ʔAKISQ̓NUK FIRST NATION

Final Report: Fish and Wildlife Compensation Program project no. COL-F19-W-2739

Photo: Unit OR2B1 (open forest hillside in center), February 2019

Report prepared by Andrew Malucelli, Natural Resources Manager Akisqnuk First Nation, for the Fish and Wildlife Compensation Program March 15, 2019. Project Prepared with financial support of the Fish and Wildlife Compensation Program on behalf of its program partners BC Hydro, the Province of BC, Fisheries and Oceans Canada, First Nations and public stakeholders. Administrative support provided by Akisqnuk First Nations Natural Resources Department.

Executive Summary

The purpose of this final report is to update the Fish and Wildlife Compensation Board of slashing, piling and burning done between October 2018 and March, 2019 on the Akisqnuk First Nation as part of Fish and Wildlife Compensation Program project no. COL-F19-W-2739.

Loss of valley bottom wildlife habitat from BC Hydro dams in the Columbia system has elevated the importance of maintaining productivity of remaining low elevation habitat. The Fish and Wildlife Compensation Program (FWCP) works with Land management agencies and stakeholders to co-ordinate and implement dry forest and grassland habitat restoration on conservation lands and crown land, including both Federal and Provincial in the Rocky Mountain Forest District. These opportunities are operational in nature and may include the development of Ecosystem Restoration Plans, site specific prescriptions, Burn Plans, Pre-Burn Slashing, Slash pile burning, Prescribed Burning and Mastication. The FWCP and the Akisqnuk First Nation developed a partnership to undertake fire-maintained ecosystem restoration on the Akisqnuk First Nation Reserve, as part of the efforts to compensate for habitat losses. The development of the Akisqnuk Wildlife Habitat Restoration Plan in 2011 marked the initiation of the process.

This year represents the 7th year of funding going towards actual on the ground treatments. To date, approximately 130 ha of restoration has been successfully carried out. Project objectives are to: a) re-establish historic stand structure and ecological processes to enhance the health and vigour of the ecosystem; b) ensure that wildlife habitat, especially critical ungulate winter range, is maintained in a healthy condition; ensure critical habitat for known Red and Blue listed species, which were historically present, are maintained/restored; c) reduce the risk of catastrophic wildfires and associated danger to human values (that is, to ensure any wildfire is within the range of historic variability); d) promote the production of tall, large diameter conifers for both stand structure and wildlife habitat, current and future. Promotion of large diameter stems will ensure that high quality wildlife trees/snags, which are currently in short supply at the landscape level, are available in perpetuity; e) complement and enhance ongoing NDT4 restoration activities within the Rocky Mountain Forest District; and f) minimize/reduce noxious weed infestations and spread.

For project no. COL-F19-W-2739, burning was completed on 10 ha of previously thinned forest of units OR2B1(b), along with 8.4 ha of slashing, pilling, and pruning of unit OR2B1(c), all in accordance with the Wildlife Habitat Restoration Plan. Project aligns with FWCP's Upland/Dryland Action Plan and will "Contribute to NDT4 restoration planning and treatments on crown land, conservation lands and within Parks and Protected areas (understory slashing, and/or burning), through the NDT4 Ecosystem Restoration Committees (priority 1)".

The text based component of the report (acknowledgements, goals and objectives, methods, results and outcomes, etc.) form its first pages with maps and photos of treated areas thereafter.

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Project No. COL-F19-W-2739

Title: Akisqnuk Reserve Slashing, Piling, and Burning 2018-19

Akisqnuk Project Manager: Andrew Malucelli, Natural Resources Manager

Acknowledgements:

The Akisqnuk First Nation would like to acknowledge the financial support of the Fish and Wildlife Compensation Program (FWCP), on behalf of project partners BC Hydro, the Province of BC, Fisheries and Oceans Canada, and First Nations and public stakeholders. Further the Akisqnuk First Nation would like
to acknowledge the crews of the Shuswap Woodlands Restoration Ltd. for carrying out the work related to this successful project. Thanks to the Akisqnuk First Nation Lands and Finance Departments for project administration.

Introduction:

The work performed as a part of project COL-F19-W-2739 was informed by the prescription titled "Akisqnuk Wildlife Habitat Restoration Stand Management Prescription 2012," prepared by Phase II Ventures Ltd. For the Fish and Wildlife Compensation Program. The work done is intended to provide strategic ecosystem restoration on the Akisqnuk First Nation. For this project, pile burning was planned on 10 ha of previously thinned forest of units OR2B1(b), along with 8.4 ha of slashing, pilling, and pruning of unit OR2B1(c). Project aligns with FWCP's Upland-Dryland Action Plan, "Contribute to NDT4 restoration planning and treatments on crown land, conservation lands and within Parks and Protected areas (understory slashing, and/or burning), through the NDT4 Ecosystem Restoration Committees" (priority 1).

Goals and objectives:

The overall goals of the project, as informed by the 2012 prescription, is to restore a part of the Akisqnuk First Nation land base to a more natural forest composition, improving habitat conditions for wildlife. In addition, the project will subsequently reduce the risk of catastrophic wildfire and associated danger to human values.

Study Area:

Treatment Units OR2B1(b) (10.0 Ha) and OR2B1(c) (8.4 Ha), all on Akisqnuk First Nation.
See provided treatment maps – pages 7.

Methods, results and outcomes:

As per the prescription in the Akisqnuk Wildlife Habitat Restoration Plan, all coniferous stems in layers 3 and 4 will be slashed and all layer 2 stems <15cm dbh. All Rocky Mountain Juniper will be slashed that are < 15cm diameter stump height while maintaining all stems >15cm diameter stump height. All retained coniferous stems in layers 1 and 2 will be pruned to a height of 2.5m.

This project began in December 2018 with Shuswap Woodland Restoration burning of previously treated slash piles within polygon OR2B1(b) (10 ha). Seeding was completed after all of the piles were successfully burned to reduce the risk of invasive species colonizing the site. Site is planned for invasive species monitoring in spring and summer of 2019. To date, all 128.41 hectares of restored habitat have minimal invasive species presence and will continue to be monitored. Some burn piles were very intense, and vegetation has not re-established (invasive or native/naturalized). These sites are planned for re-seeding and continued monitoring.

Slashing and pilling of 8.4 ha of OR2B1(c) was completed by Shuswap Woodland Restoration in February of 2019. As per the prescription, piles will cure over summer and burned in the fall. Seeding is planned once the work is complete in 2020 along with invasive species monitoring.

Shuswap Woodlands Restoration was given an opportunity to work on the Akisqnuk First Nation based on their performance on other contracts they successfully carried for the Akisqnuk First Nation. Further, they are a first nation firm that hired a number of Akisqnuk First Nation band members and Ktunaxa Nation members.

All work performed as a part of project COL-F19-W-2739 was done to the standard of the prescription: “Akisqnuk Wildlife Habitat Restoration Stand Management Prescription 2012.”

Discussion:

Successes

Shuswap Restoration Ltd. hired several Akisqnuk First Nation band members and Ktunaxa Nation members to complete their work associated with project COL-F19-W-2739.
Yvan Kathriner, RPF with Nupqu, inspected all completed work within the treatment areas of OR2B1(c) and certified the work as meeting the prescription in March 2019 (see references).
Unit OR2B1(b) were burned according to the burn plan which included information related to the area description, fuels to be burned, weather, personnel, equipment, suppression, fire escape contingency, burn permit information and important contact information.

Challenges

The main challenge was obtaining the timber permit from Indigenous Services Canada. This project was submitted with another treatment project for permitting and it took over 10 weeks to obtain the permits for both projects. This delayed the start, however the weather cooperated, and the crew finished on schedule.

Next Steps

With the competition of this project, approximately 130 ha of restoration has been successfully carried out and we will continue applying for assistance to treat all 650 ha for habitat restoration and reducing the risk of catastrophic wildfire. For 2019/2020, the planned treatment is to burn the piles created from treatment unit OR2B1c. Bare areas created in OR2B1c will be seeded and monitored to reduce the threat of invasive species. In addition, the plan is to treat 18 hectares of unit OF1 from the Ecosystem Restoration Plan. This unit will link with over 400 hectares of previous and current planned treatment areas and will be contributing to a true landscape level ecosystem restoration. OF1 will be prescribed similar to other projects with FWCP which is focused on improving wildlife habitat; especially for ungulates. Given last year's challenge due to delays for permitting, this next project will be commenced earlier to buffer any delays.

Areas treated under FWCP funding since 2013:

Year	Polygon/area	Polygon/area	Polygon/area	Polygon/area	Total
2013/14	OF2A/29.6Ha	OR1A/12.0Ha	OR2C/5.02Ha	OR2A/2.8Ha	49.42Ha
2014/15	OF2A/32.23Ha				32.23Ha
2015/16	OR2A/10.0Ha	OR2B2/2.08Ha			12.08Ha
2016/17	OR1B/7.98Ha	OR1C1/6.33Ha	OR1C4/1.97Ha		16.28Ha
2017/18	OR2B1(b)/10Ha				10.00Ha
2018/19	OR2B1(c)/8.4 Ha				8.40Ha
					128.41Ha

***All slash piles created in carrying out this work have already been burnt, except for those created in 2019. Treatment areas per year vary depending on forest type. In 2013/14 just over $100,000.00 of Akisqnuk's own funds (non-FWCP granted dollars) were put into treatments.**

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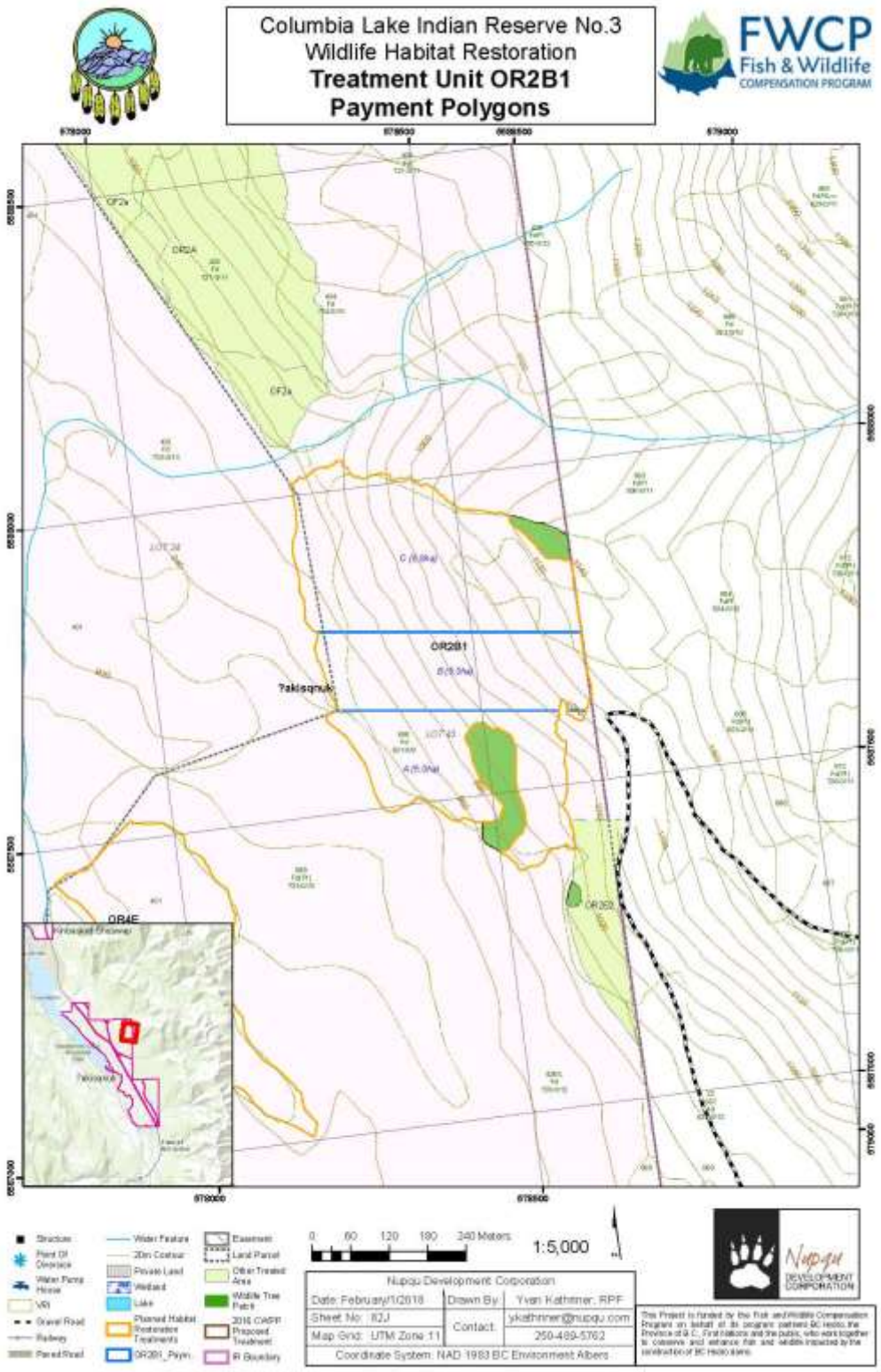
Andrew Malucelli, Natural Resources Manager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Wildlife Habitat Restoration
Treatment Unit OR2B1
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FWCP
Fish & Wildlife
COMPENSATION PROGRAM
OR2B1
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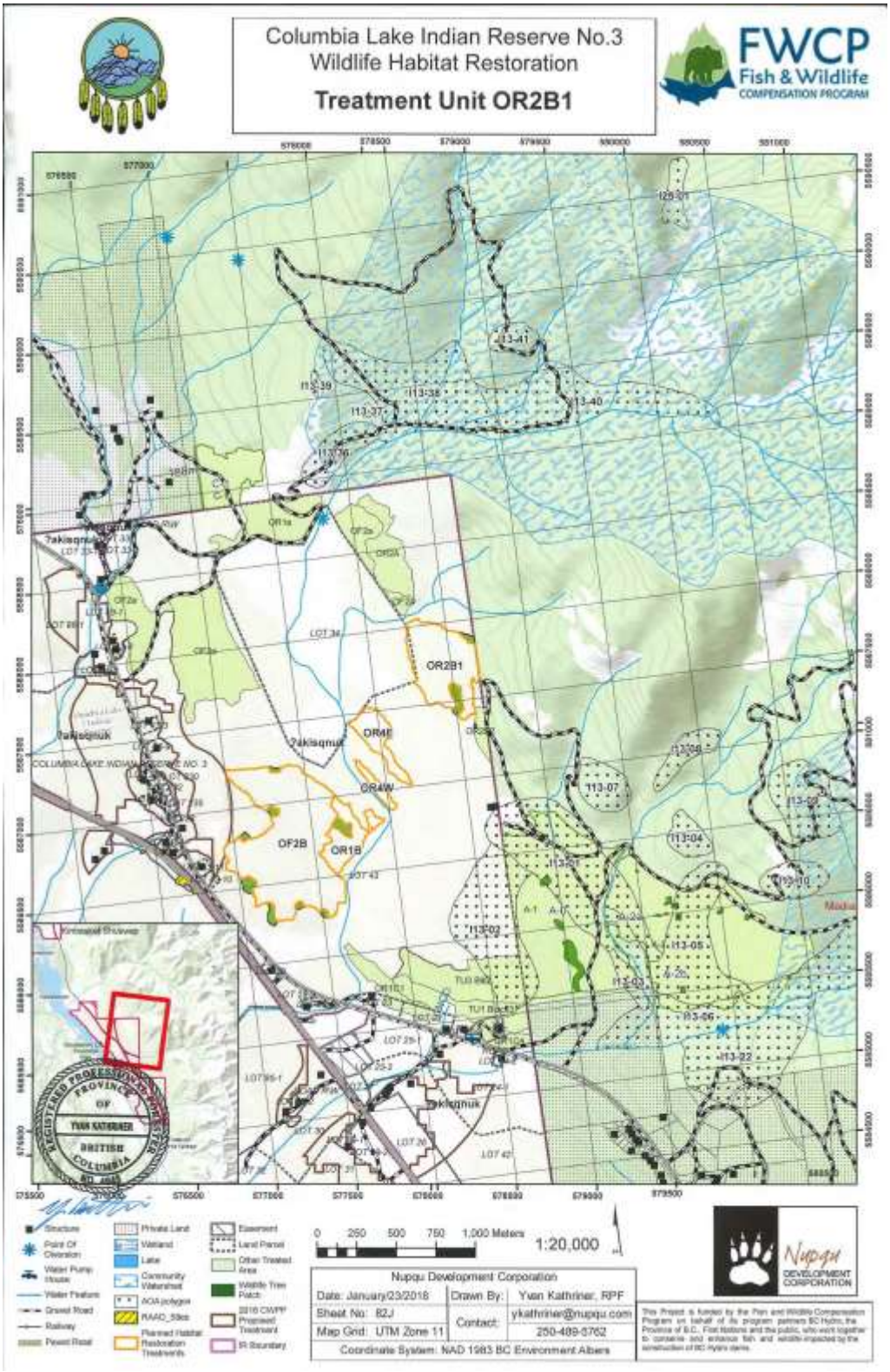
OR4E
1:5,000
Nupqu Development Corporation
Date: February/12/2018
Drawn By: Yvan Kathmer, RPF
Sheet No: 82J
Contact:
ykathmer@nupqu.com
Map Grid: UTM Zone 11
250-489-5762
Coordinate System: NAD 1983 BC Environment Albers


Columbia Lake Indian Reserve No.3
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Contact: ykathriner@nupqu.com
Map Grid: UTM Zone 11
250-489-3762
Coordinate System: NAD 1983 BC Environment Albers
Nupqu
DEVELOPMENT CORPORATION

Polygon OR2B1b. Burn pile. Photo: Andrew Malucelli, November 2018.

Polygon OR2B1b. Burn pile. Photo: Andrew Malucelli, November 2018.

Polygon OR2B1(c). Slash, pile, prune. Photo: Andrew Malucelli, March 2019.

Polygon OR2B1c. Slash, pile, prune. Photo: Yvan Kathriner (RPF), March 2019.

Polygon OR2B1c. Slash, pile, prune. Photo: Yvan Kathriner (RPF), March 2019.

Polygon OR2B1c. Slash, pile, prune. Photo: Yvan Kathriner (RPF), March 2019.

References:

March 13, 2019

Andrew Malucelli
Natural Resources Manager
Akisqnuk First Nation

Operational Treatment Inspection of Unit OR2B1-c

Dear Mr. Malucelli,

The treatment work in unit OR2B1-C was inspected on March 5th, 2019. The only deficiencies noted were eight missed Rocky Mountain Juniper sterns. Four are <15cm dbh and should be removed and 4 need to be pruned. I suspect there are other missed Junipers among the rocky openings that were not detected in this inspection. Certain Junipers among the cliffs might be unsafe to treat, these can remain as they are. The cutting and pruning of these missed Junipers can occur during the burning phase. The remainder of the work was well done; specifically, layers 3 and 4 have been slashed, areas with dense amounts of debris has been piled, stump heights are acceptable, most of the Rocky Mountain Juniper <15cm diameter have been slashed, and the pruning target height of 2.5m on reserve trees has been met.

Now the piles will cure and can be burned within 24 months. It was noticed that some of the piles are located close to and/or under reserve trees and will have to be assessed at the time of burning whether the nearby reserve trees are at risk of being damaged by the burning of the nearby pile (see photo). Piles may have to be moved further away from reserve trees before being burnt. The burn rings will then have to be seeded. See the prescription for details on the burning and seeding phases of the treatment.

Sincerely,

Yvan Kathriner, RPF
Project Manager
Nupqu Development Corporation.

Prescription referenced: *Akisqnuk Wildlife Habitat Restoration Stand Management Prescription 2012*, by Phase II Ventures Ltd.