



Doig River First Nation

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DOIG RIVER FIRST NATION BEAVER (CHA) STUDY

FWCP PROJECT NO: PF-16-W-18

Prepared for: Fish and Wildlife Compensation Program

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Table of Contents

Introduction & Background 3

Methods 3

Project Outcomes 4

- i. Key indicators and thresholds for healthy beaver habitat 4**
- ii. Understanding the knowledge of beavers and their use of waterways 4**
- iii. Comparing beaver populations and corresponding habitat above and below the WAC Bennett and Peace Canyon Dams..... 5**
- iv. Recommendations for enhancing beaver populations and their habitat 5**

Conclusion 7

References..... 8

Figures

Figure 1. Map of Potential Future DRFN Study Area.....6

Introduction & Background

In October 2014, Doig River First Nation (DRFN) submitted a seed grant application (“application”) to the Peace Region Fish and Wildlife Program (FWCP Peace) for a Beaver (Cha) Study. The FWCP Peace Board approved the application in the spring of 2015. The application focused on the effects that the construction of the WAC Bennett Dam and the Peace Canyon Dam have had on Beaver habitat and populations. DRFN focused on beaver, because beaver symbology includes a strong understanding of the natural environment, hard work and strong kinship. This Project addresses Objective #4 of the Peace Basin Species of Interest Action Plan that pertains to “Protecting & enhancing plant and animals that are culturally important”.

The DRFN has existing Treaty rights, including rights “reasonably incidental” to Treaty harvesting rights (collectively, “Treaty Rights”), throughout Treaty 8 Territory. Moreover, DRFN is very concerned about the potential combined effects of the many different resource sectors (i.e. hydroelectric dams) operating within Treaty 8 territory. We believe that the combined or cumulative effects of industrial development on our Treaty Rights may be long lasting, significant and adverse and that the overall effects may be more severe than the sum of the individual projects’ effects.

Undertaking this Project and engagement with DRFN Elders and Land Users was meant to determine whether a larger project for the DRFN Beaver (Cha) Study would be supported by DRFN Elders and Land Users. Beavers are very important to our culture and, we must ensure that sufficient Beaver Populations and Beaver habitat is maintained in our territory, in order to sustain our way of life. Note: DRFN Elders also mentioned that in Dane-zaa the word for beaver should be spelled “t’saa?” instead of “cha”.

Methods

Following execution of the application, DRFN Lands Staff worked diligently with DRFN Elders and Land Users to set a date for a meeting in DRFN. It was determined that March 14, 2016 would work for all parties including Kieran Broderick, Broderick Natural Resource Management Inc. (consultant hired by DRFN to help undertake the work with DRFN Elders and Land Users).

Once the March 14, 2016 date was set, the DRFN Lands Staff developed an Agenda for the meeting which included: An Opening Prayer, Welcome and Introductions, reviewing the DRFN – Beaver Cha Study application, and reviewing maps prepared by DRFN’s GIS Advisor, Gord Haines. Following review of the aforementioned, DRFN Elders and Land Users were then asked a series of questions including, but not limited to: What are indicators of healthy Beaver habitat? How do Beavers use waterways? How are Beaver populations and habitat enhanced? Following the series a questions being asked, discussion ensued. At the end of the meeting, a Closing Prayer delivered by a DRFN Elder helped send everyone on their way.

As outlined in the application, the following study objectives included:

1. Collecting Traditional Ecological Knowledge information in relation to the key indicators and thresholds for healthy beaver habitat;
2. Understanding the knowledge of beavers and their use of waterways;
3. Comparing beaver populations and corresponding habitat above and below the WAC Bennett and Peace Canyon Dams; and
4. Providing recommendations for enhancing beaver populations and their habitat.

Project Outcomes

DRFN Elders and Land Users were very passionate about ensuring that ample beaver populations and habitat was sustained throughout Treaty 8 territory.

i. Key indicators and thresholds for healthy beaver habitat

When asked about indicators of healthy beaver habitat, DRFN Elders and Land Users identified good healthy populations of beaver and good habitat such as areas that have lots of creeks. In addition, areas containing muskeg and areas with lots of vegetation are key to having healthy beaver populations and habitat.

DRFN Elders and Land Users also commented that several hundred beavers in a small geographic area with several creeks and a variety of vegetation species would indicate a healthy beaver population and beaver habitat.

ii. Understanding the knowledge of beavers and their use of waterways

DRFN Elders and Land Users stated that they only eat beaver in the winter and spring, because beavers do not taste good in the summer and fall. DRFN Elders and Land Users indicated that from November to March, beavers taste the best. DRFN Elders also stated that beavers would travel up to 40-50 miles in the summer months when they are the most active.

DRFN Elders also indicated that beavers are in large decline due to predation (i.e. wolves) and do not have ample habitat for their survival. There was also mention of too many otters in the Peace River system and not enough adult beavers. DRFN Elders indicated that there are two types of beavers: lake beavers and river beavers. Lake beavers have a more rounded tail. The beavers are identified as small, medium and large. In addition, older beavers will cut down trees lower to the ground, whereas younger beavers will make their cut higher up the tree. Furthermore, if there is a lack of sufficient vegetation in the area, beavers will wait for vegetation to grow back and will vacate an area for up to five to six years. DRFN Elders also stated that beavers use backwashes and swamps to wash their dams.

iii. Comparing beaver populations and corresponding habitat above and below the WAC Bennett and Peace Canyon Dams

DRFN Elders indicated that Peace River was called Beaver River in the early 1950s. Elders also mentioned that there were several beaver trails around the vicinity of Hudson Hope, BC.

DRFN Elders also mentioned that beavers understand weather and weather events. The release of water from the WAC Bennett Dam and the Peace Canyon has affected beaver immensely by washing their food and dams downstream. Also, the holding back of water through the use of dams has caused rivers to ice up, which affects beaver movement upstream and downstream.

In terms of beaver populations and corresponding habitat above and below the WAC Bennett and the Peace Canyon Dams, a DRFN Elder indicated that counting beaver dams and how many beavers per dam above and below the WAC Bennett Dam and the Peace Canyon Dam would indicate whether there were ample beaver populations and habitat. In addition, close observation of beaver dams would need to be undertaken to determine whether the beaver dams were active.

iv. Recommendations for enhancing beaver populations and their habitat

DRFN Elders and Land Users were adamant that limiting industrial development and access into riparian areas would enhance beaver populations and their habitat. Moreover, planting advanced vegetation (i.e. 4-5 years in age) in areas suitable for beaver would improve habitat, as well as beaver population numbers.

DRFN Elders and Land Users also recommended that beaver populations and habitat should be studied by looking both at the upstream and downstream of the WAC Bennett and Peace Canyon Dams (please refer to Figure 1). DRFN Elders and Land Users also indicated that any study would need to look at pathways through to the use of waterways.

In terms of a larger study, DRFN Elders and Land Users recommended engaging with other First Nations on a larger project. The study should include the number of beavers and the effects of changing water levels, including the placement of dams due to the drawdown effect. The study should also include the food that beaver eat and how the beaver taste. In addition, the study should look at what is in the stomach of beavers and water quality in the area.

It was further recommended by DRFN Elders and Land Users that beavers should be studied on what they are eating during the four seasons (winter, spring, summer and fall). In addition, the effects of methyl-mercury on beaver should be studied. Baseline data for such a study would be important, so knowing how many beaver dams were on the Peace River pre-WAC Bennett and Peace Canyon, would be helpful.

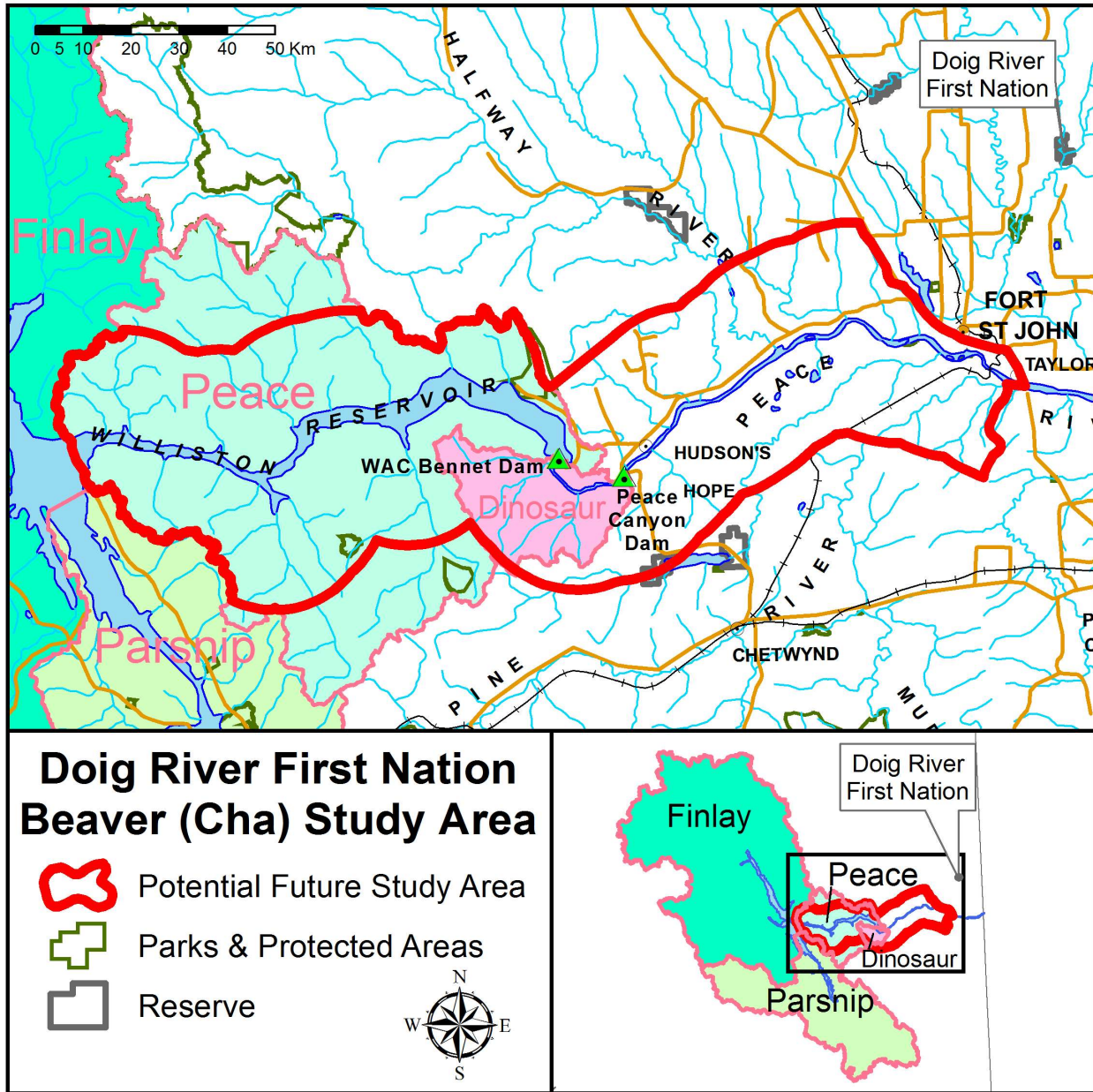


Figure 1. Map of Potential Future DRFN Study Area

In terms of how to study beavers, DRFN Elders and Land Users recommended that the use of ear tags, tattoos and beacon sensors could be used to study beavers.

DRFN Elders and Land Users recommended that a large beaver study could be valuable and should involve other First Nations who also use the area. DRFN Elders and Land Users stated that funding could be sought from industry, government or other sources. DRFN Elders and Land Users also stated that a larger study should not just look at beavers in isolation, but should

also include moose and other wildlife. It was also recommended that a wildlife biologist should work closely with DRFN Elders and Land Users on such a study. A DRFN Elder also stated that the study should be called t'saa? Chuu?.

In terms of costs, DRFN Elders and Land Users stated that a boat would be required for use up and down the Peace River and costs to do a larger study would be in the \$500,000.00 range and should be undertaken over all four seasons. The \$500,000 would include the costs of using a boat with fuel and driver, professional fees, honoraria, travel, meals and accommodations.

Conclusion

DRFN Elders and Land Users are very compassionate towards maintaining healthy beaver populations and habitat in Treaty 8 territory. DRFN Elders stated that a larger study would be valuable if other First Nations whom use the area worked closely with DRFN Elders and Land Users. DRFN Elders and Land Users believe that Traditional Ecological Knowledge (TEK) would be invaluable for studying beaver populations and habitat. DRFN Elders and Land Users also recommended that a wildlife biologist could work closely with DRFN to deliver the western science perspective. Having said this, it was also noted that TEK and western science may provide different perspectives on how, when, where, what and why beaver populations and habitat should be studied.

DRFN Elders and Land Users would like to thank the Peace Fish and Wildlife Program (PWFWP) for seed funding to engage the DRFN community in determining whether a larger study would be beneficial.

References

FWCP-Peace Region map with sub-regions. Fish & Wildlife Compensation Program. Accessed 2017. <http://fwcp.ca/app/uploads/2017/08/FWCP-Peace-Region-Map-with-subregions-Final-July-30-2015.pdf>.