

- 3.2.10 Our Governance - Policies 2, 4, 5 & 6
- Depending on content, may support policies under various Issue Areas

Prioritization:

- Should be conducted after the RGS Monitoring Program (2017) and before the RGS Five-Year Review (2019)

Implementation:

- **Budget**
  - $40,000 - $100,000; varies widely depending on expectations for statistical rigour of final results

- **Partnerships**
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Interior Health Authority

Examples from other Jurisdictions:

- Regional District of North Okanagan Regional Quality of Life survey as a supplement to the Monitoring & Evaluation Program (~$40,000)
- Metro Vancouver Regional Livability Survey
- Comox Valley Regional District Residents Survey

2019: Year 3 Projects

6) Regional Housing Strategy

Description and Rationale: As noted above under Project 3 – Regional Housing Needs Assessment – the regional nature of the housing market, and high-level of integration among RDCO communities, requires taking a regional approach to addressing challenges around affordability. A collaborative approach would allow the allocation of resources to specific aspects of the housing spectrum in the areas of highest need in the regional context. Taking regional perspective on housing will also allow for coordination with other regional work, especially the Regional Transportation Strategy.

At the same time, each community (and numerous local organizations) will have a part to play in addressing gaps across the entire continuum. Different activities in different communities may be appropriate to better satisfy regional needs. But a regional strategy can help ensure that individuals communities are not working at cross-purposes, or that local initiatives are not producing unintended consequences at the regional level.

As such, a Regional Housing Strategy would support activity at both levels of local government:

- At the regional level, the strategy would identify work that is best done collaboratively to advance affordable housing goals and initiatives (per the RGS, *Our Housing*, Policy 4) or opportunities where resources can be pooled to have more impact.
- At the local level, the strategy helps coordinate the individual efforts of each community (and other organizations) toward achieving regional housing goals.

Regional level work could include the following:

- Regional coordination for ongoing data collection (e.g., “Point in Time” housing counts). This could be supported by the development of a monitoring framework to better track changes in supply and demand (across the continuum) over time.

- Elaborating and confirming of regional housing goals
- Exploring regional and sub-regional targets for provision of affordable housing across the continuum, including rental (market and non-market), supportive, transitional, and emergency housing.
- Sharing lessons-learned (e.g., an inventory of local level approaches and policy response and assessment of relative effectiveness)
- Exploring shared regional policy objectives/criteria to inform where to locate supportive and rental housing
- Exploring options for coordinating regional housing initiatives, funding, or utilization of public lands to support affordable housing (e.g., regional housing trust fund, regional affordable housing coalition)
- Identifying potential joint or regional actions, such as:
    - Shared investments to support provision of options across the non-market end of the housing continuum (e.g., land acquisition, emergency shelters, transitional housing)
    - Advocacy of to senior levels of government
    - Funding proposals to senior levels of government or other organizations
    - Further research to support achieving housing strategy goals (e.g., best-practices in affordable housing policy or financing, etc.)

In addition to the establishment of goals, targets, or planning objectives, a key mechanism of coordinating community level work would be the development of an Implementation Plan. Such a plan would identify and clarify roles that different groups would take toward achieving regional housing goals, including the Regional District, member municipalities, First Nations communities, non-profit partners, and other governmental agencies (e.g. Interior Health Authority).

This work can support development of new housing plans/initiatives in communities that do not have them by demarcating the specific aspects of the housing continuum where they can have the most impact. For communities that already have housing plans in place, the regional level implementation plan can support coordination of groups working on local level actions. Additionally, it may provide the rationale for pooling regional resources to support implementation of actions from a local level housing plan. For example, where some areas lacking resources to provide certain services themselves (such as emergency shelters and transitional housing), it may make sense to expand that service in a neighbouring community to support a larger population.

Further, by demonstrating the alignment regional level needs and goals, existing local level initiatives will improve their chances of securing funding from senior levels of government and other organizations.

RGS Policies Supported:

- 3.2.2 Our Economy – Policy 8
- 3.2.6 Our Housing – Policy 4 and depending on content, other policies.
- 3.2.4 Our Health – Policies 1 & 5

Prioritization:

- Builds on Regional Housing Needs Assessment from 2018 (and related funding opportunities that may come out of a National Housing Strategy in 2017)

Implementation:

- **Budget**
  - $40,000 to $60,000
- **Partnerships**
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Interior Health Authority
  - Healthy City Partnership
  - Urban Development Institute
  - Okanagan Mainline Real Estate Board

Examples from other Jurisdictions:

Examples include regional housing strategies and other regional level initiatives that may support or be identified as part of a strategy:

- Metro Vancouver:
  - Regional Affordable Housing Strategy, 2016
  - Housing and Transportation Cost Burden Study, 2015
  - What Works – Affordable Housing Initiatives in Metro Vancouver Municipalities, 2012
- The Social Planning Council for the North Okanagan has completed a variety of projects on housing, including:
  - Building Bridges: The 2007 Homelessness Strategy for the North Okanagan, 2007
  - Attainable Housing Strategy, City of Vernon, 2008
- Cowichan Region Affordable Housing Strategy, 2010
- Capital Regional District:
  - Regional Housing Affordability Strategy, 2007
  - Regional Housing Trust Fund
  - Greater Victoria Coalition to End Homelessness

7) Regional Growth Strategy Five-year Review

Description and Rationale: 2019 will mark five years since the RGS was adopted and therefore, as mandated under the *Local Government Act (section 452)*, the Regional Board will be asked whether or not a more comprehensive review, identifying possible amendments (minor or standard), of the RGS is warranted. This preliminary review will be a high-level review by staff with input from affected agencies, member municipalities, First Nations, and other groups listed in *LGA, Section 434(2)*.

Per Section 4.1.5 *Plan for Five-Year Review* of the RGS, the "review process provides an opportunity to assess the strengths and weaknesses of the growth strategy, assess performance and re-evaluate solutions to persistent region-wide issues and responses undertaken." The section further specifies that the following analysis of land use, environmental, engineering, transportation and financial issues should be taken into account as part of the review.

Work will be supported by findings from the RGS Monitoring Program (Project 4, 2017) and the Regional Citizens' Survey (Project 5, 2018).

RGS Policies Covered:

- 3.2.10 Our Governance – All Policies

Prioritization:

- 2019 is five years after adopting of the RGS, therefore the required period for review.

Implementation:

- **Budget**
  - Varies depending on approach and use of existing staff resources. Hiring a consultant for a more structured review could cost approximately $20,000 to $25,000.
- **Partnerships**
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Others as listed in *LGA, 434 (2)*

Examples from other Jurisdictions:

- RDOS RGS Update Preliminary Review, 2015 (budgeted ~$10,000; high-level review resulted in consultant to recommend suite of minor revisions)
- Metro Vancouver RGS Update Review – internal process conducted by staff and decision made not to proceed with update

2020: Year 4 Projects

8) Regional Agriculture Strategy

Description and Rationale: Agriculture is a key component of the identity of the Central Okanagan. With over 27,000 hectares of Agricultural Land Reserve, over $95 million in gross farm receipts (2011) agriculture is a major aspect of the regional land use, economy, and landscape that contributes to the Central Okanagan's high quality of life. Despite this, agriculture is under pressure and changing, both from increasing development and larger economic shifts (the number of agricultural businesses dropped to 290 in 2011, representing 3.9% of all businesses, down from 5.7% in 2001).

Indeed, agriculture is closely associated with a number of systems that operate at a regional level including labour markets; warehousing, packing centres, and distribution networks;

tourism; ecosystem connectivity; water resources; real estate development; and, of course, food systems. As such, taking a regional perspective on agricultural issues is a sensible response. This was anticipated by the RGS in Policy 1 of "Our Food", which explicitly calls on regional partners to consider development of a Regional Agricultural Strategy.

A Regional Agricultural Strategy could help support knowledge sharing, data collection, joint investments, and developing regionally consistent polices to help a number of aspects of the larger agricultural and food system. It would support related regional initiatives (e.g. the Employment Lands Inventory) and could also help coordinate implementation of actions embedded in local level agricultural plans - some Central Okanagan communities have already developed Agriculture Plans (or at least plans for specific locations), most recently the Cities of West Kelowna (2011 and 2016) and Kelowna (currently underway).

Development of a Regional Agricultural Strategy would require extensive technical work and engagement, and could include the following components:

- Trends in the agricultural economy, including size, diversity and composition
- Regional inventory of agricultural land, including an identification of land actively farmed, or under pressure from development (this may provide an opportunity to update and identify trends from the Agricultural Land Use Inventory conducted for Kelowna in 2014)
- Identification of regionally common issues and challenges related to:
    - Land pressure, including as a result of rising land prices and the growth in tourism
    - Generational succession of farming businesses and land
    - The economic value chain (e.g., availability of firms and land for processing, packing, and distribution services; access to markets)
    - Knowledge sharing and technological innovation
    - The food system and food security
- Establishing regional agriculture and food system goals
- An assessment of existing resources and supports (e.g. agricultural business and sector support provided by the COEDC, UBC-O, the Agricultural Land Commission, and Ministry of Agriculture) and identification of any gaps
- Exploration and identification of regional level actions that support the goals, such as:
    - Ongoing data collection and knowledge sharing
    - Agricultural specific skills and knowledge development
    - Supporting entrance of young farmers into industry (including research into new financing options, etc.).
    - Facilitating relationships and identifying shared investment opportunities to improve regional food security
    - Hiring an agricultural support worker (as existed previously) to supplement work done by other agencies
- Development of an implementation plan, identifying the areas of activity and roles of the Regional District, member municipalities, First Nations communities, and other area organizations

Work will have to take the scope of existing initiatives into account, such as the BC Agriculture & Climate Change Regional Adaptation Strategies (with its focus on sustainable water use practices) and the COEDC, which provides a range of supports for agricultural businesses and industry.

RGS Policies Covered:

- 3.2.2 Our Economy – Policies 2, 3, 9 &11
- 3.2.5 Our Food – Policy 1 and, depending on content, may support several others

Prioritization:

- While agriculture is an important policy area, this project has little existing momentum and would require work to build buy-in and define scope
- May provide valuable background information for the Employment Lands Inventory (Project 9)

Implementation:

- **Budget**
    - Approximately $70,000, but may vary depending on scope (~$40,000 to $90,000)[2]

- **Partnerships**
    - RDCO
    - City of Kelowna
    - City of West Kelowna
    - District of Lake Country
    - District of Peachland
    - Westbank First Nation
    - Okanagan Indian Band
    - Central Okanagan Economic Development Commission
    - Agricultural Land Commission (ALC) and Ministry of Agriculture actively support local government initiatives to develop Agricultural Area Plans
    - Farming and agricultural industry organizations

Examples from other jurisdictions:

- Regional District of North Okanagan, Regional Agricultural Plan (~$70,000)
- Metro Vancouver Regional Food System Strategy
- Metro Vancouver Regional Food System Action Plan
- "Growing our Future Together" – The Regional District of Nanaimo Agricultural Area Plan
- Sunshine Coast Regional District Agricultural Area Plan
- Squamish Lillooet Regional District: Area 'C', Pemberton Valley Agricultural Area Plan; Area 'B', Lillooet & St'at'imc Agricultural Area Plan
- Alberni Valley Agricultural Area Plan

[2] Budget range from discussion notes on Agricultural Area Plans during 2011 "Agricultural Advisory Committee Provincial Workshop"

2021: Year 5 Projects

9) Regional Employment Lands Inventory

Description and Rationale: A key aspect of supporting sustainable and resilient economic development in the region is ensuring the availability of appropriate and adequately serviced employment supporting lands, including commercial, industrial, office and institutional land. While the economy and the nature of work can change in unexpected ways in the long term (and likely will, given technological advancements and trends toward home-based business and working remotely), tracking demand on different types of employment land will help planners and decision-makers adapt to these changes and stay competitive in a larger marketplace. For example, if the majority of available industrially zoned or designated land is built out, it may prompt a closer examination at how existing lands can be intensified, or whether new land would need to be annexed or excluded from the ALR.

Further, as economic activity crosses municipal boundaries, this is most appropriately done at the regional scale. The more effectively transportation integrates the communities in the region, the more employment land becomes a common resource. An up-to-date registry could support the work of the RDCO's Economic Development Commission (COEDC) in attracting investment and helping local businesses expand.

A Regional Employment Lands Inventory would also provide a foundation for a Regional Employment Lands Strategy, coordinating action at the local level, and development of tools to support prospective new business and investors to explore the region's assets and identify sites that may meet their needs.

An Regional Employment Lands Inventory will likely include the following components:

- Inventory of all commercial, industrial, office and institutional land (vacant and occupied)
- A market assessment and projected demand for all employment land types
- Estimated absorption rates and future supply (in years) for all employment land types
- Identification of impending shortages by location and use type
- A database of all lands by site, zoning, available servicing, and local government contacts

Work would include a significant technical component and consultation with key stakeholders in the commercial real estate sector.

RGS Policies Covered:

- 3.2.1 Our Land - Policies 1, 4, 6, 13
- 3.2.2 Our Economy- Policies 1 & 3

Prioritization Rationale:

- Should come after the Regional Agricultural Strategy (Project 8), as it will provide valuable background information for the exploration of industrial and other employment lands.

Implementation:

- **Budget**
  - ~$50,000
- **Partnerships:**
  - RDCO
  - City of Kelowna
  - City of West Kelowna
  - District of Lake Country
  - District of Peachland
  - Westbank First Nation
  - Okanagan Indian Band
  - Central Okanagan Economic Development Commission
  - Okanagan Mainline Real Estate Board

Examples from other Jurisdictions:

- Regional District of North Okanagan Employment Lands Inventory and Action Plan
- Regional District of Nanaimo Industrial Land Supply and Demand Study (RFP budgeted $50,000)
- Metro Vancouver Industrial Lands Inventory

5. Funding

Research was conducted to identify funding opportunities to support implementation of the RGS Priority Projects Plan. Where opportunities were found, a description of the program was provided, along with funds available and application deadlines. The following sources were reviewed:

- PlanH – Health Communities Capacity Building Fund – Round Three
- Real Estate Foundation of BC – Various Programs
- BC Hydro Power Smart – Community Energy and Emissions Planning
- Investment Agriculture Foundation of BC – Agricultural Area Planning Program
- Government of B.C. – Grow Local Program
- Canadian Housing and Mortgage Corporation - Affordable Housing Grants and Loans
- Vancouver Foundation – Field of Interest Grants
- Western Diversification Fund
- Southern Interior Development Trust Initiative

Many of the funding programs reviewed were not applicable to the types of projects included in this plan. Planning activities are not typically the subject of non-profit funding programs. Often, funding opportunities prioritized activities that may result from one of the priority projects, not the projects themselves. For example, there are a number of opportunities for affordable housing initiatives that may come out of a Regional Housing Strategy. As such, funding opportunities were not identified for all projects.

It is also important to note that as many funding programs – especially from the provincial and federal governments – may only be available for a defined period. As such, for projects identified near the end of the five-year action plan (i.e., in 2020 or 2021), new funding opportunities may arise that do not exist now. Where potential sources of new funding are anticipated, these have been indicated.

Projects #3 and #6: Regional Housing Needs Assessment and Regional Housing Strategy

Real Estate Foundation of BC: Built Environment Sustainability

Description: Under the "Built Environment Sustainability" grant program, the REFBC has four priority areas, one of which is housing, including projects on "[h]ousing research, education, legislation, policies, programs, and financial mechanisms that help communities meet their full spectrum of housing needs related to age, access and affordability." Both the regional housing needs assessment and regional housing strategy fit aspects of this description.

Eligible Costs: Grants are typically provided for costs related to human resources needs, including project coordination and management, consultant fees, communications, travel, production of education materials, workshop delivery and community consultation.

Funds: The program supports small, grassroots projects ($2000 - $20,000) as well as larger initiatives ($300,000). As a rule, REFBC support will not exceed 50% of the cash portion of the

project budget, or 33% of the total budget (including in-kind donations), whichever is less. The REFBC expects that other logical partners will be approached for cash or in-kind support.

Similar Projects Funded:

- City of Williams Lake received $15,000 to assist with regional housing need and demand analysis research.
- The Community Social Planning Council of Greater Victoria received $20,045 to evaluate the CRD's affordable housing strategy and identify specific opportunities for affordable housing development.

Deadline: There are two applications per year. The next application is September 6, 2017 with decisions to be made in December 2017 and March 2018.

Government of Canada: National Housing Strategy

To be completed in 2017, it is expected that the National Housing Strategy may result in the establishment of relevant funding programs. A summary of findings from the consultation process conducted in 2016 can be found at letstalkhousing.ca.

Projects #4 and #5: Regional Growth Strategy Monitoring Program and Regional Citizen Survey

Real Estate Foundation of BC: Sustainable Land Use

Description: The "Integrated Sustainability Planning" is a long-term vision based grant program supports community partners involved in the development, implementation and monitoring of a plan in small and large rural communities, neighbourhoods and regions. As such, the program may be a match for development of an RGS Monitoring Program, Regional Citizen Survey or both.

Eligible Costs: Grants are typically provided for costs related to human resources needs, including project coordination and management, consultant fees, communications, travel, production of education materials, workshop delivery and community consultation.

Funds: The program supports small, grassroots projects ($2000 - $20,000) as well as larger initiatives ($300,000). As a rule, REFBC support will not exceed 50% of the cash portion of the project budget, or 33% of the total budget (including in-kind donations), whichever is less. The REFBC expects that other logical partners will be approached for cash or in-kind support.

Similar Projects Funded:

- Regional District of North Okanagan received $76,400 to develop a comprehensive monitoring and evaluation program for its recently adopted Regional Growth Strategy. Part of this work involved a regional Quality of Life Survey delivered to regional citizens.

Deadline: There are two applications per year. The next application is September 6, 2017 with decisions to be made in December 2017 and March 2018.

Project #8: Regional Agricultural Strategy

Real Estate Foundation of BC: Local and Sustainable Food Systems

Description: The "Local and Sustainable Food systems" grant program supports projects in land planning, development of policy and regulation, as well as mapping and feasibility studies. While all four priorities of this grant program may apply to outputs of a regional agricultural strategy, aspects of the "Knowledge Sharing" priority area may apply to components of the strategy development process, including information gathering and mapping, or engagement.

Eligible Costs: Grants are typically provided for costs related to human resources needs, including project coordination and management, consultant fees, communications, travel, production of education materials, workshop delivery and community consultation.

Funds: The program supports small, grassroots projects ($2000 - $20,000) as well as larger initiatives ($300,000). As a rule, REFBC support will not exceed 50% of the cash portion of the project budget, or 33% of the total budget (including in-kind donations), whichever is less. The REFBC expects that other logical partners will be approached for cash or in-kind support.

Similar Projects Funded:

- City of Kelowna received $20,000 for an update to the Kelowna Agricultural Plan which will include extensive land mapping and consultation with community members.
- City of Campbell River received $12,900 to develop an interactive online food map showing where local food is grown, sold and served, and where land is available for small-scale farming.
- Community Future of Central Kootenay received $40,000 to create a Regional Food Policy Council in the Regional District to develop and implement a coordinated regional food systems strategy.

Deadline: There are two applications per year. The next application is September 6, 2017 with decisions to be made in December 2017 and March 2018.

Investment Agriculture Foundation of BC: Agricultural Area Planning Program

Description: The Agricultural Area Planning Program supports projects that enable the development of agricultural area plans within British Columbia municipalities and regional districts. While the focus is on "Agricultural Area Plans", funding can also be used to carry out agriculture viability studies, develop agriculture strategies, conduct arability studies and carry out foodshed analyses, as well as the implementation of specific activities at a community or regional level. As such, a regional agricultural strategy or components of developing one are eligible for program funding.

Eligible Costs: Further details about eligible costs and requirements must be obtained through contacting IAFBC staff directly.

Funds: Will fund up to 50% cash costs of an agricultural area plan project, up to a maximum of $45,000.

Similar Projects Funded:

- The Regional District of Columbia Shuswap received $24,436 to develop an Agricultural Strategy for the Shuswap.
- The Regional District of Bulkley-Nechako received $11,200 to prepare an Agricultural Land Use Inventory (ALUI).

Deadline: There are two application deadlines in 2017: April 13th and July 7th. Information about future years of the program is not provided.

Appendix A: Documents Reviewed

Regional Level Plans/Initiatives

- RDCO Regional Growth Strategy Bylaw No. 1336, 2013
- Central Okanagan Economic Development Commission Strategic Plan, 2013
- Central Okanagan Clean Air Strategy, 2015
- Transit Future Plan - Central Okanagan Region, 2012
- Regional Strategic Transportation Plan - Phase 1 Pre-Planning Report, 2014
- Central Okanagan - Regional Active Transportation Master Plan, 2012
- A Biodiversity Conservation Strategy for the Okanagan Region, 2014
- Okanagan Wetlands Strategy, 2014
- Okanagan Ground Water Monitoring Project, 2013
- Sustainable Water Strategy Action Plan 1.0, 2013
- Sustainable Transportation Partnership Central Okanagan
- Regional District of Central Okanagan Agriculture Plan, 2005
- RDCO Regional Parks Services Strategic Service Plan 2011- 2016
- A Central Okanagan Regional Parks Legacy Program, Ten Year Park Land Acquisition Strategy (2007 – 2017)
- Regional District of Central Okanagan Strategic Priorities Plan 2015-2018
- BC Agriculture & Climate Change Regional Adaptation Strategies, 2015

Background documents to RGS Bylaw No. 1336

- RGS - Preliminary Consultation Process, 2011
- Background and Issues Report, 2011
- Regional GHG Emissions Model of RDCO's RGS (presentation), 2011
- Regional GHG Emissions Model and Technical Report, 2011
- RGS Youth Survey, Research and Summary, 2012
- Economic Development Discussion Paper, 2012
- Environmental Protection Discussion Paper, 2012
- Housing Discussion Paper, 2012
- Parks & Open Space Discussion Paper, 2012
- Transportation & Mobility Discussion Paper, 2012
- Water Resources, Lakes & Streams Discussion Paper, 2012
- Aggregate Supply and Demand Study, 2013
- RGS Growth Options Consultation, 2012

Member municipalities

- District of Lake Country Integrated Community Sustainability Plan, 2014
- District of Lake Country OCP, 2010
- District of Lake Country Economic Development Strategy and Workplan, 2013
- District of Peachland Corporate Strategic Plan 2015-2018
- City of West Kelowna 2016-2018 Strategic Plan
- District of West Kelowna Economic Development & Tourism Strategy, 2016
- District of West Kelowna Recreational Trails Master Plan, 2013
- A Cultural Development Plan for the City of West Kelowna, 2013
- District of West Kelowna Transportation Master Plan, 2014

- District of West Kelowna Agriculture Plan, 2011
- District of West Kelowna Official Community Plan, 2011
- Westbank Centre Agriculture Plan, 2015
- City of Kelowna Pedestrian and Bicycle Infrastructure Plan, 2016
- Kelowna 2030: Greening our Future (OCP), 2011
- City of Kelowna Housing Strategy, 2012
- City of Kelowna Healthy City Strategy, 2016
- City of Kelowna Healthy City Strategy – Community for All Plan, 2016

Electoral Areas

- Brent Road - Trepanier OCP, 2012 (within Central Okanagan West Electoral Area)
- Ellison OCP, 2006 (within Central Okanagan East Electoral Area)
- Rural Westside OCP, 2010 (within Central Okanagan West Electoral Area)
- South Slopes OCP, 2012 (within Central Okanagan East Electoral Area)
- Joe Rich RLUB, 2007 (within Central Okanagan East Electoral Area)

First Nations

- Westbank First Nation Government Strategic Plan 2013-2016
- Westbank First Nation Community Economic Development Plan, 2010
- Okanagan Indian Band Strategic Plan, 2012
- Okanagan Indian Band Chief and Council Strategic Plan 2014-2018
- Westbank First Nation Community Plan, 2015
- Westbank First Nation Government Economic Development Commission Strategic Plan 2016-2019

Other Agencies

- Interior Health Strategy Map
- Interior Health - Charting the Course: Interior Health's Planning Principles and Strategies for Change, 2012
- Central Okanagan School District #23, Long-term Facility Plan
- Ministry of Transportation Central Okanagan Planning Study, Consultation Companion, 2015

Annuals Reports and Studies

- City of Kelowna OCP Indicators Report, 2016
- City of West Kelowna 2015 Annual Report
- City of Kelowna Annual Report, 2015
- District of Lake Country 2015 Annual Report
- District of Peachland 2016 Annual Report
- District of Peachland Economic Impact Analysis of Major Development Projects in Peachland, 2012
- Westbank First Nation Annual Report 2014/2015
- Okanagan Indian Band Annual Report 2011/2012
- Provincial Agricultural Land Commission Annual Report 2015-2016
- Central Okanagan Economic Profile for Agriculture, 2015
- Westside Trail Technical Brief, Sustainable Transportation Partnership of the Central Okanagan, 2016
- RDCO Annual Reviews, 2015 and 2016

This page left intentionally blank.

Five-Year Action Plan Summary and Timeline

#	Project	2017	2018	2019	2020	2021
1	Regional Flood Management Plan: Phases 2 and 3					
2	Regional Planning Lab					
3	Regional Housing Needs Assessment					
4	Regional Growth Strategy Monitoring Program					
5	Regional Citizen Survey					
6	Regional Housing Strategy					
7	Regional Growth Strategy Five-year Review					
8	Regional Agricultural Strategy					
9	Regional Employment Lands Inventory					

Dark green indicates one-time projects of limited duration; light green indicates projects that, once initiated, will be ongoing or recurring.

Five-Year Action Plan Summary - Status Update

#	Project	
1	Regional Flood Management Plan	Phase 2 Complete Phase 3 In progress
2	Regional Planning Lab	Ongoing
3	Regional Housing Needs Assessment	Complete
4	Regional Growth Strategy Monitoring Program	Complete
5	Regional Citizen Survey	2021
6	Regional Housing Strategy	2021
7	Regional Growth Strategy Five-year Review	Regional Board to decide whether or not to undertake this project - 2021
8	Regional Agricultural Strategy	TBD
9	Regional Employment Lands Inventory	TBD

Other

Central Okanagan Poverty and Wellness Strategy	In progress
Okanagan Lake Responsibility Planning Initiative	In progress
Next Five-Year Action Plan	TBD

Governance & Services Committee

TO: Governance and Services Committee

FROM: Murray Kopp
Director – Parks Services

DATE: February 3, 2021

SUBJECT: RDCO Parks Community Wildfire Protection Plan (CWPP) 2020 Update

---

Purpose: The purpose of this report is to present the updated (2020) RDCO Parks Community Wildfire Protection Plan (CWPP).

Executive Summary:

In 2019, RDCO staff applied to the Community Resiliency Investment (CRI) program for funding to update the Regional Parks Operational Wildfire Protection Plan created in 2010 by B.A. Blackwell and Associates. The RDCO Parks Department was successful in a CRI application and the RDCO was granted $30,000 to complete the project. Cabin Resource Management was the consultant selected to prepare the updated report.

The 2020 Updated Community Wildfire Protection Plan (CWPP) includes 35 recommendations for improvements in areas of fuel management, FireSmart initiatives, community education, park infrastructure and wildfire response.

This final report is being presented to the Committee and Regional Board as part of the conditions associated with the grant. Staff will be operationalizing the recommendations in the CWPP in the coming years.

RECOMMENDATION:

THAT the Governance and Services Committee recommend that the Regional Board receive the RDCO Parks Community Wildfire Protection Plan (2020) as prepared by Cabin Resource Management.

Respectfully Submitted:

Murray Kopp, Director - Parks Services

Approved for Committee's Consideration

Brian Reardon, CAO

Prepared by: Cathy MacKenzie, RPF, Parks Natural Resource Technician/Volunteer Coordinator

Implications of Recommendation:

Strategic Plan:	Wildfire protection and mitigation strategies support the following priorities in the RDCO Strategic Plan: Climate Change and Hazard Management
Financial:	UBCM Community Resiliency Investment funding provided 100% of the funding for this project

Background:

In 2010, the RDCO developed two Community Wildfire Protection Plans (CWPP). The first was a Regional CWPP which covered the Electoral Areas and focused on the region-wide issues. The second was a Regional Parks CWPP and focused on prioritizing fuel management treatments in RDCO Parks. Both projects were overseen by Parks Services staff. Due to the similar names of the documents (Regional CWPP vs Regional Parks CWPP), for clarity sake, the Parks document was renamed an Operational Wildfire Protection Plan (OWPP) as it was the document that Parks had the ability to make operational on the lands they had management over. The Parks Community Wildfire Protection Plan 2020 Update presented here, is an update of the 2010 RDCO Parks OWPP. In this report, the 2010 report will use the terminology OWPP and all references to the 2020 report will refer to CWPP.

The 2010 OWPP outlined fuel management activities to treat high risk fuel areas within RDCO parks. Since the release of the 2010 version, many of the fuel management activities have been completed. Additionally, since that time, fuel types have changed, fuel loading has increased, new park acquisitions have resulted in the increase of Wildland Urban Interface (WUI), forest health issues have arisen and numerous severe wildfire seasons have occurred. As well, the population of the Central Okanagan has grown and residents are more aware of wildfire risks. For these reasons, an update to the 2010 OWPP was deemed necessary.

The Community Resiliency Investment (CRI) program is a provincial program intended to reduce the risk and impact of wildfire to communities in BC through community funding, supports and priority fuel management activities. In 2019, Parks applied to the CRI program and were approved for 100% funding in the amount of $30,000.00 to complete the update to the 2010 OWPP. Cabin Resource Management was selected to prepare the report.

The final report, RDCO Parks Community Wildfire Protection Plan (2020) provides 35 recommendations to increase public safety and decrease community vulnerability. These recommendations focus on improvements in areas such as fuel management, FireSmart initiatives, community education, park infrastructure and wildfire response. The report provides a priority ranking for fuel treatments in and around RDCO parks and includes a GIS based web map for use by staff when planning future treatments. The RDCO Parks CWPP (2020) is integral to future operational treatment funding applications from the CRI program.

Alternative Recommendation:

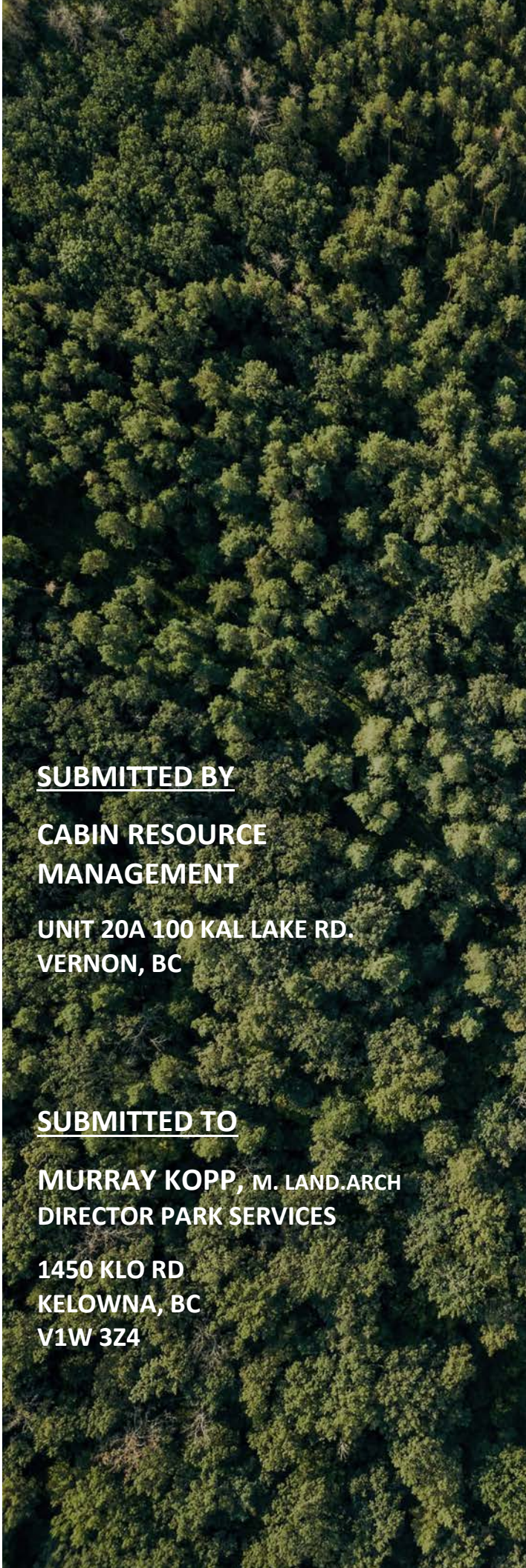
None recommended.

Attachment(s):

- RDCO Parks Community Wildfire Protection Plan (CWPP) Final Report (2020)

REGIONAL DISTRICT OF CENTRAL OKANAGAN

Parks Community Wildfire Protection Plan



SUBMITTED BY

CABIN RESOURCE MANAGEMENT

UNIT 20A 100 KAL LAKE RD.
VERNON, BC

SUBMITTED TO

MURRAY KOPP, M. LAND.ARCH
DIRECTOR PARK SERVICES

1450 KLO RD
KELOWNA, BC
V1W 3Z4

ACKNOWLEDGMENTS

We are grateful for the support of RDCO and UBCM staff in the development of this report. This includes, but is not limited, to Brad Ackerman, Cathy MacKenzie, and Peter Ronald. We were further supported by members of FLNRORD's BC Wildfire Service staff including Mike Aldred, Dana Hicks, and Jessica Bockus. A special thanks to members of local municipalities and fire departments who provided input to the original 2010 CWPP and to this update. Additional acknowledgements go out to Aubin, Scout, Fern, and Marlin for providing support throughout this report development. The peer review team would like to acknowledge the hard work of Sidney Potter, Chris Sutton, and Kyle Broome for completing the bulk of this report.

EXECUTIVE SUMMARY

The Community Wildfire Protection Plan identifies the wildfire risks faced by a community and examines possible ways to reduce and mitigate those risks. Funded by the Community Resiliency Investment Program, the RDCO Parks CWPP is an update of the 2010 version. In addition to the RDCO Parks CWPP, a second CWPP was developed for the RDCO electoral areas. While both documents were CWPP's, having a Regional CWPP and a Regional Parks CWPP caused confusion and for clarity sake the Regional Parks plan was re-named an Operational Wildfire Protection Plan. Hereinafter, the 2010 version of the RDCO CWPP will be referred to as the "2010 RDCO Parks OWPP".

The 2010 RDCO Parks OWPP outlined fuel management activities to treat high risk fuel areas within the RDCO parks. Since the release of the 2010 version, many of these fuel management activities have been completed. However, since 2010, fuel types have changed, fuel loading has increased, and acquisitions increased total park area by almost 100 hectares. This expansion in area has resulted in the increase of wildland urban interface (WUI). Severe wildfire seasons have continued to occur since the release of the 2010 RDCO Parks OWPP. This CWPP is a response to the current and predicted future wildfire risks faced by RDCO Parks and provides recommendations on how to increase public safety and decrease community vulnerability.

This CWPP provides 35 recommendations for improvements from areas of fuel management, FireSmart initiatives, community education, park infrastructure, and wildfire response (Table 2). These recommendations are summarised and prioritised below. We recommend the RDCO begin with three actions that will act on several of the high priority recommendations.

FUEL TREATMENTS OF THE 4 HIGHEST PRIORITY AREAS IDENTIFIED IN THE CWPP. These areas represent the highest fire risk to values and should be treated first (Table 1). Funding is available through the Community Resiliency Investment program.

SUPPORTING, COORDINATING, OR ENCOURAGING MULTI-JURISDICTIONAL EMERGENCY EXERCISES. Wildfire response in RDCO Parks involves different municipalities and agencies and successful response depends on cooperation. There is benefit for continuing consistent discussion-based tabletop exercises as well as operations-based drills/functional exercises specific to wildfire response. These exercises should both serve as training exercises to refresh practical skills and as opportunities to improve response plans.

DEVELOP, COORDINATE, AND/OR PARTICIPATE IN A COMMUNITY FIRESMART RESILIENCY COMMITTEE. The RDCO already participates in coordinated emergency response. However, this CWPP AOI overlapped with several CWPP's and a patchwork of ongoing fuel treatment activities. We recommend this committee immediately assesses and mitigates landscape level wildfire risk across the entire region as well as coordinating FireSmart activities. RDCO Parks should continue its own wildfire preparedness activities regardless of the formation of this committee.

Table 1: High Priority Fuel Treatment Unit Recommendations.

FTU #	FTU Name	Area (ha)	Priority	Treatment Unit Type	Local Fuel Threat	Comments
KAL2	Kalamoir	18.6	High (61)	Polygon Treatment Area	Moderate	Treat to protect subdivision to N & W
LCG1	Lebanon Creek	28.4	High (61)	Polygon Treatment Area	Moderate	Treat to protect subdivision to N & park users/infrastructure
SCA1	Scenic Canyon	10.8	High (60)	Polygon Treatment Area	High	Treat to protect subdivisions to E & W & park users/infrastructure
SCR1	Stephens Coyote Ridge	36.8	High (60)	Polygon Treatment Area	Moderate	Treat to protect homes to E & park users/infrastructure. Adjacent to areas treated in 2014.

STATEMENT OF LIMITATIONS

This CWPP scope is limited to parkland managed by the RDCO. Given the current funding requirements and procedures, higher level wildfire planning for local governments is limited to Community Wildfire Protection Planning. While this plan meets the requirements of the UBCM 2018 CWPP Template, the main focus is on fuel management; a prioritized list of planned fuel treatment units with detailed treatment methodologies and regimes. All aspects of CWPP planning were assessed, but many areas are not directly relevant to the limited scope of this CWPP as it would pertain to a community-wide CWPP. This includes, but is not limited to, emergency response, evacuation routes, and critical infrastructure. A major recommendation from this CWPP is the formation of a Community FireSmart Resiliency Committee to assess, coordinate, implement, and improve wildfire planning across the region.

SUMMARY OF CWPP RECOMMENDATIONS

Table 2: Summary of CWPP Recommendations.

Rec ID#	Recommendation/ Next Steps	Priority	Funding Source/Responsibility
1	When planning for undeveloped parks, include a qualified professional with expertise in wildfire management to ensure strategic planning of trails and infrastructure.	High	Internal
2	Maintain mutual aid agreements with local fire departments to ensure coverage of RDCO parks.	High	N/A
3	Contact currently recognized FireSmart communities to confirm they have renewed their recognition status. Ensure documents outlining community's continued participation in FireSmart have been submitted.	Low	CRI Funding
4	Have a qualified professional with experience in operational wildland fire planning, prevention, and suppression review the Emergency Plan for wildfire preparedness prior to finalization.	Moderate	Internal
5	Test emergency plans through tabletop and live simulation exercises comprised of members of all jurisdictions.	High	CRI Funding
6	Conduct inter-jurisdictional review of CWPPs and identify opportunities for synergy amongst common action items, FireSmart initiatives, and proposed treatment areas.	High	CRI Funding
7	Update the 2015 Regional Parks Design Guidelines Document to include fire resistant construction materials, building design and landscaping approaches. Update General Design Parameters to include information on Emergency Egress Routes and First Responder Accessibility to create more readily defensible spaces within parks. Consider mandatory requirement of at least one 'Type 1: Major Multi-Use' Trail.	Moderate	Internal

Rec ID#	Recommendation/ Next Steps	Priority	Funding Source/Responsibility
8	Update the 2000 Central Okanagan Official Plan for the Regional Park System. Engage with qualified professionals experienced in wildfire planning and management during the update of this plan.	Moderate	Internal
9	When developing Regional Park Management Plans ensure that all applicable recommendations and action items in the CWPP are addressed.	High	Internal
10	Increase signage and updated map kiosks throughout parks. Properly place signs at all trailheads, trail connections, and decision-making points outlining most effective egress routes.	Low	Internal
11	Establish 'no campfire' signs and no smoking signs at all high use areas (picnic facilities, washrooms, infrastructure, beaches) and trail heads.	Low	Internal
12	Continue to assess and monitor number of visits for each park. Analyze data to determine most frequented park and utilize data to allocate funding accordingly.	Low	Internal
13	Reduce the risk of wildfire surrounding the facilities outlined in Section 3.2 Critical Infrastructure using the recommendations outlined in the FireSmart Begins at Home Manual. Use these facilities as FireSmart Demonstration Buildings to provide residents with examples of what houses in the WUI should look like.	Moderate	CRI funding
14	Communicate and coordinate with BC Hydro and Fortis BC to ensure utility right of ways within the AOI are maintained with best management practices.	Low	Internal
15	Make FireSmart informational materials readily accessible to RDCOs park users and local community members within the AOI. This includes providing FireSmart informational materials at park trail heads, kiosks and infrastructure such as the Mission Creek Regional Park Environmental Education Centre for the Okanagan. As well as using websites and social media platforms.	Low	CRI funding

Rec ID#	Recommendation/ Next Steps	Priority	Funding Source/Responsibility
16	Community signage should be established in parks where FTU treatments have taken place, providing pre and post treatment photographs, outlining FMP objectives and how fire behaviour will be impacted.	Moderate	CRI funding
17	Engage with those communities and neighbourhoods adjacent to the AOI and encourage the pursuit of the FireSmart Canada Neighborhood Recognition Program.	High	Internal/CRI funding
18	Provide FireSmart training to RDCO Parks Staff as Local FireSmart Representatives to work with groups and neighborhoods in planning and implementing FireSmart practices.	Moderate	Internal
19	Work with local First Nations to develop workshops and public events on the importance of wildfire in the landscape and cohabitating with fire.	Moderate	CRI funding
20	Advocate to provincial government to create permanent wildfire hazard mitigation building requirements under the BC Building Act	High	Internal
21	Update WDPA mapping to reflect wildfire risk mapping from this CWPP Updated. Update the Natural Hazards section of all OCPs overlapping with the AOI to specify: - A list of design criteria and construction materials that must be applied within DPAs - A list of Fire-Resistant plants and trees native and suitable to the area that must be applied within the DPAs - The mandatory establishment of residential sprinkler systems for homes in areas without hydrants or Fire Department Response Services that fall within WDPAs Create an enforcement process through bond collection to ensure requirements of WDPs are completed.	High	CRI Funding
22	Educate local industrial managers and businesses about FireSmart building design and promoting the use of fire-resistant building material. Specifically, educate contractors developing new subdivisions within or adjacent to the new AOI on relevant by-laws and FireSmart principles.	Moderate	Internal

Rec ID#	Recommendation/ Next Steps	Priority	Funding Source/Responsibility
23	Connect with Local Governments, First Nations, industry representatives, provincial agency staff, and local fire departments to coordinate the development of a Community FireSmart Resiliency Committee.	High	Internal
24	Apply for CFRC development and maintenance funding through the CRI program (CRI Activity #4 Interagency Cooperation).	High	Internal
25	Provide RDCO parks field staff with FireSmart 101 and Basic Wildland Fire Suppression and Safety Training (S-100 and S-185) training. Ensure FireSmart 101 training implementation during landscaping and maintenance activities.	High	CRI funding
26	Establish a Pre-Incident plan following the pre incident planning checklist provided in the 2021 CWRP Supplemental Instruction Guide. Pre-Incident planning should be implemented with cross-jurisdictional participation and executed in live simulation exercises to ensure efficiency.	Moderate	Internal
27	RDCO employees with expertise in wildfire mitigation and/or hired qualified professionals should assist local communities with FireSmart principles at the neighbourhood and home level.	Moderate	Internal
28	Develop and implement an Annual FireSmart Community day and provide access to debris disposal with RDCO or contractor crews. Conduct community FireSmart implementation days at neighbourhood levels during which a community chipper can be used.	High	CRI funding
29	Make this CWPP update available to all district residents, fire halls, industry representatives and the public at large. Post its publication on social media platforms and the RDCO website.	Moderate	Internal
30	A summary of the CWPP and its recommendations, wildfire risk maps and Homeowners FireSmart Manuals should be distributed to residents of communities outlined in the summary of FireSmart table.	High	CRI funding

Rec ID#	Recommendation/ Next Steps	Priority	Funding Source/Responsibility
31	Updated wildfire mitigation and resiliency activities should be incorporated into the RDCOs webpage as it occurs. Update the RDCO website to showcase ongoing FireSmart projects, new wildfire risk reduction projects, current community events, current wildfire risk, and updated educational resources.	Moderate	Internal
32	Develop and implement wildfire management and risk reduction interactive youth programs. Consider the use of the emergency preparedness curriculum and contacting local BCWS and FireSmart representatives to help with curriculum development and delivery. Implement these programs in RDCO parks and/or at the Environmental Education Centre for the Okanagan. Engage with local schools to adopt this program.	Moderate	CRI funding
33	Conduct annual Community Wildfire Preparedness Days.	Low	CRI funding
34	Construct and operate additional fire danger rating signs in those high-use parks currently without signage.	Low	Internal
35	Organize, host, or support wildland fire training exercises in partnership with BCWS and local fire departments.	High	CRI funding

CONTENTS

List of Tables

List of Figures

LIST OF ABBREVIATIONS

ABCFP: Association of British Columbia Forest Professionals

AOI: Area of Interest

BCWS: BC Wildfire Service

BEC: Biogeoclimatic Ecological Classification

BUI: Build Up Index

CDC: BC Conservation Data Centre

CFFBPS: Canadian Forest Fire Behaviour Prediction System

CFRC: Community FireSmart Resiliency Committee

CIIZ: Critical Infrastructure Ignition Zone

CRI: Community Resiliency Investment

FBP: Canadian Forest Fire Behaviour Prediction System

FLNRORD: BC Ministry of Forests, Lands, Natural Resource Operations, and Rural Development

FMP: Fuel Management Prescriptions or Fuel Management Plans

FWI: Fire Weather Index

HIZ: Home Ignition Zone

ISI: Initial Spread Index

LiDAR: Light Detection and Ranging

NDT: Natural Disturbance Type

OCP: Official Community Plan

OWPP: Operational Wildfire Protection Plan

OSLRMP: Okanagan Shuswap Land and Resource Management Plan

PSTA: Provincial Strategic Threat Analysis

RDCO: Regional District of Central Okanagan

RPF: Registered Professional Forester

UBCM: Union of BC Municipalities

VAR: Values at Risk

WDPA: Wildfire Development Permit Areas

WRR: Wildfire Risk Reduction

WUI: Wildland Urban Interface

SECTION 1: INTRODUCTION

This Community Wildfire Protection Plan (CWPP) provides the Regional District of Central Okanagan (RDCO) with actionable wildfire reduction planning objectives for their parks. This document identifies the wildfire risks in RDCO Parks and their surrounding area, describes the potential consequences of wildfire to the community, and recommends operational planning objectives. This update accounts for newly created parks, fuel management activities, and fuel type changes.

1.1 Purpose

The intent of this CWPP is to update the 2010 RDCO Parks OWPP and provide an outline of actionable wildfire mitigation measures for the area. Current wildfire risks both within and surrounding RDCO parks will be identified, potential wildfire consequences will be addressed, and wildfire risk reduction options and techniques will be described.

The goals of this CWPP are:

1. Create a WebMap that illustrates wildfire risk, fuel type, proposed treatment areas, and wildfire threat assessment plot locations within RDCO parks and its corresponding 2km buffer
2. Update the priority rating of parks based on need for treatment through determining their proximity to urban interface, wildfire hazard rating, treatment intricacy, and values
3. Summarize implemented recommendations from the previous operational plan
4. Summarize new treatment recommendations for each park and estimate associated treatment costs
5. Promote community engagement and education through FireSmart and communication initiatives

The expected outcomes from realizing these goals are:

1. Reduce the negative social, economic, and environmental impacts of wildfire on RDCO parks
2. Create more defensible and resilient space in RDCO parks
3. Reduce wildfire occurrence and likelihood in RDCO parks
4. Protect human life and critical infrastructure

1.2 CWPP Planning Process

The successful development of this CWPP hinges on a detailed planning process. The following phases outline Cabin's development process.

'PROJECT DATA COMPILING AND RELEVANT DOCUMENT REVIEW AND COMPILATION' PHASE

This phase involved creating the WebMap geodatabase, processing LiDAR data for the RDCO, analyzing shapefiles for the 2010 RDCO Parks OWPP maps, and compiling PSTA data package for the AOI. Digitized Wildfire Threat Assessment worksheets were also collected in the field.

Relevant documents were reviewed prior to the commencement of the consultation and liaison phase. These documents included, but are not limited to, the 2010 RDCO Parks OWPP, FLNRORD district guidance documents, RDCO wildfire bylaws, RDCO Official Community Plans, RDCO Forest Health Strategy – Regional Parks, and the RDCO Parks and Recreation Department Fuel Management Strategy.

'CONSULTATION AND LIAISON' PHASE

Meetings with key local government representatives took place during this phase. Key local government representatives included members from the RDCO, BCWS, BC Parks, and FLNRORD. Contact with jurisdictions adjacent to and overlapping with the AOI including the City of West Kelowna, the City of Kelowna, the District of Peachland, and the District of Lake Country occurred to ensure continuity in fuel treatments and to identify plans through which synergies can be made.

'FIELD WORK' PHASE

This phase includes the planning and implementation of field work. Throughout the AOI, wildfire threat, fuel type and surface fuel loading assessments were conducted. Planning of fieldwork included the creation of maps, and establishing wildfire threat and fuel assessment sampling plans. Alongside the creation of a sampling plan, a geodatabase was established with fillable wildfire hazard assessments as per UBCM guidelines.

'CWPP DEVELOPMENT' PHASE

The CWPP was developed through analyzing all data and information compiled in phases the above 3 phases. The outcome of this phase was a spatial map illustrating the wildfire hazards for each of the parks in the RDCO. The map shows the following information:

- Wildfire risk
- Fuel Type
- Fuel Treatment Units and their corresponding treatment specifications

Using the resulting spatial product, a risk management strategy was developed to rank the AOI based on treatment priority. Treatment priority was determined using the Priority Setting wildfire threat assessment worksheet.

Alongside the risk management strategy, a summary of new recommended treatments for the RDCO parks is outlined. These are prioritised based on the outcomes the risk assessments.

SECTION 2: LOCAL AREA DESCRIPTION

To effectively plan for wildfire mitigation activities, it is necessary to understand the dynamics between a community and its surrounding environment in terms of wildfire hazard, wildfire threat, and risk of loss. This section provides information on the area of interest (AOI) including a geographical definition of the AOI, current community engagement, historical wildfire incidences, and linkages to other plans.

Figure 1: Dead standing trees in John's Family Nature Conservancy from the 2003 Okanagan Mountain Fire.

2.1 CWPP Area of Interest

The AOI for the RDCO Parks CWPP is unique in that it spans 49 parks over a wide geographic area, from Peachland to Lake Country. The AOI extends further to include the WUI, a 2km buffer around the parks made up of RDCO land and crownland. The entirety of the AOI spans 9,468ha.

As of 2016, 194,882 people live within the RDCO and in 2019, 849,000 visits were documented within the parks (Stats Canada, 2016). The 49 RDCO parks include regional parks, Westside Community parks, and Eastside Community parks making up 2100ha of the central Okanagan (RDCO, 2019a). Parks assessed include the following:

1. Kaloya Regional Park (KYA)
2. Kopje Regional Park (KOP)
3. Okanagan Centre Safe Harbour Regional Park (OCH)
4. Reiswig Regional Park (REI)
5. Bertram Creek Regional Park (BCR)
6. Johns Family Nature Conservancy Regional Park (JFN)
7. Robert Lake Regional Park (RLA)
8. Stephens Coyote Ridge Regional Park (SCR)
9. Woodhaven Nature Conservancy Regional Park (WNC)
10. Lebanon Creek Greenway Regional Park (LCG)
11. KLO Creek Regional Park (KLO)
12. Scenic Canyon Regional Park (SCA)
13. Mission Creek Regional Park (MIC)
14. Mission Creek Greenway Regional Park (MCG)
15. Goats Peak Regional Park (GPE)
16. Star Community Park* (SCP)
17. Gellatly Heritage Regional Park (GHE)
18. Gellatly Nut Farm Regional Park (GNF)
19. Kalamoir Regional Park (KAL)
20. Raymer Bay Regional Park (RBA)
21. Traders Cove Regional Park (TCO)
22. Rose Valley Regional Park (RVA)
23. Glen Canyon Greenway Regional Park (GCG)
24. Shannon Lake Regional Park (SLA)
25. Cinnabar Creek Community Park (CCW)
26. Fintry Access #1 Community Park (FA1)
27. Fintry Access #2 Community Park (FA2)
28. Killiney Beach Community Park (KBE)
29. Killiney Community Hall (KCH)
30. Pine Point Community Park* (PPP)
31. Bouleau Lake Community Park* (BLG)
32. Westshore Estates Community Park (WEC)
33. McCulloch Station Regional Park* (MST))
34. Black Mountain-sntsk'il'ntən Regional Park (BMO)
35. Mill Creek Regional Park (MCR)
36. Ellison Primary Community Hall (EPR)
37. Lakeshore Road Community Park (LRC)
38. Scotty Creek Community Park (SCC)
39. Ellison Estates Trail Community Park* (EET)
40. Sunset Ranch Community Park* (SRC)
41. Joe Rich Community Hall Park (JRC)
42. Three Forks Community Park (TFC)
43. Daves Creek Corridor Community Park (DCC)
44. Philpott Trail Community Park (PTC)
45. Jack Creek Linear Trail Community Park* (JCL)
46. Antlers Beach Regional Park (ABE)
47. Hardy Falls Regional Park (HFA)
48. Trepanier Creek Greenway Regional Park (TCG)
49. Coldham Regional Park* (COL)

*undeveloped parks

REC ID	Action Item
1	When planning for undeveloped parks, include a qualified professional with expertise in wildfire management to ensure strategic planning of trails and infrastructure.

2.2 Community Description

Local infrastructure is variable due to the wide geographic area that the RDCO parks encompass. Infrastructure within parks includes trails, an environmental education centre, picnic shelters, boardwalks, view platforms, bridges, staircases, historical sites, community halls, washroom facilities, playgrounds, and outbuildings. Existing evacuation and egress routes within the parks include well established trail systems and emergency vehicle accesses within most parks. RDCO Parks staff put on a

variety of programs in the parks including guided hikes, nature programs, school programs, and special events.

Economic drivers within the RDCO as of 2011 include (RDCO, 2012):

- Goods-producing sectors (agriculture, natural resources, energy, utilities, construction, and manufacturing) comprise 21.61% of jobs in the region
- Service sectors (retail, health care, social assistance, food services) comprise 78.39%of jobs in the region

The RDCO is protected by 4 fire departments within designated fire protection areas including, Ellison Fire Department, Joe Rich Fire Department, North Westside Fire Rescue, and Wilson's Landing Fire Department. An Emergency Mutual Aid Agreement between the RDCO, City of Kelowna, District of Peachland, City of West Kelowna, and District of Lake Country allows for fire departments within the RDCO to share firefighting services, apparatus, and personnel upon request (RDCO, n.d.).

REC ID	Action Item
2	Maintain mutual aid agreements with local fire departments to ensure coverage of RDCO parks.

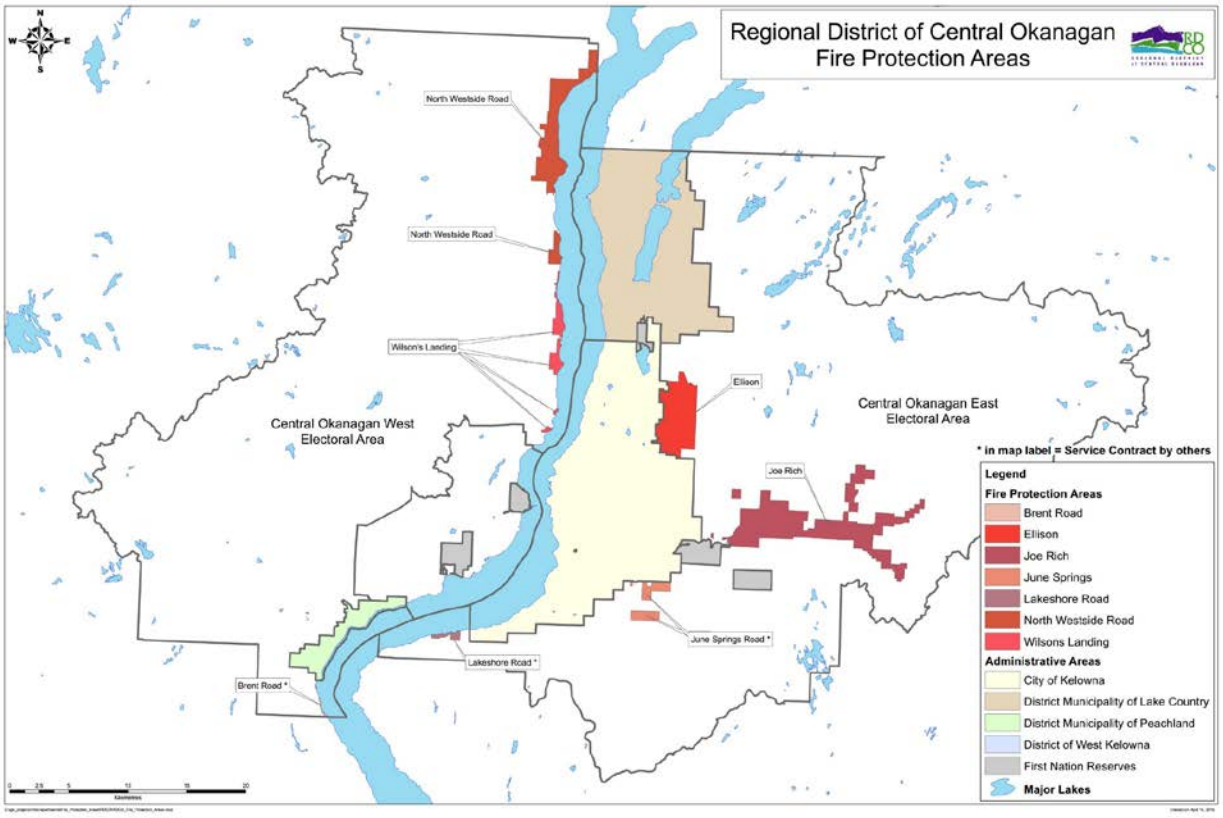


Figure 2: Regional District of Central Okanagan Fire Protection Areas (RDCO, n.d.)

2.3 Past Wildfires, Evacuations, and Impacts

Wildfire is an integral part of the ecosystems and landscapes that make up the AOI. Increased fire suppression and exclusion over the past century has led to an increase in fire severity and significantly destructive fire seasons. Three notable fires that impacted the AOI include:

- The Okanagan Mountain Park Wildfire in 2003 which impacted 5 regional parks: Bertram Creek, Lakeshore Road, Woodhaven Nature Conservancy, John's Family Nature Conservancy, and Lebanon Creek Greenway. The 2003 wildfire season has been dubbed one of the most significant interface wildfire events in the history of BC. Of the 265,000ha burned in BC during the 2003 fire season, Okanagan Mountain Park Wildfire contributed 25,635.6ha, destroying 239 homes and forcing 45,000 residents to evacuate. Consistent winds, dry fuels, and lightning resulted in the ignition and growth of the fire. This fire cost $200 million in damages (K. G. Hirsch & Fuglem, 2006).
- The 2009 Glenrosa fire, forced more than 11,250 residents to flee their homes in West Kelowna. The fire grew rapidly due in part to high temperatures of 37˚C and 70km/hr winds that pushed it to encompass over 300ha, including both Goats Peak and Gellatly Heritage Park. Four homes were lost (Price, 2011).
- The 2017 fire, also known as the Joe Rich fire, contributed 489ha of the 1,216,083ha burned in the 2017 fire season, going down in history as the most extensive number of hectares burned in a wildfire season since 1950. 1,100 residents were evacuated within Joe Rich and no structures were lost (Kelly, 2017).

The following table outlines major fires that occurred within the southern interior of BC in proximity/adjacent to the AOI.

Table 3: Major Fires.

Year	Fire Name	Size (ha)	Evacuation Order/Alert	Information on Impact
2009	Terrace Mountain	9,277	1,550 people evacuated 2,500 properties on alert	Part of the 2009 $382.1 million BC wildfire season
2009	Rose Valley Dam	200	8,000 people evacuated	Part of the 2009 $382.1 million BC wildfire season
2011	Bear Creek	40	550 people evacuated	Part of the 2011 $53.5 million BC wildfire season
2012	Trepanier Creek	200	1,550 people evacuated	3 homes and several buildings were destroyed by the fire Post Forest Fire Rehabilitation and Park assessment project for the Regional Park Part of the $133.6 million BC wildfire season

Year	Fire Name	Size (ha)	Evacuation Order/Alert	Information on Impact
2014	Smith Creek	280	2,900 people evacuated	Part of the $ 297.9 million BC wildfire season
2015	Westside Road	560	70 properties evacuated	100 homes lost BC Hydro service Part of the 2015 $277.0 million BC wildfire season
2016	Bear Creek	53	468 evacuated	Part of the 2016 $129.0 million BC wildfire season
2017	Philpott Road	465	1,100 evacuated	No structures lost Part of the 2017 $649.0 million BC wildfire season
2017	Okanagan Centre	55	330 properties evacuated 650 properties on alert	8 homes were lost Part of the 2017 $649.0 million BC wildfire season
2017	Elephant Hill	191,865	Village of Cache Creek and multiple Thompson-Nicola RD Electoral Areas evacuated	Over 120 homes were destroyed by the fire Provincial state of emergency Part of the 2017 $649.0 million BC wildfire season

2.4 Current Community Engagement

Throughout the RDCO park employees and users recognize the threat of wildfire and support hazard mitigation activities such as those described in this document. The RDCO has taken steps to reduce wildfire hazard within their parks through supporting the development and implementation of fuel management plans (FMPs) recommended in the 2010 RDCO Parks OWPP. The RDCO developed and implemented FMPs in Scenic Canyon, Kalamoir, Coldham, Stephen's Coyote Ridge, Mill Creek, Rose Valley, Glen Canyon, Trepanier Creek Greenway, and Black Mountain-sntsk'il'ntən parks based off of the 2010 CWPP. Prior to the development of the 2010 RDCO Parks OWPP, an FMP was developed and implemented in Mission Creek Greenway. The communities of District of Peachland, Okanagan Centre Community in Lake Country (2019), Carr's Landing Community in Lake Country and Gallagher's Canyon (2016-2018) took steps to become recognised FireSmart communities (FireSmart, 2020).

REC ID	Recommendation/Action Item
3	Contact currently recognized FireSmart communities to confirm they have renewed their recognition status. Ensure documents outlining community's continued participation in FireSmart have been submitted.

2.5 Linkages to Other Plans and Polices

Existing plans that touch on fire, emergency, and resource policies and management were reviewed for the CWPP update. This includes emergency plans, other CWPP's, local bylaws, previous FMP's, high level natural resource plans, and provincial legislation. This ensures consistency between higher level plans, avoids information duplication, and identifies opportunities to synergize.

2.5.1 Local Authority Emergency Plan

The Kelowna Fire Department administers the Central Okanagan Regional Emergency Plan to support surrounding local governments including City of Kelowna, District of Lake Country, District of Peachland, City of West Kelowna, Westbank First Nation, and the Regional District of the Central Okanagan electoral areas. This plan has multiple objectives that include:

- Assists emergency personnel responding to disasters and emergencies such as wildfires, floods, plane crashes, etc.
- Establishes a central organization that coordinates responses and assess emergencies to determine the best way to share regional resources and requests assistance from provincial and federal governments
- Guides recovery and restoration operations post-emergency

REC ID	Recommendation/Action Item
4	Have a qualified professional with experience in operational wildland fire planning, prevention, and suppression review the Emergency Plan for wildfire preparedness prior to finalization.
5	Test emergency plans through tabletop and live simulation exercises comprised of members of all jurisdictions.

2.5.2 Affiliated CWPPs

Jurisdictions adjacent to RDCO parks include the City of West Kelowna, the City of Kelowna, the District of Peachland, and the District of Lake Country. Each of these jurisdictions have completed their own respective CWPP. Opportunities to collaborate on strategic wildfire planning should be pursued. Benefits of collaboration include shared costs of wildfire planning, greater access to funding sources, and the ability to strategically plan at a landscape level. Each CWPP for the adjacent jurisdictions was reviewed to avoid duplication and identify opportunities for collaboration.

REC ID	Recommendation/Action Item
6	Conduct inter-jurisdictional review of CWPPs and identify opportunities for synergy amongst common action items, FireSmart initiatives, and proposed treatment areas.

2.5.3 Local Government and First Nation Plans and Policies

Local Government and First Nations plans, polices and bylaws that impact the AOI and areas directly adjacent include:

- The Brent Road-Trepanier, Ellison, Rural Westside, and South Slopes Official Community Plans
- Joe Rich Rural Land Use Bylaw
- Westbank First Nation Comprehensive Community Plan
- Okanagan Indian Band Strategic Plan
- Memorandum of Understanding for The Protection of Cultural Sites Within Regional Parks
- RDCO Parks Fuels Management Strategy
- Regional Park Design Guidelines
- The Central Okanagan Official Plan for the Regional Park System
- RDCO Park Management Plans
    - Woodhaven, Kalamoir, Goats Peak, John's Family Nature Conservancy, Black Mountain-sntsk'il'ntən, Mission Creek*, and Stephens Coyote Ridge*

*Currently being developed

There are four Official Community Plans (OCPs) as well as the Joe Rich Rural Land Use Bylaw which outline Wildfire Development Permit Area (WDPA) guidelines. WDPAs allow local governments to require that exterior design and finish on buildings, landscaping, vegetation management, location of accessory structure, and community access be regulated to address wildfire hazard (RDCO Planning, 2017). WDPAs have the following objectives:

- Reduce the susceptibility to wildfire of new constructions or large additions
- Address wildfire risk reduction at time of subdivision
- Ensure important ecosystem values are addressed in wildfire mitigation recommendations and activities

The Westbank First Nation Comprehensive Community Plan and Okanagan Indian Band Strategic Plan were reviewed and no relevancy to the CWPP was identified.

The RDCO Parks Fuels Management Strategy was developed in 2005 and has objectives similar to that of CWPPs. The Fuels Management Strategy objectives include the development of fuel treatments that mimic natural disturbance regimes and the assessment and prioritization of treatments for areas within the AOI. This plan was reviewed to establish if recommended areas have been treated or now need to be treated.

Figure 3: Example of a Type 1: Major Multi-Use Trail in Mission Creek Greenway.

REC ID	Recommendation/Action Item
7	Update the 2015 Regional Parks Design Guidelines document to include fire resistant construction materials, building design, and landscaping approaches. Update the General Design Parameters to include information on emergency egress routes and first responder accessibility to create more readily defensible spaces within parks. Consider mandatory requirement of at least one 'Type 1: Major Multi-Use' Trail in every park.
8	Update the 2000 Central Okanagan Official Plan for the Regional Park System. Engage with qualified professionals experienced in wildfire planning and management during the update of this plan.
9	When developing Regional Park Management Plans ensure that all applicable recommendations and action items within the CWPP are addressed.

2.5.4 Higher Level Plans and Relevant Legislation

There are a multitude of provincial and federal legislations and higher-level plans that influence and support wildfire risk reduction planning. While not exhaustive, the following is a summary of several influential acts, regulations, and plans that influenced the development of this CWPP.

THE OKANAGAN SHUSWAP LAND AND RESOURCE MANAGEMENT PLAN (OSLRMP) – 2001 higher-level plan providing guidance on the management of natural resources and Crownland within the Okanagan-Shuswap. The management objectives within the OSLRMP should be referred to when conducting wildfire fuel management plans to ensure that values such as wildlife, biodiversity,

recreation areas, coarse woody debris, and trail corridors are not compromised in meeting fuel hazard reduction objectives (Ministry of Forests, 2001).

BC BUILDING ACT AND BUILDING CODE – provincial regulation that allows local governments and First Nations to create Wildfire Development Permit Areas (Government of BC, 2016).

BC LOCAL GOVERNMENT ACT – the legal foundation upon which local governments can represent their communities. This act directs the administering and designation of development permit areas though OCPs.

BC OPEN BURNING AND SMOKE CONTROL REGULATIONS – governs burning of vegetative material associated with many activities including wildfire mitigation. It aims to ensure there is minimal risk to air quality and can be accompanied by additional local government by-laws (BC Ministry of Environment and Climate Change Strategy, 2019).

BC FOREST AND RANGE PRACTICES ACT – ensures the protection of all resources, ecosystems, and organisms during the implementation of forestry and range practices.

BC WILDFIRE ACT AND WILDFIRE REGULATIONS – this act is enforceable upon citizens of BC and is responsible for placing bans and restrictions on fire uses to promote wildfire prevention, control, and rehabilitation. Local governments, such as the RDCO have a responsibility to respond to wildfire on non-Crown public lands within their administrative boundaries (*Wildfire Act*, n.d.).

2.5.5 Ministry or Industry Plans

Completed fuel treatments within the AOI include:

- Rose Valley FMP
- Coldham FMP (2013)
- Scenic Canyon FMP (2013)
- Stephen's Coyote Ridge FMP (2014)
- Mill Creek FMP (2015)
- Black Mountain-sntsk'il'ntən FMP (2013)
- Mission Creek Greenway FMP (2006)
- Glen Canyon FMP (2014)
- Trepanier Creek Greenway FMP

These treated areas were reviewed to determine if any maintenance treatment was be required. Other projects in areas adjacent to the AOI include the following FES funded projects (Forest Enhancement Society, 2020):

- Joe Rich Wildfire Threat Reduction
- CWPP COK Southeast Kelowna Landscape Level Fuel Break
- Trepanier Wildfire Rehabilitation
- West Kelowna Wildfire Rehab Project
- District of Peachland CWPP Fuel break

SECTION 3: VALUES AT RISK

The intent of this section is to outline the extent to which wildfire has the potential to impact the values within the AOI. Values at risk (VAR) are human life, property, cultural values, resources, buildings, infrastructure, etc. that may be impacted by wildfire.

3.1 Human Life and Safety

Human life and safety are of utmost priority in the event of wildfire. This section reviews population distribution within the AOI, evacuation and egress routes, picnic areas, and other areas within the AOI that have high use during the fire season. The AOI is unique in that there are no residences within the parks however census reports from 2016 determined that 194,882 people live within the RDCO, surrounding the AOI. 849,000 visits were documented within the parks in 2019.

RDCO parks contain 68km worth of trails that are well signed and outline the most effective egress routes in the event of an emergency. Considering the population within parks daily during the wildfire season is likely made up of a significant number of tourists who are not familiar with the area, increased signage and map kiosks should be considered throughout parks or established within parks that do not yet have them. Greater signage and mapping of the AOI will decrease the likelihood of human displacement in the event of a wildfire.

None of the RDCO parks permit camping or campfires, however 15 of the 48 parks provide picnic facilities which are considered high use areas. Other high use areas within the AOI would include playgrounds and washrooms.

Figure 4: Raymer Bay Picnic Shelter.

REC ID	Recommendation/Action Item
10	Increase signage and updated map kiosks throughout parks. Properly place signs at all trailheads, trail connections, and decision-making points outlining most effective egress routes.
11	Establish 'no campfire' signs and 'no smoking' signs at all high use areas (picnic facilities, washrooms, infrastructure, beaches) and trail heads.
12	Continue to assess and monitor # of visits for each park. Analyze data to determine most frequented park and utilize data to allocate funding accordingly.

3.2 Critical Infrastructure

Critical infrastructure are any assets that are essential to the health, safety, security, or economic wellbeing of the community and the effective functioning of government. This sub-section identifies where critical infrastructure is located within the AOI.

Critical infrastructure within the AOI is mostly limited to recreationally and socially used venues and spaces. In the event of a wildfire the tourism industry in the area would be impacted. The following facilities are located within the parks and have cultural, recreational, social, and environmental value:

- The Environmental Education Centre for the Okanagan is located in Mission Creek Regional park and provides public programming to educate park users on the ecosystem and its services
- Gibson Heritage House is located in Kopje Regional Park
- Killiney, Ellison and Joe Rich Community Hall are all located within the AOI and are used for social gatherings and regular community programming
- Heritage buildings and cemetery located in Gellatly Heritage Park

Figure 5: The Environmental Education Centre for the Okanagan located in Mission Creek Regional Park (Twila Amato, 2020).

There are incidence of electrical power and water infrastructure within the AOI that not only provide for the AOI but also for surrounding RDCO community.

REC ID	Recommendation/Action Item
13	Reduce the risk of wildfire surrounding the facilities outlines in section 3.2 Critical Infrastructure using the recommendations outlined in the FireSmart Begins at Home Manual. Use these facilities as FireSmart Demonstration Buildings to provide residents with examples of what houses in the WUI should look like.

3.2.1 Electrical Power

There is 24.64km of electrical transmission and distribution lines located within the AOI. These transmission and distribution lines service the surrounding RDCO communities. The protection of power delivery systems is crucial. Moreover, these lines are a source of ignition, further highlighting the need to maintain fuel loading within their right of ways. BC Hydro and FortisBC are responsible for ensuring that vegetation and fuels within the right of way is maintained (Arthur, 2016). Transmission lines within the AOI are outlined in the following table.

Table 4: Electric Transmission Lines

Park	Transmission Line Length (km)
Black Mountain-sntsk'il'ntən	1.64
Rose Valley	1.16

Park	Transmission Line Length (km)
Scenic Canyon	1.13
Mill Creek	1.07
Mission Creek	0.61
Glen Canyon	0.40
Woodhaven Nature Conservancy	0.21
Mission Creek Greenway	0.20
Ellison Estates Trail	0.07
Three Forks	0.05
Daves Creek Corridor	0.00
2km Park buffers	18.1

REC ID	Recommendation/Action Item
14	Communicate and coordinate with BC Hydro and Fortis to ensure utility right of ways within the AOI are maintained with best management practices.

3.2.2 Water and Sewage Infrastructure

The RDCO owns and operates 7 community water distribution systems. Each of these systems provides water to infrastructure within the AOI and the communities adjacent to it. The Joe Rich Community Hall Park is serviced by the Joe Rich Water System. This system includes a 130m^3 reservoir and approximately 100m of watermain that supplies the fire hydrant. The Killiney Beach Water System falls within the AOI, servicing approximately 293 homes. This system is made up of multiple reservoirs holding 1,384m^3 of water, 14,000m of PVC water main and 4 pump stations. 1 of the 4 pumps is located on the southern end of Killiney Beach, with a capacity of 141L/sec. The Sunset Ranch Water System falls within the AOI and is sourced from 2 wells. The system is made up of a 1,500m^3 reservoir and 7,700m of water main, distributing water to 285 homes surrounding Sunset Ranch Park. The Westshore Estates Water system falls within the AOI providing water to 279 homes in proximity to the Westshore Estates Community park. The system is made up of a 510m^3 reservoir 1,100m^3 reservoir, 14,000m of water main and 2 pump stations. Ensuring access to water distribution systems is maintained during a wildfire event is the responsibility of the RDCO. The location of pump stations, reservoirs, valves, and fire hydrants within the AOI must be considered during fuel management prescription development and wildfire risk reduction planning (RDCO, 2019b, 2019c, 2020).

3.3 High Environmental and Cultural Values

The intent of this sub-section is to identify and understand where high environmental and cultural values are located within the AOI to effectively determine wildfire risk and appropriate mitigation activities.

3.3.1 Drinking Water Supply Area and Community Watersheds

Community Watershed's and drinking water supplies that come from surface water sources are susceptible to water quality impacts due to wildfire. Wildfires increase erosion rates, in turn increasing sediment loading in water sources. Fluxes in sediment loading in drinking water sources can damage or disrupt treatment processes that purify the water. Moreover, increased sediment loading will result in increased water treatment costs. The following table outlines the watersheds that overlap with the AOI. All of the watersheds rely completely or partially on surface water, making them vulnerable to wildfires impact on water quality (Miexner, 2004).

Table 5: Community Watersheds.

Community Watershed	Source Type	Watershed Use	Number of Connections
Hope Community Watershed	Surface (Hope Creek)	Emergency Back Up	284
Lambly and Rose Valley Community Watershed's	Surface (Lambly Creek and Rose Valley Lake)	Primary Supply Source	3,800
Trepanier Community Watershed	Surface (Trepanier Creek)	Primary Supply Source	1,500
KLO and Hydraulic Community Watershed's	Surface (Hydraulic and KLO Creek's)	Primary Supply Source	2,700
Mission Community Watershed	Surface (Mission Creek)	Primary Supply Source	8,628
Kelowna Community Watershed	Ground and Surface (Kelowna Creek)	Primary Supply Source	6,000

RDCO is one of 3 major water user groups for the Trepanier Community Watershed and one of 2 major water user groups for the Mission Community Watershed. Most of the watersheds that overlap with the AOI are the primary source of water for the surrounding community. Watersheds that are in areas highly vulnerable to wildfire need to be protected accordingly to mitigate against the disruption of access to clean drinking water system (RDCO, 2020).

3.3.2 Cultural Values

The AOI falls within Westbank First Nation lands and has been used by the Syilx People for time immemorial. The RDCO and Westbank First Nation have entered into a Memorandum of Understanding

for the Protection and Conservation of Cultural Heritage Sites in Regional Parks. The objectives of the Memorandum of Understanding (MOU) include but are not limited to:

- Protect the integrity of all archaeological sites within regional parks
- Emphasize the importance of archaeological sites and manage their conservation in a manner that is consistent with the MOU, the Heritage Conservation Act, and Westbank First Nation cultural interests

The Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations and Rural Development has spatial data on 14 recorded archaeological sites within the AOI. These sites include Cache Pits, Ceremonial Features, Pictographs, cultural materials, trails, and lithics. Each of these archeological sites relate to aboriginal life prior to European settlement. These sites are sensitive in nature and therefore exact detail and locations is not outlined report. These sites are to be protected under the Heritage Conservation Act and need to be considered during fuel management prescriptions and wildfire risk reduction practices. When wildfire planning takes place consultation with the Archaeology Branch and/or an Archeologist will be required.

3.3.3 High Environmental Values

The RDCO encompasses several ecosystems that contain known occurrences of blue-listed species and provides habitat for several other blue-listed and red-listed species at risk. In addition, many parks are located around riparian habitat and sensitive soils.

The BC Conservation Data Centre (CDC) publicly lists spatial data on 3 Blue-listed species at risk within the AOI. Blue-listed species are considered vulnerable to human activity and natural events; therefore the impacts of fuel management prescriptions and wildfire risk reduction projects need to be considered. Consultation with the CDC and/or a professional biologist will be required during the development of fuel management plans within the AOI.

The ecosystems within the RDCO provide critical habitat for additional red-listed species (Table 6) as well as blue and yellow-listed species. While known occurrences may not overlap with individual fuel management treatments, each treatment must assess and manage for relevant species. These local species at risk reports are publicly available and updated frequently.

Table 6: Red-listed Species at Risk.

Species		**Classification**
American Badger	*Taxidea taxus*	Red-listed
American White Pelican	*Pelecanus erythrorhynchos*	Red-listed
Barn Owl	*Tyto alba*	Red-listed
Black-crowned Night-heron	*Nycticorax nycticorax*	Red-listed
Brewer's Sparrow	*Spizella breweri*	Red-listed
Desert Nightsnake	*Hypsiglena torquata*	Red-listed
Grasshopper Sparrow	*Ammodramus savannarum*	Red-listed
Northern Leopard Frog	*Lithobates pipiens*	Red-listed
Peregrine Falcon	*Falco peregrinus*	Red-listed
Swainson's Hawk	*Buteo swainsoni*	Red-listed
Tiger Salamander	*Ambystoma tigrinum*	Red-listed

Species		Classification
Western Grebe	*Aechmophorus occidentalis*	Red-listed
Western Screech Owl	*Megascops kennicottii*	Red-listed
White-headed Woodpecker	*Picoides albolarvatus*	Red-listed
Yellow-breasted Chat	*Icteria virens*	Red-listed

All fuel management prescriptions and wildfire risk reduction projects must take into consideration the potential presence of high environmental values and determined if they will be impacted through fuel management activities.

3.4 Other Resource Values

3.4.1 Recreation Features

Each RDCO park includes extensive recreational features - primarily highly developed trail networks. The RDCO maintains over 68km of trails within the park system that supports a variety of user groups. Although these features are not considered critical infrastructure, they are the main features within the parks and provide well established access routes for ground suppression sources. Other recreational features include sports fields, beaches, and playgrounds.

Figure 6: Soccer field at Bertram Creek Regional Park

SECTION 4: WILDFIRE THREAT AND RISK

This section defines the wildfire threat and risk to the AOI while discussing the factors that influence threat and risk. Wildfire threat describes the potential fire behaviour that could occur in an area while wildfire risk is the likelihood of a wildfire occurring. The factors influencing wildfire threat and risk that will be discussed in this section include fire regime, ecology, and weather.

4.1 Fire Regime, Fire Weather, and Climate Change

This subsection provides context on wildfires ecological impact on the AOI. Past, current, and future fire regimes will be described and factors that influence these regimes will be addressed such as climate change, human settlement, and forest pests.

4.1.1 Fire Regime and Fire Weather

Ecological variation in British Columbia is attributable to the different natural disturbance regimes through which ecosystems have evolved. In BC, biodiversity objectives are set based on 5 natural disturbance types (NDTs) which have an associated biogeoclimatic zone (British Columbia Ministry of Forests and British Columbia Ministry of Environment, 1995)

Table 7: Natural disturbance breakdown of RDCO Parks Biogeoclimatic Zones.

Biogeoclimatic Zone	Natural Disturbance	Area (ha)	Percent (%)
ICHmk1	NDT3	802	7
IDFdk2	NDT4	129	1
IDFdm1	NDT4	546	5
IDFmw1	NDT4	2761	25
IDFxh1	NDT4	3593	33
MSdm1	NDT3	1128	10
PPxh1	NDT4	1915	18

Characteristic of the lower elevation southern interior region of BC, the RDCO Parks predominantly fall within the following 3 biogeoclimatic zones:

- Okanagan Very Dry Hot Interior Douglas-fir (IDFxh1)
- Okanagan Very Dry Hot Ponderosa Pine (PPxh1)
- Shuswap Moist Warm Interior Douglas-fir (IDFmw1)

Each of these biogeoclimatic zones are classified as NDT4 – Ecosystems with frequent stand maintaining fires. Fire regimes within these ecosystems are naturally low intensity, high frequency surface fires. Historically these fire regimes resulted in a natural mosaic of uneven-aged stands through which grassland and shrubland openings could be found (Klenner et al., 2008).

Seventeen percent of the AOI is comprised of biogeoclimatic zones that classify as NDT-3 ecosystems with frequent stand-initiating events. These ecosystems are characterized by frequent wildfires that range in size from spot fires to over 200,000ha. This NDT type is home to the largest fires in the province

resulting in a mosaic landscape of different aged stands. The ecosystems that make up the AOI are dependent on fires to: maintain vegetative species composition; regulate coarse woody debris loading; recycle nutrients in the soil, and regulate pests and disease outbreaks.

However, in the past century, human settlement and fire suppression efforts altered fire regimes and disrupted fire-maintained ecosystems. Fire suppression resulted in increased forest ingrowth and forest encroachment into grasslands and shrublands, and incidence and severity of biotic disturbance agents. As a result, fuel loads across the landscape increased and fire regimes were altered (ABCFP, 2013). For example, historical fire frequency levels ranging from 4 to 50 years have increased to 150 to 250 years (Swift & Ran, 2012). Greater intervals between fires allows for more fuel build up and results in fires of higher severity and greater intensity. Current stand structure and composition within the BEC zones characterizing the AOI is reflective of an even-aged monoculture with significant losses in grasslands and shrublands due to forest encroachment (Odion et al., 2014).

The Fire Weather Index (FWI) is a numerical rating of fire intensity developed by the Canadian Wildland Fire Information System derived from the Build up Index (BUI) and Initial Spread Index (ISI). BUI is a numerical rating of the total amount of fuels available for consumption while ISI is a numerical rating of the expected rate of fire spread. Using 90th percentile fire weather index date from 3 BCWS weather stations within and adjacent to the AOI data can be extrapolated on fire regimes such as rate of spread and size for different fuel types (K. Hirsch, 1996). The following table illustrates the rate of spread, fire size 1 hour after ignition, head fire intensity and fire behaviour levels for fuel types present within the AOI.

Table 8: Fire Regimes and Properties of FBP Fuel Types within the AOI

Fuel Types	Area in AOI (ha)	ROS (m/min)	1-hour fire size **(ha)	Head Fire Intensity (kW/m)	Fire Type	Fire Behaviour (mod/high/extreme)
C-2	65	20	77	>10,000	Continuous	Extreme
C - 3	1,103	9	16	4,000-10,000	Intermittent	High
C - 4	3	20	77	>10,000	Continuous	Extreme
C-5	365	4	3	4,000-10,000	Surface	Moderate
C - 7	4,471	4	3	>10,000	Surface	Moderate
D – 1/2	370	4	3	500-2,000	Surface	Moderate
M – 1	903	8	11	>10,000	Intermittent	High
M – 2		15	43	>10,000	Continuous	Extreme
O1a*	1,912	34	98	2,000 – 4,000	Surface	Moderate
O1b*		37	98	2,000 – 4,000	Surfaces	Moderate

Note: (BUI = 225, ISI = 12), O1a/b use degree of curing not BUI* 10km/h was used as the effective wind speed**

In context, fire intensities <800kW/m can be suppressed with hand tools, fire intensities <2,000kW/m can be suppressed by air support and machinery and fire intensities >3,000kW/m are unlikely to be suppressed (Alexander, 2000; Government of Western Australia, 2019). An ecosystem once managed by frequent low intensity surface fires has transitioned to infrequent high intensity crown fires as seen in the 2003, 2009, and 2017 fire seasons. It is evident that fire management policies and professionals within the AOI must acknowledge the necessity of fires presence within the landscape from both an ecological and safety perspective.

Figure 7: Dead standing fuels in John's Family Nature Conservancy.

4.1.2 Climate Change

A collaborative report on Climate Projections for the Okanagan Region was developed by the Regional District of North Okanagan, Central Okanagan, and Okanagan Similkameen in February of 2020. This report outlines the following key findings which will have direct influence on wildfires:

- Summers are getting hotter – it is predicted that the number of days with temperatures over 30°C will triple by the 2050s
- Winters are getting hotter – it is predicted that by the 2050s there will be 28% fewer frost days
- Summers are getting drier – by the 2080s, trends suggest a decrease in summer precipitation by 23%
- Season lengths are changing – warming temperatures will result in shorter winters and longer summers
- Spring and Fall are getting wetter – a 17% increase in rainfall during spring and fall is expected by the 2080s

The extent of climate changes impact on wildfire is complex and interdependent. However, it is clear that climate change will increase wildfire activity (Vines, 2020). Warmer and drier summers will create more severe wildfires and increased fire danger. Longer summer seasons will result in longer fire seasons, increasing the amount of time over which fires will burn and extending the duration over which the AOI will be subject to ignition sources. Longer summers results in longer growing seasons. This, alongside increased precipitation in spring and fall, has potential to create more productive stands and in turn increase fuel levels (Boegelsack et al., 2018; Kirchmeier-Young et al., 2019). More specifically, it is evident that warmer conditions and elevated wildfire risk will result in more area burned and wildfire seasons like that seen in 2003, 2009, 2017 and 2018 becoming the norm. 2050 projections show that the changes in precipitation and temperature trends will result in the likelihood of annual occurrence of a fire season similar to 2017 occurring every two to five years (ICF, 2019).

Using fire weather data from the Fintry weather station, the following table provides a summary of the average number of fire danger class days per month over the last 10 years (2010-2020). This has been calculated for each month within the fire season, from April to October. The average number of High and Extreme rated fire danger days are approximately 56 and 5 respectively representing about 29% of the fire season.

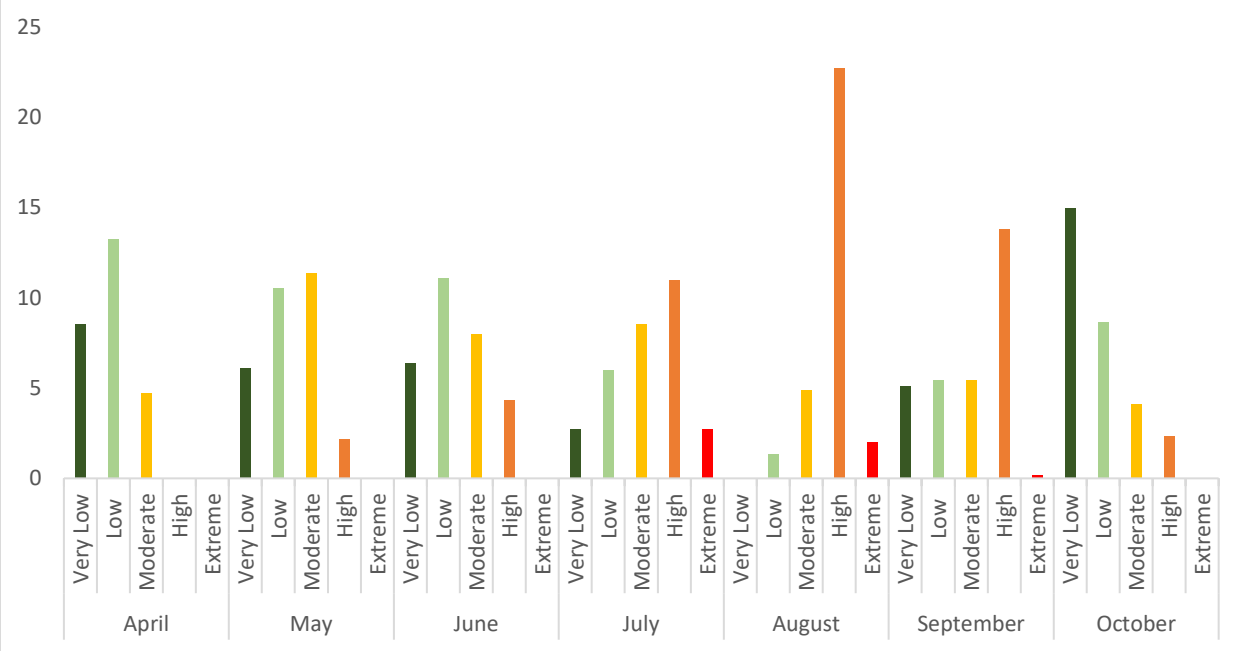


Figure 8: Average Number of Respect Fire Danger Days for April to October from 2010 to 2020

The indirect effects of climate change on wildfire mainly relate to pest population and disease occurrence. Longer hotter summers allow for pests such as tent caterpillars, ash borers, and wood boring beetles populations to complete two reproductive cycles, doubling their rate of infestation. Furthermore, decreasing winter severity will allow greater numbers of insects, such as the mountain pine beetle, to survive through the winter. Under rising temperatures, stands at higher elevations and northern latitudes are falling within the mountain pine beetles range, this is dramatically evident in southern BC. The susceptibility of trees to pine beetle attack also increase in drought conditions that force host trees into stress. Similar to pests, most diseases are strongly influenced by environmental conditions such as temperature (Anderegg et al., 2015). For example, stressed hosts from moisture deficiencies onset by drought will be more susceptible to Armillaria root disease (Cleary et al., 2008). Host susceptibility to mortality in the PP and IDF BEC zones are high. The resulting tree mortality from insect and disease attack results in greater fuel accumulation. Fuel build-up in turn, supports more intense fires. Furthermore, areas with greater accumulations of coarse woody fuels have potential to carry surface fires farther (Odion et al., 2014).

4.2 Provincial Strategic Threat Analysis (PSTA)

The Provincial Strategic Threat Analysis (PSTA) interprets datasets on historical fires, historical weather, topography, and fuel types at a provincial level, in turn providing information on relative wildfire threat across the province. Maps and data provided by the PSTA include information on fire density, fuel types, spotting impact, and threat ratings, as well as the impact these variables may have on values such as communities, natural resources, and infrastructure. The PSTA provides local governments, landowners, industry, and stakeholders a foundation of information upon which wildfire planning can be conducted (BC Wildfire Service, 2017).

It is important to note that the data provided by the PSTA has a number of limitations. The local wildfire threat assessment conducted during a CWPP ensures that local factors are considered to improve and build upon the data provided in the PSTA.

4.2.1 Wildfire Threat Rating

Wildfire threat relates to the likelihood of hazardous fuels igniting and fire spreading into the community directly or via embers. In the PSTA, wildfire threat is defined as a score, grouped into ten classes ranging from Nil to Extreme (or 1 to 10). A higher wildfire threat is accompanied by a higher number. A PSTA threat class of 7 is considered to be the threshold for fire threat, any scores higher than 7 are considered the most severe and are in most need of mitigation. The Wildfire Threat Score is calculated using a weighted averaging process with 3 key fire behaviour input factors, each representing a condition necessary for there to be a wildfire threatening a community (BC Wildfire Service, 2017). The 3 factors, their role in fire threatening a community, and their associated weight are as following:

1. Fire Density/History – An ignition occurs (30%)
2. Head Fire Intensity – The resulting fire generates sufficient intensity and spreads rapidly (60%)
3. Spotting Impact – The fire spread into and/or transports embers into the community (10%)

4.2.2 Spotting Impact

Spotting is the movement of embers from the head of the fire to areas past the fire perimeter. It is often falsely assumed by the public that values such as homes and infrastructure are ignited and destroyed by flames and radiant heat from the wildfire. Contrarily, research and past wildfires point to embers being the main ignition source of structures (Zurich, 2019). This is especially common in high intensity fires where embers are carried by the wind and dropped on structures and communities, known as spotting impact. Spotting impact is broken down into 10 classes ranging from Extreme to Nil.

In BC spotting distances have been documented up to 2km from the fire. Based on ISI Roses, prevalent wind direction within the AOI comes from the South South West (SSW). Therefore, structures northeast of high-risk fuel types are vulnerable to spotting from wildfires. Areas in the AOI that are SSW of communities need to be considered as high priority for fuel treatments and wildfire risk reduction planning.

4.2.3 Head Fire Intensity

Head Fire Intensity (HFI) is a prediction of the energy being release at the leading front (also known as the fire's head) of a fire, measured in kW/m. HFI is commonly used to estimate difficulty of controlling a fire and what suppression methods would be most effective. HFI is based on fuel type, weather

conditions, and topographical characteristics and is a direct function of the amount of fuel available for consumption. It's weighted highest of the 3 fire behaviour input factors at 60%, as it represents the greatest impact on structures. A higher intensity fire will spread faster, burn more severely, create more spotting embers, and will be more challenging to suppress (K. Hirsch, 1996).

4.2.4 Fire History & Density

A review of historical fire trends, ignitions and spread patterns is necessary to predict future fire trends and ignitions more accurately. Fire history data from BC provincial government dates back to the 1950s and is used to determine fire density, the third input for the PSTA. Fire density represents the ignition and fire spread potential based on historical data, assuming that areas with previous fire occurrences will continue to remain fire-prone. Fire density trends can reflect patterns of industry, lightning and weather (Heyerdahl et al., 2012).

Table 9: Fire occurrence within RDCO parks.

Fire Year	Fire Size (ha)	Fire Cause	Park
2017	489.4	Human	Philpott Trail
2012	200	Human	Trepanier Creek Greenway
2009	303.3	Human	Goats Peak, Gellatly Heritage
2005	25	Human	Rose Valley
2003	25635.6	Lightning	Bertram Creek, Lakeshore Road, Woodhaven Nature Conservancy, John's Family Nature Conservancy, Lebanon Creek Greenway
1969	51.4	Human	Shannon Lake
1960	26.6	Human	Glen Canyon
1958	220.1	Human	Black Mountain-sntsk'il'ntən
1955	12.9	Human	Stephens Coyote Ridge
1952	391.9	Human	Traders Cove
1934	1.7	Human	Mission Creek Greenway
1931	1097.1	Human	Stephens Coyote Ridge, Robert Lake
1929	1049.7	Human	Westshore Estates Community Park, Bouleau Lake

1926	66.6	Human	Scenic Canyon
1924	574.3	Human	Daves Creek Corridor

Table 10: Fire occurrence within the 2km WUI buffer of the AOI.

Year	Fire Size (ha)	Cause	Year	Fire Size (ha)	Cause	Year	Fire Size (ha)	Cause
1919	182.2	Human	1929	1049.7	Lightning	1960	559.5	Lightning
1921	90.3	Human	1930	1960.6	Lightning	2003	25635.6	Human
1921	90.3	Human	1930	217.4	Human	2011	1.1	Human
1922	74.2	Lightning	1930	357.4	Lightning	2012	40.3	Human
1924	12.9	Human	1930	1960.6	Human	2014	6.3	Lightning
1924	574.3	Human	1931	1003.4	Human	2015	564.6	Human
1924	163.7	Human	1932	8.2	Human	2017	489.4	Human
1925	107.7	Lightning	1932	843.7	Human	2017	2224.1	Human
1926	298.8	Human	1946	41.4	Human	2017	489.4	Lightning
						2018	1789.9	Human

4.3 Local Wildfire Threat Assessment

This section provides a detailed assessment of the local wildfire threat through the following key steps:

1. Validate local fuel types and develop fuel type map
2. Determine the proximity of fuels to community
3. Assess fire spread patterns using ISI Roses
4. Assess topography (slope and aspect)
5. Stratify WUI based on relative wildfire threat
6. Wildfire Risk Classification

Local Wildfire Threat Assessment is carried out using the methodology outlined in the Wildfire Threat Assessment Guide and completing the associated worksheets in the field. This guide is used to validate the PSTA threat rating through ground truthing. In doing so, each forest stand can be assigned a quantifiable wildfire threat rating score to ensure fuel management prescriptions and wildfire risk reduction activities are being carried out most effectively (BCWS, 2020). The key steps outlined above are described in the following sub-sections.

4.3.1 Validation of Local Fuel Types

Sixteen national fuel types were established by the Canadian Fire Behavior Prediction System based on the following attributes (Perrakis et al., 2017):

- vegetated vs non-vegetated
- treed vs non treed
- land coverage
- crown closure
- dominant tree species, % cover, height, and age
- BEC zone and sub zone
- Previous harvesting history
- % dead standing trees
- Disturbance history (insect attack, fire, disease)

PSTA data provided by BCWS to aid in the development of this CWPP included fuel typing for the AOI which was derived from vegetation resources inventory data. As this is a coarse level provincial layer, fuel types were updated using ortho-imagery and field type verification. Commonly updated fuel types were:

- Grasses or shrubs as forests or vice versa
- Major recent disturbance areas (forest fires or harvesting)
- Areas of recent fuel management treatments

Validating local fuel types is critical to providing accurate wildfire threat ratings and locating fuel treatments in areas of highest wildfire threat. The following table outlines the potential for crown fire establishment and/or for spotting to occur based on each of the FBP fuel types (K. Hirsch, 1996).

Table 11: Fuel Type Categories and Crown Fire Spot Potential.

Fuel Type Categories	Fuel Type - Crown Fire/ Spot Potential
1: C1, C2, C4, M3-M4 (>50% C/DF)	High
2: C3, C7, M3-M4 (<50% C/DF) M1-M2 >50% Conifer	Moderate
3: C5, C6, O1a/b, S1- S3[1] M1-M2 (26-49% Conifer)	Low
4: D1, D2, M1-M2 (<26% Conifer)	Very Low

Each of the Fuel Types present within the AOI are described below

C-2 FUEL TYPE – BOREAL SPRUCE

There are very minor components of the C-2 fuel type within the AOI. Areas comprised of the C-2 fuel type are dominated by young, densely stocked Fd and Py stands with up to 100% crown closure. Height to live crown is low at 0-2m. Sparse to moderate volumes of down woody material are present. The stand has moderate to high burn difficulty where wind driven fire has the potential for extreme fire behavior and active crown fire. These stands are characteristically dense, with horizontal and vertical fuel continuity resulting in potentially high fire behaviour (Perrakis et al., 2017).

Figure 9: Example of C-2 fuels in Mission Creek Regional Park.

C-3 FUEL TYPE – MATURE JACK OR LODGEPOLE PINE

This fuel type is characterized by >80% conifer, mature, fully stocked stands. In RDCO parks, these stands are typically dominated by Fd and Py with up to 100% crown closure. Height to live crown is high at approximately 8m while dead surface fuels are typically light and scattered. The stand has moderate burn difficulty where wind driven fire has the potential for extreme fire behavior and active crown fire (Perrakis et al., 2017).

Figure 10: Example of C-3 fuels in Rose Valley Regional Park.

C-4 FUEL TYPE – IMMATURE JACK OR LODGEPOLE PINE

This fuel type characterized by >80%conifer, young, dense stands. In the AOI, C-4 fuel types are common and are typically dominated by Fd and Py and up to 80% crown closure. Naturally thinning mortality levels are high resulting in both standing dead stems and dead downed woody fuel. As a result, vertical and horizontal fuel loading is continuous and surface fuel loading levels are higher than that in C-3 fuel type. Fire behaviour potential is high due to the fuel load amount and continuity (Perrakis et al., 2017).

Figure 11: Example of C-4 fuels in the WUI 2km buffer near Philpott Trail.

C-7 FUEL TYPE – PONDEROSA PINE – DOUGLAS FIR

The C-7 fuel type dominates the AOI, specifically at low to mid elevations. This fuel type is characterized by >80% conifer presence and uneven aged stands of Py and Fd. These stands are generally more open with up to 40% crown closure and varying height to live crown (2-6m). Surface fuels are typically light and scattered mostly made up of pine grass, needle litter, and occasional incidences of coarse woody debris. C-7 fuel type is not inherently hazardous based on the spacious stand structure (Perrakis et al., 2017).

Figure 12: Example of C-7 fuels in the 2km WUI buffer near Hardy Falls.

D-1 FUEL TYPE – LEAFLESS ASPEN

This fuel type is characterized by >80% deciduous presence ranging in stand density, age and height to live crown. Dominant species for this fuel type in the AOI include Act, At, and Ep. Surface fuels are sparse and mostly made up of leaf litter and deciduous shrubs or herbaceous material. Fire behaviour potential in D-1 fuel type is relatively low as it typically reduces wildfire behaviour (Perrakis et al., 2017).

Figure 13: Example of D-1 fuels in John's Family Nature Conservancy.

M-1/2 FUEL TYPE – BOREAL MIXEDWOOD LEAFLESS/GREEN

This fuel type is commonly found along waterways within the AOI at low elevations. Within the AOI typical species making up the M-1/2 fuel type are Fd, Act, At, and Bl. Surface fuel levels are dependent on deciduous and coniferous components. Fire behaviour potential in M-1/2 stands is also dependent on coniferous components, greater amounts of conifers will result in higher wildfire behaviour potential (Perrakis et al., 2017).

Figure 14: Example of M-1/2 fuels in John's Family Nature Conservancy.

O-1A/B – GRASS

O-1a/b grass fuel types are very common within low elevations of the AOI. Generally, there is little to no stand density or crown closure. Grass loading is the only surface fuel presence. This fuel type is easily dried out in the summer months resulting in significant areas of easily ignitable fuels in which fire can spread quickly. In some cases, these fuels are able to transition into other adjacent fuel types, resulting in greater fire behaviour potentials (Perrakis et al., 2017).

Figure 15: Example of O-1 fuels in Black Mountain-sntsk'il'ntən Regional Park.

Table 12: AOI Fuel Types and their respective coverage and potential fire behaviour.

Fuel Type	Area (ha)	Percent Cover (%)	Crown Fire/Spot Potential
C-2	65	1	High
C-3	1,103	12	Moderate
C-4	3	<1	High
C-5	356	4	Low
C-7	4,471	47	Moderate
D-1/2	370	4	Very Low
M-1/2 (>50% Conifer)	903	10	Moderate
O-1a/b	1,912	20	Low
Water/Non-fuel	254	3	N/A

Figure 16: Example of Water/Non-fuel in Scenic Canyon Regional Park.

Fuel types dominated by conifers or O-1a/b fuel types adjacent to conifer stands are of greatest concern for wildfire hazard. Moreover, fuel types with High crown fire/spot potential should be prioritized for fuel treatment and wildfire risk reduction planning (Government of Western Australia, 2019).

4.3.2 Determining Proximity of Fuels to Communities

The wildland urban interface (WUI) is comprised of areas where forests meet urban development. In these areas the risk of wildfire is greatest to values such as homes and human life. Moreover, the greatest risk of human ignition sources can be found here. It is crucial to prioritize fuel treatments closest to values within the WUI and progressively treat outwards. Therefore, in the local wildfire threat assessment, fuels closest to values are weighted higher. Proximity of fuels to communities was assessed through dividing the WUI into the 3 areas outlined in the following table. The width of each WUI zone was determined based on the spotting distances of high and moderate fuel type spotting potential and the threshold for crown fire potential. The WUI is weighted significantly in the local wildfire threat assessment to capture the importance of fuels proximity to values (Ager et al., 2019; Bento-Goncalves & Vieira, 2020; Hanberry, 2020).

Table 13: Wildland Urban Interface Zones.

Proximity to the Interface	Descriptor	Explanation
WUI 100	(0-100 m)	This Zone is always located adjacent to the value at risk. Treatment would modify the wildfire behaviour near or adjacent to the value. Treatment effectiveness would be increased when the value is FireSmart.
WUI 500	(101-500m)	Treatment would affect wildfire behaviour approaching a value, as well as the wildfire's ability to impact the value with short- to medium- range spotting; should also provide suppression opportunities near a value.
WUI 2000	(501-2000m)	Treatment would be effective in limiting long - range spotting but short-range spotting may fall short of the value and cause a new ignition that could affect a value.
	>2000 m	This should form part of a landscape assessment and is generally not part of the zoning process. Treatment is relatively ineffective for threat mitigation to a value, unless used to form a part of a larger fuel break / treatment.

4.3.3 Fire Spread Patterns & ISI Roses

Initial Spread Index (ISI) Roses summarize wildfire direction and rate of spread. Wind speed, wind direction, and fine fuel moisture condition are all factors which influence ISI Roses. ISI Roses illustrate the frequency of counts by wind direction as a percent and the initial spread index. The ISI Rose for the Fintry BCWS weather station was generated using hourly ISI data for peak burning periods (month of July) from 1996 to 2015. The Fintry weather station provides the most representative weather data for the AOI. Based on the Fintry ISI Rose, periods of higher ISI value and therefore higher wildfire spread potential are associated with winds predominantly from the South and Southeast. Interface areas in the S and SE of the AOI that are downwind from fuels will be at the highest risk based on wind patterns.

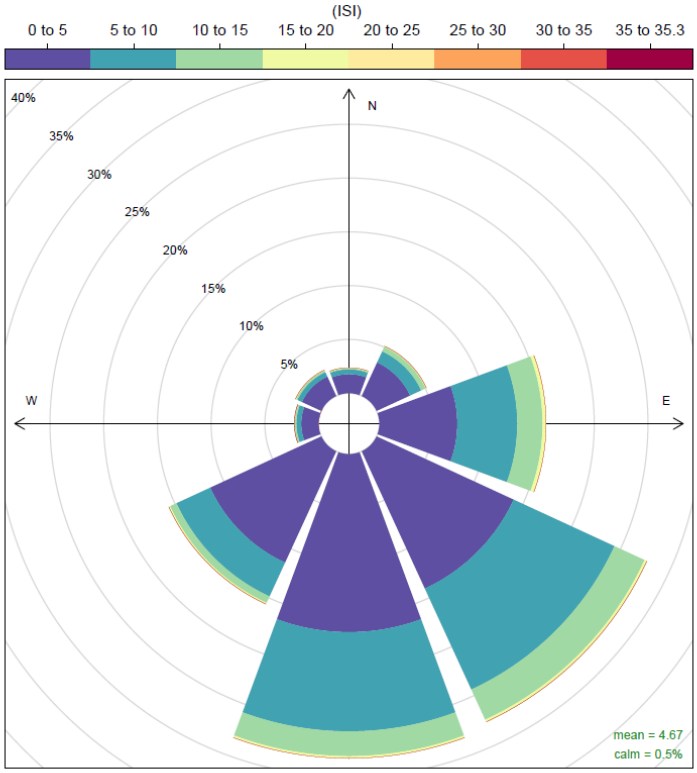


Figure 17: ISI Rose for Fintry Fire Weather Station from 1996 to 2015.

4.3.4 Topographical Assessment

The most important topographical factor that relates to wildfire is slope. How steep the slope is (slope percentage) and the location of values on the slope (slope position) directly impact fire behaviour implications. Slope percentage dictates the trajectory of a fire and its rate of spread. As outlined in the table below, a greater slope percent results in a greater rate of spread and more significant fire behaviour implications.

Table 14: Slope Percentage and Fire Behaviour Implications.

Slope Percent Class	Fire Behaviour Implications
<20%	Very little flame and fuel interaction caused by slope, normal rate of spread.
21-30%	Flame tilt begins to preheat fuel, increase rate of spread.
31-45%	Flame tilt preheats fuel and begins to bathe flames into fuel, high rate of spread.
46-60%	Flame tilt preheats fuel and bathes flames into fuel, very high rate of spread.
>60%	Flame tilt preheats fuel and bathes flames into fuel well upslope, extreme rate of spread.

The position of a value on a slope impacts how much momentum a wildfire will gain during an uphill run before it reaches the value. As the following table outlines, a value at the top of a slope will be impacted by more signification fire behaviour.

Table 15: Slope Position of Value and Fire Behaviour Implications.

Slope Position of Value	Fire Behaviour Implications
Bottom of Slope/ Valley Bottom	Impacted by normal rates of spread.
Mid Slope - Bench	Impacted by increase rates of spread. Position on a bench may reduce the preheating near the value. (Value is offset from the slope).
Mid slope – Continuous	Impacted by fast rates of spread. No break in terrain features affected by preheating and flames bathing into the fuel ahead of the fire.
Upper 1/3 of slope	Impacted by extreme rates of spread. At risk to large continuous fire run, preheating and flames bathing into the fuel.

Therefore, fuels along steep slopes atop which values are located should be prioritized for fuel treatment and wildfire risk reduction planning.

4.3.5 Stratifying the WUI into Local Wildfire Threat Classes

To stratify the WUI based on Relative Wildfire Threat the updated fuel type map from section 4.3. was used. Where fuel types were changed HFI values were updated. HFI values were updated by using those from similar fuel types in proximity to the new fuel type polygon. The wildfire threat rating was recalculated with the new HFI value and the same fire density and spotting impact values initially provided by the PSTA. Updated wildfire threat ratings to reflect local conditions is necessary to calculate accurate wildfire risk (Johnston & Flannigan, 2018).

4.3.6 Local Wildfire Risk Classification

The wildfire risk classification assessed 8% of the AOI as high or extreme wildfire risk (Table 16). The majority (58%) was assessed to be a low risk. However, this is a risk class relative to other areas within the AOI. Its purpose is to assist in prioritising areas for fuel treatment activities. A low or moderate fire risk area can still support a surface or crown fire and pose a threat to values.

Table 16: Wildfire Risk Classification.

Wildfire Risk Class	Area (ha)	Percent of total area
Low	5527.8	58%
Moderate	3255.5	34%
High	678.9	7%
Extreme	5.9	<1%

Local wildfire risk is determined using each of the factors previously described in Section 4.3 Local Wildfire Threat Assessment. Classifying wildfire risk entails measuring the fire behaviour potential while considering the implications to values. Local wildfire risk is represented with a numerical score based on the following 5 weighted categories:

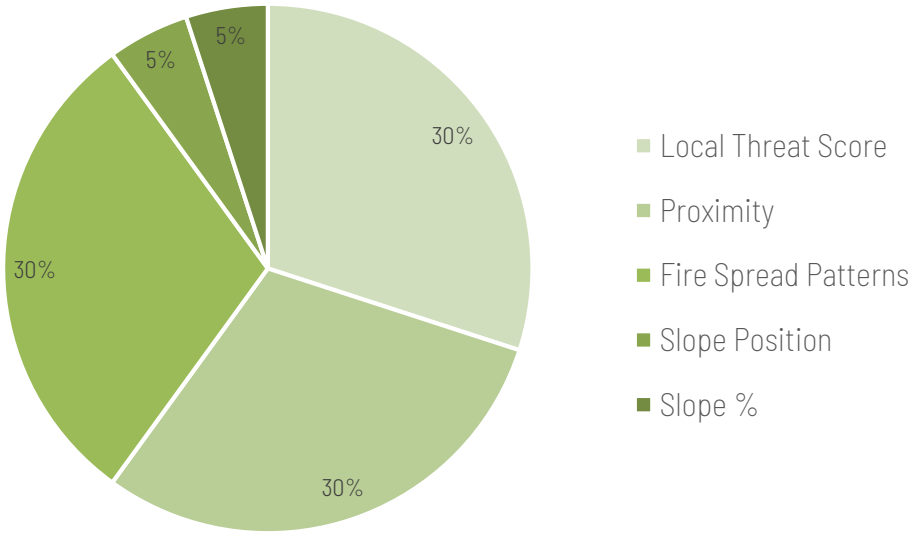


Figure 18: Local wildfire risk inputs and respective weights.

Wildfire risk scoring system is based on a maximum score of 10. Each of the relative fire risk classes is described below and their associated weighting score range is provided.

Table 17: Relative wildfire risk and its associated weighted score and description.

Relative Risk	Weighting	Description
No Risk	<0.1	The combination of the local fuel hazard (usually PSTA Class 0 or 1), weather influences, topography, proximity to the community, fuel (non-fuel) position in relation to fire spread patterns, and known local wildfire threat factors make it a no risk for threatening a community. These areas are non-fuel or sparsely vegetated and will not support spreading fires, and any patches of vegetation will usually self-extinguished. Low to no risk to any values at risk.
Low	0.1-3.9	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it a lower potential for threatening a community. These stands will support surface fires, single tree or small groups of conifer trees could torch/ candle in extreme fire weather conditions. Fuel type spot potential is a low risk to values.
Moderate	4-6.9	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns and known local wildfire threat factors make it possible that a wildfire in this area would threaten the community. Areas of matted grass, slash, conifer plantations, mature conifer stands with very high crown base height, and deciduous stands with 26 to 49% conifers. These stands will support surface fires, single tree or small groups of conifer trees could torch/ candle. Rates of spread would average between 2-5 meters/ minute. Forest stands would have potential to impact values in extreme weather conditions. Fuel type spot potential is unlikely to impact values at a long distance (<400m).
High	7-8.9	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it likely that a wildfire in this area would threaten the community. This includes stands with continuous surface/ crown fuel that will support regular torching/ candling, intermittent crown and/or continuous crown fires. Rates of spread would average 6 -10 meters/ minute. Fuel type spot potential is likely to impact values at a long distance (400 -1 000m).
Extreme	9+	The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it very likely that a wildfire in this area would threaten the community. Stands with continuous surface/ crown fuel and fuel characteristics that tend to support the development of intermittent or continuous crown fires. Rates of spread would average >10 meters/ minute. Fuel type spot potential is probable to impact values at a long distance (400 -1 000m or greater). These forest stands have the greater potential to produce extreme fire behaviour (long range spotting, fire whirls and other fire behaviour phenomena).

SECTION 5: RISK MANAGEMENT AND MITIGATION FACTORS

This section outlines risk management and mitigation strategies that can be carried out within a community to reduce the risk and impact of wildfire. Proactively mitigating wildfire risk can reduce the impact of wildfire which can only be done with an understanding of the risks that apply to a given community. To be most successful in mitigating wildfire risk, coordination and distribution of information between the RDCO, City of Kelowna, District of Lake Country, District of Peachland, and City of West Kelowna. The following risk mitigations options will be discussed:

- Fuel Management
- Fire Smart
- Communication and Education

Risk assessment must be conducted within forested landscapes and beyond, considering high risk activities, human use, and other environmental factors within the AOI. In assessing these other factors, the following recommendations will meet the specific needs of the AOI and build resilience to wildfire impact.

5.1 Fuel Management

Fuel management or vegetation management reduces fire behaviour potential through the alteration of combustible materials that fuel wildfires. Fuel management in BC is guided by stand level prescriptions known as Fuel Management Prescriptions (FMPs). FMPs describe fuel management activities that will create post treatment stand conditions resulting in reduced fire behaviour (2020 Fuel Management Prescription Guidance, 2020). FMPs follow three principles:

1. Prescribe specific measurable targets to reduce fire behaviour
2. Account for site specific considerations that influence wildfire risk reduction objectives
3. Adhere to other legal resource management and non-statutory objectives

FMPs primary objectives are:

- Modify fire behaviour from crown to surface fire during 90th percentile local fire weather conditions
- Enhance public safety
- Create a more defensible space that allows for successful suppression opportunity by firefighting personnel

This report identifies and prioritizes fuel treatment units (FTUs) in which FMP development should take place. It also identifies areas that do not require an FMP currently but should be monitored for future needs. FTUs for the AOI are outlined in Table 13 Fuel Treatment Summary Table which describes the type, size and local fuel threat of the FTU polygon. FTU establishment and prioritization is described in the following subsections.

5.1.1 Methodology for Treatment Recommendations and Prioritization

The entirety of the AOI was assessed and classified into one of the four treatment unit type: Monitor, Polygon Treatment Area, Fuel Break, or N/A. Areas without fuels such as bodies of water saturated marshes, bogs, paved/built surfaces, and irrigated lawns absent of trees were designated as N/A treatment units. Monitor treatment units were retained for analysis but do not require a fuel treatment and are not prioritized. All treat polygons (Polygon Treatment Area or Fuel Break) were established based on:

- Fuel type
- Wildfire threat assessments
- Priority setting
- Wildfire risk class

As outlined in section 4.3 Local Wildfire Threat Assessment, wildfire risk is a combination of the local fuel hazard, local fire weather, topography, proximity to community and values, and fuel position in relation to fire spread patterns.

When developing treatment areas or FTUs other considerations included operational feasibility and defensibility. The treatment area must be large enough in size to be effective, relatively continuous, and linear. Where possible, treatment areas should take advantage of topographical, man-made, and natural fuel breaks (rock out crops, wetlands, rivers, lakes, roads, hydro lines, irrigated fields, and non-fuel areas etc.). Moreover, where appropriate FTUs should be placed adjacent to recommended FTUs in overlapping CWPPs, completed FMPs, and completed fuel treatments.

All 'Treat' FTUs outlined in Table 9 were prioritized based on scores derived from Priority Setting wildfire threat assessment worksheets. These worksheets consider the following factors (2020 Fuel Management Prescription Guidance, 2020):

- Proximity to values
- Proximity to treated/fuel free areas
- Wildfire spread direction
- Access
- Topography (slope and aspect)
- Fuel assessment rating
- Wildfire risk class

5.1.2 Treatment Types

The BCWS 2020 Fuel Management Prescription Guidance document groups treatment units into two types; Fuel Breaks and Polygon Treatment Areas. For this report there will 4 treatment type designations:

1. Monitor Polygons
2. Treat – Polygon Treatment Area
3. Treat – Fuel break
4. Inoperable Polygons (N/A)

Areas assigned as a Fuel Break or Polygon Treatment Area are prioritized for fuel treatment because of their hazardous fuel types and high wildfire risk. Within the AOI these fuel types are conifer dominated, such as C-2, C-3, C-4, C-5, C-7, M-1/2, and O-1a/b. Although O-1a/b is not a coniferous fuel type it is capable of rapid fire spread and surface fire development. Therefore, O-1a/b with significant fuel loading adjacent to or embedded within coniferous stands should be treated.

TREAT – POLYGON TREATMENT AREA

Polygon Treatments Areas are fuel treatments that do not form part of a continuous fuel break and do not necessarily anchor onto fuel free areas. Polygon Treatment Areas aim to reduce fire behaviour associated with surface fires to an intensity <2,000kW/m or to a fire intensity that will not support a continuous crown fire in high risk (90th percentile) fire weather.

TREAT – FUEL BREAK

A Fuel Break is a linear feature on the landscape. Fuel Breaks must be at least 1km in length, begin and end at an anchor point, and be >100m wide where it is closest to values. Fuel Breaks are linear and approximately >1km in length to be most effective under 90th percentile fire weather conditions. Fuel breaks are intended to reduce fire behaviour associated with surface fires to an intensity <2,000kW/m. Fuel Breaks where the critical surface intensity is already <2,000kW/m, are intended to reduce fire behaviour associated with surface fires to a lower intensity. Portions of the Fuel Break extending past the 100m width zonation are to reduce fire behaviour associated with surface fires to an intensity <4,000kW/m. In areas where the critical surface intensity is already <4,000kW/m, the intent is to reduce fire behaviour associated with surface fires to a lower intensity (2020 Fuel Management Prescription Guidance, 2020).

MONITOR POLYGONS

Areas of low risk were assigned 'Monitor' so that wildfire threat and/or presence of hazard trees can continue to be assessed overtime. Annual wildfire threat assessments should be carried out in 'Monitor' polygons by qualified RDCO parks staff and/or a registered professional forester. Assessments for hazardous trees should be conducted by a Wildlife/Danger Tree Assessor and may need to be conducted at more frequent intervals than wildfire threat assessments.

Fuel types such as D-1/2, O-1a/b, M-1/2, and C-7 are commonly assigned to monitor. D-1/2 fuel types generally reduce wildfire behaviour and do not require modification however should be monitored for hazard trees and heavy surface fuel loading. O-1a/b should be monitored for heavy surface fuel loading and grazing, prescribed burns, or mowing on a semi-annual basis may need to be considered. M-1/2 fuel types dominated by deciduous trees should be monitored for hazard trees and surface fuel loading. C-7 fuel types are not inherently hazardous based on their stand structures however should be monitored for increases in surface and ladder fuel loading and/or extensive mortality. Without natural, low intensity, stand maintaining fires a C-7 fuel type will naturally increase fuel loading through juvenile tree growth and accumulation of surface fuels. As a result, these areas require maintenance treatments. Large swaths of the AOI which may contain areas of high-risk fuels but low wildfire risk due to their distance from values were marked as monitor, these areas should be reassessed if development is to occur within them. If a wildfire threat assessment reveals that the wildfire risk for the polygon has increased to anywhere from moderate to extreme, the polygon should be reconsidered as a 'Treatment' Polygon.

'Monitor' polygons are assigned potential, future recommended stand treatment and debris management techniques but are not of significant risk to be prioritized currently for treatment.

INOPERABLE POLYGONS

Areas considered inoperable have no wildfire risk or have wildfire risk that is not able to be treated due to inaccessibility. Areas with slopes >60% are considered inaccessible. Areas with no wildfire risk include water, paved/built surfaces, irrigated lawns with no trees, and any areas with no vegetation. In the AOI areas that do not support fire commonly include beaches, water bodies, manicured lawns and sports fields, and paved/gravel/dirt areas. Polygons considered inoperable in this CWPP due to slope were

excluded only if they did not pose a significant threat to values; a high threat area of steep slopes should be treated if it poses a wildfire threat to values. However, treatments in these areas are typically expensive and/or limited to prescribed fire.

5.1.3 Stand Treatment Techniques

Treatment specifications are influenced by budgetary constraints, topography, fuel type, and values. Treatments can be carried out by hand or machine. Although the use of machine can be more cost and time effective, some areas are inaccessible by machine and/or are too sensitive to be disturbed by heavy equipment. The following treatment specifications can all be carried out either by hand crews or mechanically.

OVERSTORY THIN (OT) – Removal of overstory stems to meet target density and crown closure levels.

THIN FROM BELOW (TFB) – This treatment specification is similar to overstory thinning but targets the removal of trees in all stand layers (regen to overstory) in order to meet target density and crown closure levels. The largest, healthiest trees in each layer are retained.

UNDERSTORY THIN (UT) - This treatment specification entails that no overstory trees (with the exception of hazard trees) are removed, focusing on regen, poles, and saplings (Resource Practices Branch, n.d.).

HAZARD TREE REMOVAL (HTR) – Removal of trees that pose a threat to human safety.

PRUNING (P) – This treatment specification involves the removal of branches that create ladder fuels on retained stems. Pruning is prescribed to raise crown base height. This is commonly prescribed at 2 to 3m (Resource Practices Branch, n.d.).

SURFACE FUEL REDUCTION (SFR) – This treatment specification is prescribed when surface fuel load levels are too high. Surface fuel load reduction commonly follows harvest treatments to abate the excess loading produced from harvesting activities. SFR generally involves dragging debris to a chipper, air curtain burner or piling for burning but may also involve the raking of litter and needles (Lehmkuhl et al., 2007). Other forms of SFR can be carried out through prescribed burning and/or grazing.

5.1.4 Debris Management Techniques

Like stand treatment techniques, debris management is influenced by budgetary constraints, topography, and operability. These treatments can be carried out manually, mechanically or via prescribed fire methods.

CHIP OR DRAG AND REMOVE (CDAR) – This involves the chipping or dragging of debris and complete removal from the site for disposal or use elsewhere. This debris management method can be applied in any fuel type or treatment type when access permits and removes the majority of surface fuels from the unit (Husari et al., 2015).

LOP AND SCATTER (LS) – When relatively small pieces of coarse woody debris are scattered to lay flat along the surface in situations where surface fuel levels are low and the dispersion of coarse woody debris does not increase fire risk. This method can be used to meet biodiversity objectives (Schnepf et al., 2009).

PILE BURN (PB) – Piling and burning to dispose of debris can be implemented on sites where access is limited or sites are isolated. This treatment is subject to air quality restrictions and open burning smoke control regulations.

BROADCAST BURN (BB) – A form of prescribed fire. Broadcast burns are a controlled application of fire to a specific area to accomplish debris management objectives. A broadcast burn can be conducted post stand treatments or on its own. Broadcast burns require a burn plan (Pausas & Keeley, 2019).

GRAZING (G) – When herbivory livestock animals such as goats, sheep, and/or cattle are used to manage debris amount and arrangement through both ingestion and trampling. This method is only effective on fuels that are palatable to livestock animals such as forbs and grass (Nader et al., 2007).

5.1.5 Fuel Treatment Units

The following table outlines fuel treatment units (fuel breaks and polygon treatment areas) based on prioritization. All monitor and inoperable polygons can be found in appendix 1: Fuel Treatment Units.

Table 18: Fuel Treatment Summary Table

FTU #*	FTU Name*	Total Area (ha)	Priority (Priority Setting Score)	FTU Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Estimated Average Cost ($)	Comments
SCP1	Star Community Park	2.0	63	PTA	Moderate	C-7	HTR SFR	Manual	BB CDAR PB	Manual	3,580.24	Treat to protect values subdivision to N & park users. Extensive dead downed/standing trees.
TCG1	Trepanier Creek	10.0	63	PTA	Moderate	C-7	HTR SFR	Both	CDAR	Both	11,152.12	**Not a fuel treatment.** High priority to clean up dead standing trees within park as a result of wildfire
KAL2	Kalamoir	19.2	61	PTA	Moderate	C-7	HTR P SFR UT	Manual	CDAR PB	Manual	99,360.00	Treat to protect subdivision to N & W
LCG1	Lebanon Creek	28.4	61	PTA	Moderate	C-7	HTR P SFR UT	Both	BB CDAR PB	Both	103,100.77	Treat to protect subdivision to N & park users/infrastructure
SCA1	Scenic Canyon	10.8	60	PTA	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	73,085.69	Treat to protect subdivisions to E & W & park users/infrastructure
SCR1	Stephens Coyote Ridge	36.8	60	PTA	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	133,271.85	Treat to protect homes to E & park users/infrastructure. Adjacent to areas treated in 2014.
KOP1	Kopje	1.7	59	PTA	Moderate	C-2	HTR SFR UT	Both	CDAR	Both	5,057.98	Treat to protect community to E & park users/infrastructure.
RBA1	Raymer Bay	5.5	59	PTA	Moderate	C-7	HTR P	Manual	CDAR	Manual	14,829.31	Treat to protect homes to N & S & park users/infrastructure.

*it is important to note that FTU's starting with 'WUI' are NOT Regional District Parks but RDCO and/or Crown land within the RDCO Park WUI.

FTU #*	FTU Name*	Total Area (ha)	Priority (Priority Setting Score)	FTU Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Estimated Average Cost ($)	Comments
GCG2	Glen Canyon	17.3	58	PTA	Moderate	C-7	HTR P SFR TFB	Manual	CDAR PB	Manual	138,428.36	Treat to protect surrounding community & park users/infrastructure
SCA6	Scenic Canyon	46.3	58	PTA	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	313,847.33	Treat to protect new development to E. Interspersed with inoperable steep slopes
WUI10	Caesars Community	8.7	57	PTA	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	58,799.47	Treat to protect home to N.
RVA1	Rose Valley	137.2	56	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	930,018.43	FB to protect subdivision to N & E. anchors off of fuel type and 200m buffer
WUI57	Philpott Community	41.6	56	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	281,988.10	FB to protect community to W and S anchoring off of cut blocks and road
JRC1	Joe Rich Community Hall	0.3	56	PTA	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	1,990.38	Treat to protect Joe Rich community and fire hall to N.
WNC1	Woodhaven Nature Conservancy	12.5	56	PTA	High	C-3	HTR P SFR TFB	Both	CDAR PB	Both	84,724.95	Treat to protect subdivisions to N, E, & W & park users/infrastructure
WUI13	Mount Boucherie	15.5	56	PTA	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	105,050.31	Treat to protect subdivisions to E and S
WUI56	Philpott Community	23.2	56	PTA	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	157,262.59	Treat to protect community to the S.
WUI1	Killiney Community	129.7	55	FB	High	C-7	HTR P SFR TFB	Both	CDAR	Both	814,642.34	FB to protect community to E, anchors off roads and topo features. Landscape level break w WUI2
MCR1	Mission Creek	57.8	55	PTA	Moderate	C-7	HTR P SFR UT	Both	CDAR	Both	218,261.20	Treat to protect subdivision to N. Establish

*it is important to note that FTU's starting with 'WUI' are NOT Regional District Parks but RDCO and/or Crown land within the RDCO Park WUI.

FTU #*	FTU Name*	Total Area (ha)	Priority (Priority Setting Score)	FTU Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Estimated Average Cost ($)	Comments
												fuel break with adjacent D-1/2 & water
TFC1	Three Forks	4.6	53	PTA	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	18,214.20	Treat to protect homes to N, E, & W & park users/infrastructure.
WUI22	Coldham	18.7	52	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	126,931.98	FB to protect community to W. Anchoring off topo features and roads
WUI36	Philpott Community	65.2	52	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	441,922.49	FB to protect community to S & E. Anchoring off of cut blocks and roads
WUI51	Killiney Community	102.2	52	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	693,040.97	FB to protect community to E anchors off of topo features. Landscape level break w WUI3
WUI42	McCulloch Station	101.6	50	FB	Moderate	C-3	HTR P SFR TFB	Both	BB CDAR PB	Both	688,636.19	FB to protect homes to WSW anchoring off of lake and roads/trails
WUI43	McCulloch Station	14.0	50	PTA	Moderate	M-1/2	HTR P SFR UT	Both	CDAR PB	Both	55,638.02	Treat to protect homes to N.
WUI48	Fintry Community	2.5	50	PTA	Moderate	C-7	HTR P SFR TFB	Both	CDAR	Both	15,928.27	Treat to protect homes to E.
WUI46	Rose Valley Community	15.7	49	PTA	Moderate	C-7	HTR P SFR TFB	Both	CAR LS PB	Both	72,514.27	Treat C-7 fuels to protect homes to E. Create fuel break with adjacent D-1/2 fuels
GCG1	Glen Canyon	28.2	46	PTA	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	191,479.40	Treat to protect surrounding community & park users/infrastructure
WUI8	Caesar's Community	80.5	43	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR	Both	505,689.93	FB to protect community to E anchors off of topo

*it is important to note that FTU's starting with 'WUI' are NOT Regional District Parks but RDCO and/or Crown land within the RDCO Park WUI.

FTU #*	FTU Name*	Total Area (ha)	Priority (Priority Setting Score)	FTU Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Estimated Average Cost ($)	Comments
												features and administrative boundaries
WUI2	Killiney Community	57.6	42	FB	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	390,317.05	FB to protect community to S, anchors off roads & Okanagan lake. Landscape level break w WUI1 & 3
WUI3	Killiney Community	75.8	42	FB	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	513,507.82	FB to protect community to SE, anchors off roads & bottom of Talus. Landscape level break w WUI2&51
WUI16	Shannon Lake Community	2.4	42	PTA	Low	M-1/2	HTR P SFR TFB	Both	CDAR PB	Both	16,017.57	Treat to protect subdivision to W. Conifer dominated M-1/2 fuels
WUI55	Philpott Community	79.5	41	FB	Moderate	C-3	HTR P SFR TFB	Both	CDAR PB	Both	538,895.52	FB to protect community to S anchoring off of cut blocks and road
WUI53	Ellison Community	63.0	38	FB	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	27,322.48	FB to protect community to S anchors off of top of stream slope
GPE2	Goats Peak	24.4	38	PTA	High	C-7	HTR P SFR UT	Both	CDAR PB BB	Both	100,456.32	Treat to protect community to E & park users/infrastructure.
KCH1	Killiney Community Hall	1.0	36	PTA	Moderate	C-7	HTR P SFR UT	Manual	CDAR LS	Manual	4,571.99	Treat to protect Killiney Community Hall to S.
SLA1	Shannon Lake	3.2	36	PTA	Moderate	C-7	HTR P SFR TFB	Manual	CDAR	Manual	27,470.73	Treat to protect subdivision to S & park users/infrastructure
MST1	McCulloch Station	3.4	35	PTA	High	C-3	HTR P SFR TFB	Both	CDAR PB	Both	23,275.17	Treat to protect Cabin to E.

*it is important to note that FTU's starting with 'WUI' are NOT Regional District Parks but RDCO and/or Crown land within the RDCO Park WUI.

FTU #*	FTU Name*	Total Area (ha)	Priority (Priority Setting Score)	FTU Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Estimated Average Cost ($)	Comments
WUI39	Trepanier Creek	8.7	35	PTA	Moderate	C-7	HTR SFR	Both	CDAR PB	Both	11,505.60	Treat to remove of dead standing/downed FdPy
GCG5	Glen Canyon	12.8	25	PTA	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	56,679.12	Treat to protect community to SE.

*it is important to note that FTU's starting with 'WUI' are NOT Regional District Parks but RDCO and/or Crown land within the RDCO Park WUI.

5.1.6 Fuel Management Funding Sources

Over the past 5 years the provincial government has significantly increased the amount of funding for fuel management planning and implementation. The Community Resiliency Investment (CRI) Program was introduced in 2018 as an incentive for communities to carry out fuel management initiatives on provincial Crown land and private land. The CRI has two funding mechanisms, FireSmart Community Funding and Support (FCFS) and Crown Land Wildfire Risk Reduction (WRR). Current WRR CRI funding regimes include investment of up to $25 million per year and is internally sourced. The FCFS is administered through UBCM. Currently $60 million has been invested into this program and is available to communities for the support of FireSmart activities, including fuel management projects (BC Ministry of Forests, Lands, 2020). CRI funding should be pursued for fuel management planning and all other applicable fire prevention activities by the RDCO.

5.2 FireSmart Planning & Activities

FireSmart provides communities with resources and programs designed to increase their resiliency to wildfire across Canada. FireSmart has developed plans, assessments, and guides to mitigate wildfire hazard in existing communities and prevent wildfire hazard in new developments. FireSmart is a responsibility that must be shared amongst all levels from provincial and local government to individuals within a community. Although FireSmart focuses on residential developments, its principles and applications can be applied to mixed-use areas and any structures or buildings. It is crucial to implement FireSmart to build a wildfire resilient community where life and property are protected from the inevitable event of wildfire.

This section summarizes the level of FireSmart that has been completed in the AOI and recommends FireSmart activities that can be applied within the AOI.

5.2.1 FireSmart Goals & Objectives

The goal of FireSmart is to encourage communities and citizens to adopt and conduct FireSmart practices to mitigate against the effects of wildfire to both public and private property assets. These adopted practices should aim to meet the following objectives:

- Reduce the potential for an active crown fire to move through private land
- Reduce the potential for ember transport through private land and structures
- Create landscape conditions around properties where fire suppression efforts can be effective and safe for responders and resources
- Treat fuel adjacent to and nearby structures to reduce the probability of ignition from radiant heat, direct flame contact, and ember transport
- Implement measures to structures and assets that reduce the probability of ignition and loss

These practices are broken down into seven disciplines: education, emergency planning, vegetation management, legislation, development, interagency cooperation, and cross training each providing practices and resources crucial to reaching the goal of a FireSmart community (Alberta government, 2013).

5.2.2 Key Aspects of FireSmart for Local Governments and First Nations

The intent of this subsection is to provide a summary of each of the 7 FireSmart disciplines and in doing so outline activities that gauge current level of implementation and recommend next steps.

EDUCATION – Education is the starting point for a FireSmart community. Public outreach and education build awareness, understanding, and a sense of responsibility amongst community members creating a foundation upon which the successful implementation of other FireSmart disciplines can occur. Education is not limited to individual residents but should also be directed towards land managers (such as the RDCO), visitors, volunteer organizations, industry professionals, and elected officials. The RDCO should consider the following educational outreach tools and tactics.

REC ID	Recommendation/Action Item
15	Make FireSmart informational materials readily accessible to RDCO Parks users and local community members within the AOI. This includes providing FireSmart informational materials at park trail heads, kiosks, and infrastructure such as the Mission Creek Regional Park Environmental Education Centre for the Okanagan. As well as using websites and social media platforms.
16	Community signage should be established in parks where FTU treatments have taken place, providing pre and post treatment photographs, outlining FMP objectives and how fire behaviour will be impacted.
17	Engage with those communities and neighbourhoods adjacent to the AOI and encourage the pursuit of the FireSmart Canada Neighborhood Recognition Program.
18	Provide FireSmart training to RDCO Parks Staff who are WUI Specialists, Urban Planners, and/or Forestry Professionals should become trained as Local FireSmart Representatives to work with groups and neighborhoods in planning and implementing FireSmart practices.
19	Work with local First Nations to develop workshops and public events on the importance of wildfire in the landscape and cohabitating with fire.

Ideally these recommendations would be implemented by a Community FireSmart and Resiliency Committee that coordinates activities across all the municipalities and First Nations within the RDCO. However, these activities should be pursued regardless of the formation of such a committee (BC FireSmart, 2020).

LEGISLATION– Legislation initiatives are higher level opportunities to reduce wildfire risk on both private and administrated land. Reviewing and updating bylaws to strengthen their impact on wildfire risk reduction development is crucial. The influence of FireSmart on legislation has cascading effects on other FireSmart disciplines, especially development (BC FireSmart, 2020).

REC ID	Recommendation/Action Item
20	Advocate to provincial government to create permanent wildfire hazard mitigation building requirements under the BC Building Act

DEVELOPMENT – The development of communities in wildfire-prone areas and the expansion of the WUI should be minimalized where possible. However, growing populations within the RDCO inevitably means more community land use will occur. Therefore, development standards are crucial in reducing the impact wildfire may have (FireSmart Canada, 2020).

REC ID	Recommendation/Action Item
21	Update WDPA mapping to reflect wildfire risk mapping from this CWPP update. Update the Natural Hazards section of all OCPs overlapping with the AOI to specify: - A list of design criteria and construction materials that must be applied within DPAs - A list of Fire-Resistant plants and trees native and suitable to the area that must be applied within the DPAs - The mandatory establishment of residential sprinkler systems for homes in areas without hydrants or Fire Department Response Services that fall within WDPAs Create an enforcement process through bond collection to ensure requirements of WDPs are completed. Apply for funding through UBCM CRI program to complete above outlined updates.
22	Educate local industrial managers and businesses about FireSmart building design and promoting the use of fire-resistant building material. Specifically, educate contractors developing new subdivisions within or adjacent to the new AOI on relevant by-laws and FireSmart principles.

INTERAGENCY COOPERATION – FireSmart efforts are most effective when collaboration occurs between all stakeholders within an area. This includes local fire departments, local government, provincial government, industry representatives, and First Nations. Community FireSmart Resiliency Committees (CFRCs) provide a setting in which stakeholders can come together and discuss the common vision of FireSmart and wildfire risk reduction. CFRCs strengthen collaboration between key partners and provide a means to share information and synergize plans to conduct FireSmart initiatives at a multiscale level (UBCM, 2020a).

A regional approach to wildfire management should be considered between the District of Peachland, District of Lake Country, City of Kelowna, City of West Kelowna, Westbank First Nation, and the RDCO. A CFRC would establish collaboration and organization of wildfire management at a regional level that is currently absent within the RDCO. Moreover, CFRCs will aid in the flow of information from a provincial level to individual members of the community. Community engagement would increase with the establishment of a CFRC through the development of the following projects and initiatives (Thompson et al., 2018):

- Identify FireSmart activities that should be undertaken in regional communities to best build wildfire resiliency
- Coordinate applications to the CRI program and other funding communities
- Develop a network of FireSmart Representatives throughout the RDCO
- Create an advocacy program for participation in the FireSmart Canada Community Recognition program

REC ID	Recommendation/Action Item
23	Connect with Local Governments, First Nations, industry representatives, provincial agency staff, and local fire departments to coordinate the development of a Community FireSmart Resiliency Committee.
24	Apply for CFRC development and maintenance funding through the CRI program (CRI Activity #4 Interagency Cooperation).

CROSS-TRAINING – Wildfire suppression, structural protection, and FireSmart knowledge and skills are required amongst many different professions in the Wildland Urban Interface and not just by those who work directly within a wildfire environment. Cross-training focuses on sharing necessary knowledge amongst different disciplines and in doing so, expands local capacity and expertise. A more diverse set of individuals with wildfire response and FireSmart training will support the development of a resilient community.

REC ID	Recommendation/Action Item
25	Provide RDCO parks 'field' staff with FireSmart 101 and Basic Wildland Fire Suppression and Safety Training (S-100 and S-185) training. Ensure FireSmart 101 training implementation during landscaping and maintenance activities.

EMERGENCY PLANNING – Emergency planning prepares communities for the dynamic and complex nature of wildfires. Emergency planning is multifaceted, involving concurrent onsets of first responders and response events. Wildland urban interface incidents will quickly overwhelm resources and render them ineffective without emergency pre-planning between all first responders and for all phases of response. RDCOs local Emergency Management Plan will cover general emergency planning, however the following topics should be considered for wildfire specific response planning in addition to those within the RDCO EMP.

Pre-Incident planning develops an all-encompassing list of fire management information so that it does not need to be gathered when an incident has already developed. Pre-Incident planning considers logistical and operational needs as well as order of command (UBCM, 2020b).

REC ID	Recommendation/Action Item
26	Establish a Pre-Incident plan following the pre-incident planning checklist provided in the 2021 CWRP Supplemental Instruction Guide. Pre-Incident planning should be developed with cross-jurisdictional participation and executed in live simulation exercises to ensure efficiency.

VEGETATION MANAGEMENT – Vegetation management aims to reduce potential wildfire intensity and WUI exposure to ember. There are two forms of vegetation management, fuel management treatments and residential scale FireSmart landscaping. Refer to section 5.1 Fuel Management for a description of fuel management treatments. Residential scale FireSmart Landscaping is the creation of more fire-resistant spaces through the removal or reduction of flammable vegetation.

Vegetation management at the residential scale is further delineated into the home ignition zone (HIZ) and the critical infrastructure ignition zone (CIIZ) and their corresponding priority zones. Vegetation management within the HIZ and its corresponding priority zones is the responsibility of the private property owner but in the case of smaller lots, the HIZ may extend onto publicly owned lands or adjacent private lands. CIIZ vegetation management is the responsibility of the local government. Vegetation management planning in both the HIZ and CIIZ should be carried out by horticulture specialists and forest professionals whose area of expertise falls under wildfire mitigation (FLNRORD, n.d.).

REC ID	Recommendation/Action Item
27	RDCO employees with expertise in wildfire mitigation and/or hired qualified professionals should assist local communities with FireSmart principles at the neighbourhood and home level.
28	Develop and implement an Annual Firesmart Community day and provide access to debris disposal with RDCO or contractor crews. Conduct community FireSmart implementation days at neighbourhood levels during which a community chipper can be used.

5.2.3 Identify Priority Areas within the Area of Interest for FireSmart

Although there are no neighbourhoods/communities within the AOI, below we identify priority communities that are adjacent to the AOI which would benefit from FireSmart assessments and FireSmart community plans. These areas are prioritized based on wildfire risk adjacent to established communities and critical infrastructure. This is another activity that would be led by a Community FireSmart and Resiliency Committee.

Table 19: Summary of recommended FireSmart activities for identified priority communities

Area ID	Wildfire Risk Rating (E/H/M/L)*	FireSmart Y/N*	FireSmart Canada Recognition Received Y/N*	Recommended FireSmart Activities*
Rural Westside Trepanier Valley & Brent Road Community	L-H	N	N	Adapt a FireSmart Grant Program as an initiative for property owners to conduct FireSmart treatments around their homes Encourage neighborhoods adjacent to RDCO parks to establish Neighborhood Associations to develop and implement FireSmart Activities

Area ID	Wildfire Risk Rating (E/H/M/L)*	FireSmart Y/N*	FireSmart Canada Recognition Received Y/N*	Recommended FireSmart Activities*
Joe Rich Community South Slopes: Lakeshore Road and June Springs Community Ellison Community				Develop and/or promote education for the reduction of human-caused fires Organize and host a community FireSmart day, FireSmart events and workshops, and wildfire season open houses Apply for FireSmart Canada Community Recognition Partnership between private landowners and RDCO to plan vegetation management on private property adjacent to RDCO parks Conduct FireSmart home and property assessments Organize off-site debris disposal for private landowners who have undertaken their own vegetation management, including: - Provide a dumpster, chipper or other collection method - Waive tipping fees - Provide curbside debris pick-up

*wildfire risk rating, FireSmart, FireSmart recognition received, and recommended FireSmart Activities outlined above are applicable to ALL communities outlined under area ID.

5.3 Community Communication and Education

As stated in 5.2.2 Key Aspects of FireSmart for Local Governments and First Nations, education is the cornerstone of FireSmart and mitigation activities.

A community well informed on the importance of wildfire resiliency and where RDCO funding is being funneled into wildfire resiliency projects creates a sense of awareness and ownership pride. This report is only to be successful if the community is engaged and supportive of its recommendations. The following recommendations must be implemented to ensure community communication and education is fulfilled.

REC ID	Recommendation/Action Item
29	Make this CWPP update available to all district residents, fire halls, industry representatives, and the public at large. Post its publication on social media platforms and the RDCO website.
30	A summary of the CWPP and its recommendations, wildfire risk maps and Homeowners FireSmart Manuals should be distributed to residents of communities outlined in the summary of FireSmart table.
31	Updated wildfire mitigation and resiliency activities should be incorporated into the RDCOs webpage as it occurs. Update the RDCO website to showcase ongoing FireSmart projects, new wildfire risk reduction projects, current community events, current wildfire risk, and updated educational resources.
32	Develop and implement wildfire management and risk reduction interactive youth programs. Consider the use of the emergency preparedness curriculum and contacting local BCWS and FireSmart representatives to help with curriculum development and delivery. Implement these programs in RDCO parks and/or at the Environmental Education Centre for the Okanagan. Engage with local schools to adopt this program.
33	Conduct annual Community Wildfire Preparedness Days.
34	Construct and operate additional fire danger rating signs in those high-use parks currently without signage.

SECTION 6: WILDFIRE RESPONSE RESOURCES

Interface fires are often complex incidents that involve coordinated response between wildland and structural firefighters and integration between different levels of government. This section provides a high-level overview of resources that are available to local governments in the case of a wildfire.

6.1 Local Government and First Nation Firefighting Resources

This sub-section outlines local fire department capacities including number of fire departments, equipment, water availability, and training. In outlining current capacity, limitations can be addressed and implications of wildfire that impact firefighting efforts can be outlined. Contingencies that have been put in place to combat these implications are described below as well as recommended measures that should be taken to help make community firefighting more effective.

6.1.1 Fire Departments and Equipment

The Regional District of Central Okanagan's total area encompasses several municipalities, First Nations, and Fire Protection Areas each with their own firefighting capabilities. These are the primary first responders for the majority of the AOI.

The RDCO completed a Fire Services Review (*Fire Services Review*, 2015) and the board of directors accepted the report in 2016. This review focused heavily on organisational structure and administrative controls. However, the review recommended that the RDCO should continue to support the current path to increased effectiveness and efficiency through a centralised Fire Chief. This review did not specifically address capabilities of fire departments to respond to wildfire situations; however, the RDCO can support cross training initiatives and exercises by allowing fire departments access to parks or other area for departments to train in wildland settings.

Municipalities and First Nations coordinate their own fire services; the RDCO is responsible for the 7 Fire Protection Areas that are outside of Municipal and First Nation boundaries. Brent Road, June Springs, and Lakeshore are covered through contracts to local municipal departments; Wildfires outside of municipal, fire service areas, and First Nation boundaries are actioned by BC Wildfire Service crews. However, local fire departments can request support from the BC Wildfire Service or other fire departments through mutual-aid agreements.

Table 20: Overview of Fire Departments operating within the RDCO and their fire suppression structure

Municipality	**Fire Suppression Structure**
District of Peachland	Volunteer Paid on-call
City of West Kelowna	Full-time and Volunteer Paid on-call
City of Kelowna	Full-time and Volunteer Paid on-call
District of Lake Country	Full-time and Volunteer Paid on-call
First Nation	**Fire Suppression Structure**

Westbank First Nation	Supplied through West Kelowna Fire Protection
Okanagan Indian Band	Volunteer Paid on-Call
Fire Protection Areas	**Fire Suppression Structure**
Brent Road	Supplied through District of Peachland
Ellison	Paid on-call
Joe Rich	Paid on-call
June Springs	Supplied through City of Kelowna
Lakeshore Road	Supplied through City of Kelowna
North Westside Road	Paid on-call
Wilsons Landing	Paid on-call

6.1.2 Water Availability for Wildfire Suppression

There is sufficient water availability for wildfire suppression within RDCO parks. This CWPP is specific to the RDCO parklands; water availability requirements for pure wildland fire response is often different than the needs for structural fire response.

While actioning a structural fire a large volume of water is required; this typically requires an on-site fire hydrant. Specifications vary, but a structural fire engine can deliver 5000-6000 litres per minute. In contrast, a wildland fire crew of 20 can effectively operate with only 300 litres per minute. This difference is due to the specific techniques used in wildland fire response. Given these water requirements, wildfire response typically involves utilising a nearby water source and moving water to the fire – either through a hose lay or with water tender trucks. These tenders are either owned by fire departments or industrial vehicles hired on an as needed basis. The water is dispensed into portable water storage tanks and used to supply a smaller delivery system utilised by hand crews.

A search of RDCO data returned 284 active fire hydrants within the project's AOI; this does not include hydrants operated by municipalities or First Nations. Furthermore, many RDCO parks are adjacent to natural water sources such as streams, rivers, and lakes. We do not recommend any changes to existing infrastructure specific to RDCO parks wildfire protection.

Recommendations for improvement in assessing the capabilities of water delivery are encompassed in recommendations for cross-training exercises and drills; exercises, training, and drills will build capacity for fire departments to gain familiarity with wildfire fighting and identify areas for improvements within specific fire departments. The BC Emergency Management System (*British Columbia Emergency Management System*, 2016) identifies the following beneficial activities:

- **TRAINING** Either formal training or developmental training that is role specific
- **DISCUSSION-BASED EXERCISES** Facilitated tabletop or workshops that explore how an emergency response would unfold

- **OPERATIONS-BASED EXERCISES** Drills or functional exercises involving front-line staff in a simulated emergency response.

Each activity provides specific benefits to emergency response that is not limited to wildfire suppression. Future activities should include all three types of activities, incorporate wildfire response, and occur frequently enough that staff from every jurisdiction within the RDCO remains current in wildfire response.

6.1.3 Access and Evacuation

The size, distribution, and location of RDCO Parks results in few access and evacuation routes designed for large scale evacuation of vehicles within parks. The infrastructure within parks is typically foot paths, some of which are also utilised as routes for light operational vehicles. Existing evacuation and egress routes within the parks include well established trail systems and emergency vehicle accesses within most parks. These are not access or evacuation routes designed to support a large-scale evacuation of civilians or to provide access for a large-scale wildfire response. The analysis of these routes falls under the scope of larger scale emergency planning undertaken by the City of Kelowna and encompasses the RDCO.

Three potential areas for improvement are noted and already undertaken by the RDCO. Firstly, maintaining and improving signage on trails to direct trail uses and fire personnel in the event of an emergency. This is already at sufficient levels, is a recommendation earlier in this plan, and is already a work item for the RDCO. Secondly, maintaining existing trails including hazard tree removal and brushing. This is already undertaken by the RDCO. Thirdly, incorporating new trails as fire breaks or maintaining existing trails as fire firebreaks. This already is a recommendation in the report, the RDCO maintains trails to a level required for a firebreak, and a future wildfire risk reduction prescription completed by a qualified professional will consider this objective. As of such we do not make any recommendations specific to this section.

6.1.4. Training

The RDCO should support, where possible, wildland fire training exercises for RDCO, municipality, First Nation, and fire protection areas response staff. The cross-training action items recommended in section 5.2.2 Key Aspects of FireSmart for Local Governments and First Nations, should be implemented alongside the action item described below. Other recommended action items to support cross training are included elsewhere in this CWPP.

These training exercises can include, but are not limited to, structural protection, wildfire firefighting, chainsaw operations, water delivery systems, and cross agency cooperation. Ideally training exercises should occur frequently enough to maintain skill currencies for experienced fire personnel and to build wildland fire skill sets in inexperienced or junior personnel. A key item for these exercises is to identify areas for improvement whether communication, coordination, individual skillsets, or equipment. Learnings for improvement identified within these exercises should be acted upon within individual emergency response programs.

REC ID	Recommendation/Action Item
35	Organize, host, or support wildland fire training exercises in partnership with BCWS and local fire departments.

6.2 Structure Protection

A complete list of structures within the RDCO Parks is located in Section 3.2 Critical Infrastructure. The RDCO does not maintain a significant number of structures within its parklands. An earlier recommendation states that FireSmart activities should be maintain around these limit sites.

Furthermore, local fire departments provide structural protection units which will provide coverage to these structures in the event of a wildfire. At this time, no further recommendations are suggested.

APPENDIX 1: FUEL TREATMENT UNITS

Table 21: Fuel Treatment Summary Table

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
ABE1	Antlers Beach	5.8		N/A		Water					Water
ABE2	Antlers Beach	1.1		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Sand surfaces with sparse FdPy
BCR1	Bertram Creek	9.6		N/A		Water					Water
BCR2	Bertram Creek	5.2		Monitor	Low	C-7	HTR P SFR	Both	CDAR PB	Both	Sparse components of irrigated lawns and built surface
BCR3	Bertram Creek	11.3		Monitor	Low	O-1a/b	HTR SFR	Both	BB CDAR PB	Both	O-1a/b fuel with dead downed PyFd
BCR4	Bertram Creek	0.5		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawn with sparse trees.
BLG1	Bouleau Lake	2.3		Monitor	Low	Non-fuel	HTR	Both	CDAR PB	Both	Sand surfaces used by recreational vehicles
BLG2	Bouleau Lake	2.2		Monitor	High	C-7	HTR P SFR TFB	Both	PB	Both	Treat prior to further development.
BMO1	Black Mountain - sntsk'il'ntən	122.8		Monitor	Low	M-1/2	HTR P SFR UT	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
BMO2	Black Mountain- sntsk'il'ntən	247.7		Monitor	Low	O-1a/b	HTR SFR	Both	BB CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
BMO3	Black Mountain- sntsk'il'ntən	86.4		N/A	Low	C-7					Inoperable due to steep slopes (+60%).
BMO4	Black Mountain- sntsk'il'ntən	201.9		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
CCW1	Cinnabar Creek	0.3		Monitor	Low	C-7	HTR SFR	Manual	CDAR	Both	No public access. Ortho shows sparse FdPy

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
COL1	Coldham	11.1		Monitor	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	Treated in 2014. Not currently considered a wildfire hazard. Monitor for ingress.
DCC1	Dave's Creek Corridor	2.3		Monitor	Moderate	C-7	HTR	Manual	CDAR	Manual	Linear features. No feasible treatment. Monitor for hazard trees, surface fuel &/or ingress.
EET1	Ellison Estates Trail	0.5		Monitor	Low	C-7	HTR SFR	Manual	CDAR PB	Manual	Linear features. No feasible treatment. Monitor for hazard trees, surface fuel &/or ingress.
EPR1	Ellison Primary	0.7		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawn and paved surface. Sparse trees.
FA11	Fintry Access #1	0.2		Monitor	Low	C-7	HTR	Manual	CDAR LS	Manual	Irrigated lawn sparse M-1/2 fuel components.
FA12	Fintry Access #1	0.4		N/A	Low	Water					Water
FA21	Fintry Access #2	0.1		Monitor	Low	D-1/2	HTR	Manual	CDAR LS	Both	Sparse Act
FA22	Fintry Access #2	0.2		N/A	Low	Water					Water
GCG1	Glen Canyon	28.2	46	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect surrounding community & park users/infrastructure
GCG2	Glen Canyon	17.3	58	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Manual	CDAR PB	Manual	Treat to protect surrounding community & park users/infrastructure
GCG3	Glen Canyon	10.6		N/A	Low	C-7					Inoperable due to steep slopes (+60%).
GCG4	Glen Canyon	27.1		Monitor	Low	D-1/2	HTR P SFR	Both	CDAR PB	Both	Monitor to maintain surface fuels to impede potential for surface fire establishment
GCG5	Glen Canyon	12.8	25	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	Treat to protect community to SE.
GHE1	Gellatly Heritage	3.0		Monitor	Low	O-1a/b	HTR SFR	Both	BB CDAR G	Both	Irrigated lawn with pruned & spaced PyFd.

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
GNF1	Gellatly Nut Farm	4.0		Monitor	Low	Non-fuel	HTR	Both	CDAR	Both	Ornamental/nut crop trees. irrigated lawns with sparse trees.
GPE1	Goats Peak	28.3		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%)
GPE2	Goats Peak	24.4	38	Polygon Treatment Area	High	C-7	HTR P SFR UT	Both	CDAR PB BB	Both	Treat to protect community to E & park users/infrastructure.
HFA1	Hardy Falls	2.1		N/A	Low	M-1/2					Inoperable due to steep slopes (+60%).
HFA2	Hardy Falls	2.4		Monitor	Low	M-1/2	HTR SFR	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
JCL1	Jack Creek Linear	0.1		N/A	Moderate	C-7	HTR P SFR TFB	Manual	CDAR PB	Manual	Feature is embedded within C-7 fuels. Fuel treatment not feasible. Reassess prior to development
JFN1	John's Family Nature Conservancy	406.8		Monitor	Low	O-1a/b	HTR SFR	Both	BB	Both	Sparse PyFd Regen. components of D-1/2 fuels.
JRC1	Joe Rich Community Hall	0.3	56	Polygon Treatment Area	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect Joe Rich community and fire hall to N.
JRC2	Joe Rich Community Hall	0.7		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Sparse PyFd
KAL1	Kalamoir	2.9		N/A		Water					Water
KAL2	Kalamoir	19.2	61	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Manual	CDAR PB	Manual	Treat to protect subdivision to N & W
KAL3	Kalamoir	9.4		Monitor	Low	O-1a/b	HTR SFR	Manual	CDAR BB	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
KBE1	Killiney Beach	1.1		Monitor	Low	C-7	HTR P SFR UT	Manual	CDAR PB	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
KBE2	Killiney Beach	4.1		N/A	Low	Water					Water

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
KCH1	Killiney Community Hall	1.0	36	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Manual	CDAR LS	Manual	Treat to protect Killiney Community Hall to S.
KCH2	Killiney Community Hall	0.9		Monitor	Low	Non-fuel	HTR	Manual	CDAR LS	Manual	Sparse PyFd
KLO1	KLO Creek	4.7		Monitor	Low	M-1/2	HTR P SFR TFB	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
KLO2	KLO Creek	12.4		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).
KOP1	Kopje	1.7	59	Polygon Treatment Area	Moderate	C-2	HTR SFR UT	Both	CDAR	Both	Treat to protect community to E & park users/infrastructure.
KOP2	Kopje	2.0		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawn with sparse PyFd.
KYA1	Kaloya	4.7		Monitor	Low	C-7	HTR P SFR UT	Both	CDAR	Both	Irrigated lawn bordered by C-7 fuels.
LCG1	Lebanon Creek	28.4	61	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Both	BB CDAR PB	Both	Treat to protect subdivision to N & park users/infrastructure
LCG2	Lebanon Creek	3.3		Monitor	Low	O-1a/b	HTR SFR	Both	BB CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
LCG3	Lebanon Creek	7.0		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).
LRC1	Lakeshore Road	0.1		Monitor	Low	C-7	HTR	Manual	CDAR PB	Manual	No public access. Ortho shows C-7 fuel with dead standing trees.
MCG1	Mission Creek Greenway	57.8		Monitor	Low	D-1/2	HTR P SFR	Both	CDAR	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
MCR1	Mission Creek	57.8	55	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Both	CDAR	Both	Treat to protect subdivision to N. Establish fuel break with adjacent D-1/2 & water
MIC1	Mill Creek	13.7		Monitor	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	Treated in 2014. Not currently considered a wildfire hazard. Monitor for ingress.
MIC2	Mill Creek	1.7		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
MST1	McCulloch Station	3.4	35	Polygon Treatment Area	High	C-3	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect Cabin to E.
OCH1	Okanagan Safe Harbour	0.8		Monitor	Low	Non-fuel	HTR	Manual	CAR	Manual	Sparse PyFd
OCH2	Okanagan Safe Harbour	0.5		N/A		Water					Water
PPP1	Pine Point	0.2		Monitor	Low	O-1a/b	HTR SFR	Manual	BB CDAR	Manual	Ortho shows sparse PyFd. Property S of Pine Point has developed trails within park.
PTC1	Philpott Trail	4.9		Monitor	Low	C-7	HTR	Both	CDAR PB	Both	Linear features. No feasible treatment. Monitor for hazard trees, surface fuel &/or ingress.
RBA1	Raymer Bay	5.5	59	Polygon Treatment Area	Moderate	C-7	HTR P	Manual	CDAR	Manual	Treat to protect homes to N & S & park users/infrastructure.
RBA2	Raymer Bay	0.8		Monitor	Low	O-1a/b	HTR SFR	Manual	BB	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
RBA3	Raymer Bay	0.6		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawns with sparse trees
RBA4	Raymer Bay	0.6		N/A		Water					Water
REI1	Reiswig	1.0		N/A		Water					Water
REI2	Reiswig	2.9		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawns & paved surfaces. Sparse trees.
RLA1	Robert Lake	2.0		N/A		Water					Water
RVA1	Rose Valley	137.2	56	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect subdivision to N & E. anchors off of fuel type and 200m buffer
RVA2	Rose Valley	102.9		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Reassess for treatment prior to further development
SCA1	Scenic Canyon	10.8	60	Polygon Treatment Area	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect subdivisions to E & W & park users/infrastructure
SCA2	Scenic Canyon	5.4		Monitor	Low	D-1/2	HTR P	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
SCA3	Scenic Canyon	45.0		Monitor	Low	O-1a/b	HTR SFR	Both	BB CDAR G PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
SCA4	Scenic Canyon	61.5		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).
SCA5	Scenic Canyon	10.6		N/A	Low	Water					Water
SCA6	Scenic Canyon	46.3	58	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect new development to E. Interspersed with inoperable steep slopes
SCA7	Scenic Canyon	21.3		Monitor	Low	C-7	HTR SFR UT	Both	CDAR PB	Both	Treated in 2013. Not currently considered a wildfire hazard. Monitor for ingress
SCA9	Scenic Canyon	19.2		Monitor	Low	C-7	HTR P SFR UT	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
SCC1	Scotty Creek	1.3		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawn and paved surface. sparse trees.
SCP1	Star Community Park	2.0	63	Polygon Treatment Area	Moderate	C-7	HTR SFR	Manual	BB CDAR PB	Manual	Treat to protect values subdivision to N & park users. Extensive dead downed/standing trees.
SCR1	Stephens Coyote Ridge	36.8	60	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	Treat to protect homes to E & park users/infrastructure. Adjacent to areas treated in 2014.
SCR2	Stephens Coyote Ridge	72.4		Monitor	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
SCR3	Stephens Coyote Ridge	2.0		N/A		Water					Water
SLA1	Shannon Lake	3.2	36	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Manual	CDAR	Manual	Treat to protect subdivision to S & park users/infrastructure
SLA3	Shannon Lake	0.4		N/A		Water					Water
SRC1	Sunset Ranch	2.6		Monitor	Low	O-1a/b	HTR SFR	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
TCG1	Trepanier Creek	10.0	63	Polygon Treatment Area	Moderate	C-7	HTR SFR	Both	CDAR	Both	Not a fuel treatment. High priority to clean up dead standing trees within park as a result of wildfire

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
TCG2	Trepanier Creek	10.5		N/A	Low	Non-fuel					Paved surface.
TCG3	Trepanier Creek	3.2		Monitor	Low	C-7	HTR	Both	CDAR PB	Both	Small features. No feasible fuel treatment.
TCO1	Traders Cove	13.2		Monitor	Low	O-1a/b	HTR SFR	Both	BB CDAR	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
TCO2	Traders Cove	0.8		N/A		Water					Water
TFC1	Three Forks	4.6	53	Polygon Treatment Area	Moderate	C-7	HTR P SFR UT	Both	CDAR PB	Both	Treat to protect homes to N, E, & W & park users/infrastructure.
TFC2	Three Forks	0.7		N/A	Low	Water					Water
TFC3	Three Forks	0.2		Monitor	Low	O-1a/b	HTR SFR	Manual	CDAR PB	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WEC1	Westshore Estates	0.9		Monitor	Low	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect park values. recommended to coincide treatment with WUI52
WEC2	Westshore Estates	1.1		Monitor	Low	Non-fuel	HTR	Manual	CDAR PB	Manual	Irrigated lawns and built surfaces. Sparse PyFd.
WNC1	Woodhaven Nature Conservancy	12.5	56	Polygon Treatment Area	High	C-3	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect subdivisions to N, E, & W & park users/infrastructure
WNC2	Woodhaven	4.8		Monitor	Low	Non-fuel	HTR	Mechanical	CDAR PB	Manual	Irrigated lawns and paved/built surfaces. Sparse PyFd.
WNC3	Woodhaven	11.9		N/A	High	C-7					Inoperable due to steep slopes (+60%).
WUI1	Killiney Community	129.7	55	Fuel Break	High	C-7	HTR P SFR TFB	Both	CDAR	Both	FB to protect community to E, anchors off roads and topo features. Landscape level break w WUI2
WUI10	Caesars Community	8.7	57	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect home to N.
WUI11	Traders Cove Community	1.4		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
WUI12	Rose Valley Community	7.9		Monitor	Low	Non-fuel	HTR	Manual	CDAR PB	Manual	Irrigated lawn. Sparse PyFd.
WUI13	Mount Boucherie	15.5	56	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect subdivisions to E and S
WUI14	Mount Boucherie	23.7		Monitor	Low	O-1a/b	SFR	Manual	BB G	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI15	Shannon Lake Community	3.2		Monitor	Low	Non-fuel	HTR	Manual	CDAR	Manual	Irrigated lawns, paved/built surfaces. Sparse FdPy
WUI16	Shannon Lake Community	2.4	42	Polygon Treatment Area	Low	M-1/2	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect subdivision to W. Conifer dominated M-1/2 fuels
WUI17	Shannon Lake Community	33.8		Monitor	Low	O-1a/b	HTR	Both	CDAR PB	Both	Irrigated lawns, paved/built surfaces. Sparse FdPy
WUI18	Glenrosa Community	5.8		N/A	Moderate	C-7	HTR P SFR TFB	Both	CDAR LS PB	Both	Feature is embedded within C-7 fuels. Fuel treatment not feasible. Reassess prior to development.
WUI19	Glenrosa Community	3.4		N/A	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Feature is embedded within C-7 fuels. Fuel treatment not feasible. Reassess prior to development.
WUI2	Killiney Community	57.6	42	Fuel Break	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to S, anchors off roads & Okanagan lake. Landscape level break w WUI1 & 3
WUI20	Trepanier Community	7.4		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI21	Trepanier Community	2.2		Monitor	Low	O-1a/b	HTR SFR	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI22	Coldham	18.7	52	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to W. Anchoring off topo features and roads
WUI23	Coldham	39.4		Monitor	Low	O-1a/b	HTR SFR	Both	CDAR PB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI24	Carrs Landing	72.1		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	N/A. Change to a monitor FTU under the condition that area is intended to be developed
WUI26	Trepanier Community	7.6		Monitor	Low	O-1a/b	HTR SFR	Manual	BB CDAR PB	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
WUI27	Peachland	423.9		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Overlap with area currently being developed for fuel management. Reassess for expansion of treatment prior to further development
WUI29	Crawford Community	13.0		Monitor	Low	O-1a/b	SFR	Both	BB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI3	Killiney Community	75.8	42	Fuel Break	High	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to SE, anchors off roads & bottom of Talus. Landscape level break w WUI2&51
WUI30	Crawford Community	14.2		Monitor	Low	O-1a/b	SFR	Both	BB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI31	Crawford Community	2.1		Monitor	Low	Non-fuel	HTR	Manual	CDARPB	Manual	Irrigated lawns and paved surfaces. Sparse FdPy.
WUI32	Gallagher's Canyon Community	58.6		Monitor	Low	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Overlap with previously treated areas.
WUI33	Medicine Creek 12	21.6		N/A	Low	C-7	HTR	Manual	CDAR	Manual	Feature is embedded within C-7 fuels. Fuel treatment not feasible. Reassess prior to development.
WUI34	Black Mountain Community	62.2		Monitor	Low	O-1a/b	SFR	Both	BB	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI35	Black Mountain Community	2.1		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).
WUI36	Philpott Community	65.2	52	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to S & E. Anchoring off of cut blocks and roads
WUI37	Ellison Community	78.5		N/A	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	N/A. Change to a monitor FTU under the condition that area is intended to be developed
WUI38	Trepanier Community	9.5		N/A	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Feature is embedded within C-7 fuels. Fuel treatment not feasible. Reassess prior to development.
WUI39	Trepanier Creek	8.7	35	Polygon Treatment Area	Moderate	C-7	HTR SFR	Both	CDAR PB	Both	Treat to remove of dead standing/downed FdPy
WUI4	Fintry Community	7.6		Monitor	Moderate	C-7	HTR P SFR	Manual	CDAR	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
WUI40	Crawford Community	9.8		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).
WUI41	John's Family	979.3		Monitor	Low	O-1a/b	HTR SFR	Both	BB	Both	Minor components of Py and Fd regen
WUI42	McCulloch Station	101.6	50	Fuel Break	Moderate	C-3	HTR P SFR TFB	Both	BB CDAR PB	Both	FB to protect homes to WSW anchoring off of lake and roads/trails
WUI43	McCulloch Station	14.0	50	Polygon Treatment Area	Moderate	M-1/2	HTR P SFR UT	Both	CDAR PB	Both	Treat to protect homes to N.
WUI44	Rose Valley Community	133.4		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CAR LS PB	Both	Monitor for hazard trees, surface fuel &/or ingress. Treat prior to further development
WUI45	McCulloch Station	831.0		N/A	Moderate	C-3					N/A. Change to a monitor FTU under the condition that area is intended to be developed
WUI46	Rose Valley Community	15.7	49	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CAR LS PB	Both	Treat C-7 fuels to protect homes to E. Create fuel break with adjacent D-1/2 fuels
WUI47	Rose Valley Community	14.2		Monitor	Low	D-1/2	HTR	Both	CDAR LS	Both	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI48	Fintry Community	2.5	50	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CDAR	Both	Treat to protect homes to E.
WUI49	Caesars Community	4.1		N/A	Moderate	C-7					Inoperable due to steep slopes (+60%).
WUI5	Fintry Community	0.8		Monitor	Low	O-1a/b	SFR	Manual	BB	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI50	Mount Boucherie	11.9		N/A	Low	O-1a/b					Inoperable due to steep slopes (+60%).
WUI51	Killiney Community	102.2	52	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to E anchors off of topo features. Landscape level break w WUI3
WUI52	Killiney Community	881.0		N/A	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	N/A. Change to a monitor FTU under the condition that area is intended to be developed

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

FTU # & Stratum	FTU Name	Total Area (ha)	Priority (Priority Setting Score)	Treatment Unit Type	Local Fuel Threat	Dominant Fuel Type	Stand Treatment Technique	Stand Treatment Methodology	Debris Management Technique	Debris Management Methodology	Comments
WUI53	Ellison Community	63.0	38	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to S anchors off of top of stream slope
WUI54	KLO Creek	29.9		Monitor	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	N/A. Reassess prior to development
WUI55	Philpott Community	79.5	41	Fuel Break	Moderate	C-3	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to S anchoring off of cut blocks and road
WUI56	Philpott Community	23.2	56	Polygon Treatment Area	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	Treat to protect community to the S.
WUI57	Philpott Community	41.6	56	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	FB to protect community to W and S anchoring off of cut blocks and road
WUI58	Philpott Community	733.6		N/A	Moderate	C-7					N/A. Change to a monitor FTU under the condition that area is intended to be developed
WUI59	Philpott Community	733.9		N/A	Moderate	C-7					N/A. Change to a monitor FTU under the condition that area is intended to be developed
WUI6	Fintry Community	3.4		Monitor	Low	O-1a/b	HTR SFR	Manual	BB CDAR	Manual	Not currently considered a wildfire hazard. Monitor for hazard trees, surface fuel, and/or ingress
WUI60	Philpott Community	159.1		N/A	Moderate	C-5					N/A. Change to a monitor FTU under the condition that area is intended to be developed
WUI7	Fintry Community	4.6		Monitor	Moderate	C-6	HTR P SFR TFB	Both	CDAR	Both	Monitor for hazard trees, surface fuel &/or ingress. Treat prior to further development
WUI8	Caesar's Community	80.5	43	Fuel Break	Moderate	C-7	HTR P SFR TFB	Both	CDAR	Both	FB to protect community to E anchors off of topo features and administrative boundaries
WUI9	Caesar's Community	246.4		N/A	Moderate	C-7	HTR P SFR TFB	Both	CDAR PB	Both	N/A. Change to a monitor FTU under the condition that area is intended to be developed

*FTU#& Stratum starting with 'WUI' are areas located within the WUI of RDCO owned land and Crown land. These areas are located OUTSIDE of RDCO Parks and are not to be mistaken for RDCO parks.

APPENDIX 2: WILDFIRE THREAT ASSESSMENT WORKSHEETS

Table 22: Wildfire Threat Assessment Worksheets

Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
1	Mill Creek	2020-04-14 16:54	KB SP KF	RPF	49° 58' 26.16" N 119° 21' 37.95" W	Fd9Cw1(EpAct)	Cw9Fd1	5 - <10 (5)	Dead fines fuel (<1cm) (8)	26 - 50% coverage (12)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	901 - 1500 (4)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	3 - 6 (7)	401 - 600 (2)	Standing dead/Partial down <20% (2)	70	Adjacent to water, Fd dominate section, Py sections throughout, Jackpot areas
2	Mill Creek	2020-04-14 18:59	KB SP KF	RPF	49° 58' 23.71" N 119° 21' 36.07" W	Py6Fd4	Fd9Py1	10 - 20 (3)	Dead fines fuel (<1cm) (8)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	3 - 6 (7)	601 - 900 (3)	Standing dead/Partial down <20% (2)	64	Steep, rocky ground, basically untreatable.
3	Scenic Canyon	2020-04-17 7:00	KB SP KF	RPF	49° 50' 27.90" N 119° 22' 0.57" W	py9fd1	fd6py4	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Elevated Dead Fuel (7)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	48	
4	Scenic Canyon	2020-04-17 7:00	SP KF KB	RPF	49° 50' 23.46" N 119° 21' 23.23" W	8fd2py	10Fd	1 - <2 (1)	Dead fines fuel (<1cm) (8)	10 - 25% coverage (8)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	<900 (2)	Conifer with low CBH (<5m) (15)	>80% (4)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	65	mistletoe making up the ladder. untreated. manual only sfr tfb to trail or possibly 2m
5	Scenic Canyon	2020-04-17 20:02	KF	RFT	49° 50' 34.23" N 119° 20' 53.31" W	Cw7Ep3	Cw8Fd2	5 - <10 (5)	Moss, herbs, deciduous shrubs (4)	>50% coverage (15)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	1501 - 2500 (6)	Mixwood (75% conifer) (7)	61 - 80% (5)	<3 (10)	<400 (0)	Standing dead/Partial down <20% (2)	67	C7 upslope
6	Coldham	2020-04-30 7:00	SP	FIT	49° 49' 5.43" N 119° 45' 3.71" W	Fd8Py2	10Fd	1 - <2 (1)	Pinegrass (10)	26 - 50% coverage (12)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	66	Has been treated. very open C7.
7	Star	2020-04-30 7:00	SP	FIT	49° 47' 55.80" N 119° 43' 43.93" W	10Fd	10Fd	1 - <2 (1)	Pinegrass (10)	26 - 50% coverage (12)	Elevated Dead Fuel (7)	Sparse <10% coverage (2)	<900 (2)	Conifer with high CBH (>10m) (10)	20 - 40% (1)	>10 (0)	601 - 900 (3)	Standing dead/Partial down >75% (10)	58	Visual Assessment from Across Creek
8	Black Mountain-sntsk'il'ntən	2020-04-23 20:12	SP	FIT	49° 52' 31.38" N 119° 19' 46.17" W	9fd1py	10fd	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Mixwood (3)	Scattered 10 - 39% coverage (5)	901 - 1500 (4)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	59	Low priority due to large o1 break between plot and value

Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
9	Kopje	2020-04-23 21:03	KF	RFT	50° 6' 22.85" N 119° 27' 39.53" W	10Py	10Py	1 - <2 (1)	Dead fines fuel (<1cm) (8)	Absent (0)	Spruce, Fir, Pine (10)	Uniform >60% (10)	901 - 1500 (4)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	<3 (10)	<400 (0)	Standing dead/Partial down <20% (2)	65	Currently typed at NF, but is a pocket of C2 with a very small strip of C7 below path
10	Sunset Ranch Park	2020-04-23 22:27	SP	FIT	49° 56' 3.28" N 119° 20' 34.02" W	8Act1Py1Fd	Fd +Alder	2 - <5 (3)	Moss, herbs, deciduous shrubs (4)	10 - 25% coverage (8)	Mixwood (3)	Patchy 40 - 60% coverage (8)	<900 (2)	Deciduous (<25% conifer) (0)	41 - 60% (2)	<3 (10)	901 - 1200 (4)	Standing dead/Partial down <20% (2)	46	mature decid dominant mixwood. no treatment required
11	Joe Rich Community Hall	2020-04-30 18:18	KF SP	FIT	49° 51' 48.97" N 119° 8' 28.96" W	6fd3cw1py	8cw2fd	1 - <2 (1)	Dead fines fuel (<1cm) (8)	26 - 50% coverage (12)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	1501 - 2500 (6)	Conifer with low CBH (<5m) (15)	>80% (4)	<3 (10)	601 - 900 (3)	Standing dead/Partial down 21 - 50% (5)	74	
12	Philpott WUI	2020-04-30 22:32	KF	RFT	49° 52' 30.24" N 119° 9' 13.84" W	Fd7Lt2Pl1	10Fd	2 - <5 (3)	Pinegrass (10)	26 - 50% coverage (12)	Elevated Dead Fuel (7)	Patchy 40 - 60% coverage (8)	901 - 1500 (4)	Conifer with high CBH (>10m) (10)	61 - 80% (5)	3 - 6 (7)	601 - 900 (3)	Standing dead/Partial down <20% (2)	71	Surface fuel is mixed from pinegrass/shrubs and dead fine. Area currently laid out for development by Tolko.
13	3 Forks Park	2020-04-30 22:33	SP	FIT	49° 52' 9.81" N 119° 9' 16.75" W	10Fd	10Fd	2 - <5 (3)	Dead fines fuel (<1cm) (8)	10 - 25% coverage (8)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	41 - 60% (2)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	62	50m to property line. fuel free grass area
14	Philpott Trail	2020-04-30 23:13	SP	FIT	49° 51' 59.86" N 119° 11' 59.25" W	10Fd	10Fd	1 - <2 (1)	Dead fines fuel (<1cm) (8)	10 - 25% coverage (8)	Other Conifer (5)	Uniform >60% (10)	<900 (2)	Conifer with low CBH (<5m) (15)	>80% (4)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	68	
15	Dave's Corridor	2020-05-01 0:08	SP	FIT	49° 52' 7.46" N 119° 16' 30.33" W	10Fd	10Fd	2 - <5 (3)	Dead fines fuel (<1cm) (8)	26 - 50% coverage (12)	Elevated Dead Fuel (7)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with high CBH (>10m) (10)	41 - 60% (2)	<3 (10)	601 - 900 (3)	Standing dead/Partial down 21 - 50% (5)	67	Speculation of what it would look like in corridor
16	McCulloch buffer	2020-04-30 19:29	KF SP	FIT	49° 47' 48.25" N 119° 11' 38.93" W	7Sx3Pl	6Fd4Sx	2 - <5 (3)	Moss, herbs, deciduous shrubs (4)	10 - 25% coverage (8)	Spruce, Fir, Pine (10)	Patchy 40 - 60% coverage (8)	2501 - 4000 (8)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	<3 (10)	<400 (0)	Standing dead/Partial down <20% (2)	69	
17	McCulloch	2020-04-30 20:33	KF	RFT	49° 47' 9.83" N 119° 11' 6.03" W	Pl8Sx2(At)	Sx7Pl2Fd1	1 - <2 (1)	Pinegrass (10)	10 - 25% coverage (8)	Spruce, Fir, Pine (10)	Uniform >60% (10)	2501 - 4000 (8)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	78	Young forest, adjacent C2.

Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
18	McCulloch	2020-04-30 20:33	KF	RFT	49° 46' 43.03" N 119° 10' 14.87" W	Sx6Pl4	Sx8Pl	2 - <5 (3)	Moss, herbs, deciduous shrubs (4)	26 - 50% coverage (12)	Elevated Dead Fuel (7)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	58	
19	Westshore Estates	2020-05-01 15:55	SP	FIT	50° 13' 37.01" N 119° 27' 37.55" W	6Fd4Py	10Fd	1 - <2 (1)	Dead fines fuel (<1cm) (8)	Scattered <10% coverage (4)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	6 - 9 (3)	601 - 900 (3)	Standing dead/Partial down <20% (2)	43	Open young stand.
20	Westshore Estates WUI	2020-05-01 15:59	KF	RFT	50° 13' 42.76" N 119° 27' 40.83" W	10Fd	10Fd	2 - <5 (3)	Pinegrass (10)	Scattered <10% coverage (4)	Other Conifer (5)	Sparse <10% coverage (2)	901 - 1500 (4)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	3 - 6 (7)	401 - 600 (2)	Standing dead/Partial down <20% (2)	59	Smaller stems have low CBH, larger stems 6-9
21	Killiney Community Hall	2020-05-01 17:02	KF	RFT	50° 11' 30.68" N 119° 30' 20.06" W	Fd9Py1	Fd9Py1	2 - <5 (3)	Dead fines fuel (<1cm) (8)	Scattered <10% coverage (4)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	61 - 80% (5)	3 - 6 (7)	901 - 1200 (4)	Standing dead/Partial down <20% (2)	57	Firehall located downhill, Residential houses located uphill
22	Killiney Community Hall WUI	2020-05-01 17:27	KF	RFT	50° 11' 2.35" N 119° 30' 55.41" W	10Fd	10Fd	2 - <5 (3)	Pinegrass (10)	10 - 25% coverage (8)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	67	Assessment completed from roadside. High density C7/C3.
23	Fintry WUI	2020-05-01 18:02	SP	FIT	50° 7' 47.18" N 119° 30' 13.45" W	6Fd4Py	6Fd4Py	2 - <5 (3)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Sparse <10% coverage (2)	<900 (2)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	63	
24	Cinnabar Creek WUI	2020-05-01 18:30	KF	RFT	50° 3' 31.80" N 119° 30' 17.69" W	Fd6Py4	Fd6Py5	1 - <2 (1)	Pinegrass (10)	10 - 25% coverage (8)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	<400 (0)	Standing dead/Partial down 21 - 50% (5)	63	C7 previously burned. Area heavy in rock. Not close to values. Completed from roadside (bear in the area).
25	Cinnabar Creek WUI	2020-05-01 18:41	SP	FIT	50° 1' 45.25" N 119° 29' 43.52" W	6fd4py	10Fd	2 - <5 (3)	Pinegrass (10)	10 - 25% coverage (8)	Elevated Dead Fuel (7)	Patchy 40 - 60% coverage (8)	901 - 1500 (4)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	71	
26	Raymer Bay	2020-05-01 19:47	SP	FIT	49° 55' 3.06" N 119° 31' 57.40" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	<20% (0)	<3 (10)	<400 (0)	Standing dead/Partial down 21 - 50% (5)	56	minimal treatment required. spacious c7 on water

Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
27	Hardy Falls WUI	2020-05-01 21:28	KF	RFT	49° 44' 23.22" N 119° 46' 14.29" W	Py7Fd3	10Fd	1 - <2 (1)	Dead fines fuel (<1cm) (8)	26 - 50% coverage (12)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	52	Timber on ground recently cut and left. Very open, little to no treatment required.
28	Trepanier Greenway	2020-05-01 22:52	SP	FIT	49° 48' 24.67" N 119° 44' 32.89" W	10Fd	10Fd	1 - <2 (1)	Pinegrass (10)	26 - 50% coverage (12)	Elevated Dead Fuel (7)	Sparse <10% coverage (2)	<900 (2)	Conifer with high CBH (>10m) (10)	20 - 40% (1)	>10 (0)	901 - 1200 (4)	Standing dead/Partial down 51 - 75% (8)	57	fire has gone through
29	Bouleau WUI	2020-05-01 16:46	SP	FIT	50° 12' 31.08" N 119° 28' 52.38" W.	6Fd4Py	10Fd	5 - <10 (5)	Pinegrass (10)	>50% coverage (15)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	76	lots of downed CWD. w UT would be a c7
30	Jack Creek Linear Trail	2020-05-01 22:05	SP	FIT	49° 49' 27.19" N 119° 44' 54.01" W	5fd5py	10Fd	1 - <2 (1)	Pinegrass (10)	26 - 50% coverage (12)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	41 - 60% (2)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	66	c7
31	Hardy Falls	2020-05-05 23:08	KF	RFT	49° 44' 31.77" N 119° 45' 49.69" W	Act5Fd2Py1Ep2	Alder, Ep and shrubs	2 - <5 (3)	Moss, herbs, deciduous shrubs (4)	26 - 50% coverage (12)	Mixwood (3)	Uniform >60% (10)	<900 (2)	Deciduous (<25% conifer) (0)	61 - 80% (5)	6 - 9 (3)	<400 (0)	Standing dead/Partial down <20% (2)	44	This spot in particular has more conifer but is not representative of overall park.
32	Goats Peak	2020-05-07 16:55	SP	FIT	49° 48' 37.20" N 119° 38' 54.30" W	9Fd1Py	10Fd	2 - <5 (3)	Pinegrass (10)	10 - 25% coverage (8)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	1501 - 2500 (6)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	<3 (10)	401 - 600 (2)	Standing dead/Partial down 21 - 50% (5)	74	dense patches of fire can be seen from ortho
33	Glen Canyon	2020-05-07 19:10	SP	FIT	49° 49' 11.12" N 119° 38' 0.19" W	8Fd2Ep	10Fd	5 - <10 (5)	Pinegrass (10)	Scattered <10% coverage (4)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	3 - 6 (7)	401 - 600 (2)	Standing dead/Partial down <20% (2)	55	might be an 80% conifer M1/2 but majority is a mature open c7 with some deciduous understory. pine grass surface fuel with some deciduous shrubs
34	Glen Canyon	2020-05-07 19:52	SP	FIT	49° 50' 0.83" N 119° 38' 49.01" W	6Py4Fd	8Fd2Py	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Other Conifer (5)	Uniform >60% (10)	1501 - 2500 (6)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	70	
35	Glen Canyon	2020-05-07 20:59	SP	FIT	49° 51' 3.75" N 119° 39' 57.64" W	10Fd	10Fd	1 - <2 (1)	Lichen, conifer shrubs (6)	Scattered <10% coverage (4)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with high CBH (>10m) (10)	41 - 60% (2)	6 - 9 (3)	401 - 600 (2)	Standing dead/Partial down <20% (2)	42	

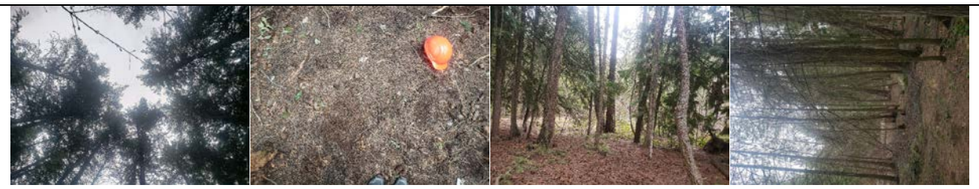
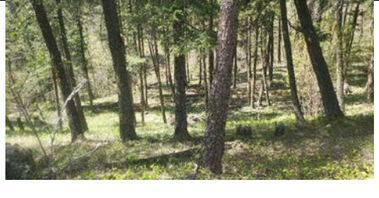
Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
36	Kalamoir	2020-05-08 15:41	SP	FIT	49° 50' 33.68" N 119° 33' 10.65" W	7Py3Act	10Py	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Scattered 10 - 39% coverage (5)	<900 (2)	Mixwood (75% conifer) (7)	20 - 40% (1)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	54	M1
37	Kalamoir	2020-05-08 16:22	SP	FIT	49° 51' 17.85" N 119° 32' 25.97" W	6fd4py	6fd4py	2 - <5 (3)	Lichen, conifer shrubs (6)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	41 - 60% (2)	<3 (10)	901 - 1200 (4)	Standing dead/Partial down <20% (2)	57	
38	Rose Valley	2020-05-08 17:09	SP	FIT	49° 52' 58.58" N 119° 33' 44.85" W	10Fd	10Fd	2 - <5 (3)	Pinegrass (10)	Scattered <10% coverage (4)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	<3 (10)	>1200 (5)	Standing dead/Partial down <20% (2)	63	other than maybe TFB (unless screening was prescribed here) it fine
39	Rose Valley	2020-05-08 19:16	SP	FIT	49° 54' 11.52" N 119° 32' 42.66" W	8fd2py	8fd2py	2 - <5 (3)	Pinegrass (10)	10 - 25% coverage (8)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	63	c3
40	Stephen's Coyote Ridge	2020-05-09 20:46	SP	FIT	49° 57' 42.53" N 119° 26' 21.11" W	8fd2py	8fd2py	2 - <5 (3)	Pinegrass (10)	Scattered <10% coverage (4)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	59	young c7
41	Lebanon Creek	2020-05-12 17:24	SP	FIT	49° 47' 24.07" N 119° 31' 42.62" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	10 - 25% coverage (8)	Spruce, Fir, Pine (10)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	<3 (10)	<400 (0)	Standing dead/Partial down 21 - 50% (5)	61	
42	John's Family Nature Conservancy	2020-05-12 19:16	SP	FIT	49° 46' 34.21" N 119° 32' 27.89" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	10 - 25% coverage (8)	Spruce, Fir, Pine (10)	Absent (0)	<900 (2)	Conifer with high CBH (>10m) (10)	<20% (0)	>10 (0)	<400 (0)	Standing dead/Partial down >75% (10)	51	o1 with standing dead Py
43	Woodhaven WUI	2020-05-12 21:12	SP	FIT	49° 48' 42.12" N 119° 28' 2.44" W	5Fd3Py1Cw1Act	4Fd3Py3Cw	10 - 20 (3)	Dead fines fuel (<1cm) (8)	26 - 50% coverage (12)	Other Conifer (5)	Uniform >60% (10)	<900 (2)	Conifer with low CBH (<5m) (15)	61 - 80% (5)	<3 (10)	901 - 1200 (4)	Standing dead/Partial down <20% (2)	46	transitional zone from c3 to c7
44	Mission Creek	2020-05-16 22:33	SP	FIT	49° 52' 16.68" N 119° 25' 51.49" W	9Py1Act	10Py	2 - <5 (3)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Patchy 40 - 60% coverage (8)	>4000 (10)	Conifer with high CBH (>10m) (10)	61 - 80% (5)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	69	Specific to L2-4 area

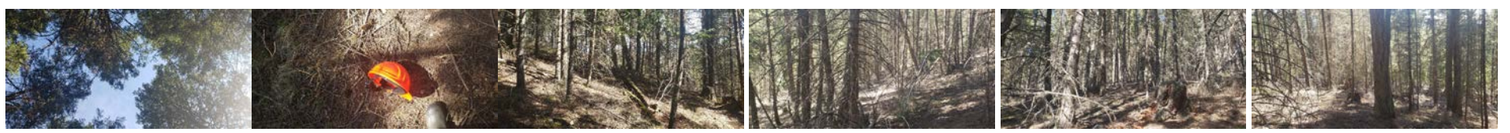
Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
45	Mission Creek	2020-05-16 23:02	SP	FIT	49° 52' 38.94" N 119° 25' 30.71" W	9py1fd	9py1fd	1 - <2 (1)	Dead fines fuel (<1cm) (8)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Scattered 10 - 39% coverage (5)	901 - 1500 (4)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	601 - 900 (3)	Standing dead/Partial down <20% (2)	64	
46	KLO Creek	2020-05-16 19:24	SP	FIT	49° 49' 30.45" N 119° 22' 7.14" W	8Fd2py	10Fd	2 - <5 (3)	Pinegrass (10)	10 - 25% coverage (8)	Other Conifer (5)	Scattered 10 - 39% coverage (5)	2501 - 4000 (8)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	70	maybe should be c3
47	Kaloya	2020-05-06 19:03	SP	FIT	50° 7' 2.44" N 119° 22' 10.81" W	7Py3Fd	10Fd	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	46	
48	Bertram Creek	2020-05-12 19:27	SP	FIT	49° 47' 10.81" N 119° 33' 28.41" W	5Py5Fd	10Fd	1 - <2 (1)	Pinegrass (10)	Absent (0)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	42	
49	Gellatly Heritage	2020-05-07 19:38	SP	FIT	49° 48' 48.19" N 119° 38' 7.84" W	10Py	10Py	1 - <2 (1)	Moss, herbs, deciduous shrubs (4)	Absent (0)	Spruce, Fir, Pine (10)	Absent (0)	<900 (2)	Conifer with high CBH (>10m) (10)	20 - 40% (1)	6 - 9 (3)	<400 (0)	Standing dead/Partial down <20% (2)	33	surface fuel is actually manicured lawn. used option with lowest correlated value
50	Gellatly Nut Farm	2020-05-07 19:47	SP	FIT	49° 48' 38.08" N 119° 37' 36.32" W	deciduous nonnative trees	deciduous nonnative trees	1 - <2 (1)	Moss, herbs, deciduous shrubs (4)	Absent (0)	Deciduous (0)	Absent (0)	<900 (2)	Deciduous (<25% conifer) (0)	20 - 40% (1)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	22	
51	Shannon lake	2020-05-07 19:53	SP	FIT	49° 51' 18.26" N 119° 36' 45.67" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Sparse <10% coverage (2)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	52	
52	Antler Beach	2020-05-05 20:28	SP	FIT	49° 44' 15.02" N 119° 46' 0.84" W	8Py2Fd	8Py2Fd	1 - <2 (1)	Moss, herbs, deciduous shrubs (4)	Absent (0)	Other Conifer (5)	Sparse <10% coverage (2)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	<3 (10)	<400 (0)	Standing dead/Partial down <20% (2)	41	surface fuel is absent mostly sand
53	Traders Cove	2020-05-01 19:42	KF	RFT	49° 56' 18.75" N 119° 30' 2.67" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	Absent (0)	Spruce, Fir, Pine (10)	Absent (0)	<900 (2)	Deciduous (<25% conifer) (0)	<20% (0)	>10 (0)	<400 (0)	Standing dead/Partial down <20% (2)	25	

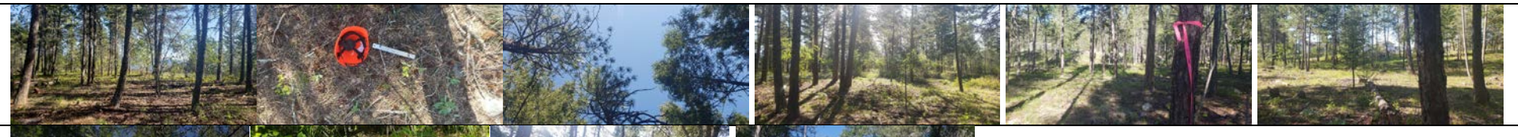
Plot #/ID	Location	Date	Assessor		Lat/Long	Crown Species Composition	Ladder Fuel Species Composition	Depth of Organic Layer (cm)	Surface Fuel Composition	Dead/Down Material Continuity (<7cm)	Ladder Fuel Composition	Ladder Fuel Horizontal Continuity	SPH (Understory)	Overstory Composition CBH	Crown Closure	Fuel Strata Gap	SPH (Overstory)	Dead/Dying (% dom/codom stems)	Total Score	Comments
54	John's Family Nature Conservancy	2020-06-01 17:26	SP	FIT	49° 46' 14.46" N 119° 32' 46.11" W	fdi90at1	fi90at10	1 - <2 (1)	Pinegrass (10)	Absent (0)	Mixwood (3)	Absent (0)	<900 (2)	Conifer with high CBH (>10m) (10)	<20% (0)	6 - 9 (3)	401 - 600 (2)	Standing dead/Partial down <20% (2)	33	highly variable polygon, but the densest area is year-round stream with significant deciduous component.
55	Scenic Canyon	2020-06-01 21:13	SP	FIT	49° 51' 17.37" N 119° 23' 18.04" W	Cw4Act4Fd2+Py	8Cw2Fd	2 - <5 (3)	Moss, herbs, deciduous shrubs (4)	26 - 50% coverage (12)	Mixwood (3)	Uniform >60% (10)	<900 (2)	Mixwood (75% conifer) (7)	61 - 80% (5)	<3 (10)	401 - 600 (2)	Standing dead/Partial down <20% (2)	60	dense mixed wood
56	Scenic Canyon	2020-06-01 22:00	SP	FIT	49° 51' 31.04" N 119° 23' 16.85" W	Cw5Fd3Py1Act1	Cw10	5 - <10 (5)	Dead fines fuel (<1cm) (8)	26 - 50% coverage (12)	Other Conifer (5)	Patchy 40 - 60% coverage (8)	<900 (2)	Conifer with low CBH (<5m) (15)	>80% (4)	<3 (10)	901 - 1200 (4)	Standing dead/Partial down <20% (2)	75	moist c3
57	Cinnabar Creek	2020-10-05 18:45	SP	FIT	50° 2' 31.19" N 119° 30' 1.42" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Sparse <10% coverage (2)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	<20% (0)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	50	
58	Killiney Beach	2020-10-05 20:22	SP	FIT	50° 11' 16.93" N 119° 29' 49.22" W	10Py	10Py	1 - <2 (1)	Moss, herbs, deciduous shrubs (4)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Patchy 40 - 60% coverage (8)	901 - 1500 (4)	Mixwood (75% conifer) (7)	41 - 60% (2)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	49	
59	Woodhaven WUI	2020-10-06 15:02	SP	FIT	49° 48' 16.15" N 119° 27' 11.75" W	PyFd	PyFd	2 - <5 (3)	Pinegrass (10)	10 - 25% coverage (8)	Spruce, Fir, Pine (10)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	20 - 40% (1)	<3 (10)	<400 (0)	Standing dead/Partial down <20% (2)	64	
60	Mount Boucherie WUI	2020-10-06 15:32	SP	FIT	49° 51' 22.62" N 119° 33' 59.08" W	10Py	10Py	1 - <2 (1)	Pinegrass (10)	Scattered <10% coverage (4)	Spruce, Fir, Pine (10)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with moderate CBH (6 - 9m) (12)	20 - 40% (1)	3 - 6 (7)	<400 (0)	Standing dead/Partial down <20% (2)	54	
61	Glendora WUI	2020-10-06 15:37	SP	FIT	49° 50' 4.36" N 119° 40' 57.40" W	PyFd	PyFd	2 - <5 (3)	Dead fines fuel (<1cm) (8)	10 - 25% coverage (8)	Spruce, Fir, Pine (10)	Scattered 10 - 39% coverage (5)	<900 (2)	Conifer with low CBH (<5m) (15)	41 - 60% (2)	3 - 6 (7)	401 - 600 (2)	Standing dead/Partial down <20% (2)	61	

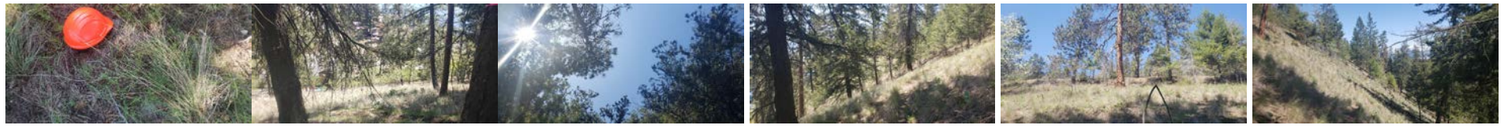
APPENDIX 3: WILDFIRE THREAT ASSESSMENT PHOTOS

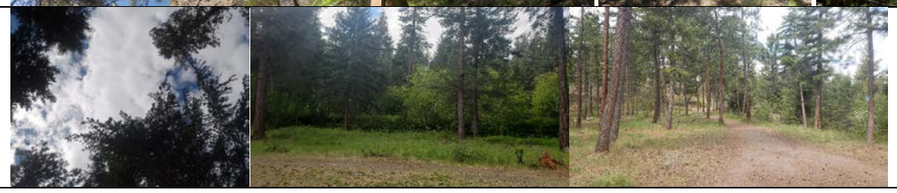
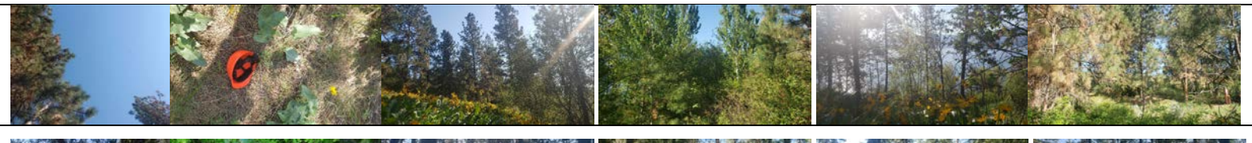
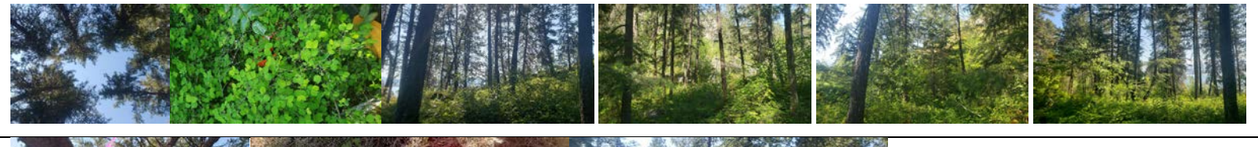
Table 23: Wildfire Threat Assessment Photos

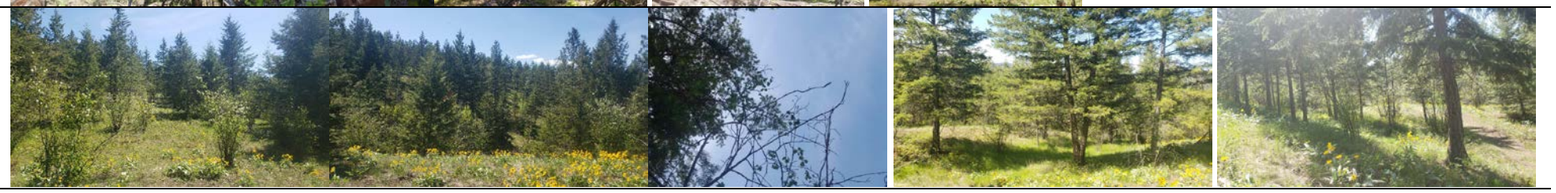
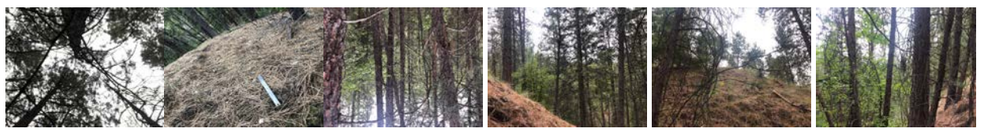
Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
1	Mill Creek	2020-04-14 16:54	KB SP KF	RPF	49° 58' 26.16" N 119° 21' 37.95" W	70	
2	Mill Creek	2020-04-14 18:59	KB SP KF	RPF	49° 58' 23.71" N 119° 21' 36.07" W	64	
3	Scenic Canyon	2020-04-17 7:00	KB SP KF	RPF	49° 50' 27.90" N 119° 22' 0.57" W	48	
4	Scenic Canyon	2020-04-17 7:00	SP KF KB	RPF	49° 50' 23.46" N 119° 21' 23.23" W	65	
5	Scenic Canyon	2020-04-17 20:02	KF	RFT	49° 50' 34.23" N 119° 20' 53.31" W	67	
6	Coldham	2020-04-30 7:00	SP	FIT	49° 49' 5.43" N 119° 45' 3.71" W	66	

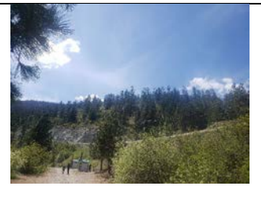
Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
7	Star	2020-04-30 7:00	SP	FIT	49° 47' 55.80" N 119° 43' 43.93" W	58	
8	Black Mountain-sntsk'il'ntən	2020-04-23 20:12	SP	FIT	49° 52' 31.38" N 119° 19' 46.17" W	59	
9	Kopje	2020-04-23 21:03	KF	RFT	50° 6' 22.85" N 119° 27' 39.53" W	65	
10	Sunset Ranch Park	2020-04-23 22:27	SP	FIT	49° 56' 3.28" N 119° 20' 34.02" W	46	
11	Joe Rich Community Hall	2020-04-30 18:18	KF SP	FIT	49° 51' 48.97" N 119° 8' 28.96" W	74	
12	Philpott WUI	2020-04-30 22:32	KF	RFT	49° 52' 30.24" N 119° 9' 13.84" W	71	
13	3 Forks Park	2020-04-30 22:33	SP	FIT	49° 52' 9.81" N 119° 9' 16.75" W	62	
14	Philpott Trail	2020-04-30 23:13	SP	FIT	49° 51' 59.86" N 119° 11' 59.25" W	68	

Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
15	Dave's Corridor	2020-05-01 0:08	SP	FIT	49° 52' 7.46" N 119° 16' 30.33" W	67	
16	McCulloch buffer	2020-04-30 19:29	KF SP	FIT	49° 47' 48.25" N 119° 11' 38.93" W	69	
17	McCulloch	2020-04-30 20:33	KF	RFT	49° 47' 9.83" N 119° 11' 6.03" W	78	
18	McCulloch	2020-04-30 20:33	KF	RFT	49° 46' 43.03" N 119° 10' 14.87" W	58	
19	Westshore Estates	2020-05-01 15:55	SP	FIT	50° 13' 37.01" N 119° 27' 37.55" W	43	
20	Westshore Estates WUI	2020-05-01 15:59	KF	RFT	50° 13' 42.76" N 119° 27' 40.83" W	59	
21	Killiney Community Hall	2020-05-01 17:02	KF	RFT	50° 11' 30.68" N 119° 30' 20.06" W	57	

Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
22	Killiney Community Hall WUI	2020-05-01 17:27	KF	RFT	50° 11' 2.35" N 119° 30' 55.41" W	67	
23	Fintry WUI	2020-05-01 18:02	SP	FIT	50° 7' 47.18" N 119° 30' 13.45" W	63	
24	Cinnabar Creek WUI	2020-05-01 18:30	KF	RFT	50° 3' 31.80" N 119° 30' 17.69" W	63	No access – no photos
25	Cinnabar Creek WUI	2020-05-01 18:41	SP	FIT	50° 1' 45.25" N 119° 29' 43.52" W	71	
26	Raymer Bay	2020-05-01 19:47	SP	FIT	49° 55' 3.06" N 119° 31' 57.40" W	56	
27	Hardy Falls WUI	2020-05-01 21:28	KF	RFT	49° 44' 23.22" N 119° 46' 14.29" W	52	
28	Trepanier Greenway	2020-05-01 22:52	SP	FIT	49° 48' 24.67" N 119° 44' 32.89" W	57	
29	Bouleau WUI	2020-05-01 16:46	SP	FIT	50° 12' 31.08" N 119° 28' 52.38" W.	76	

Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
30	Jack Creek Linear Trail	2020-05-01 22:05	SP	FIT	49° 49' 27.19" N 119° 44' 54.01" W	66	
31	Hardy Falls	2020-05-05 23:08	KF	RFT	49° 44' 31.77" N 119° 45' 49.69" W	44	
32	Goats Peak	2020-05-07 16:55	SP	FIT	49° 48' 37.20" N 119° 38' 54.30" W	74	
33	Glen Canyon	2020-05-07 19:10	SP	FIT	49° 49' 11.12" N 119° 38' 0.19" W	55	
34	Glen Canyon	2020-05-07 19:52	SP	FIT	49° 50' 0.83" N 119° 38' 49.01" W	70	
35	Glen Canyon	2020-05-07 20:59	SP	FIT	49° 51' 3.75" N 119° 39' 57.64" W	42	Data upload failure
36	Kalamoir	2020-05-08 15:41	SP	FIT	49° 50' 33.68" N 119° 33' 10.65" W	54	
37	Kalamoir	2020-05-08 16:22	SP	FIT	49° 51' 17.85" N 119° 32' 25.97" W	57	
38	Rose Valley	2020-05-08 17:09	SP	FIT	49° 52' 58.58" N 119° 33' 44.85" W	63	

Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
39	Rose Valley	2020-05-08 19:16	SP	FIT	49° 54' 11.52" N 119° 32' 42.66" W	63	
40	Stephen's Coyote Ridge	2020-05-09 20:46	SP	FIT	49° 57' 42.53" N 119° 26' 21.11" W	59	
41	Lebanon Creek	2020-05-12 17:24	SP	FIT	49° 47' 24.07" N 119° 31' 42.62" W	61	
42	John's Family Nature Conservancy	2020-05-12 19:16	SP	FIT	49° 46' 34.21" N 119° 32' 27.89" W	51	
43	Woodhaven WUI	2020-05-12 21:12	SP	FIT	49° 48' 42.12" N 119° 28' 2.44" W	66	
44	Mission Creek	2020-05-16 22:33	SP	FIT	49° 52' 16.68" N 119° 25' 51.49" W	69	
45	Mission Creek	2020-05-16 23:02	SP	FIT	49° 52' 38.94" N 119° 25' 30.71" W	64	
46	KLO Creek	2020-05-16 19:24	SP	FIT	49° 49' 30.45" N 119° 22' 7.14" W	70	

Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
47	Kaloya	2020-05-06 19:03	SP	FIT	50° 7' 2.44" N 119° 22' 10.81" W	46	
48	Bertram Creek	2020-05-12 19:27	SP	FIT	49° 47' 10.81" N 119° 33' 28.41" W	42	
49	Gellatly Heritage	2020-05-07 19:38	SP	FIT	49° 48' 48.19" N 119° 38' 7.84" W	33	
50	Gellatly Nut Farm	2020-05-07 19:47	SP	FIT	49° 48' 38.08" N 119° 37' 36.32" W	22	
51	Shannon lake	2020-05-07 19:53	SP	FIT	49° 51' 18.26" N 119° 36' 45.67" W	52	
52	Antler Beach	2020-05-05 20:28	SP	FIT	49° 44' 15.02" N 119° 46' 0.84" W	41	

Plot #/ID	Location	Date	Assessor		Lat/Long	Total Score	Photographs
53	Traders Cove	2020-05-01 19:42	KF	RFT	49° 56' 18.75" N 119° 30' 2.67" W	25	
54	John's Family Nature Conservancy	2020-06-01 17:26	SP	FIT	49° 46' 14.46" N 119° 32' 46.11" W	33	
55	Scenic Canyon	2020-06-01 21:13	SP	FIT	49° 51' 17.37" N 119° 23' 18.04" W	60	Data upload failure
56	Scenic Canyon	2020-06-01 22:00	SP	FIT	49° 51' 31.04" N 119° 23' 16.85" W	75	
57	Cinnabar Creek	2020-10-05 18:45	SP	FIT	50° 2' 31.19" N 119° 30' 1.42" W	50	No access – no photos (in office assessment)
58	Killiney Beach	2020-10-05 20:22	SP	FIT	50° 11' 16.93" N 119° 29' 49.22" W	49	
59	Woodhaven WUI	2020-10-06 15:02	SP	FIT	49° 48' 16.15" N 119° 27' 11.75" W	64	No access – no photos (in office assessment)
60	Mount Boucherie WUI	2020-10-06 15:32	SP	FIT	49° 51' 22.62" N 119° 33' 59.08" W	54	In office assessment
61	Glendora WUI	2020-10-06 15:37	SP	FIT	49° 50' 4.36" N 119° 40' 57.40" W	61	In office assessment

APPENDIX 4: BIBLIOGRAPHY

ABCFP. (2013). *Interim Guidelines – Fire and Fuel Management*. *May*, 44.

Ager, A. A., Houtman, R. M., Day, M. A., Ringo, C., & Palaiologou, P. (2019). Tradeoffs between US national forest harvest targets and fuel management to reduce wildfire transmission to the wildland urban interface. *Forest Ecology and Management*, *434*(November 2018), 99–109. https://doi.org/10.1016/j.foreco.2018.12.003

Alberta government. (2013). *FireSmart Guidebook for Community Protection*. www.esrd.alberta.ca

Alexander, M. E. (2000). *Fire behaviour as a factor in forest and rural fire suppression Forest and Rural Fire Scientific and Technical Series*.

Anderegg, W. R. L., Hicke, J. A., Fisher, R. A., Allen, C. D., Aukema, J., Bentz, B., Hood, S., Lichstein, J. W., Macalady, A. K., Mcdowell, N., Pan, Y., Raffa, K., Sala, A., Shaw, J. D., Stephenson, N. L., Tague, C., & Zeppel, M. (2015). Tree mortality from drought, insects, and their interactions in a changing climate. *New Phytologist*, *208*(3), 674–683. https://doi.org/10.1111/nph.13477

Arthur, J. (2016). *Integrated Vegetation Management Plan For Control of Vegetation at BC Hydro Facilities*.

BC FireSmart. (2020). *Factsheet: FireSmart® Disciplines*. https://firesmartbc.ca/discipline/cross-training/

BC Ministry of Environment and Climate Change Strategy. (2019). *Factsheet Open Burning Smoke Control Regulation General Requirements for Open Burning Before open burning*. https://forms.gov.bc.ca/environment/rapp/

BC Ministry of Forests, Lands, N. R. O. and R. D. (2020). *CROWN LAND WILDFIRE RISK REDUCTION PLANNING GUIDE 2020-2021*. 1–10.

BC Wildfire Service. (2017). *Provincial Strategic Threat Analysis : 2017 Update BC Wildfire Service*. 1–33. http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/wildfire-management/fire-fuel-management/bcws_provincial_strategic_threat_analysis_psta_2015_report.pdf

2020 Fuel Management Prescription Guidance, 1 (2020).

BCWS. (2020). *2020 Wildfire Threat Assessment Guide and Worksheets Sub-component and descriptor definitions Ministry of Forests, Lands, Natural Resource Operations, and Rural Development BC Wildfire Service Wildfire Threat Assessment Guide and Worksheets 2020*.

Bento-Goncalves, A., & Vieira, A. (2020). Wildfire in the wildland-urban interface: Key concepts and evaluation methodologies. *Science of the Total Environment*, *707*.

Boegelsack, N., Withey, J., O'Sullivan, G., & McMartin, D. (2018). A Critical Examination of the Relationship between Wildfires and Climate Change with Consideration of the Human Impact. *Journal of Environmental Protection*, *09*(05), 461–467. https://doi.org/10.4236/jep.2018.95028

British Columbia Emergency Management System (Vol. 147). (2016).

British Columbia Ministry of Forests and British Columbia Ministry of Environment. (1995). Biodiversity Guidebook. In *Forest practices code of British Columbia*. http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/biodiv/biotoc.htm

Cleary, M., Kamp, B. van der, & Morrison, D. (2008). British Columbia's Southern Interior Forests: Armillaria Root Disease Stand Establishment Decision Aid. *BC Journal of Ecosystems and Management*, *9*(2), 60–65.

Fire Services Review. (2015).

FireSmart. (2020). *Recognized FireSmart Communities in BC*. https://firesmartbc.ca/recognized-firesmart-communities/

FireSmart Canada. (2020). *Seven FireSmart Disciplines | FireSmart*. https://firesmartcanada.ca/what-is-firesmart/understanding-firesmart/seven-firesmart-disciplines/

FLNRORD. (n.d.). *British Columbia FireSmart Begins At Home Manual*.

Forest Enhancement Society. (2020). *Projects – FESBC – Forest Enhancement Society of BC*. https://www.fesbc.ca/projects/

Government of BC. (2016). *What Local Governments Need to Know about the Building Act* . www.gov.bc.ca/buildingact

Government of Western Australia. (2019). *Fuel loads and fire intensity - Parks and Wildlife Service*. https://www.dpaw.wa.gov.au/management/fire/fire-and-the-environment/51-fuel-loads-and-fire-intensity

Hanberry, B. B. (2020). Reclassifying the wildland-urban interface using fire occurrences for the United States. *Land*, *9*(7). https://doi.org/10.3390/land9070225

Heyerdahl, E. K., Lertzman, K., & Wong, C. M. (2012). Mixed-severity fire regimes in dry forests of southern interior British Columbia, Canada. *Canadian Journal of Forest Research*, *42*(1), 88–98. https://doi.org/10.1139/X11-160

Hirsch, K. (1996). *Canadian Forest Fire Behavior Prediction System (FBP): User's Guide*.

Hirsch, K. G., & Fuglem, P. (2006). *Canadian Wildland Fire Strategy: Background Syntheses, Analyses, and Perspectives*.

Husari, S., Nichols, T., Sugihara, N., & Stephens, S. (2015). *Fire and Fuel Management*. https://nature.berkeley.edu/stephenslab/wp-content/uploads/2015/04/Husari-et-al-Stephens-Fuel-Man-AFE-9-06.pdf

ICF. (2019). *Preliminary Strategic Climate Risk Assessment for British Columbia*. *July*, 429. https://www2.gov.bc.ca/assets/gov/environment/climate-change/adaptation/prelim-strat-climate-risk-assessment.pdf?fbclid=IwAR3Fk-Vf6tohbvfch3kda5j5BYhYzOhjlgZ03dH_bGe7bC7yHKSLCcWf6K0

Johnston, L. M., & Flannigan, M. D. (2018). Mapping Canadian wildland fire interface areas. *International Journal of Wildland Fire*, *27*(1), 1–14. https://doi.org/10.1071/WF16221

Kelly, A. (2017). Aftermath of Joe Rich fire - Kelowna News - Castanet.net. *Castanet*. https://www.castanet.net/edition/news-story-205480-1-.htm

Kirchmeier-Young, M. C., Gillett, N. P., Zwiers, F. W., Cannon, A. J., & Anslow, F. S. (2019). Attribution of the Influence of Human-Induced Climate Change on an Extreme Fire Season. *Earth's Future*, *7*(1), 2–10. https://doi.org/10.1029/2018EF001050

Klenner, W., Walton, R., Arsenault, A., & Kremsater, L. (2008). Dry forests in the Southern Interior of British Columbia: Historic disturbances and implications for restoration and management. *Forest*

Ecology and Management, *256*(10), 1711–1722. https://doi.org/10.1016/j.foreco.2008.02.047

Lehmkuhl, J. F., Kennedy, M., Ford, E. D., Singleton, P. H., Gaines, W. L., & Lind, R. L. (2007). Seeing the forest for the fuel: Integrating ecological values and fuels management. *Forest Ecology and Management*, *246*(1 SPEC. ISS.), 73–80. https://doi.org/10.1016/j.foreco.2007.03.071

Miexner, T. (2004). Wildfire Impacts on Water Quality. *Southwest Hydrology*. http://www.swhydro.arizona.edu/archive/V3_N5/feature7.pdf

Ministry of Forests. (2001). *Okanagan-Shuswap Land and Resource Management Plan Approved Plan Funding provided by the Crown Land Use Planning Enhancement (CLUPE) fund of Forest Renewal BC*.

Nader, G., Henkin, Z., Smith, E., Ingram, R., & Narvaez, N. (2007). Planned Herbivory in the Management of Wildfire Fuels: Grazing is most effective at treating smaller diameter live fuels that can greatly impact the rate of spread of a fire along with the same height. *Rangelands*, 18–24. http://www.srmjournals.org/doi/abs/10.2111/1551-501X(2007)29[18:PHITMO]2.0.CO;2

Odion, D. C., Hanson, C. T., Arsenault, A., Baker, W. L., DellaSala, D. A., Hutto, R. L., Klenner, W., Moritz, M. A., Sherriff, R. L., Veblen, T. T., & Williams, M. A. (2014). Examining historical and current mixed-severity fire regimes in ponderosa pine and mixed-conifer forests of western North America. *PLoS ONE*, *9*(2). https://doi.org/10.1371/journal.pone.0087852

Pausas, J. G., & Keeley, J. E. (2019). Wildfires as an ecosystem service. *Frontiers in Ecology and the Environment*, *17*(5), 289–295. https://doi.org/10.1002/fee.2044

Perrakis, D. D. B., Eade, G., & Hicks, D. (2017). *British Columbia Wildfire Fuel Typing and Fuel Type Layer Description*.

Price, M. (2011). *Glenrosa Fire the Revisiting Evacuation modeling with ArcGIS Network Analyst 10*.

RDCO. (n.d.). *Regional District of Central Okanagan Fire Protection Areas*.

RDCO. (2012). *Economic Development Discussion Paper*. https://www.regionaldistrict.com/media/20481/Economic Development.pdf

RDCO. (2019a). *2019 ANNUAL REVIEW*.

RDCO. (2019b). *Large Water Systems Drinking Water Annual Report 2019 Killiney Beach, Westshore Estates and Sunset Ranch*.

RDCO. (2019c). *Small Water Systems Drinking Water Annual Report 2019 Upper Fintry/Shalal Road/Valley of the Sun, Falcon Ridge, Dietrich (Star Place), Joe Rich Fire/Community Hall and Goudie Fire Hall*.

RDCO. (2020). *RDCO - My Water System*. https://www.regionaldistrict.com/your-services/environmental-services/water-systems/my-water-system.aspx

RDCO Planning. (2017). *Wildfire Development Permits*. www.regionaldistrict.com

Resource Practices Branch. (n.d.). *Silvicultural Regimes for Fuel Management in the Wildland Urban Interface or Adjacent to High Landscape Values-Guidance*. Retrieved October 30, 2020, from https://www.firesmartcanada.ca/images/uploads/resources/chapter1.pdf

Schnepf, C., Graham, R. T., Kegley, S., & Jain, T. B. (2009). *Managing Organic Debris for Forest Health*. 66.

Stats Canada. (2016). *Regional District of Central Okanagan*. https://www.regionaldistrict.com/about-

the-rdco/population-map.aspx

Swift, K., & Ran, S. (2012). Successional Responses to Natural Disturbance, Forest Management, and Climate Change in British Columbia's Forests. *BC Journal of Ecosystems and Management*, *13*(1).

Thompson, M. P., MacGregor, D. G., Dunn, C. J., Calkin, D. E., & Phipps, J. (2018). Rethinking the wildland fire management system. *Journal of Forestry*, *116*(4), 382–390. https://doi.org/10.1093/jofore/fvy020

Twila Amato. (2020). Regional district's Environmental Education Centre set to reopen – Kelowna Capital News. *Kelowna Capital News*. https://www.kelownacapnews.com/news/regional-districts-environmental-education-centre-set-to-reopen/

UBCM. (2020a). *2020 Community Resiliency Investment Program FireSmart Community Funding & Supports Program & Application Guide*.

UBCM. (2020b). *Community Wildfire Resiliency Plan Instruction Guide*.

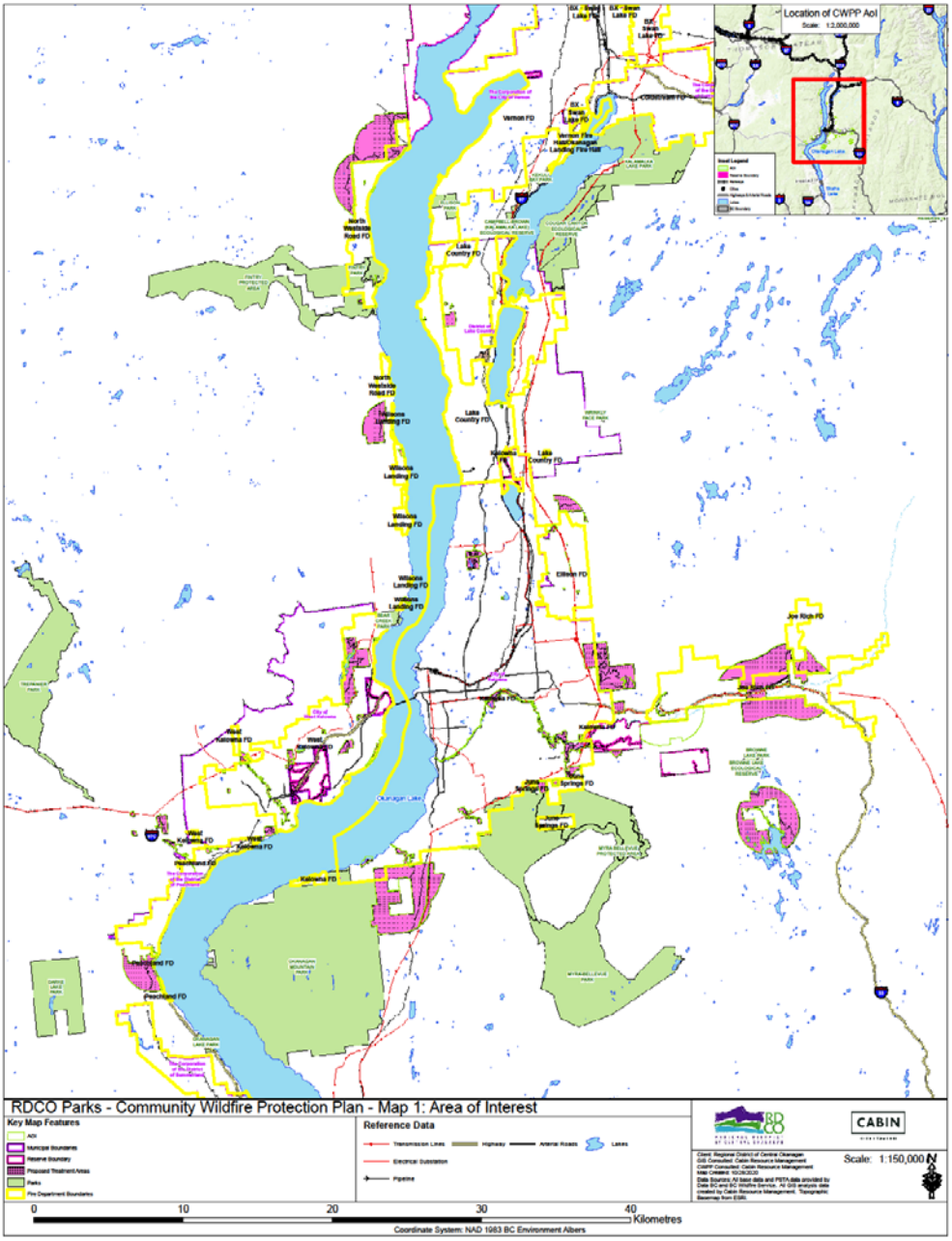
Vines, G. A. (2020). *Climate Projections for the Okanagan Region* (Vol. 1, Issue 1). https://doi.org/10.1079/9781780641973.0038

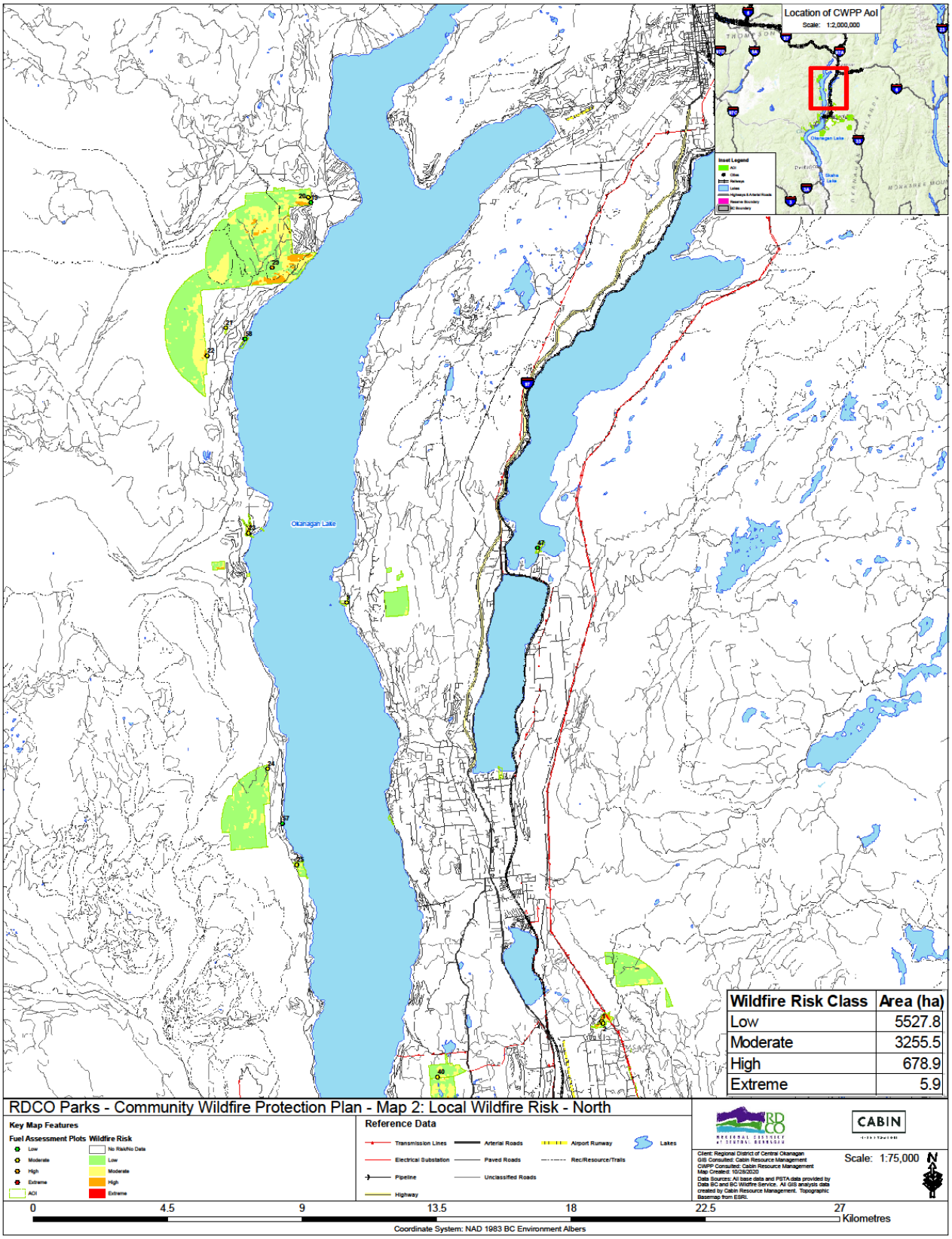
Wildfire Act. (n.d.). Retrieved September 15, 2020, from https://www.bclaws.ca/civix/document/id/complete/statreg/04031_01

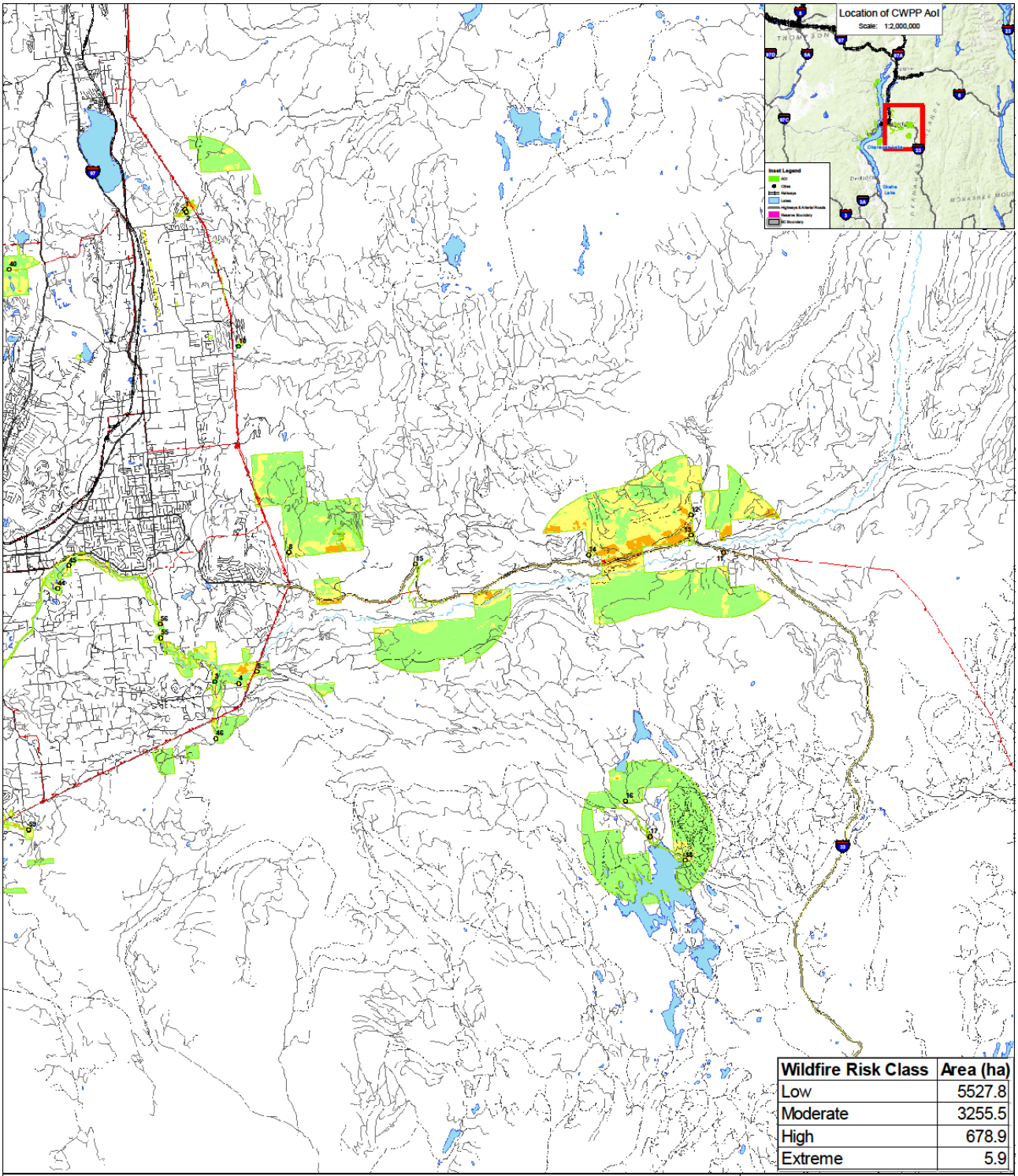
Zurich. (2019). *Fort McMurray Wildfire: Learning from Canada's Costliest Disaster*. https://www.iclr.org/wp-content/uploads/2019/10/Fort-McMurray-Wildfires_Canadian-Copright.FINAL-2_One-Page.pdf

APPENDIX 5: MAPS

The following maps are compressed files for reference. Full-size high-resolution maps are supplied as additional items.




Location of CWPP AoI
Scale: 1:2,000,000
Okanagan Lake
Wildfire Risk Class | Area (ha)
Low | 5527.8
Moderate | 3255.5
High | 678.9
Extreme | 5.9
RDCO Parks - Community Wildfire Protection Plan - Map 2: Local Wildfire Risk - North
Key Map Features
Fuel Assessment Plots Wildfire Risk
Low
Moderate
High
Extreme
AOI
No Risk/No Data
Reference Data
Transmission Lines
Electrical Substation
Pipeline
Highway
Arterial Roads
Paved Roads
Unclassified Roads
Airport Runway
Rec/Resource/Trails
Lakes
CABIN
Scale: 1:75,000
0
4.5
9
13.5
18
22.5
27
Kilometres
Coordinate System: NAD 1983 BC Environment Albers



Wildfire Risk Class	Area (ha)
Low	5527.8
Moderate	3255.5
High	678.9
Extreme	5.9

RDCO Parks - Community Wildfire Protection Plan - Map 2: Local Wildfire Risk - Southeast

Key Map Features

Fuel Assessment Plots Wildfire Risk

Fuel Assessment Ratings

Low

Moderate

High

Extreme

AOI

No Risk/No Data

Reference Data

Transmission Lines

Electrical Substation

Pipeline

Highway

Arterial Roads

Paved Roads

Unclassified Roads

Airport Runway

Rec/Resource/Trails

Lakes

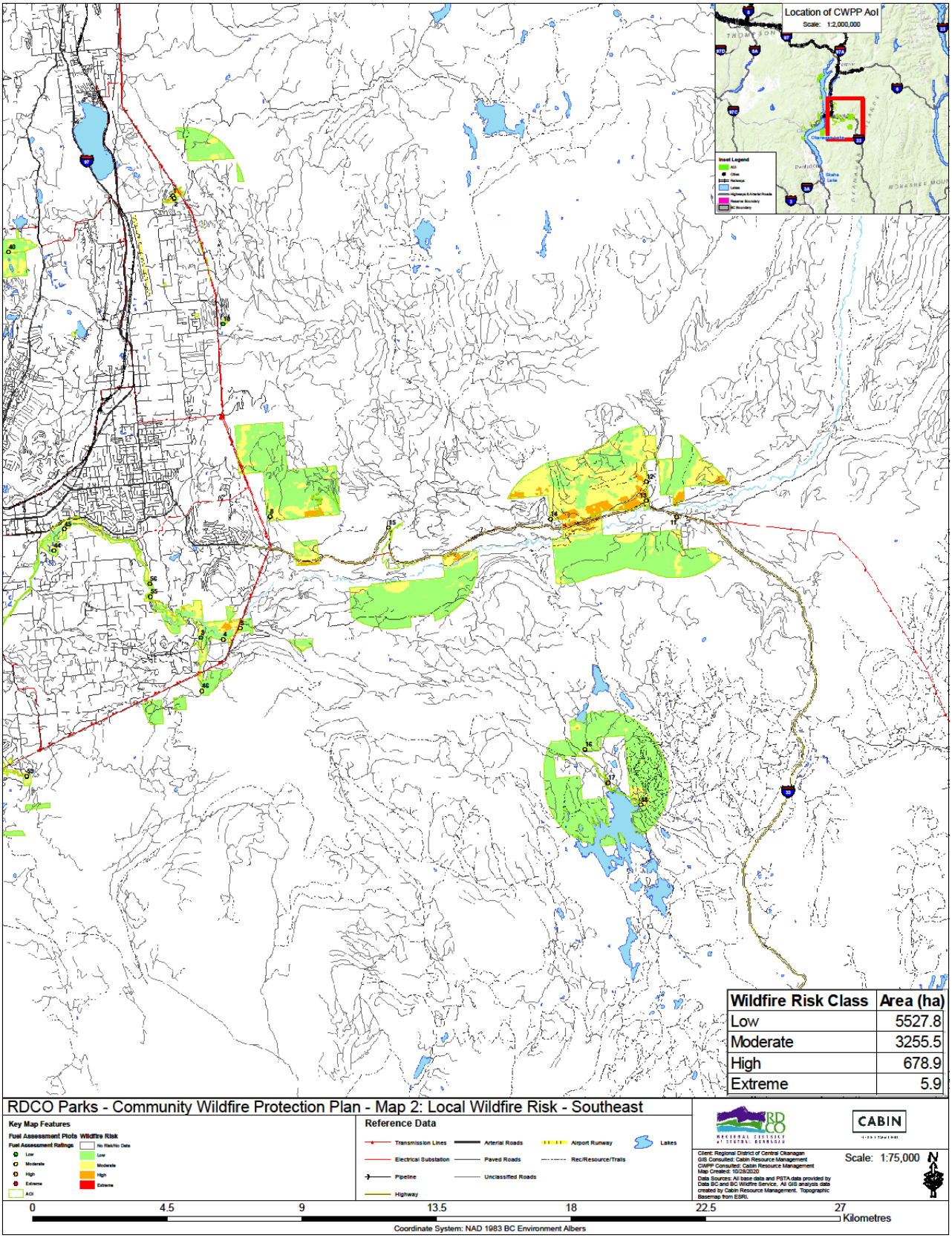
CABIN

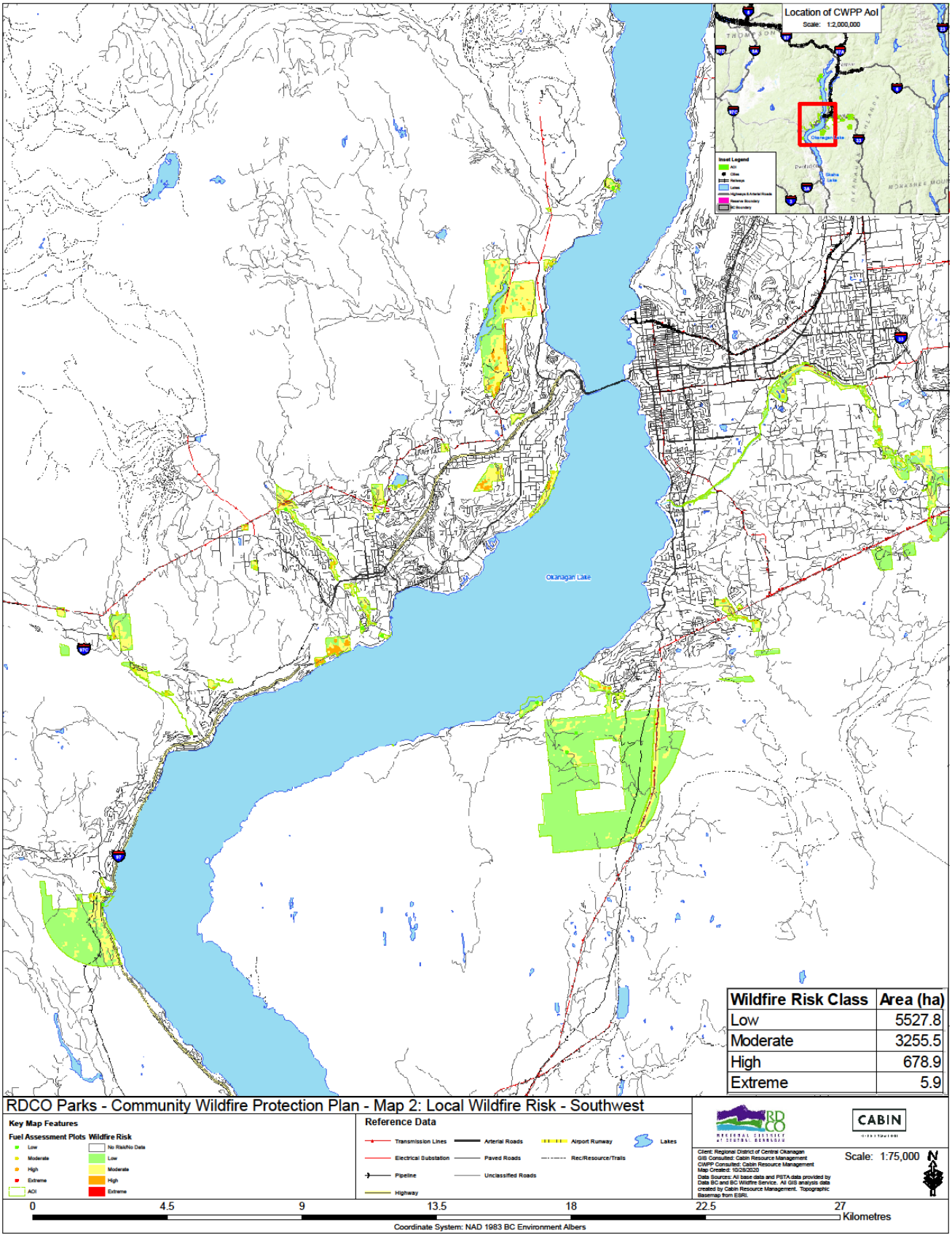
Client: Regional District of Central Okanagan
GIS Consultant: Cabin Resource Management
CWPP Consultant: Cabin Resource Management
Map Created: 10/29/2020
Data Sources: All base data and PSTA data provided by Data BC and BC Wildfire Service. All GIS analysis data created by Cabin Resource Management. Topographic Basemap from ESRI.

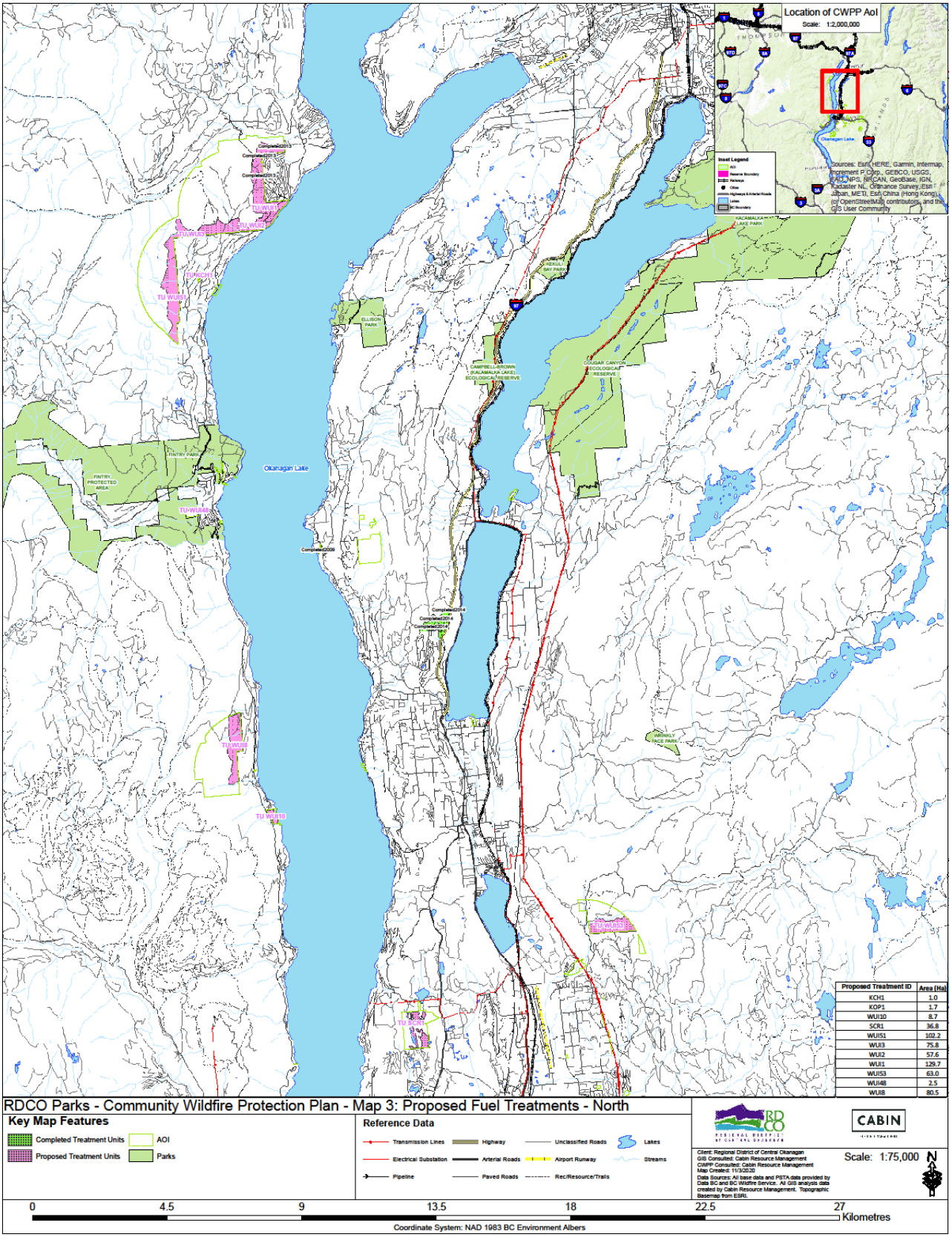
Scale: 1:75,000

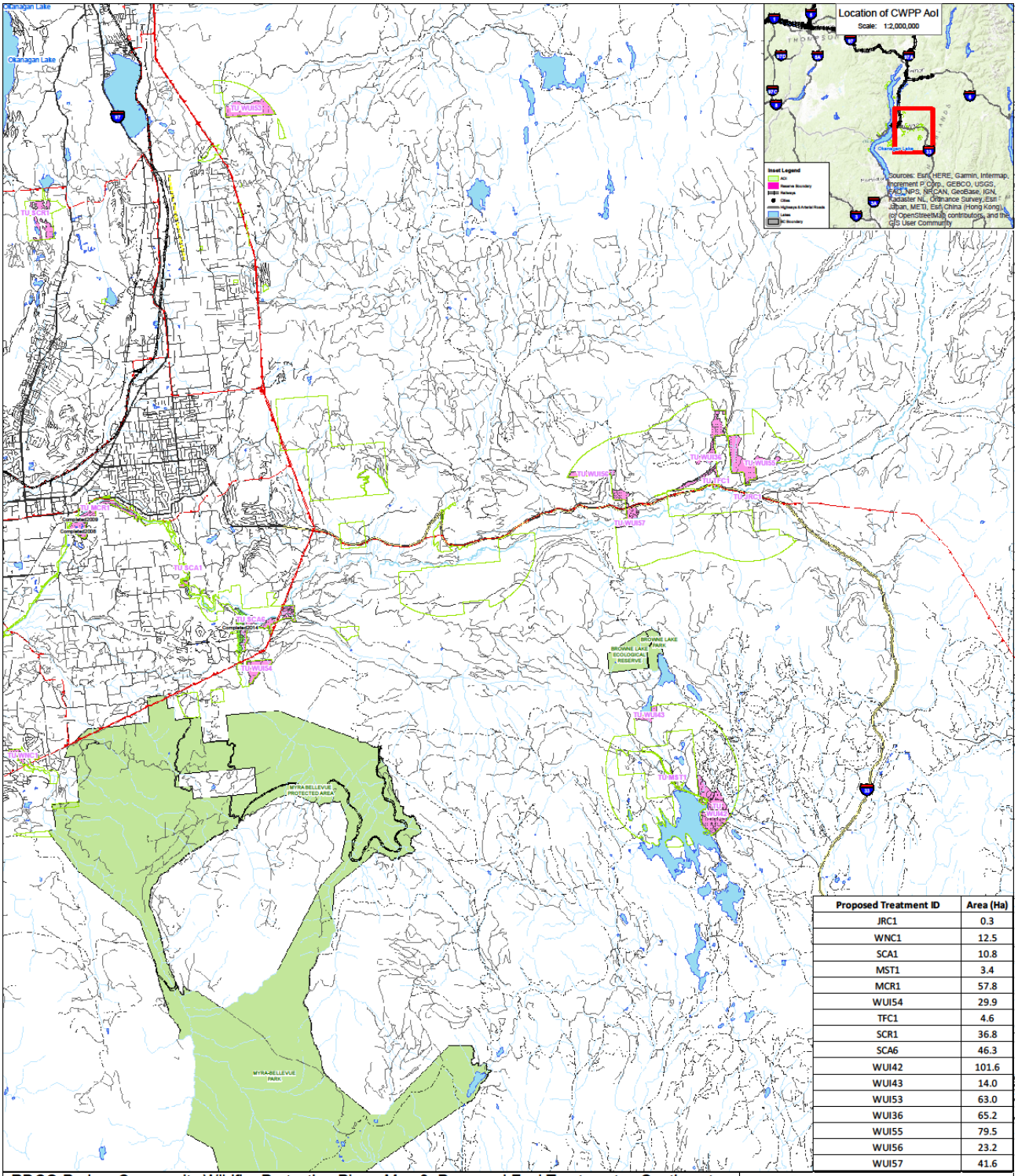
0 4.5 9 13.5 18 22.5 27 Kilometres

Coordinate System: NAD 1983 BC Environment Albers


Location of CWPP AoI
Scale: 1:2,000,000
Inset Legend
AOI
Cities
Railways
Lakes
Highways & Arterial Roads
Reserve Boundary
BC Boundary
Wildfire Risk Class | Area (ha)
Low | 5527.8
Moderate | 3255.5
High | 678.9
Extreme | 5.9
RDCO Parks - Community Wildfire Protection Plan - Map 2: Local Wildfire Risk - Southeast
Key Map Features
Fuel Assessment Plots Wildfire Risk
Fuel Assessment Ratings
No Risk/No Data
Low
Moderate
High
Extreme
AOI
Reference Data
Transmission Lines
Arterial Roads
Airport Runway
Lakes
Electrical Substation
Paved Roads
Rec/Resource/Trails
Pipeline
Unclassified Roads
Highway
CABIN
Client: Regional District of Central Okanagan
GIS Consulted: Cabin Resource Management
CWPP Consulted: Cabin Resource Management
Map Created: 10/28/2020
Data Sources: All base data and PSTA data provided by Data BC and BC Wildfire Service. All GIS analysis data created by Cabin Resource Management. Topographic Basemap from ESRI.
Scale: 1:75,000
0
4.5
9
13.5
18
22.5
27
Kilometres
Coordinate System: NAD 1983 BC Environment Albers


Location of CWPP AoI
Scale: 1:2,000,000
Okanagan Lake
Wildfire Risk Class | Area (ha)
Low | 5527.8
Moderate | 3255.5
High | 678.9
Extreme | 5.9
RDCO Parks - Community Wildfire Protection Plan - Map 2: Local Wildfire Risk - Southwest
Key Map Features
Fuel Assessment Plots Wildfire Risk
Low
Moderate
High
Extreme
AOI
No Risk/No Data
Reference Data
Transmission Lines
Electrical Substation
Pipeline
Highway
Arterial Roads
Paved Roads
Unclassified Roads
Airport Runway
Rec/Resource/Trails
Lakes
CABIN
Scale: 1:75,000
0
4.5
9
13.5
18
22.5
27
Kilometres
Coordinate System: NAD 1983 BC Environment Albers


Location of CWPP AoI
Scale: 1:2,000,000
Okanagan Lake
Proposed Treatment ID | Area (Ha)
KCH1 | 1.0
KOP1 | 1.7
WUI10 | 8.7
SCR1 | 36.8
WUI51 | 102.2
WUI3 | 75.8
WUI2 | 57.6
WUI1 | 129.7
WUI53 | 63.0
WUI48 | 2.5
WUI8 | 80.5
RDCO Parks - Community Wildfire Protection Plan - Map 3: Proposed Fuel Treatments - North
Key Map Features
Completed Treatment Units
Proposed Treatment Units
AOI
Parks
Reference Data
Transmission Lines
Electrical Substation
Pipeline
Highway
Arterial Roads
Paved Roads
Unclassified Roads
Airport Runway
Rec/Resource/Trails
Lakes
Streams
CABIN
Scale: 1:75,000
0
4.5
9
13.5
18
22.5
27
Kilometres
Coordinate System: NAD 1983 BC Environment Albers



Proposed Treatment ID	Area (Ha)
JRC1	0.3
WNC1	12.5
SCA1	10.8
MST1	3.4
MCR1	57.8
WUI54	29.9
TFC1	4.6
SCR1	36.8
SCA6	46.3
WUI42	101.6
WUI43	14.0
WUI53	63.0
WUI36	65.2
WUI55	79.5
WUI56	23.2
WUI57	41.6

RDCO Parks - Community Wildfire Protection Plan - Map 3: Proposed Fuel Treatments - Southeast

Key Map Features

Completed Treatment Units
Proposed Treatment Units
AOI
Parks

Reference Data

Transmission Lines
Electrical Substation
Pipeline
Highway
Arterial Roads
Paved Roads
Unclassified Roads
Airport Runway
Rec/Resource/Trails
Lakes
Streams

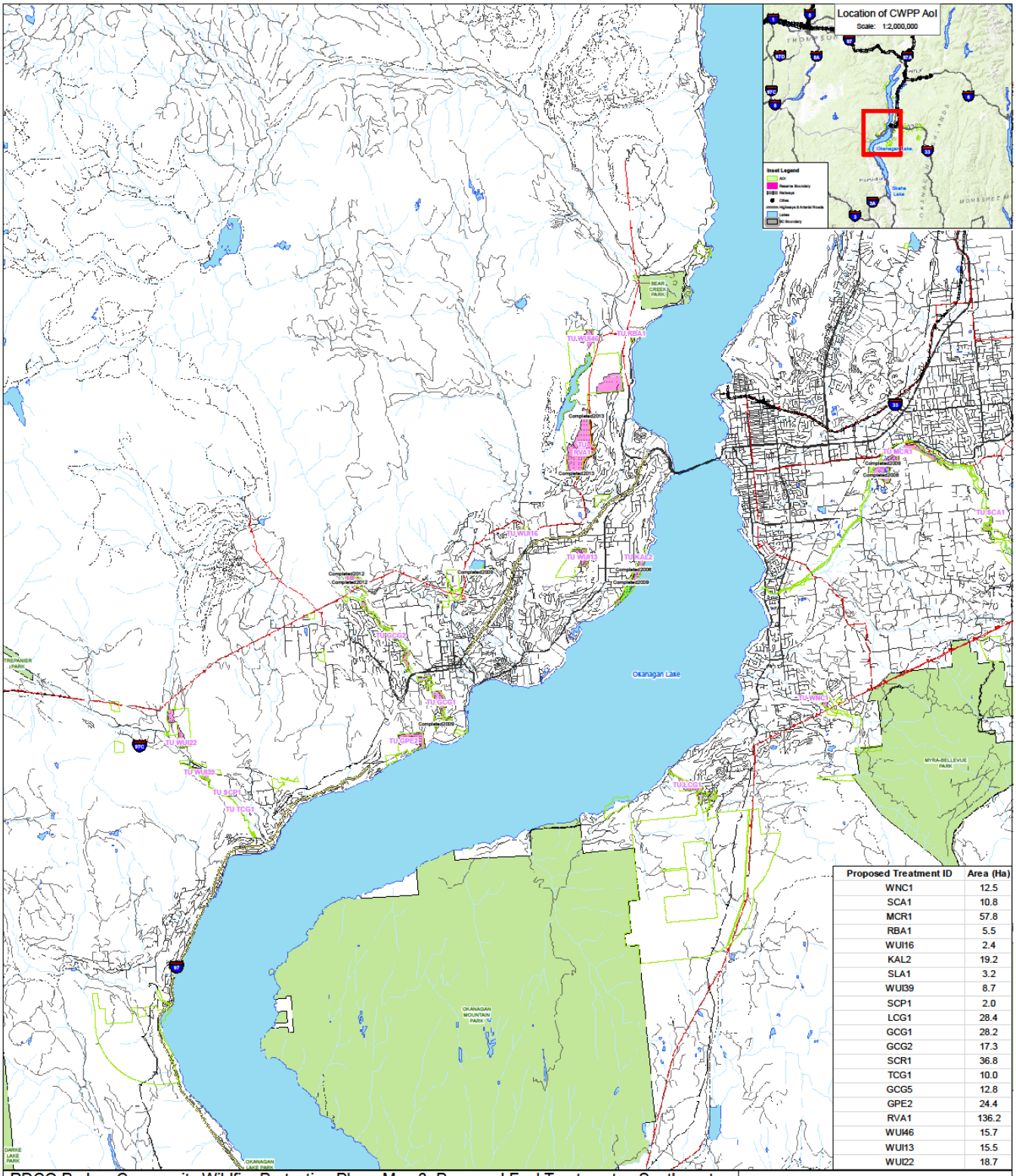
CABIN

Client: Regional District of Central Okanagan
GIS Consultant: Cabin Resource Management
CWPP Consultant: Cabin Resource Management
Map Created: 11/3/2020
Data Sources: All base data and PSTA data provided by Data BC and BC Wildfire Service. All GIS analysis data created by Cabin Resource Management. Topographic Basemap from ESRI.

Scale: 1:75,000

0 4.5 9 13.5 18 22.5 27 Kilometres

Coordinate System: NAD 1983 BC Environment Albers



Proposed Treatment ID	Area (Ha)
WNC1	12.5
SCA1	10.8
MCR1	57.8
RBA1	5.5
WUI16	2.4
KAL2	19.2
SLA1	3.2
WUI39	8.7
SCP1	2.0
LCG1	28.4
GCG1	28.2
GCG2	17.3
SCR1	36.8
TCG1	10.0
GCG5	12.8
GPE2	24.4
RVA1	136.2
WUI46	15.7
WUI13	15.5
WUI22	18.7

RDCO Parks - Community Wildfire Protection Plan - Map 3: Proposed Fuel Treatments - Southwest

Key Map Features

Completed Treatment Units
Proposed Treatment Units
AOI
Parks

Reference Data

Transmission Lines
Electrical Substation
Pipeline
Highway
Arterial Roads
Paved Roads
Unclassified Roads
Airport Runway
Rec/Resource/Trails
Lakes
Streams

CABIN

Client: Regional District of Central Okanagan
GIS Consulted: Cabin Resource Management
CWPP Consulted: Cabin Resource Management
Map Created: 11/3/2020
Data Sources: All base data and PSTA data provided by Data BC and BC Wildfire Service. All GIS analysis data created by Cabin Resource Management. Topographic Basemap from ESRI.

Scale: 1:75,000

0 4.5 9 13.5 18 22.5 27 Kilometres

Coordinate System: NAD 1983 BC Environment Albers