

**An Application by British Columbia Transmission Corporation
for a Certificate of Public Convenience and Necessity
for the Columbia Valley Transmission Project
(Project No. 3698591)**

**WRITTEN EVIDENCE OF
THE KTUNAXA NATION COUNCIL**

SUBMISSION DATE: MAY 20, 2010

SUMMARY

1. The Ktunaxa Nation is comprised of Ktunaxa people, also referred to by many as “Kootenay” people. The Ktunaxa Nation Council (“KNC”) is the body that represents the Ktunaxa Nation in Canada.
2. The Ktunaxa Nation has traditionally used and occupied the Kootenay-Columbia region of south-eastern British Columbia as well as lands within Alberta, Montana, Washington and Idaho (“Ktunaxa Territory”).
3. British Columbia Transmission Corporation (“BCTC”) is proposing to construct and operate a 230 kV transmission line along the western side of the Columbia Valley from Invermere to Golden (the “CVT Project”). The area impacted by the CVT Project (the “CVT Area”) falls entirely within Ktunaxa Territory.
4. The Ktunaxa Nation has Aboriginal title and other Aboriginal rights (“Ktunaxa Title and Rights”) to the CVT Area. Ktunaxa Title and Rights will be negatively impacted by the construction and operation of the CVT Project.
5. The Ktunaxa Nation, Canada and British Columbia are currently engaged in treaty negotiations. The Ktunaxa Nation participates in treaty negotiations through the Ktunaxa Kinbasket Treaty Council (the “Treaty Council”). The CVT Area falls entirely within the area referenced in the Treaty Council’s “statement of intent to negotiate a treaty”, which is attached as **Appendix 1**.
6. The Ktunaxa have enjoyed the natural bounty of the land, seasonally migrating throughout Ktunaxa Territory to follow gathering, fishing and hunting cycles since long before the arrival of Europeans in Ktunaxa Territory. The Ktunaxa obtained all their food, medicine and material for shelter and clothing by harvesting throughout Ktunaxa Territory and through trade. The evidence presented below demonstrates that the Ktunaxa Nation has a strong *prima facie* case in support of its Aboriginal title in the CVT Area.
7. Studies conducted for the KNC indicate that the CVT Project will have potential impacts on terrestrial ecosystems and wildlife and plant harvesting by the Ktunaxa. In the absence of a steadfast and long-term commitment to access management, there will likely be significant residual impacts to wildlife populations traditionally and currently harvested in the CVT Area by Ktunaxa Nation citizens. As well, there are likely to be residual impacts to rare plant and animal species and sensitive ecosystems, including traditional use plants. Furthermore, the permanent removal of riparian vegetation (and particularly large trees) at transmission line crossings is likely to result in a residual impact to fish habitat and associated fish populations.

8. The KNC generally agrees with the BCTC and the British Columbia Hydro and Power Authority's ("BC Hydro") description of their consultation activities with the KNC to date, as set out in the CPCN Application (Exhibit B-1) and in BCTC's "Evidence on Adequacy of First Nations Consultation" (Exhibit B-8). While consultation is far from complete, it has been helpful in identifying potential project impacts on Ktunaxa interests, including Ktunaxa Title and Rights, and initiating discussions regarding possible mitigation and other accommodation measures. Further work is required in order to support consultation generally and, more specifically, site-specific determinations of potential project impacts on Ktunaxa traditional and current uses. It is important to note that: (i) there have been some significant challenges in the consultation process; and (ii) there are a number of issues which are far from being satisfactorily resolved for which further substantial consultation and accommodation are required.
9. It is the KNC's view that both the short- and long-term impacts of the CVT Project will be medium to high (in contrast to BCTC's assessment of "low to medium" impacts), considering: (a) the impacts will generally be permanent; (b) mitigation measures will reduce, but not eliminate, project impacts to riparian areas, fish habitats and populations, noxious weed ingress, loss of traditional use plants, and wildlife, and associated Ktunaxa harvesting rights; (c) the physical footprint of the project wherein forest ecosystems will be permanently removed exceeds 550 ha/5.5 sq km; (d) the long-term physical footprint of the project includes access roads along much of the 114 km corridor; and (e) the residual impacts cumulate with the impacts of existing development in the area including forest harvesting, forest roads, and farms and ranches.

KTUNAXA NATION

10. The Ktunaxa Nation is comprised of Ktunaxa people, also referred to by many as "Kootenay" people. The KNC is the body that represents the Ktunaxa Nation in Canada. There are four Ktunaxa communities represented by the KNC – Yaqaṇ nuʔkiy (Lower Kootenay), ʔakisqṇuk (Columbia Lake), ʔaqam (St. Mary's) and ʔakinʔumʔasnuqʔiʔit (Tobacco Plains) – and two Ktunaxa communities in the United States of America – ʔaqanqmi (Kootenai Tribe of Idaho) and Kupawiqṇuk (Ksanka Band of Elmo Montana). The US communities are affiliated with, but not part of, the KNC. The KNC represents Ktunaxa communities and Ktunaxa citizens on matters that relate to Ktunaxa Title and Rights and Ktunaxa Territory within Canada.
11. The Ktunaxa speak a language that is distinct from the languages spoken by neighbouring First Nations and is identified as a linguistic isolate, as noted in: (i) Brian Robertson's report entitled "The Ktunaxa Nation and the Upper Columbia Valley: A Survey of Historical Documentation and Research Relating to Aboriginal Use and Interest" dated May 20, 2010 and attached as

Appendix 2 (the “Robertson Report”, p. 8); and (ii) the Draft Report entitled “A Review of First Nations Rights & Title Interests: Columbia Valley Transmission Project Area” dated November 11, 2009 by Dr. Dorothy Kennedy and Randy Bouchard, filed as part of Appendix A of Exhibit B-8 (the “K & B Draft Report”, pp. 59-60).

12. The Ktunaxa Nation, Canada and British Columbia are currently engaged in treaty negotiations. The Ktunaxa Nation participates in treaty negotiations through the Treaty Council. The Treaty Council is comprised of citizens of the Ktunaxa Nation. The Ktunaxa Nation’s original statement of intent to negotiate a treaty filed in 1993 describes the traditional territory of the Ktunaxa Nation within British Columbia. The CVT Area falls entirely within the area referenced in the statement of intent. The Treaty Council’s “statement of intent to negotiate a treaty”, as amended in 2000, is posted on the British Columbia Treaty Commission’s website”, which is attached as **Appendix 1**.
13. The Shuswap Indian Band, whose members include the descendants of the Shuswap-speaking Kinbasket family, is an *Indian Act* Band located within Ktunaxa Territory. The Kinbasket people arrived in Ktunaxa Territory in the 19th century and the Ktunaxa Nation agreed to their relocation to the area. The Shuswap Indian Band was a member of the Kootenay Indian Area Council and then the Ktunaxa/Kinbasket Tribal Council, the predecessors to the current KNC. In 2005, the Shuswap Indian Band withdrew from the Ktunaxa/Kinbasket Tribal Council, which was then renamed the KNC. In 2009, the British Columbia Treaty Commission accepted the Shuswap Indian Band’s decision to withdraw from the Treaty Council and the British Columbia treaty process.
14. The Treaty Council recognizes that Shuswap Indian Band members are eligible to become Ktunaxa citizens for two reasons. First of all, many Shuswap Indian Band members are of Ktunaxa ancestry or mixed Ktunaxa-Kinbasket ancestry due to inter-marriage and relocation. Secondly, the KNC and its predecessors have always maintained that individuals with Kinbasket ancestry are eligible for Ktunaxa citizenship. In addition, while the KNC and the Treaty Council do not represent the Shuswap Indian Band, individual members of the Shuswap Indian Band can participate in and benefit from certain Ktunaxa Nation initiatives, such as social, economic and employment development services.

KTUNAXA TERRITORY

15. Ktunaxa Territory extends from the “Big Bend” of the Columbia River in the north to Montana in the south and from the east side of the Rockies to west of the Arrow Lakes. A map of Ktunaxa Territory is attached as **Appendix 3**.

16. Ktunaxa Territory is divided into traditional districts. The CVT Area falls within the Land of the Eagle, as depicted in the map attached as **Appendix 4** and described in the report prepared by Violet Birdstone entitled “Columbia Valley Transmission Corridor: Supplemental Ktunaxa Nation oral history and traditional use information” dated May 2010, attached as **Appendix 5** (“Birdstone Report”, p. 6).
17. The Ktunaxa Creation Story is both an account of the origins of the Ktunaxa people, as well as a description of the Ktunaxa Nation’s homelands (the “Creation Story”). The Creation Story includes references to key geographic features identified by Ktunaxa place names and firmly places Ktunaxa people in the Kootenay-Columbia area. The Creation Story is set in an era of pre-human times when the earth was occupied by mythical beings that walked like humans, on two legs, but were animal-like in body. The Creation Story, as told by Ktunaxa elder Wilfred Jacobs, is attached as **Appendix 6**.
18. A water monster is the villain in the Creation Story. The chief animal, who was tall in stature and dragon-like, takes on the task of killing the water monster who was creating havoc and killing other animals. The chief animal sets out to destroy the water monster whom he chases throughout the Columbia-Kootenay region. He chases and overcomes the water monster, and eventually succeeds in killing him. During the chase, the chief animal names all the places as he travels through the waterways. These places include Golden (?aknuqʔuk), Brisco (Yaknusuʔki), Radium (Yakyuʔki), Athalmere (Kwataqʔnuk), Windermere (Kananuk) and Windermere Lakes (?akisqʔnuk), all of which lie within, or in close proximity to, the CVT Area. The places named by the chief animal define Ktunaxa Territory.
19. The Ktunaxa community of ?akisqʔnuk is located on the shores of Lake Windermere, within 10 kilometres of the Invermere Substation and the southern end of the CVT Project.

ARCHIVAL, ETHNOGRAPHIC AND ARCHAEOLOGICAL EVIDENCE

20. The Robertson Report and the K & B Draft Report each summarize archival, historic, archaeological and ethnographic evidence regarding Ktunaxa use and occupation of the CVT Area. Both reports provide considerable evidence pointing to the Ktunaxa Nation’s extensive use and occupancy of the CVT Area. The following are some of the key findings of these two reports:
- (a) “This report concludes that the historical documentation, supported by the consensus opinion of nearly all ethnographers, points to the study area lying within the core of Ktunaxa Territory of the Ktunaxa Nation and that it has been an important part of their seasonal round for a very long time” (Robertson Report, p. 1).

- (b) According to the K & B Draft Report, “maps delineating Ktunaxa lands consistently include the CVT Area within Ktunaxa territory” (p. 61). This includes maps prepared by Canadian geologist and ethnographer George Dawson, anthropologist and linguist Franz Boas, ethnographer James Teit, and anthropologists Diamond Jenness, Verne Ray and Harry Turney-High.
 - (c) “It is clear from the extant historical record that the Aboriginal people known to live on the west side of the Rocky Mountains in the area of the Columbia Valley Transmission Project were Ktunaxa” (K & B Draft Report, p. 11).
 - (d) “The available ethnographic data supports a continual presence [of the Ktunaxa] in the general environs of the Columbia Valley at the time of initial contact with Whites in the early 19th century” (K & B Draft Report, p. 16).
 - (e) In 1807, Thompson “travelled upstream on the Columbia River to the Lower Columbia (Lake Windermere) and built what he called “Kootenae House... During this trek [to Lake Windemere and Columbia Lake] he met only local people identified as ‘Kootenaes’” (K & B Draft Report, p. 12). Kootenae House was established near where Toby Creek enters the Columbia River. It was there that Thompson “began trading with ‘Kootenae’ people” (K & B Draft Report, p. 13). “Thompson is explicit in the above-noted journal entry of 13 September, 1807 that the environs of Kootenae House were ‘Kootenaes’ country, at least in 1807” (K & B Draft Report, p. 14).
 - (f) “Archaeological evidence also suggests that the ancestors of present-day Ktunaxa have inhabited the Columbia Plateau for many thousands of years” (Robertson Report, p. 8). The archaeological evidence also suggests that the Kinbasket are relative newcomers to the Columbia Valley (Robertson Report, pp. 10-11).
 - (g) “The archaeological evidence therefore is consistent with the notion that, with the exception of the recent adoption of the horse in the eastern part of their range and a greater focus on the plains buffalo hunt, the Ktunaxa first encountered by Europeans on the Columbia Plateau in the 19th century were living in much the same way and *largely in the same areas* as their ancestors had for millennia, and that a major focal point of their range was the upper Columbia River Valley” (Robertson Report, p. 12).
21. The Ktunaxa’s historic use of the areas around Golden and up to the Big Bend of the Columbia River is further supported by evidence of the use of passes, such as the Howse Pass trail (which originates near the Blaeberry River between Golden and Donald), an extensive network of trails leading to

Boat Encampment and references to Ktunaxa hunting as far north as Yellowhead Pass (see paragraph 27 below). The Big Bend trail map, (referred to in the Robertson Report, p. 21), which is believed to date from the early 1860s, is focused on the area around Big Bend. Although it has scant detail, it indicates a trail extending northward from the Windermere area along the east or right bank of the Columbia and, by an apparent tying in with several portage trails, reaches all the way to Boat Encampment, where it connects with the trail over Athabasca Pass to Jasper's House. On the way it connects with other trails, including one over "Pavilion" [Howse] Pass to Jasper's House, and another one appearing to cross the Selkirks north of present day Golden to the vicinity of Revelstoke. If the dating is accurate, these trails precede miners in the area and would be attributable to use by the Upper Ktunaxa and latterly by the Kinbasket as well (Robertson Report, p. 21).

22. When federal government officials were establishing reserves in the 1880's, Ktunaxa Chief Isidore made it clear that his reserve should extend from the Canada-US boundary to the boat landing (i.e. Boat Encampment) on the Columbia River. This confirms that the Ktunaxa Nation has long considered that Ktunaxa Territory extends north to the Big Bend of the Columbia River (Robertson Report, p. 23).
23. The historical and ethnographic literature supports the view that the Kinbasket migrated into the CVT Area in the mid-1800's and that they remained in that area with the consent of the Ktunaxa. In particular:
 - (a) Surveyor Walter Moberly of the Columbia River Exploring Expedition learned from Chief Kinbasket in 1866 that the Kinbasket had settled in the region of the headwaters of the Columbia twenty years earlier, i.e. in the mid-1840's (Robertson Report, p. 22).
 - (b) George Dawson, who conducted the first Government of Canada survey in the Canadian Rockies, noted in 1884 that there was a "colony of Shuswap ... in the midst of the Kootenie country ... [that was] established within the memory of men still living" (K & B Draft Report, pp. 42-43).
 - (c) The K & B Draft Report notes that both Shelagh Dehart and her sister Tracie Williams agree that the "Kinbasket (sic) family was accepted by the Ktunaxa and have lived peacefully together" (p. 39).
 - (d) Shelagh Dehart's book entitled *The Kinbasket Migration and Other Indian History*, an excerpt of which is attached as **Appendix 7** (the "Kinbasket Migration"), describes the acceptance by the Ktunaxa of the Kinbasket people into their traditional territory. Referring to the meeting that established peace between them somewhere north (downstream) of Donald and south (upstream) of Beavermouth, Dehart indicates that the

Ktunaxa had watched the Kinbasket for a long time before offering friendship through the making of signs and offering of gifts, and that the Kinbasket leader there was Yelheelna (p. 34). The book then indicates that the Ktunaxa continued to freely hunt or travel there, often in the company of their new neighbours.

24. Neighbouring First Nations recognized Ktunaxa Territory and were aware that the Ktunaxa were prepared to defend their territory. For example:

- (a) An expedition by Peter Fidler to cross the Rocky Mountains into Ktunaxa Territory was aborted in 1792 when “the guide refused to go any farther for fear of the Cottonahaws [Ktunaxa] killing him” (K & B Draft Report, p. 7).
- (b) Shelagh Dehart states in her book that, “the elders tried to stop the [Shuswap] explorers, they forbade them to keep going into enemy territory, the dangerous Kootenay Country but the young ones continued to explore” (K & B Draft Report, p. 32 and the Kinbasket Migration, p. 29).
- (c) The writings of earliest travellers (Thompson, Cox, Ross, Simpson, Work and Kane, among others) suggest that the Ktunaxa had generally hostile relations with the Blackfoot Indians and their allies to the east and occasional hostilities with the Salish-speaking Shuswaps, Okanagans, Colvilles and others to the west and south. On the other hand, they appear to have been on relatively good terms with the Stonies, and Plains Cree to the east and especially the Flathead Salish whose lands lay to the southeast. This is indicative of the mechanisms – ranging from alliances to hostile encounters – used by the Ktunaxa to defend Ktunaxa Territory (Robertson Report, p. 21).
- (d) In 1895, the Ktunaxa and Kinbasket “on the One Part” entered an agreement with the Stonies “on the Other Part” to address territorial disputes about where each of the First Nations could hunt. In this agreement, which is attached as **Appendix 8**, the Stonies are described as “residing at Morley, in the N.W. Territories.” The agreement arose out of deep concerns of the Ktunaxa (and others) that the Stonies’ hunting practices were impacting on the availability of wildlife for Ktunaxa sustenance. **Appendix 9** contains one view of the dispute as described by Indian Agent Phillipps to Superintendent Vowell. Under the agreement, the Stonies were allowed to go as far west of the Columbia and Kootenay Rivers, while the Ktunaxa and the Kinbasket could go as far east as the base of the Rockies on the eastern slope. This suggests that the Ktunaxa were seen as having important territorial interests all along the Columbia and Kootenay Rivers, and not just to some specific northern limit, as is sometimes suggested. The inclusion of the

Kinbasket in this arrangement illustrates that, by this point in time, the Ktunaxa and Kinbasket were collaborating to protect land and resource interests.

KTUNAXA TRADITIONAL USE OF CVT AREA

25. The K & B Draft Report concludes that the traditional use and occupancy data and ethnohistoric documents for the CVT Area reveal that Ktunaxa people intensively used the area of the CVT Project between Golden and Invermere for settlement sites and for harvesting resources (p. 48). The Report goes on to state that, "The ethnographic evidence is consistent with the historical data reviewed earlier... It shows continuing Ktunaxa use of the Columbia Valley region, at least as far north as Golden" (p. 48).
26. The arrival of the Kinbasket did not end the use of the upper Columbia Valley area by the Ktunaxa. The K & B Draft Report suggests that the Kinbasket had begun to use the Columbia Valley area by the 1840's and from then on the "two groups, Kinbasket Shuswap and Ktunaxa, intermarried and jointly used the resources of the area" (p. 48).
27. There is abundant evidence regarding the historic and current importance of fishing and hunting in the upper Columbia River watershed (including its tributaries) for the Ktunaxa Nation. That evidence includes the following:
- (a) The Ktunaxa have had important fisheries in the CVT Area, primarily for bull trout (dolly varden char), cut throat trout, salmon (now extirpated), ling, suckers, northern pikeminnow and mountain whitefish, as described in the memo from Kenton Andreashuk dated May 18, 2010 and attached as **Appendix 10**.
 - (b) Pre-contact and historic fishing sites in the CVT Area identified by ethnographer Schaeffer include:
 - (i) yakinasu'kwl, "red water" (from the story of water monster being speared here). This is the name given to the salmon fishing site at Brisco, on the Columbia (mid-way between Windermere and Golden). The Kutenai fished here in August and this was where the first fishing of the season took place, as they followed the salmon up the Columbia River.
 - (ii) roatqranur, "where lake empties into river". A fishing site near Athalmer. This was a shallow place where the salmon spawned. This was last site at which Kutenai fished for salmon in October.
 - (iii) raras'ituk, "mouth of river". A fishing site at the mouth of Coldspring Creek where it empties into Columbia, not far from Fairmont

Springs. Kutenai fished here in September, following fishing at Brisco. (Coldspring Creek or Dutch Creek?)

(iv) kotwa.akak, "berries of rosebush". A site on north side of Geary Creek, where it empties into Columbia. Kutenai speared salmon here (Robertson Report, p. 36).

(c) Lands in the CVT Area have been described as historically very rich in fauna, with large numbers of ungulates (deer, elk, mountain goat, sheep), fur bearing animals (beaver, marten, bear), and birds (ducks, geese) (Robertson Report, p. 45).

(d) Schaeffer also stated that, "Previous to a hundred years ago [c. 1835] the aganahonek [Tobacco Plains] and gakawakamitukinik [Michel Prairie people] used to hunt together north of Columbia Lakes, probably as far as Golden, for moose and elk." (K & B Draft Report, p. 43) According to Schaeffer, moose were sometimes hunted in July, when Saskatoon berries ripen, as that was when they were in their best condition. A special ceremony was conducted when the first moose was killed in the summer. Schaeffer also noted that there was an abundance of elk, as well as mountain goats, mountain sheep and moose. (K & B Draft Report, p. 55)

(e) Schaeffer described the seasonal round of some of the Upper Ktunaxa as follows. The kátamukinik travelled to the Toby Creek area after new year, where they spent January through March hunting big horn sheep and waterfowl. They then spent the months of August to September in the Columbia Lakes area, catching and drying salmon. After this time, some of them went across the Rockies to the fall bison hunt, while others headed north down the Columbia to Golden, or even beyond, to Yellowhead pass to hunt deer and elk. Schaeffer goes on to explain that while the kátamukinik were almost entirely wiped out by smallpox of 1781-1782, their leader, a man named "Gray-Head", survived and repopulated the group who then became known as the "akískənəkinik" (also known as ?akisq̄nuk). (K & B Draft Report, p. 50)

(f) Ducks and geese were hunted in spring at the Columbia Lakes and at Brisco (K & B Draft Report, p. 55).

(g) Federal fishery supervisor, C.H. Robinson, sent a letter in the 1940's stating that it was "not uncommon to observe some fifty teepees of the Indians on the flats of Athalmer, who took large numbers of salmon off the salmon beds for their winter food" (K & B Draft Report, p. 53).

28. The KNC's manager of research and planning, Craig Paskin, has prepared a report on traditional and current Ktunaxa uses in the CVT Area based on

information systematically obtained in the mid-1990's by researchers from Ktunaxa elders and informants. This report, attached as **Appendix 11**, is entitled "Ktunaxa Traditional use in the Upper Columbia River Watershed: A Review of the 1996 ?a'kisq'nuk Traditional Use Study Documenting Ktunaxa Activities In and Around the Columbia Valley Transmission Corridor". Data was obtained from 102 interviewees, representing approximately 8.5% of the total Ktunaxa and Kinbasket population. This report notes the high degree of Ktunaxa use of the Columbia Valley Transmission Corridor ("CVTC") and the Columbia River watershed. Key findings include:

- (a) Of the 102 interviewees in the ?akisq'nuk Traditional Use Study ("ATUS"), 61 interviewees (59.8%) identified 78 places where they had carried out activities within the Columbia River watershed. These interviewees noted that 440 "units" (individuals, families, parents, grandparents, and other Ktunaxa) used the identified places. Interviewees identified these places 218 times. There were 30 types of activities identified.
- (b) Thirty-five interviewees (34.3%) identified 22 places (8.1% of the total of 270 total sites) along the CVTC and noted that 125 "units" had used the identified places. These places were identified 71 times. There were a total of 17 types of use: (i) ceremonial or religious – gathering place (meeting or gathering or fasting/praying); (ii) sweat house/lodge; (iii) fishing area or station; (iv) hunting camp; (v) hunting territory or trail; (vi) meat preparation (drying meat, making pemmican, tanning hides); (vii) berry harvesting; (viii) berry drying area; (ix) mushroom harvesting; (x) trapping; (xi) root harvesting; (xii) medicinal plant area or jute or pitch harvesting; (xiii) camping; (xiv) meeting or gathering place; (xv) leisure activities; (xvi) dancing; and (xvii) trail/overland travel.
- (c) ATUS interview recall extended from before the 1880s (second and third hand) to the 1990s (first hand). Within the CVT Area, Golden, Steamboat Mountain and Templeton Creek (salmon fishing) had the longest periods of current and recollected use.
- (d) Based on the number of locations (polygons), fishing appears to be the most extensive use within the CVT Area, being noted in 19 (out of 22) areas. Hunting represents the second most intensive use, associated with 13 of 22 areas. Gathering, including of medicinal plants is associated with 9 areas. Spiritual uses were only identified with 2 of the areas, but this is likely to be an underestimate because of the strong tendency of interviewees to not provide this information for confidentiality reasons.
- (e) In summary, the ATUS report identifies extensive use of the CVT Area for fishing, hunting and gathering (in order of extent of use).

- (f) The report concludes that: “The 1996 ATUS shows that the Columbia River watershed and areas associated with CVTC are important to the Ktunaxa for a variety of activities and uses and has been so since before the 1880s and continuing into contemporary times. If more citizens had been interviewed, the ATUS would have shown even greater importance of the Columbia River watershed and CVTC” (p. 9).

29. The ATUS report identifies further work that is required in order to support consultation generally and, more specifically, site-specific determinations of potential project impacts on Ktunaxa traditional and current uses:

“The ATUS, however, was unable to show specific values that may be impacted by the transmission line corridor. This is not to say there are no values that could be impacted; rather, the challenge is identifying those values. As is often the case with sensitive cultural or sacred sites, people may be unwilling to provide what is essentially very private or confidential information. Hand-in-hand with that challenge is identifying the appropriate people who might have knowledge of the area and who are willing to identify specific values. Also, the ATUS, because of its technical mapping limitations at the time, cannot show specific locations. Consequently, the next steps include disaggregating the ATUS polygons into their component parts. This will allow a better picture of where specific activities took place within the CVTC. To date, the original ATUS map transparencies have been scanned into a database. Subsequent steps will include digitizing the scanned maps into a geographical information system and linked to the interview information. This process should be completed by September 2010 at the earliest or January 2011 at the latest.

Correspondingly, Ktunaxa individuals are in the process of being identified who may have an interest in or knowledge of the CVTC and who may be willing to participate in subsequent interviews. Once these individuals are identified, in-depth interviews will focus specifically on the CVTC. This process should be completed by the end of 2010.”

These conclusions demonstrate the significant challenges associated with consultation within the limited period of time available, and the need for substantial additional consultation.

30. Ktunaxa Nation historical researcher Violet Birdstone prepared the Birdstone Report based on: (i) interviews with seven Ktunaxa elders; and (ii) transcription of a small number of previously-recorded interviews with Ktunaxa informants. The report identifies: two hunting areas in addition to those identified in the ATUS report); one additional berry picking area; and two additional camping areas. The report also includes selections from a transcript of a mid-1970’s interview with Ktunaxa elder Andrew Michel (since deceased) in which he describes Ktunaxa usage and occupancy of a wide range of areas within the Kootenay region and elements of the seasonal round. The report also includes seven Ktunaxa place names in the vicinity of

the CVT corridor. These are also depicted on a Ktunaxa place names map, attached as **Appendix 12**.

31. The Birdstone Report indicates that wild onions, wild potatoes, tobacco and berries are some of the plant products that were traditionally harvested in the CVT Area (p. 4). The report also describes how wild tobacco was harvested in the headwaters of the Columbia and transplanted to the Tobacco Plains area (p. 4).

IMPACTS OF THE CVT PROJECT ON KTUNAXA TITLE AND RIGHTS

32. Ktunaxa Nation citizens have the right to harvest wildlife and a wide variety of traditional use plants and a strong interest in maintaining biodiversity, including the diversity of plant and animal life within Ktunaxa Territory, including the CVT Area. The ATUS and the Birdstone Report, as well as extensive information in the K & B Draft Report, provide strong evidence in support of this right.
33. The KNC retained consultant biologist Trevor Kinley to review the CVT “Environmental Overview Assessment” (“EOA”) and provide comments on the potential impacts of the CVT Project on terrestrial ecosystem components, including plant communities and rare ecosystem elements (“Kinley January 2010 Memo Report”, attached as **Appendix 13**, p. 6). The BCTC’s consultants, AECOM, prepared responses to Kinley’s comments, which were in turn reviewed by Kinley (“Kinley May 2010 Memo Report”, attached as **Appendix 14**, p. 2). Kinley has concluded that: (i) the KNC will have to be vigilant in discussions on Environmental Management Plans (“EMPs”) pertaining to the identification and protection of rare species (plant and animal) and sensitive terrestrial ecosystems; and (ii) that there are likely to be residual impacts to sensitive ecosystems (e.g. old forest types, wetlands and dry slopes, fire-dependent ecosystems) and associated plant and animal species, and from noxious weeds. All of these are likely to affect the availability of traditional use plants, most notably where these species are generally rare.
34. The CVT Area is clearly important for Ktunaxa hunting, particularly for elk, moose and deer. In order to address their concerns about impacts on wildlife, the KNC asked its consultant biologist, Trevor Kinley, to also review those parts of the EOA related to impacts to wildlife. His comments are set out in the Kinley January 2010 Memo Report. AECOM has responded and the KNC’s consultant has reviewed these comments.
35. Kinley has drawn some general conclusions about potential project impacts on wildlife similar to those made regarding plant communities, particularly with respect to the need for careful review of, and possible further consultation on, the EMP.

36. The Kinley January 2010 Memo Report also notes that:

“More generally, new access would be created through much of the new transmission corridor. Transmission lines attract use by trucks and off-road vehicles because even with minimal new road development and the removal of stream and wetland crossing structures they offer straight, cleared, efficient routes across country. Such use is likely to damage rare, sensitive and other ecosystem element and increase exposure of wildlife to both legal and illegal kills and potentially vehicle collisions. Managing access to limit impacts to wildlife is a worthwhile goal, but it is not clear how this could realistically be achieved at the scale of the entire CVT line. BCTC’s preferred option (B) has lower current access overall than Option A, so would result in a greater incremental impact on the basis of access development” (p. 4).

37. The issue of impacts to wildlife from increased motorized vehicle access was also noted as a deep concern of the Chief and Council of the ?akisqnuuk First Nation at an early meeting about the CVT Project with KNC staff.

38. BCTC/BC Hydro has responded to the access concerns and their response was included in their “Evidence on Adequacy of First Nations Consultation” (Appendix A of Exhibit B-8, p. 141 of 200):

“As per the EOA report, there is already access along most of the proposed transmission route. BCTC is committed to maintain all natural barriers and use already existing access where possible.

BCTC acknowledges there is potential for increased human access to certain areas that will be cleared by the project. BCTC also understands that this is considered a benefit by some members of the public and government agencies and a detriment by others.

BCTC will work with private land owners to manage access through private parcels.

BCTC cannot control access to Crown Lands and will work with the government agencies to create an access management plan. [NTD – BCTC will not initiate the creating of this plan; however will work if any activity is initiated by other governmental agencies. Deepak]”

39. The KNC’s consultant, in response, noted that, "Access management is normally very challenging in the East Kootenay. A vigorous and long-term approach will be needed if incremental impacts from increased access are to be minimized” (Kinley May 2010 Memo Report, p. 1).

40. The attached Wildlands CPR document summarizes some of the ecological effects of forest roads (attached as **Appendix 15**, p. 2):

- (a) “Hundreds of studies show that roads directly or indirectly lead to habitat loss and fragmentation, poaching, over-trapping, snag reduction, down log reduction, negative edge effects, movement barriers, displacement or avoidance, harassment or disturbance at specific use sites, and chronic negative interactions with humans.
- (b) An excess of one mile of road per square mile of land will negatively impact many game and sensitive species, including elk, grizzly bears, lynx and wolves.
- (c) Roads act as pathways for the spread of non-native weeds, pests and pathogens.”

41. Wildlands CPR has also produced a summary of “Off-Road Vehicle Impacts on Wildlife” (attached as **Appendix 16**) in the categories of direct mortality, habitat security, disturbance and loss of habitat. In the category of habitat security, the report summarizes research on impacts to elk:

- (a) “Elk have been the most extensively studied animal in relation to motorized access. While recent studies have made a direct connection between ORVs [off-road vehicles] and impacts to elk (Vieira 2000, Wisdom et al. 2004, Wisdom 2007, Grigg 2007), most studies have looked more broadly at the impacts of motorized travel and roads on elk. It can be assumed that these impacts would be similar on ORV routes. Many studies have found that increased motorized access results in decreased elk habitat and security (Lyon 1983; Figure 3), and increased elk mortality from hunter harvest both legal and illegal (Hershey and Leege 1982, Hayes et al. 2002, McCorquodale et al. 2003, see Rowland et al. 2005 for review).
- (b) Closing or decommissioning roads has been found to decrease hunter induced mortality (Leptich and Zager 1991), increase elk survivorship (Cole et al. 1997), increase the number of bulls (Leptich and Zager 1991), extend the age structure (Leptich and Zager 1991), increase hunter success (Gratson and Whitman 2000), and allow elk to remain in preferred habitat longer (Irwin and Peek 1979). Studies have also recommended closing entire areas to motorized use— as opposed to individual roads— to best promote healthy elk populations (Hurley 1994, Burcham et al. 1998, Rowland et al. 2005).”

42. With respect to disturbance, the report provides the following summary of research on impacts to elk:

“Again, elk are one of the most studied species in regards to disturbance by mechanized use. Vieira (2000) found that elk moved twice as far from ORV disturbance than they did from pedestrian disturbance, and Wisdom et al. (2004)

found that elk moved when ORVs passed within 2,000 yards but tolerated hikers within 500 ft. Recently, Wisdom (2007) reported preliminary results suggesting that ORVs are causing a shift in the spatial distribution of elk that could increase energy expenditures and decrease foraging opportunities for the herd. Elk have been found to readily avoid and be displaced from roaded areas (Irwin and Peek 1979, Hershey and Leege 1982, Millspaugh 1995, Weber 1996). Additional concomitant effects can thus occur, such as major declines in survival of elk calves due to repeated displacement of elk during the calving season (Phillips 1998). Alternatively, closing or decommissioning roads has been found to decrease elk disturbance (Cole et al. 1997, Millspaugh et al. 2000, Rowland et al. 2005).”

43. In summary, with respect to potential project impacts on terrestrial ecosystems and Ktunaxa aboriginal plant and wildlife harvesting, there are likely to be residual impacts to rare plant and animal species and sensitive ecosystems, including traditional use plants. In the absence of a steadfast and long-term commitment to access management, there will likely be significant residual impacts to wildlife populations traditionally and currently harvested in the CVT Area by Ktunaxa Nation citizens. This must be considered in the context of the cumulative impacts to Ktunaxa wildlife harvesting in the region from a wide range of effects: (i) forest harvesting; (ii) widespread forest industry roads; (iii) loss of habitats and habitat effectiveness due to urban and rural development and highways.
44. The EOA was also reviewed by Mr. Kenton Andreashuk, senior technologist with the Canadian Columbia River Inter-Tribal Fisheries Commission. Mr. Andreashuk prepared comments on the EOA in his January 5, 2010 (attached as **Appendix 17**), which were reviewed and responded to by BCTC and their consultants (Appendix A of Exhibit B-8, pp. 135-137). In his comments on BCTC's responses, Mr. Andreashuk in his May 18, 2010 memo (attached as **Appendix 10**) notes that the permanent removal of riparian vegetation (and particularly large trees) at transmission line crossings is likely to result in a residual impact, albeit localized in extent, to fish habitat conditions and associated fish populations. Most particularly, the loss of large tree species from riparian zones will result in the loss of recruitment of large woody debris to the stream channel, which is of critical importance in maintaining a diversity of stream habitat conditions. Large riparian trees also stabilize streambanks, thereby preventing streambank erosion and the excessive recruitment of sediments into the stream; they also provide shading (minimizing harmful water temperature increases) and litter and insect food contributions to streams.
45. The KNC is seeking, through consultations with the proponent, to protect sacred use areas that might be impacted by the transmission line.

46. The CVT Project will prejudice Ktunaxa Aboriginal title in the following ways: (i) the construction and long-term maintenance and operation of the transmission line will prevent the Ktunaxa from exercising their right to choose how their lands should be used through permitting or approval of alternate uses of the land that might be better aligned with Ktunaxa land use and stewardship values or provide more net benefits to the Ktunaxa Nation; and (ii) absent meaningful revenue-sharing, the Ktunaxa are prevented from realizing long-term financial benefits from the use of the lands to which they have Aboriginal title.

ADEQUACY OF CONSULTATION AND ACCOMMODATION

47. The KNC generally agrees with the BCTC and the BC Hydro description of their consultation activities with the KNC to date, as set out in the CPCN Application (Exhibit B-1) and in BCTC's "Evidence on Adequacy of First Nations Consultation" (Exhibit B-8). However, as the KNC will further elaborate in its Written Final Submission, the KNC is of the view that it has a strong *prima facie* case in support of its claim to Aboriginal title and rights in the CVT Area and that the project impacts will be in the range of medium to high, rather than "low to medium" as BCTC suggests in its evidence. For these reasons, the KNC is of the view that the level of consultation required in this instance is in the high range of the *Haida* spectrum, rather than "medium to high" as BCTC suggests.
48. In general, the KNC agrees that, while consultation is far from complete, it has been helpful in identifying potential project impacts on Ktunaxa interests, including Ktunaxa Title and Rights, and initiating discussions regarding possible mitigation and other accommodation measures. However, it is important to note that: (i) there have been significant challenges in the consultation process; and (ii) there are a number of issues which are far from being satisfactorily resolved for which further substantial consultation and accommodation are required.
49. A key issue, which has made consultation more difficult, has been the unwillingness of the proponent (BCTC) to be a party to consultation and impact management and benefit agreements with the KNC with respect to the CVT Project due to its arrangement with BC Hydro whereby BC Hydro retains responsibility for consultations with First Nations (BCTC IR Responses April 30, 2010 to KNC IRs 1.3.1 and 1.3.2, Exhibit B-7). As a result, the KNC was unable to conclude a "Consultation and Capacity Funding Agreement" with the proponent, although terms were generally agreed to between the KNC and BC Hydro (in their capacity as the entity responsible for First Nations consultations with respect to the transmission system). This issue took up a lot of time and interfered with other consultation work related to the identification of potential impacts on Ktunaxa Title and Rights and other interests. However, the KNC understands that, if Bill 16 (the *Clean Energy*

Act) is passed and the relevant provisions are brought into force, the BCTC will be dissolved with its assets and functions transferred to BC Hydro. If this occurs, the issue of the proponent (BCTC) being a party to any agreements with the KNC will likely become moot. However, at this time, uncertainty remains about how the reintegration of BCTC and its initiatives into BC Hydro will proceed.

50. The planning, regulatory and, as a result, consultation processes for this CVT Project have all occurred and continue to occur within tight time restrictions. KNC staff and consultants have worked to the best of their ability to accommodate these time restrictions, but they have proved challenging. With longer timeframes, the KNC and BC Hydro/BCTC would likely have made more progress in their consultations and, in particular, would have: (i) made further progress in research to specifically delineate traditional use areas within the CVT Area; and (ii) identified and reached agreement on more of the measures required to mitigate potential project impacts on Ktunaxa Title and Rights.
51. The KNC was not aware of the K & B Draft Report despite: (i) having requested the proponent's preliminary strength of claim assessment in early 2010; and (ii) the fact that the report was apparently completed, at least in draft form, in November 2009. It would have significantly expedited the consultation process (and associated expense) if BCTC/BC Hydro had shared the draft report when it became available in late 2009.
52. As indicated in BCTC's "Evidence on Adequacy of First Nations Consultation" (Appendix A of Exhibit B-8, p. 141 of 200), the KNC expressed serious concerns about the potential impacts of the CVT Project on mountain goats in the Toby Creek area arising from the two proposed transmission line crossings of the creek. The KNC's consultant confirmed the KNC's concerns in the Kinley January 2010 Review Memo. The re-alignment of the proposed transmission line corridor to an alternate location wherein only one crossing of the creek will be required is indeed welcomed by the KNC.
53. With respect to probable CVT Project impacts on riparian areas, the proponent has "committed to avoid riparian habitat as much as possible" (Exhibit B-8, p. 17). The KNC understands that, in limited circumstances, tall-growing tree species may be retained in riparian areas (e.g. in deeply incised valleys). However, at most stream crossings, it will be necessary to remove at least the tall-growing tree species that support important stream ecosystem functions (as summarized above in paragraph 44). In the context of an individual stream, the impacts to stream productivity from the removal of riparian trees are not likely to be significant. However, if all of the transmission line stream crossings are considered, the overall residual impacts to stream and fish population productivity (and thereby Ktunaxa fishing rights) are likely to be significant.

54. The proponent has “agreed to provide the KNC and the SIB with the construction Environmental Management Plan (EMP) for their review and comment” (Exhibit B-8, p. 9). As indicated in paragraph 33, the EMP is anticipated to address potential impacts to important Ktunaxa rights and interests, including the harvesting of traditional use plants and the protection of riparian areas (and fish habitat). The opportunity offered to the KNC in this regard to provide comment does not in any way provide assurance that the issues (and potential impacts to Ktunaxa Title and Rights) will be satisfactorily resolved. The KNC requires clear assurance that the proponent is committed to consulting with the KNC on an ongoing basis to ensure that the KNC’s interests are protected to a reasonable extent at every stage of the CVT Project. Nonetheless, even with a more robust consultation process, there are likely to be residual, non-mitigable project impacts on Ktunaxa fishing rights.
55. The protection of the archaeological record within the CVT Area is a paramount concern of the Ktunaxa Nation. The proponent and the KNC have been working, and generally continue to work, in good faith to identify potential archaeological sites within the proposed CVT corridor, and the KNC is seeking agreement on measures to avoid or mitigate impacts to archaeological sites and resources when they are identified within the corridor.
56. A critically-important outstanding issue is that of the impacts to wildlife of motorized vehicle access along the transmission line during the operational (post-construction) period. On this issue, BC Hydro and BCTC have made a number of commitments (Exhibit B-8, pp. 9-10). The KNC is seeking more substantial measures, including: (i) BC Hydro/BCTC to request, and the Integrated Land Management Bureau (ILMB) to authorize BC Hydro to restrict access to the transmission line corridor; (ii) BC Hydro/BCTC to prepare an Access Management Plan for the transmission line corridor for the approval of relevant government agencies and the KNC; (iii) pursuant to the Access Management Plan, BC Hydro/BCTC to support regulatory closures (for example, under the *Wildlife Act* or the *Forestry and Range Practices Act*); and (iv) BC Hydro/BCTC to provide long-term funding for the maintenance of access management controls. The measures proposed by the proponent are unlikely to significantly reduce the long-term impacts to wildlife from motor vehicle access along the transmission line; the more robust measures proposed by the KNC have the potential to significantly reduce, but not eliminate, these impacts.
57. The KNC and BC Hydro/BCTC have reached agreement on a range of significant measures to enable the Ktunaxa Nation and its citizens to participate substantially in the employment and contracting benefits associated with the construction of the CVT Project.

58. The parties are engaged in discussions regarding direct financial benefits from the CVT Project for the Ktunaxa Nation. It is the KNC view that direct financial benefits serve three purposes: (i) as recognition of the existence of Ktunaxa Title and Rights and the fact that they will be impacted by the CVT Project; (ii) as an accommodation measure for project impacts on Ktunaxa harvesting and other Aboriginal rights; and (iii) as an accommodation measure for the alienation of crown land and associated impacts on Ktunaxa Aboriginal title, including the loss of the future revenues and benefits associated with the inescapable economic component of Aboriginal title and the loss of the right to choose how the CVT Area will be used.
59. Overall, it is the KNC's view that both the short- and long-term impacts of the CVT Project will be medium to high (in contrast to BCTC's assessment of "low to medium" impacts), considering: (a) the impacts will generally be permanent; (b) mitigation measures will reduce, but not eliminate, project impacts to riparian areas, fish habitats and populations, noxious weed ingress, loss of traditional use plants, and wildlife, and associated Ktunaxa harvesting rights; (c) the physical footprint of the project wherein forest ecosystems will be permanently removed exceeds 550 ha/5.5 sq km; (d) the long-term physical footprint of the project includes access roads along much of the 114 km corridor; and (e) the residual impacts cumulate with the impacts of existing development in the area including forest harvesting, forest roads, and farms and ranches.

LIST OF APPENDICES

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1	Statement of Intent to Negotiate a Treaty – Ktunaxa Kinbasket Treaty Council, British Columbia Treaty Commission Website.
2	Brian Robertson, <i>The Ktunaxa Nation and the Upper Columbia Valley: A Survey of Historical Documentation and Research Relating to Aboriginal Use and Interests</i> . May 20, 2010.
3	Map – Traditional Territory of the Ktunaxa Nation.
4	Map – Ktunaxa Traditional Districts – Yaqaḥ Hankatit̓iḥki na ʔamak.
5	Violet Birdstone, <i>Columbia Valley Transmission Corridor: Supplemental Ktunaxa Nation Oral History and Traditional Use Information</i> . May 2010.
6	Ktunaxa Creation Story, the Ktunuxa Nation Website.
7	Excerpt from: Shelagh Dehart, <i>The Kinbasket Migration and Other Indian History</i> . (Invermere: Palliser Printing, 2006).
8	Hunting Agreement Between the Ktunaxa, the Kinbasket and the Stonies – September 27, 1895.
9	Letter from Indian Agent Michael Phillipps to Superintendant A. W. Vowell. September 30, 1891.
10	Kenton Andreashuk, Memorandum Regarding <i>Columbia Valley Transmission Line Project – Fisheries/Aquatic Review of Environmental Overview Assessment</i> . Canadian Columbia River Inter-tribal Fisheries Commission. May 18, 2010.
11	Craig Paskin, <i>Ktunaxa Traditional Use in Association with the Columbia Valley Transmission Corridor: A review of the 1996 ʔakisḡnuḥ Traditional Use Study Documenting Ktunaxa Activities In and Around the Columbia Valley Transmission Corridor</i> . May 7, 2010.
12	Map – Columbia Valley Transmission Line and Ktunaxa Place Names.

- 13 Trevor Kinley, Memorandum Regarding *Environmental Overview Assessment for the Columbia Valley Transmission Project*. January 12, 2010.
- 14 Trevor Kinley, Memorandum Regarding *Responses by BCTC to My Review of the Columbia Valley Transmission Project*. May 18, 2010.
- 15 Wildlands CPR, *Ecological Effects of Forest Roads*, Wildlands CPR website.
- 16 Wildlands CPR, *Off-Road Vehicle Impacts on Wildlife*, Wildlands CPR website.
- 17 Kenton Andreashuk, Memorandum Regarding Columbia Valley Transmission Line Project – Fisheries/Aquatic Review of Environmental Overview Assessment. Canadian Columbia River Inter-tribal Fisheries Commission. January 5, 2010.

APPENDIX 1

**Statement of Intent to Negotiate a Treaty – Ktunaxa Kinbasket
Treaty Council, British Columbia Treaty Commission Website.**



[Home](#) » [First Nations & Negotiations](#) » [Nations List](#) » [Statement of Intent](#)

Statement of Intent

Ktunaxa Kinbasket

1. What is the First Nation Called?

Ktunaxa Kinbasket Treaty Council

2. How is the First Nation established?

Mandate from the citizens and Band Chiefs.

Please Describe:

Ktunaxa Kinbasket Treaty Council comprises the citizens of the First Nation

Is there an attachment?

No

3. Who are the aboriginal people represented by the First Nation?

The Ktunaxa and Kinbasket peoples.

4. How many aboriginal people are represented by the First Nation?

approx. 1000.

Is there any other First Nation that claims to represent the aboriginal people described in questions 3 and 4? If so, please list.

5. Please list any First Nations with whom the First Nation may have overlapping or shared territory.

NO

6. What is the First Nation's traditional territory in BC?

The territory of the Ktunaxa people extends from the Big Bend of the Columbia River north of Donald Station then south including all of the Kootenay sinuosisties to Missoula, Montana then west to Bonner's Ferry, Idaho then north to the Upper Arrow Lakes area of British Columbia then east across the Big Bend of the Columbia River to the eastern slopes of the Rocky Mountains.

The area claimed by the Canadian Ktunaxa people is all that area described which lies above the 49th parallel. *Attach a map or other document, if available or describe.*

Map Available?

Yes

7. Is the First Nation mandated by its constituents to submit a Statement of Intent to negotiate a treaty with Canada and British Columbia under the treaty process?

Yes

How did you receive your Mandate? (Please provide documentation)

Ktunaxa Kinbasket Tribal Council Resolution (attached).

8. Contact Person:

Chief Sophie Pierre

Official Title:

Administrator, KKTC

Phone Numbers:

Main:

250-417-4022 Office

Others:

250-489-2438 Fax

Submitted by:

Sophie Pierre

Title:

Administrator, KKTC

Date:

12/16/93, Amended 3/23/2000

APPENDIX 2

**Brian Robertson, *The Ktunaxa Nation and the Upper Columbia Valley: A Survey of Historical Documentation and Research Relating to Aboriginal Use and Interests.*
May 20, 2010**

**THE KTUNAXA NATION
AND THE UPPER COLUMBIA VALLEY:**

**A SURVEY
OF HISTORICAL DOCUMENTATION AND RESEARCH
RELATING TO ABORIGINAL USE AND INTEREST**

Prepared on behalf of the Ktunaxa Nation Council

by

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May 20, 2010

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**THE KTUNAXA NATION AND THE UPPER COLUMBIA VALLEY
A SURVEY OF HISTORICAL DOCUMENTATION
RELATING TO ABORIGINAL USE AND INTEREST**

1. PREFACE AND OBJECTIVES

The B.C. Transmission Corporation wishes to construct a hydro-electric transmission line [the Columbia Valley Transmission or CVT line] along the west side of the Columbia Valley from the vicinity of Invermere to Golden, a distance of approximately 115 kilometres. As part of the consultative requirement, the company has requested the Ktunaxa Nation to provide information regarding its current and traditional uses and interests in areas perceived to be impacted by this project [the study area].

This report seeks to provide information on these uses and interests gained from historical documentation and ethnographic studies. The preparation of this report has not involved any 'traditional use' interviews with Ktunaxa elders and knowledge-holders. As such, this report is not comprehensive and does not purport to provide a comprehensive summary of Ktunaxa traditional and/or current interests and uses in the project area.

However, this report concludes that the historical documentation, supported by the consensus opinion of nearly all ethnographers, points to the study area lying within the core traditional territory of the Ktunaxa Nation and that it has been an important part of their seasonal round for a very long time.

2. BACKGROUND TO THE COLUMBIA VALLEY TRANSMISSION (CVT) PROJECT

The proponent, B.C. Transmission Corporation, asserts that existing 69 kV transmission facilities in the Invermere-Golden area are now operating close to capacity and proposes a new 230kV to meet growing peak (winter) demand in the Golden area. According to the Application of the proponent to the BC Utilities Commission (BCUC) for a Certificate of Public Convenience and Necessity (CPCN) for the project:

The CVT Project is proposed to address the electrical supply needs of the portion of the Columbia Valley north of Invermere. The most pressing need is for reliable supply to meet load growth, especially in and around the town of Golden. Load in this area is forecast to presently exceed capacity of the present source of supply, a 69 kV transmission line (circuit 60L271), fed by 230/69 kV transformation at Invermere Substation (INV). The preferred solution to meet the identified need consists of the construction of:

- a) a new substation in the Golden area, to be named Kicking Horse Substation (KHS);*
- b) a new 230 kV transmission line connecting the existing Invermere Substation (INV) and the new Kicking Horse Substation (KHS);*
- c) a new 69 kV line to connect the new Kicking Horse Substation (KHS) to the existing Golden substation (GDN); and*
- d) modifications at the existing substations in Golden, Invermere and Cranbrook. These facilities would add cost effective and reliable capacity to address the load growth in the upper Columbia Valley. The Golden area load would be transferred to the new facilities to alleviate transmission constraints on the existing 69 kV system.*

The total length of the proposed new transmission lines would be approximately 115 km.

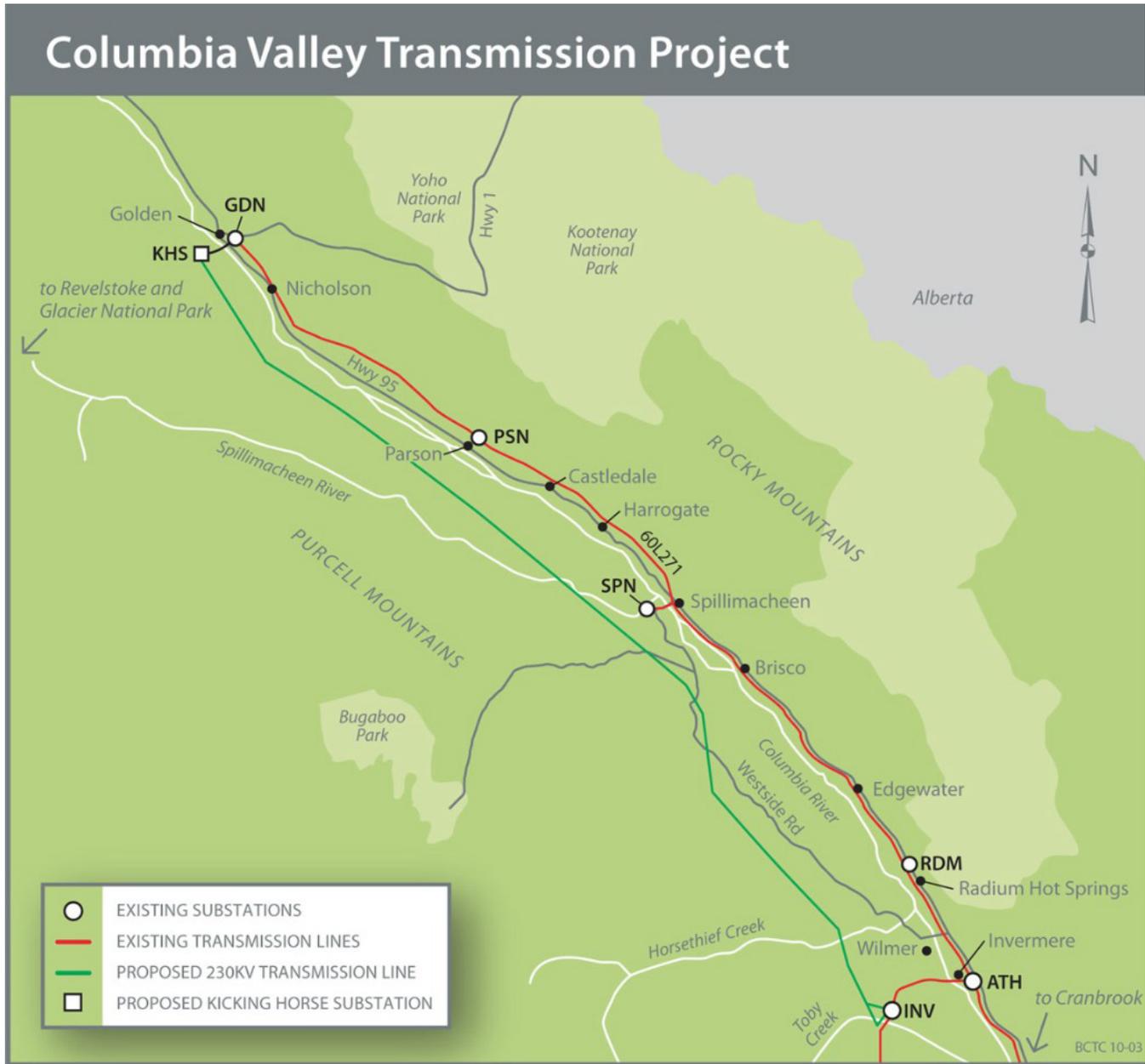


Figure 1. A portion of the Kootenay region, showing the proposed routing of the Columbia Valley Transmission lines¹

¹ Provided in the Application of the B.C. Transmission Corporation.

3. APPROACH OF THIS STUDY

The main thrust of this study has been to locate and review relevant historical documentation, ethnographic studies and scholarly publications with the aim of illuminating the history of aboriginal peoples in the subject area with a particular focus on the Ktunaxa.

The Internet has played a fundamental role in locating these sources. A crucial resource has been the various computer search engines mounted on websites for most major catalogues, including those for the libraries of the Universities of British Columbia [UBC], Simon Fraser, Toronto, Washington and Gonzaga, the Vancouver Public Library [VPL] and for holdings in the B.C. Archives and Library Services [BCARS], Library and Archives Canada [LAC], the Department of Indian and Northern Affairs Canada [INAC],² and the Hudson's Bay Co. Archive [HBCA] located in the Provincial Archives of Manitoba.

The internet also contains a myriad of other useful websites, including those of first nations, environmental and historical associations and local archives, as well as on-line publishers of books and essays relating to the area. Often these are useful stepping stones to find primary and secondary source materials.³

Major archives visited in person during this research include the Special Collection and Koerner Library divisions of U.B.C., the Northwest Collection of the Vancouver Public Library, British Columbia Archives and Research Services [BCARS] and Hudson's Bay Company Archives and The Resource Centre of the Union of B.C. Indian Chiefs. Local archives visited [at time of writing] include those in Castlegar [Selkirk College Local Collection], Fort Steele, Kaslo, Nakusp, Nelson [the Shawn Lamb Collection at Touchstones Museum], Revelstoke and those of the Ktunaxa Nation Council at Cranbrook.

This study presents a general historical summary of the area with a focus on how the documentation gathered reflects on the inter-tribal relationships through time as they relate to traditional territory. Traditional material culture will also be a focus, primarily through published ethnographies, with a view to exploring the historical use and importance of the subject area to the Ktunaxa people.

Names used will employ, in a somewhat arbitrary fashion, common Anglicized versions as opposed to constructions informed by linguistic symbols or other specialized conventions, e.g., Ktunaxa, Shuswap, Sinixt, Okanagan, etc.

It is important to note that this research has relied entirely on the review of written documents reflecting the observations and views, principally of non-natives: explorers, fur traders, early settlers, ethnographers, archaeologists and historians. The conclusions that are drawn are based on this evidence and may not completely accord with the knowledge of the members of the Ktunaxa Nation.

² The holdings of primary interest in LAC and INAC are found in Record Group 10 [RG 10] of the Federal Government of Canada, the majority of which has been microfilmed. The resource centers at the resource centers of Specific Claims West [INAC] and the Union of B.C. Indian Chiefs [UBCIC], both located in Vancouver, have fairly complete collections of the Black Series [the western component] of RG 10 microfilmed documents.

³ Special mention must be made of the web site *Early Canadiana Online* [<http://canadiana.org>], on which can be found in their entirety a number of early accounts relating to the area and published in the 19th Century by fur traders and others and available as .pdf downloads. These include the writings of David Thompson, Ross Cox, Alexander Ross, the artist Paul Kane and Father Pierre-Jean De Smet.

4. THE GEOGRAPHY OF THE EAST KOOTENAYS

As this study will make reference to numerous locations and their inter-relating roles in the traditional and more recent Ktunaxa modes of life, a description of major aspects of the region's geography is useful. The territory of the Ktunaxa features dramatic and formative geological features, most notably three high north-south mountain ranges - the Rockies, Purcells and Selkirks – and two major river systems, the Columbia and the Kootenay. An interesting feature of the territory is that these two great rivers rise within a few miles of each other, and form opposing arcs of hundreds of miles in length before joining near the town of Castlegar and flowing south through Washington State.

Other crucial elements of the economic geography of the region are the many mountain passes, which traditionally provided the Ktunaxa people access to both upland game and material resources beyond these mountains, most notably the bison of the western plains and fish in the West Kootenay region. Some of these passes are now used as routes for major rail and road links.

These features naturally give rise to a great diversity of biogeoclimatic zones, ranging from damp timberlands to xeric grasslands to alpine tundra and consequently a wide range of adaptations in resource utilization which include the broad array of mammals, fish, birds, plants and invertebrates (e.g. molluscs) that have sustained the Ktunaxa and their ancestors for millennia.

The highest abundance and diversity of wildlife species within the Nelson Forest Region occurs in the East Kootenay. This area is unique in its capacity to support seven species of ungulates, many of which inhabit the same winter ranges. This diversity, coupled with the capacity to support several species of carnivores, makes the East Kootenay a wildlife area of national significance.⁴

A breakdown of this diversity indicating that the study area has the best wildlife values in the region has been tabulated by Pinnell in a 1998 report on the impact of forestry and titled "Background Information for Kootenay-Boundary Region"⁵

Southern Park Ranges

Location: Rocky Mountains including Bull River and Blaeberry River

Terrain: Rugged mountains, long rivers and narrow valleys, 1100 to 3500m
Rainshadow area, cool and dry

Wildlife: Moose, elk, white-tailed deer, grizzly and black bear, mule deer in valley bottoms
Bighorn sheep, mule deer, elk, mountain goats at higher elevations

Central Park Ranges

Location: Rocky Mountains from Blaeberry in the south to Hugh Allen Creek

Terrain: High, rugged mountains with glaciers, short steep sided mountains
600 to 3300 m

Wildlife: Floodplains, riparian and avalanche tracks provide habitat for moose, elk, grizzly,
black bear, beaver, wolf
Caribou population reduced due to flooding of Columbia

Big Bend Trench

Location: Northwest of Donald Station

Terrain: Narrow straight valley with steep sides; 680 to 1100m

BEC: ICH only; wet and cool

⁴ Demarchi, D.A., 1986, from Braumandl, T.F., and Curran, M.P., p. 201, 2002

⁵ Pinnell, Heather; pp. 21, 22, 1998

Wildlife: Severely impacted by impoundment of Columbia River at Mica Creek
Caribou almost eliminated; moose, grizzly and black bears

East Kootenay Trench

Location: Rocky Mountain Trench from north of Golden to the south

Terrain: Valley 700 to 1100m

BEC: PP, IDF, MS, ICH

Wildlife: Best ecosection for wild game due to grasslands, shrublands and wetlands
Elk, mule deer, white-tailed deer winter throughout; bighorn sheep on steep south-facing slopes on east side of trench

Impacts on wildlife arise not only because of direct loss of feed and cover for these animals due to land disturbances but the long term suppression of genetic viability arising out of fragmentation and the loss of migration corridors. For example Ministry of Forests Land Management Handbook No. 20⁶ states:

For some species habitat fragmentation results in increased predation and parasitism while others are subjected to harsher weather conditions or increased vulnerability to large-scale fires and disease epidemics. Small populations are also susceptible to demographic changes such as loss of reproductively active individuals and may experience loss of genetic variability through inbreeding.

One way to minimize problems associated with habitat fragmentation is to link wildlife habitat patches by travel corridors. Such landscape linkages can function as pathways for genetic interchange, for daily or seasonal movements, and for range extension.

Although this material was originally intended to address to concerns about timber harvesting practices, it is directly applicable to the impacts of the proposed project as well. With respect to the Columbia Valley Transmission project, the Ktunaxa Nation is concerned about potential impacts of land disturbances on wildlife and fishing populations, especially concerning hunting and fishing opportunities and pressures, traditional food and medicine gathering areas and sacred or spiritual sites.

5. GENERAL NOTES ON THE KTUNAXA PEOPLE

The consulting report of Keefer et al⁷ made on behalf of the Ktunaxa Nation with respect to the proposed Jumbo Glacier resort project provides good summaries of the present and as well as the pre-contact bands of the Ktunaxa people. The report indicates that there are currently seven bands of Ktunaxa people consisting of five “northern” or Canadian bands and two “southern” bands in the USA:

- The Columbia Lake Band (ʔa-kisq'nuknik') near Windermere, B.C.; this band consists of the descendants of the qatmukinik (Toby Creek) and Whiteswan Lake (ka intak Band).
- The Tobacco Plains Band (ʔa-kanuxunik') near Grasmere, BC, originally lived near the Graves Creek and Small Creek. At the time of the government imposing reserves on the people this band was camping at the present day border crossing, Roosevelt, B.C.

⁶ Braumandl, T.F., and Curran, M.P., pp. 204, 2002

⁷ Keefer, M. et al, 2004

- The St. Mary's Band (ʔaq'amnik'), woodland Ktunaxa, were forced to relocate from Josephs Prairie (present day Cranbrook) to the St. Eugene's Mission area.
- The Lower Kootenay Band (ʔaqakthatxu) lit. Swamp people, is located just south of Creston.
- The Shuswap Band (ksamnik') near Invermere, B.C. that consists of the Shuswap descendants of the Kinbasket clan, who have inter-married with the Ktunaxa, Colville and Stoney people, as well as Ktunaxa descendants.
- The Bonners Ferry band (ʔaqankminik) is located in Northern Idaho at Bonners Ferry.
- The Elmo Montana Band (ksanka) members were moved onto the Confederated Salish Kootenai Tribe by the U.S. government in 1855 from the Jennings, Montana area. (Keefer 2002)

At time of writing, the Shuswap Band has left the Ktunaxa-Kinbasket Tribal Council (which represented the five Ktunaxa communities in Canada), and this body has since been renamed the Ktunaxa Nation Council and now represents the four remaining Ktunaxa communities in Canada..

The report by Keefer and his colleagues also describes the make up of the Ktunaxa people before the upheavals caused by the introduction of the horse and the coming of Europeans:

Before European contact, smallpox epidemics and the acquisition of horses brought about major changes in Ktunaxa culture. Before this time it is believed that there were eleven Ktunaxa Bands. A Ktunaxa Band lived on the east side of the mountains in the Oldman River watershed. In the literature this Band was known as the Tunaxa Band; it is believed that this Band became extinct from an early small pox epidemic. The Tobacco Plains (ʔakanaxunik) Band was formerly based around the confluence of Small and Graves Creeks. The Libby (ksuq'kinik) Band was based around modern day Libby Montana. The Whiteswan Lake (qa intak) Band wintered around Whiteswan Lake in BC. Michel Prairie (qakawakanmituqnik) Band used Michelle Prairie near present day Sparwood to plant Tobacco, but they were primarily based on the east side of the Continental Divide, their name means river running into and out again (Michelle Creek into the Elk River). The ʔakiyiinik or "thigh bone or femur people" lived around the present day Jennings, Montana area. ʔaqukua isukinik Band occupied country between Tweed and Warland Montana on the Kootenay River, this Band is extinct because of an epidemic. The qatmukinik or Toby creek Band wintered around the Toby Creek area and used the Upper Columbia basin for winter subsistence and the Lower Columbia Valley during salmon season (Laura McCoy per. com & Schaeffer "Kootenai Social Life #49").

Roughly reflecting this distribution of villages, the Ktunaxa Nation definition of the extent of their traditional territory is indicated in the attached map [Figure 2].

There are several theories concerning the origin of the name Ktunaxa. Many ethnographers believe that it originally was a Blackfoot word with a number of meanings. Another theory told to Claude Schaeffer was that it derived from attempts by whites to pronounce the word for the pulling of hide covers over the unique bows of the unique sturgeon nosed bark canoes, an act called *ktuna'ki*.⁸ For their part, the Ktunaxa traditionally referred to themselves by their own band names, not an overall designation, although this has changed to the single name in modern times.

⁸ This explanation is improbable as the first white man to record meeting the Ktunaxa and writing a version of this name was Peter Pond, east of the Rockies in 1792 and likely far away from any sturgeon nose canoes.



Figure 2. Traditional territory of the Ktunaxa Nation [supplied by Ktunaxa Nation Council]

Ktunaxa territory on the Canadian side of the border is divided according to Ktunaxa tradition into six districts:

- Land of the Wood Tick, in the Tobacco Plains area and east to the Rockies;
- Land of the Raven, in the Rockies containing the headwaters of the Kootenay River
- Land of the Spruce Grouse, east of the Columbia Lakes and Radium Hot Springs into the Rockies;
- Land of the Eagle, from St. Mary's to Golden, on the west side of the Columbia, then both sides of the Columbia Valley up to the Big Bend [Kinbasket Reservoir];
- Land of the Wolverine, centered around Kootenay Lake; and,
- Land of the Chickadee, extending from Castlegar to Big Bend, centred around the Slokan watershed, and lying between the Columbia River and the Selkirk Mountains.

The above summary of the traditional districts within the Ktunaxa territory in British Columbia indicates that the proposed CVT line lies in the Land of the Eagle.

Newcomers to the Kootenays noted that the Ktunaxa spoke the same language throughout this area, but one very different to that of surrounding tribes. Despite this, they saw evident differences in their material economy, enough to generate the distinctions of Upper Kootenay, centred around the Upper Columbia and Upper Kootenai valleys, and the Lower Kootenay whose focus lay more to the south and west nearer Kootenay Lake and the confluence of the Kootenay and Columbia Rivers.

Ktunaxa appears to be a language isolate, essentially unrelated to surrounding languages. Some scholars [e.g. Kinkade et al⁹] have suggested that there are elements in the language that appear to connect it with the Algonkin language group to the east, which interestingly includes their traditional enemies the Blackfeet. Others have suggested that it has a different type of connection with Salish languages. Yet others disagree with the significance of these connections. The linguist Matthew Dryer assessed these possible connections and concluded that the similarities with Algonkin languages which he describes as “quirky features” are highly specific and likely due to later contact, not a common “genetic” inheritance.¹⁰ He finds the connection of Ktunaxa to Salishan languages even less convincing, pointing out that more general typological similarities indicate a common inheritance is possible but not very useful since that connection would actually apply to most tribes in the Pacific Northwest.

This situation has interesting parallels in Europe, for example, in the Hungarian and Basque languages. Both are language isolates, and both are spoken by people who have seen vast migrations of people moving around them through the past several millennia but have retained their ancient languages, probably because of their homeland’s mountainous geography. Similarly, a likely explanation for the isolate nature of the Ktunaxa language is that these people have been in their mountainous Kootenay enclave for at least several millennia, while the evolution and movement of other language groups has swirled around them. As the Royal Engineer and Surveyor Charles Wilson observed in the 1850s, this tribe “is entirely isolated, and has had far less intercourse with the whites than any other surrounding tribe.”

6. ARCHAEOLOGICAL ASSESSMENTS RELATING TO KTUNAXA PRESENCE

Archaeological evidence also suggests that the ancestors of present-day Ktunaxa have inhabited the Columbia Plateau for many thousands of years. Archaeologist Wayne Choquette has spent much of his career looking into the general relationships between geology, climate and the consequent material culture of the ancient inhabitants of the area. He notes that the region has experienced a number of gradual but distinct changes. This underlies his concept of a “Complex” defined as the “systemic constellations of the following attributes: landform, soil, sediment, palaeohydrology, lithic preference, technology, artifact form and function, features, subsistence base, and settlement pattern.”

One of his most interesting findings, based on material remains, concerns the apparent presence of bison in the Columbia Valley in a previous era¹¹:

⁹ For Kinkade et al’s discussion, see the Handbook of North American Indians, Volume 12 [1998], pp. 49-72

¹⁰ Dryer, Matthew S. *Kutenai, Algonquian, and the Pacific Northwest from an Areal Perspective*

¹¹ Choquette, Wayne 1993, p. 12

Bison expanded into the Elk Valley and the southern Rocky Mountain Trench, undoubtedly in response to enlarged grasslands associated with the dry interval that began around 1500 years ago. Subsequently, the heavy snowfalls and harsh winters of the Little Ice Age resulted in the extirpation of bison, antelope, and prairie chicken from the intermontane valleys west of the Continental Divide.

This time period coincides with his description of the so-called Agahonek Complex¹²:

...typified by large, intensively inhabited sites on alluvial terraces, containing dense middens of fire-broken rock and burnt bone...Technological developments during this time included the adoption of the bow and arrow and a significant reduction in tool size. There was a shift in stone exploitation during this time period and for the first time, cryptocrystalline stone became the preferred tool stock; Top of the World Chert from the Rocky Mountains reaches its highest proportions. Deer bone continues to be abundant but hunting of herd ungulates (elk, sheep, and bison) increased significantly. The presence of bison bone is especially noteworthy since it demonstrates that these animals were present in the Kootenay drainage in precontact time. The Akanohonek Complex begins at least as early as ca. 1500 years ago and extends up to the time of European contact. In contrast to the previous social structure of small, relatively isolated bands, Akanohonek social organization was apparently more complex, with a large wintering population that fragmented as summer arrived into smaller task-oriented groups who dispersed on a wide range of subsistence pursuits. The main focus of the Akanohonek Complex was the Tobacco Plains in the southern Rocky Mountains Trench. There is evidence of a contemporary but as yet unnamed occupational focus associated with the winter ungulate range further north in the Trench at the Columbia River.

This indicates that buffalo hunting *within* the Columbia Valley was an important part of the seasonal round for the Ktunaxa for perhaps a thousand years, before climate changes in the centuries before contact caused bison to recede from the region.

Choquette has also noted that archaeological sites throughout the Columbia Plateau in the period 5,000 to 2,500 years ago contain implements made of the distinctive grey-green argillite found in the Kootenay Lake area.¹³

The abundant representation of the distinctive Kootenay Argillite in archaeological sites around Creston, in northern Idaho, and as far up the Kootenay River as the Libby, Montana vicinity makes it clear that the north arm of Kootenay Lake was an important part of the aboriginal seasonal round. This appears to have been especially the case between about 5000 and 2500 years ago when Kootenay Argillite attained its highest proportions in upriver artefact assemblages. In other parts of the region, this time period is characterized by a greater orientation to the resources of aquatic and riparian habitats by the resident human populations...

The Inissimi Complex was defined for this time period to encompass a distinctive set of artefact assemblages on the Kootenay river and its major tributaries, from the big bend in northwestern Montana at least as far downstream as the north arm of Kootenay lake...Characteristic features of the Inissimi Complex are predominance of Kootenay Argillite and a distinctive form of projectile point not found in surrounding regions that has an expanding stem, a ground convex base, and acute to right-angled shoulders...

The abundance and distribution of Kootenay Argillite in Inissimi Complex sites along Kootenay Lake and the Kootenay River as far upstream as Libby, Montana has been interpreted to reflect the use of canoes. The seasonal round is hypothesized to have comprised wintering near the important deer winter ranges at the south end of the Purcell Mountains and a summer focus on the salmon fishery along the lower Kootenay River. Prior to the return to the wintering area, a northward swing was made to obtain stone from quarries above the North Arm of the Kootenay and to hunt deer on the east side of the lake.

¹² Ibid., p. 32

¹³ Choquette, 2005, pp. 13-15

Were these Indians the ancestors of modern Ktunaxa? An archaeological discovery in Alberta appears to cement these ancient argillite sites with the uniquely Ktunaxan mode of life of fishing on waterways of the Kootenays and hunting east of the Rockies. The archaeologist Brian Reeves wrote of his work on the 2000 year old "Pelican Lake" phase of the famous site of Head-Smashed-In-Buffalo-Jump.¹⁴

Some of the projectile points from the Pelican Lake strata have stems rather than being notched at the corners. These too were made from an exotic raw material: metamorphosed argillite from the Kootenay Lake area of British Columbia some 800 kilometers west of Head-Smashed-In. Both their source and their alien shape suggest that visitors from Kootenay Lake occasionally participated in the Pelican Lake people's buffalo drives...

Choquette and others have also been following the distribution of a chert originally quarried at a site called Top of the World in the Canadian Rockies. This hard stone, also prized for tool making, has been found throughout and beyond the Ktunaxa range, in British Columbia, Washington, Montana and Idaho. Its use is believed to extend from more than 5,000 years ago into the Akanohonek Complex, suggesting a plausible ancestral connection of similar antiquity for the Ktunaxa.

With respect to specific sites, the first scientific archaeological investigation in the study area may have been carried out in 1954, when an archaeological team led by Charles Borden of the University of British Columbia performed over 50 site surveys in the Upper Columbia stretching from Lake Windermere to the U.S. border.¹⁵ In a gradient increasing towards the south end of this range, his team uncovered large numbers of expanded stem points characteristic of the Ktunaxa, many of which were encrusted by a patina created by centuries of being subjected to the elements. As they moved northward to Columbia Lakes they encountered more side-notched points, thought to be more characteristic of Interior Salish, and concluded they were probably left by the Kinbasket people. Remains of what were identified as Salishan pit houses were also found in the vicinity of Columbia and Windermere Lakes, leading Borden to surmise that the southern range of the Kinbasket Shuswaps may have at one time included all of Columbia Lake. Unlike many of the expanded stem points, the side-notch points appeared to have had virtually no patina of aging, attesting to relatively recent deposition.

However subsequent excavations have called into question some of the conclusions of Borden's team concerning the identification of these more recent cultural heritage resources. One examination, consisting of field work carried out by Paul Snead and his team in 1978¹⁶ in response to a proposal to divert the Kootenay River into the Columbia for power generation purposes, stated [pp. 51-52]:

...test excavations at the northeast end of Windermere Lake (McKenzie, 1975), Fairmont Hot Springs (Choquette, 1971) and several other localities, have not revealed conclusive evidence of use as habitations. According to Borden, "a test excavation just beyond the lip of a large house pit (sic) at site EcPx-2...yielded no artifacts, but much ash, fire cracked rocks, and numerous splintered animal bones" (Borden, 1956: 81). Reexamination of site EcPx-2 by this study team revealed no large house pit. In fact, as mentioned before, many of the so-called house pits, previously recorded by other investigators are natural features. Furthermore, we believe that most, if not all, of these large features were not used as habitations but rather as large storage or food processing facilities.

¹⁴ From *Scientific American*, October, 1983, taken from Weir, p. 9

¹⁵ Borden, Charles 1956, pp. 73-104

¹⁶ Snead, Paul G., *Kootenay River Diversion - Cultural Heritage Resources, Phase I Impact Statement*, January 1978

Concerning their attribution to Shuswap people, he more generally concludes [p. 58]:

Along with earlier investigators, we observed that the two major classes of projectile points were small side-notched and triangular varieties and, generally larger stemmed and corner-notched varieties. In his earlier investigations, Borden assigned the small side-notched points to the Salishan Shuswap and considered only the larger corner-notched arrow points to be associated with the Kootenay Indians (1956: 97). However, research by others (Choquette, 1971; and, Taylor, 1973) and our own observations of artifact distributions indicate that this association is only partially correct, at best. The Kootenay, also, made and used small triangular side-notched projectile points.

Features, such as the supposed housepits, exhibited on heritage sites in the Upper Columbia valley have also been used to assign cultural identity and chronology (Borden, 1956). However, we believe this can be tentative, at best. Features like food processing facilities are known to occur in both Shuswap and Ktunaxa settlement patterns. Storage pits, although thought to be more closely associated with the Shuswap, cannot be definitely assigned to them alone. Finally, the large circular depressions, thought to be Shuswap housepits, as we have argued earlier, may not even be habitation features.

Snead's team found evidence of considerable pre-historic and proto-historic activity in the Upper Columbia Valley. In their Phase I reconnaissance, they discovered 180 heritage sites and re-evaluated 51 more, concluding that only 13 were attributable to "historic Euro-canadian colonization". The study projected from its representative sampling that "there would be about 238 heritage sites in the potential impact zone which is over 100 linear miles long and 250 to 1000 feet wide" [p. viii]. Almost 90% of these aboriginal sites were classified as close to the high water line of the Columbia [p. 65]. The area distribution of all aboriginal sites, indicating that almost half may be in or near the CVT study area, was given as follows [p. ix]:

119 (55%) are recorded in the area from Canal Flats to Invermere (Section 1), 93 (42%) are recorded in the area from Invermere to Spillimacheen (Sector 2), and 6 (3%) are found in the area from Spillimacheen to Golden (Sector 3).

Snead cautiously concludes that from at least the middle of the Late Prehistoric Period (ca. A.D. 500-1800) "there is evidence of substantial occupation, probably by ancestral Kootenay speakers, in the Upper Kootenay River valley and, by extension, probably in the Upper Columbia River Valley."

Although they are most famously thought of as passing over the Rockies to hunt buffalo, the Upper Ktunaxa regularly travelled westward over the mountains too. For example, Choquette observed¹⁷:

Another group of Ktunaxa, the Qatmuk'nek, also frequented the Duncan Lake vicinity during their seasonal transhumance between the winter ungulate range at the Columbia's headwaters in the Rocky Mountain Trench and the summer salmon fishery of the Arrow Lakes.

In the Jumbo Pass research study,¹⁸ he and his co-authors conclude that the Toby Creek people (whose descendants are now largely part of the Columbia Lakes Band of Windermere) have traveled through the Purcells into the Lardeau-Duncan area and on to the Arrow Lakes as a part of their seasonal round for a very long time. From personal observation they found the route from Toby Creek over the saddle of Jumbo Pass and down Glacier Valley to be topographically suitable with considerable supportive habitat. In addition, a somewhat cursory examination yielded several sites bearing signs of pre-contact use.

¹⁷ Choquette, 2005, p. 14

¹⁸ Keefer et al, 2004, pp. 23-25

Finally, it should be noted that many archaeological sites remain to be found. Choquette notes¹⁹:

Although the Trench is the most extensively surveyed part of the Nelson Forest Region, investigations have been primarily focussed on the immediate vicinities of present-day watercourses - landforms associated with the proglacial and immediately postglacial lakes have not been systematically examined.

In other words, there have been times of higher water during which human activity was carried on at higher elevations. This appears to be an important consideration for projects like the Columbia Valley Transmission Line, which will follow routes somewhat above current water courses.

The archaeological evidence therefore is consistent with the notion that, with the exception of the recent adoption of the horse in the eastern part of their range and a greater focus on the plains buffalo hunt, the Ktunaxa first encountered by Europeans on the Columbia Plateau in the 19th century were living in much the same way and *largely in the same areas* as their ancestors had for millenia, and that a major focal point of their range was the upper Columbia River Valley.

7. HISTORICAL OVERVIEW OF THE EUROCANADIAN IMPACT ON THE KTUNAXA

Most of our early written knowledge of the traditional culture and inter-relationships of the Ktunaxa and other Indians of the Columbia Plateau comes to us from the observations of fur traders, missionaries and adventurers who began arriving in the area in the early 1800s.²⁰ This was a time of upheaval in western North America, arising primarily from three great impacts of Europeans upon Indian culture.

The descendants of horses originally taken from the extensive Spanish ranching district around Santa Fe expanded northward through the western plains, and early in the 18th Century became a crucial part of life for those engaged in the seasonal buffalo hunts on the eastward portions of the Plateau and the Great Plains.²¹ With ranges dramatically expanded for cultures long used to travelling on foot, increased competition for hunting territory and access to the buffalo herds soon evolved into range wars between the various tribes and an increased glorification of warrior culture. Into this volatile mix stepped fur traders who brought with them trade goods and contagious diseases, most notably firearms and smallpox, and these had further huge impacts on the indigenous people of the Plateau.

In order to assist readers with place names of the area, some of which are no longer found on modern maps, a detail of John Arrowsmith's 1864 map of "The Provinces of British Columbia & Vancouver Island, with Portions of the United States & Hudson's Bay Territories" is included as Figure 3.

¹⁹ Choquette, 1993, p. 55

²⁰ According to Bill Brunton, the first European contact with the Ktunaxa occurred in 1792 "when Peter Fidler met a small party east of the Rocky Mountains" from the *Handbook of North American Indians*, Volume 12, p. 232.

²¹ For example, see Haines, Frances (1932): he attributes this spread to the frequent escapes from Spanish missions by indentured Indians with their horses and equestrian knowledge, followed by the development of systematic horse theft. Aided greatly by the Pueblo Revolt of 1680, horses are believed to have reached the Plateau area by the 1720s, after which they were spread north and east into Blackfoot and Cree country.

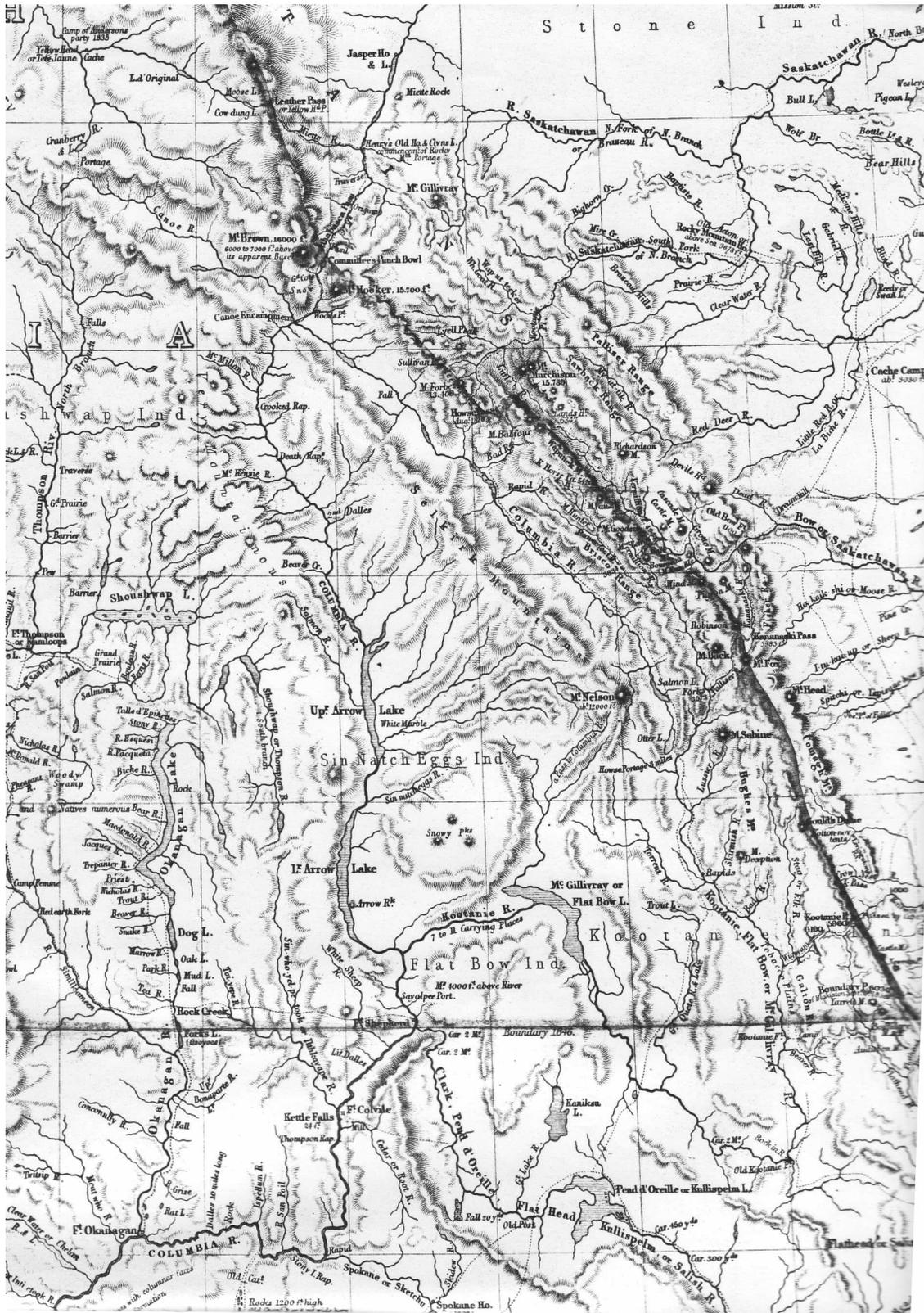


Fig. 3. A detail [high resolution] from the 1864 map of western North America by John Arrowsmith, a useful reference to names of places and Indian tribes as found in historical documents of the 19th Century.

Perhaps the greatest of these impacts happened on the eastern portions of traditional Ktunaxa territory. The eastward situation of Plains tribes, especially the Blackfoot, gave them the first opportunities to trade with the westward moving agents of the Hudson's Bay and North West Companies who themselves were eager to improve the efficiency of fur collection by introducing arms to Indian hunters. Sporting the new rifles, driven by the competition for buffalo access and protective of their new status as middlemen, the Blackfoot Indians and their allies soon obtained the upper hand over the traditional weapons of the Ktunaxa and Flathead Salish further west.

As a result of this military imbalance, most historians and ethnographers [e.g., Turney-High] agree that the portion of the Ktunaxa living on or near the Plains were forced to withdraw into the Rockies and further west to join their linguistic brethren in what approximates their post-contact territory. This notion was first advanced by David Thompson and Alexander Henry, the latter stating:²²

Along the Clearwater, and near the foot of the mountains are still to be seen the remains of some of the dwellings of the Kootenays, built of wood, straw, and pine branches. The same are observed along Rivière de la Jolie Prairie and Ram river. This gives us every reason to suppose that nation formerly dwelt along the foot of these mountains and even as far down as our present establishment, near which the remains of some of their lodges are still to be seen. About the time the Kootenays were in possession of this part of the country, the Snare Indians dwelt on the Kootenay or Columbia. But the former, being driven into the mountains by the different tribes who lived E. of them, with whom they were perpetually at war, in their turn waged war upon their harmless neighbours on the W., the Snare Indians, and soon drove them off the land the Kootenays now inhabit. This is on the upper part of the Columbia, and on Ram [sic] river, a little S. of it, now called McGillivray's river, but formerly termed by the natives Flat Bow river, from a tribe of Indians who then inhabited the lower part of it. . . . The Snare Indians, it seems, retired northward to an uninhabited part of the Rocky mountains, where they continue to wander, a most wretched and defenceless people, who never war upon any of their neighbours.

Fellow fur trader Ross Cox also wrote of the initial impact of the gun on Ktunaxa-Blackfoot range wars:²³

The Cootonais are the remnant of a once brave and powerful tribe, who, like the Flat-heads, were perpetually engaged in war with the Black-feet for the right of hunting on the buffalo grounds. Previous to our arrival among them they entertained the most dreadful hatred against white men, to whom they attributed all their misfortunes, owing to the assistance which their enemies received from the North-west Company's people to the eastward of the mountains.

Like Thompson and Henry, some modern authorities appear to hold that this was a general westward movement, with a few believing that the Ktunaxa are relative newcomers [since the 1700s] to their current treaty claim area. On the strength of some key informants, Turney-High, the most prominent of the Ktunaxa ethnographers, believed that the ultimate origins of the Ktunaxa were "not only an eastern provenance. . . but even a trans-Rocky mountain one", although he evidently felt that this was far earlier than the 1700s.²⁴ The B.C. Department of Education guide book for B.C. schools, developed in conjunction with B.C. Archives in the early 1950s, attempted to synthesize oral tradition and documentary sources into the following:

²² From Coues, E., pp. 703-706

²³ Cox, R., *Adventures on the Columbia*, p. 233

²⁴ Harry Turney-High, *Ethnography of the Kutenai*, p. 10. Note that on the same page his acknowledgment of a "strong tradition" of the Ktunaxa that this westward movement was at "a very ancient time". Also, he accepts "Tobacco Plains, or the Big Village" as "the ancient Kutenai 'capital'" [p. 16].

They speak of a racial group living in the vicinity of McLeod, Alberta, half of whom became the ancestors of the Piegans. The other half, their numbers reduced by a virulent epidemic, crossed the mountains to inhabit what is now the south-eastern part of British Columbia. The members of this latter group became the ancestors of the present day Kootenay.

However, modern linguistic analysis, archaeology and complex material adaptation are all consistent with the longevity of Ktunaxa occupation of their Kootenay territories. The most plausible explanation is that the Ktunaxa are an ancient tribe who predate the much larger Salishan and Cree tribes in the region, having resisted the swirl of migration around them because of their mountainous isolation. Choquette's analysis [p. 10] in fact suggests that, if anything, the withdrawal of the western limit of the buffalo range from the Columbia Valley to the eastern side of the Rockies during the centuries predating contact drew the Ktunaxa to increased hunting in the plains. Their reduced presence in the buffalo hunting grounds in that eastern part of their traditional range subsequently occurred because of their relatively late acquisition of firearms and the ravages of smallpox.

These factors obviously played a major role in reducing the Ktunaxa presence on the Plains. The early ethnographer James Teit considered the Ktunaxa on the plains an old offshoot of the main body of Ktunaxa, and called this group the Tunaxe; he suggested that they disappeared primarily because of smallpox with an assist by Blackfoot predation. This echoes an earlier account of one of the Catholic missionaries in the area.²⁵

In his 1847 "Recollections" from Flathead Mission, Jesuit Father Gregory Mangarini...recalled being told by the elders that about seventy years earlier (ca. 1777), a devastating outbreak of smallpox had killed a large camp of Salish Flathead, sparing only a few children. At the same time the epidemic destroyed an "entire nation" living five days journey to the north. This nation was very likely the Kutenai Tuna'xe, an eastern band of Kutenai who, like the Salish Flathead, travelled annually to the plains to hunt buffalo.

Writings of David Thompson²⁶ and others indicate that the Blackfoot²⁷ attempted to discourage as much as possible the westward advance of fur traders past their territories. However, the North-westerners and others were determined to trade directly with tribes like the Ktunaxa in the rich fur lands west of the Rocky Mountains. Although this westward movement was delayed for a number of years, trading posts were eventually opened west of the Great Divide in the early 1800s, and with it, a redressing of the arms imbalance between the two sides. With their discipline, excellent hunting skills and abundant game, the Ktunaxa were soon well armed and able to re-establish a strong presence in the buffalo hunting grounds east of the Rockies. Although their control of substantial buffalo hunting grounds may not have been reasserted to its previous extent, they began to regularly travel in large vanguards to the buffalo hunting grounds, often allied with other tribes, especially the Flathead Salish to the southeast.

²⁵ From Elizabeth Vibert, *Traders' Tales*, pg. 55. The ethnographer Teit also subscribed to this account of a Ktunaxa band residing east of the Rockies, whom he called the Tunaxe, being wiped out by smallpox.

²⁶ See Nisbet, *The Mapmaker's Eye*, for a good overall description.

²⁷ It should be mentioned that the eastern neighbours of the Ktunaxa were the Cree [Sarsi and Stoney] to the northeast and the Blackfoot [Piegan, Blood, Blackfoot] to the south and southeast. The Cree were usually considered friends and the Blackfoot enemies, although on occasion the Ktunaxa traded with the Small Robe Piegans, even during hostilities with other Blackfoot. This may be due to the ongoing presence in that tribe of a remarkable young Canadian from Trois Rivieres, Quebec named Hugh Monroe. At the age of 15, he was sent by the Hudson's Bay Company to live with the Piegan and learn their language, eventually living out his days as a full member of the tribe with the name of Rising Wolf.

The first trading post in Ktunaxa territory was established close by the Columbia River by David Thompson in 1807 near present day Windermere, B.C. and called Upper Kootenay House.²⁸ This appears to have been both for its proximity to Howse Pass and for what he perceived as good trade possibilities. Subsequently, regional posts for trading with the Ktunaxa and other Indian nations were established at Fort Colville, Thompson's River [Kamloops], Spokane and Flathead along with numerous smaller outposts.

It appears that the location of these trading posts had important impacts on the activities of the various tribal groups. For the Upper Ktunaxa, the posts at Kootenae House, Spokane and Flathead drew their attention southwards. For the Lower Kootenay, Sinixt and Okanagans, Fort Colville was a powerful attractant. While most of the neighbouring Shuswap looked westward to Thompson's Fort, we shall see that some were deliberately attracted by the Hudson Bay Company towards Jasper's House, east of the Rockies which brought them into the traditional northern range of the Ktunaxa.

Catholic missionaries like Fathers Blanchet and De Smets, called by the Indians "black robes", began to proselytize in the area in the 1830s and 1840s and established a number of missions. They were at first received with an almost messianic fervour by the Plateau Indians, but this fervour appears to have subsided markedly in the later 1800s. According to Larry Cebula²⁹, the Indians slowly realized that the white man's Christianity was not conferring the spiritual power they initially thought it would, especially regarding immunity to the horrifying and deadly diseases that continued to plague them.

The character of the area began to change even more dramatically with the settling of the border with the United States through the signing in 1846 of the Oregon Treaty in 1846, one result of which was to sever Ktunaxa territory roughly in half. The impact on the western neighbours of the Lower Ktunaxa, the Salish speaking Sinixt, was even more dramatic in that new border restrictions and aggressive settlers caused them to eventually abandon the Canadian portion of their traditional seasonal round and remove southward into the U.S. to settle on the newly created multi-tribal Colville Reservation. This new reality also occasioned the 1855 Lane Bull Treaty, in which the American based Blackfeet were reduced to a Montana reservation and peaceful access to the dwindling buffalo herds was made available to the American Ktunaxa and other tribes in the U.S.³⁰

The latter half of the 19th Century saw the decline of the fur trade and the arrival of first a trickle and then a flood of settlers into the Kootenays, primarily miners and farmers. Largely in response to the sudden influx of thousands of American gold prospectors, the Crown Colony of British Columbia was created in 1858, and was eventually combined in 1862 with its counterpart on Vancouver Island. The colonial government saw as its prime concern the attraction of new settlers who professed loyalty to the British Crown, and not the protection of Indians in their traditional lands, an orientation strongly reinforced by the Chief Commissioner of Lands and Works, Joseph Trutch. Under his

²⁸ Upper Kootenay House was closed after a few years and, following its merger with the Northwest Company, the Hudson's Bay Company established a small post to the south in the Tobacco Plains area known variously as Kootenae House, Kootenay Post or Fort Kootenay. The initial HBC clerk in charge was Edouard Berland, who was succeeded on his untimely death by Michael Phillipps who later became the first Indian Agent for the Kootenay District when this post was closed for economic reasons in 1871.

²⁹ Cebula, Larry, *Plateau Indians and the Quest for Spiritual Power*, 2003.

³⁰ Traditional hostilities between the Blackfeet and other tribes continued in Canada throughout the 1860s but their intensity mirrored the vanishing buffalo herds until both had virtually disappeared by 1880.

authority, the basis of Indian allotments, if allowed in the first place, was reduced to a maximum of ten acres per family, even though standard pre-emptions for settlers were set at 160 acres.

Although some B.C. lands were set aside for Indians during the colonial period, this was not the case in the Kootenay region. It was not until the entry into the Dominion of Canada by the Crown Colony of British Columbia in 1871 and their agreement to transfer responsibility for Indian matters to the Dominion through Article 13 that reserve allotments were made for all groups recognized by Canada and B.C. as Indian bands. For the Ktunaxa, these allotments were made primarily in the 1880s. However, these restrictive allotments of land under the reserve system combined with range land alienation, cultural suppression by Federal and Residential School officials and disruption of fisheries resources have severely disrupted the traditional way of life of the Ktunaxa.

8. TRADITIONAL TERRITORY OF THE KTUNAXA AS SEEN BY EARLY EUROPEANS

The journals, letters and reports of the Plateau's earliest fur traders and to a lesser extent its missionaries, land surveyors and independent adventurers, are a major source of our understanding of the extent of the territory traditionally controlled by the Ktunaxa. While their role included gathering intelligence concerning the habits and territories of the Indians they encountered, their journals writings are often sparse and imprecise in this regard but nevertheless have provided valuable insights into aboriginal world of the Columbia Plateau at this time.

1. David Thompson

Arguably the best known and certainly the most celebrated of all the European trader/explorers in the area, Thompson was the first literate trader to encounter the Ktunaxa in their homeland west of the Divide. He and others in the North West Company realized that a rich source of furs lay to the west of the Rocky Mountains in Ktunaxa territory and, inspired by the establishment of maritime trading posts at the mouth of the Columbia and Alexander MacKenzie's recent voyage to the Pacific in 1793, they determined to cross the mountains and tap into that potential profit.

The opening through the Blackfoot blockade began when Thompson, hearing that a Ktunaxa party was in the mountains nearby, went to meet them and proposed a visit by them to the local North West post.³¹ This led to a plan as described by fur trader Peter Fidler:³²

In the fall of 1800, 28 Cotton n haw men with 2 Women came into Acton House, our uppermost settlement in the Saskatchewan river, with a few furs [sic] – this is the first time they have ever seen a House. After remaining here for a few days (no other Indians being near the house) 2 Canadians accompanied them to their Country to examine it & learn whether or not any Beaver in any quantity was to be found there – but as these two men could neither read nor write, what remarks they made was merely verbal...They arrived at the House...on the 23rd of May 1801.

Thompson and Fidler had successfully conspired to have the French Canadians, Le Blanc and La Gasse [Legace], slip undetected through the Rockies and they lived periodically with the Ktunaxa in the Tobacco Plains area for three more years³³, gathering information. Their route through the Rockies appears to have been through Howse Pass³⁴ and was described by Fidler:³⁵

³¹ From *The Manuscript Journals of Alexander Henry and of David Thompson*, ed. by Elliott Coues [1897]; pp. 703-704.

³² HBCA E3/2; Acton [Old Acton] House later became known as Rocky Mountain House.

³³ See also Schaeffer, *LeBlanc and LeGassé: Predecessors of David Thompson in the Columbian Plateau*.

³⁴ Belyea, *Columbia Journals, David Thompson*, p. 194

In going out they crossed over the Mountain near the Source of the Saskatchewan in an oblique direction the latter place was more easy to pass than the former across the Mountain. Beyond the Mountain opposite to the head of the Saskatchewan a thick woody country – they passed thro' it along an old Track formerly cut by the Cottonahaws, being the Northern most track they have; it was now very troublesome to pass thro' it on account of the long time they have not passed that way, being much encumbered with Wind fall wood &c.

Following the path of his deputies La Gasse and LeBlanc over Howse Pass, David Thompson finally crossed the Rockies in 1807, seeking to trade directly with the Ktunaxa and to explore a route westward to the sea. He soon realized that there were two distinct groupings of Ktunaxa, the Upper and Lower “Kootenai”,³⁶ which reflected their relative positions on the Columbia and Kootenay Rivers and different occupational emphasis. The Upper Ktunaxa they found to be more active traders with an orientation toward horses and the plains buffalo hunt which they pursued with regular seasonality. The Lower Ktunaxa, whom Thompson describes in his Journals as “Lake” Indians and later traders named “Flatbows”³⁷, were found to be less active in this regard, with more orientation toward boats and fisheries of the territory’s lakes and rivers. Despite these differences in their respective economies, Thompson often found them encamped together.³⁸

In that first summer of 1807, Thompson established, as noted previously, a trading post called Kootenae House, just north of present day Invermere, and spent much of the next four years exploring the Columbia Plateau, including residing there during the winters of 1807-1808 and 1808-1809. Unfortunately, Thompson was not much of an ethnographer and neither his Journals nor his later Narrative provide much illumination in the way of delineating aboriginal territory particularly with respect to the subject area of this study. Most of his travels in the area concerned the exploring the Kootenay River system [which he first believed to be the Columbia] down into present day states of Washington, Idaho and Montana, although he made one foray in 1808 to the southern portion of Kootenay Lake, where he encountered a band of Lower Ktunaxa.³⁹ In 1811 he travelled along what eventually came to be known by the fur brigades as the “Columbia Express”, along the “Stone Indian Road”⁴⁰ from Jaspers House in Alberta over the Athabaska Pass then down the Wood River to Boat Encampment⁴¹, thence down the Columbia in canoes via the Arrow Lakes to Fort George at the mouth of the Columbia. His last travels in the region were around the Flathead Lake area of present-day Idaho and Montana in 1812, after which he performed survey work in eastern Canada.

³⁵ HBCA E3/2, from Belyea, p. 194. This passage is interesting in that it suggests several interpretations. One is that the Ktunaxa may have been shifting their buffalo hunting efforts southward in response to the effective arming of their enemies east of the Rockies by fur traders and the added protection afforded by cooperative hunting with the more southerly Flathead Salish. A second is that the decimation of smallpox had reduced populations to the point that some trails had fallen temporarily into disuse. This latter interpretation is also consistent with the apparently sparse numbers of Ktunaxa encountered in the Upper Columbia area by traders such as Thompson. Probably both explanations are true.

³⁶ Other anglicized spellings encountered include Kutenai, Kootanais and Kootenae

³⁷ From the shape of their hunting bows. The name may have originated with Quebecois “free” traders who called them “Arc-des-Plattes”.

³⁸ For example, *David Thompson’s Narrative*, ed. Burr [p. 388]. This is consistent with Turney-High, who points out in his *Ethnography of the Kutenai* that such differences should not be over-interpreted as both groups were seen as skilled hunters and each would visit the other’s regions for hunting buffalo or fishing for trout and salmon.

³⁹ Op cit, p. 386

⁴⁰ From Belyea, pp. 120-123. It is worth noting that Ktunaxa relations with the Stoney [Stone] Indians were generally friendly, which makes more plausible their use of this route as well.

⁴¹ The historic Boat Encampment was on the right bank of the Columbia, just below the mouths of the Canoe and Wood Rivers. The site now lies beneath the Kinbasket Reservoir formed by the Mica Dam.

While Thompson's *Narrative* is a very readable literary reminiscence of his days in the Columbia Plateau, the *Journals* appear to offer more in the way of daily observation, including numerous incidents of friendly interaction with the Ktunaxa. Belyea's *Columbia Journals* provide transcriptions with otherwise informative annotations of most of the Journals but unfortunately, she has only provided transcriptions of his travelling journals which are inclined to geography rather than ethnography. The journals covering the two winters of 1807-1808 and 1808-1809 in Ktunaxa territory, when he may have used his plentiful spare time to describe it more thoroughly are not included in her book. An added research problem has been the very poor quality encountered of microfilmed copies of his Journals, which has rendered them indecipherable, and a famously missing journal from the late summer of 1808.⁴²

2. John Work

A career man with the Hudson Bay Co. who rose from Clerk to Chief Trader, Work travelled extensively in the Columbia Plateau area in the 1820s through the 1840s, based out of Company forts at Vancouver [Washington], Colville, Spokane and Kamloops, and wrote a number of journals and post reports detailing his observations, most of which can be found in the Hudson's Bay Archives in Winnipeg.⁴³

Although Work encountered Ktunaxa people in some of these travels, he has little in the way of observations relating to the extent of their traditional territory. Work's application of the term "Lakes Indians" to the "Senacteht" [Sinixt] introduces some confusion into the historical record, in that Thompson originated this term as a description of the Lower Ktunaxa.⁴⁴

Of these post journals and reports, the most interesting to us is the one for 1830, in which he answers a long series of numbered questions sent to him and other Factors by the Company's Committee. Some relevant passages address territorial questions and read as follows, using local Spokane language for some of the tribal and place names⁴⁵:

The Kootenais [are] of two tribes the Silaquilosqui (by the whites called the Flat Bows) and the Callesauilk. Their country lies on the Kootenay river from near its discharge to its source and on the head of the Columbia river, [sic] To the Westward this country is mountainous but to the Eastward there are fine plains with little wood.

In his second census [1830] Work gives the following numbers for the Ktunaxa.

	Men	Women	Boys	Girls
Callesauilk [Upper Kootenays]	91	121	65	72
Silaquilosqui [Lower Kootenays]	91	94	50	43

⁴² Personal communications with authorities such as William Moreau and Jack Nisbet have not provided further relevant observations by Thompson on Ktunaxa use of the subject area.

⁴³ These journals include: *Journal of a voyage from a voyage from [York Factory to Spokane House]*, 1823; *Journal of a Voyage from Fort George to the Northward...*1824; *Journal of a Trip from Fort Vancouver to the Interior...*1826; *Journal of a Trip fro Ft. Vancouver to O'Kanagan in May 1828*; *Diary of a Journey in 1830* [from Colvile to Spokane to Fort Vancouver]; and *Diary of Journey to the Missouri in 1831 - & Return* [from Ft. Vancouver and return].

⁴⁴Modern ethnographers have tended to associate the term "Lakes" with the Sinixt and not the Lower Ktunaxa, and review of their material in this report will show that these Salishan people occupied the mid-Columbia area from Arrow Lakes to north of Kettle Falls in the US, apparently sharing much of this territory with the Lower Kootenay and, to a lesser extent, Okanagan and Shuswap people.

⁴⁵ HBCA B.45/e/3, fo.2

He further notes that the Kootenais are called by one name by their neighbours. Again, however, there is little information relating to their occupation of the Kootenay region, and nothing at all about the Upper Columbia.

3. Narratives of other fur traders

During the first half of the 19th Century, there was much romance attached to the western fur trade, and a number of popular narratives were published by Hudson's Bay fur traders and others for adventure readers. The memoirs have also been consulted in this research, including those of George Simpson, Alexander Ross, Ross Cox, Paul Kane and Thomas Lowe, but these shed little light on the presence of the Ktunaxa along the Upper Columbia since they generally followed the so-called "Columbia Express" route which bypassed the Upper Columbia valley.⁴⁶

Alexander Ross, another prominent HBC fur trader, met a portion of these people on his 1824 trip from Spokane to Jasper's House and referred to them as the "Sinatcheggs." He indicated that they lived in the neighbourhood of the Arrow Lakes and mid-Columbia below what is the site of Nelson. In a later narrative written for public consumption, he gave the following recollection of conversation with one of them, indicating an important pre-contact relationship with the Ktunaxa, one that is consistent with historical movements of the time:⁴⁷

"My father," said he, "was a Kootanais chief, but, in consequence of wars with the Blackfeet, who often visited his lands, he and a part of his people emigrated to this country about thirty years ago. I am now chief of that band, and head of all the Indians here. We number about two hundred, and call ourselves Sinatcheggs, the name of the country; and here we have lived ever since... This part is well stocked with beaver and other kind of furs... The lakes abound with sturgeon and other fish; so that we live well, and are at peace with all men."

Several of these sources also indicate a high regard for the Kutenai by the first Europeans in the area. For example, Ross Cox, an early employee of the North West Company wrote this description of the Ktunaxa in 1832:⁴⁸

The greatest cleanliness and neatness are observable about their persons and lodges. They are rather handsome, above the middle size, and, compared with other tribes, remarkably fair. On the whole, we may say of this interesting people, that, in their intercourse with white men, they are rather haughty and reserved; in conversation, candid; in trade, honest; brave in battle; and devotedly attached to each other and their country.

In 1845, the well known Catholic missionary, Father Pierre-Jean De Smet traveled through the Columbia Valley through Tobacco Plains up to Boat Encampment and over the Rockies to Jaspers House. He wrote a series of letters about his journey through the land of the Ktunaxa [which he claimed were known in the area as *Skalzi*] and these include sentiments about the character of the Ktunaxa echoing those of Cox.⁴⁹

⁴⁶ This was the famous fur brigade route which left Jasper's House, crossed over the Rocky Mountains via the Athabaska Pass and descended westward to Boat Encampment, where canoes were waiting to take them down the Columbia River via the Arrow Lakes to Fort George at the mouth of the Columbia.

⁴⁷ from Alexander Ross, *The Fur Hunters of the Far West*, Vol. II, pp. 171-172

⁴⁸ from Ross Cox, *Adventures on the Columbia River*, p.234

⁴⁹ From Chittenden/De Smet, *Oregon Missions and Travels Over the Rocky Mountains, 1845-1846*

The writings of earliest travellers, Thompson, Cox, Ross, Simpson, Work and Kane, among others, also provide very interesting and colourful reading and offer fascinating glimpses of the life and times of the Ktunaxa and their relationships with various other groups. Taken together, they suggest that the Ktunaxa had generally hostile relations with the Blackfoot Indians and their allies to the east and occasional hostilities with the Salish-speaking Shuswaps, Okanagans, Colvilles and others to the west and south. On the other hand, they appear to have been on relatively good terms with the Stoneys and Plains Cree to the east and the Flathead Salish whose lands lay to the southeast.

9. GOVERNMENT DOCUMENTATION

1. The Palliser Expeditions of 1858 and 1859

Perhaps the first government sponsored expedition through the area was led by Captain John Palliser in the late 1850s as part of a general surveying project designed to fix the border between British North America and the United States and to survey passes through the Rocky Mountains. According to the lengthy report submitted to British Parliament in 1863 as well as a separate journal written by Charles W. Wilson, Palliser's survey parties encountered Ktunaxa people numerous times during 1858 and 1859, primarily in the Tobacco Plains area, but their focus on surveying the border seems to have precluded much ethnographic consideration or other information about the study area.

2. The Big Bend Trail Map

Believed to date from the early 1860s, this map is focused on the area around Big Bend.⁵⁰ Although it has scant detail, it indicates a trail extending northward from the Windermere area along the east or right bank of the Columbia and, by an apparent tying in with several portage trails, reaches all the way to Boat Encampment, where it connects with the trail over Athabaska Pass to Jasper's House. On the way it connects with other trails, including one over "Pavilion" [Howse] Pass to Jasper's House, and another one appearing to cross the Purcell Range north of present day Golden to the vicinity of Revelstoke. If the dating is accurate, these trails precede miners in the area and would be attributable to use by the Upper Ktunaxa and latterly by the Kinbasket Shuswap as well.

3. The Columbia Rivers Explorations of 1865 and 1866

This collection of exploratory reports was written for the Colonial Government of British Columbia by Walter Moberly and his team of surveyors. As part of an attempt to keep Americans from taking over the trade in supplies to the newly discovered Gold Fields of southeast B.C., Moberly and his team, which included James Turnbull and Ashdown Green, were commissioned to examine the region defined by the arc of the Columbia River with a view to finding good supply routes. Their travels, mostly in separate parties, took them variously up the Arrow and Kootenay Lakes and over mountain passes to the Upper Columbia, and their reports contain some relevant points of interest.

One passage worth noting is the mention of "Kinbasket's Trail," a four day passage from Windermere Lake over the mountains to the Kootenay Lakes.

Kinbasket, the Chief, who is nearly always encamped about the head waters of the Columbia has made a horse trail from the mouth of Toby Creek, which continues along its bottom for 2 days journey, then he follows a foot trail which passes over the summit traversed by Mr. Howman and reaches the Kootenay Lakes in 2 days more, thus taking 4 days to complete the journey.

⁵⁰ B.C. Ministry of Crown Lands, Surveyor General Branch, Map 21T1.

But as referenced by Affleck,⁵¹ the Lower Ktunaxan guides of James Turnbull, who was Moberly's colleague on the expedition, could not explore this trail after travelling up Kootenay Lake, essentially because of its succumbing to disuse.

When Moberly travelled down the Upper Columbia in the summer of 1866, he wrote of meeting Kinbasket whom he described as having led his band to the Upper Columbia area where they settled "about 20 years ago."⁵² Kinbasket accompanied Moberly's party for several days, and is described as having:

a thorough knowledge of the country from Wild Horse Creek to the Boat Encampment, and thence to Colville...He also says he has taken horses up the valley of Toby Creek, No. 2, nearly to its source, and then leaving them has passed on foot over a high divide to the head of Kootenay Lake...

Perhaps reflecting this extended contact, the team referred to the first passage as "Kinbasket's Trail". For example, when Surveyor Turnbull's party was exploring the "Upper Kootenay Lake" [now Duncan Lake] area at this same time he wrote in his report that he had "reached the foot of Kinbasket's Trail. Found no Indians there." At any rate, Moberly's team felt that it would not serve as a supply route because of the high elevation of its westward section.

This appears to be the same trail that was described by Palliser a few years earlier:⁵³

There once was a good trail from the Columbia Lakes to the west but no one has traveled it for many years and [Alick] thinks it must now be blocked up with fallen trees.

It would thus appear that the length of the trip and its unsuitability for horses led to the trail's disuse by Kinbasket's people after only a relatively short period of usage. This appears to be in contrast to conclusions by Keefer et al⁵⁴ concerning the apparent long standing use of the Toby Creek – Jumbo Pass trail by the Columbia Lake Ktunaxa, long before contact.

4. Government of Canada Documentation

Indian Superintendent Israel W. Powell visited the Kootenays in 1873 to discuss the creation of reserve land with both the Upper and Lower Kootenay and returned in 1886 to discuss their grievances and demands for larger reserves. While he does include impressions of a general ethnographic nature, his descriptions of territorial lands are very limited for our purposes.⁵⁵

Reserves were officially allotted in the summer of 1884 to the Ktunaxa and Kinbaskets by Reserve Commissioner Peter O'Reilly [the one time Gold Commissioner for the District] and the discussions he had with Chief Isidore are instructive as to how the Ktunaxa viewed the entire Columbia Valley.

O'Reilly allotted reserves to the Kinbasket without any real difficulty. In conveying copies of the Minutes of Decision for the new reserves, O'Reilly met at length with Kinbasket and reported:

⁵¹ Affleck, p. 10

⁵² Moberly, 1866 This suggests a date for the resettlement of Kinbasket's Band to the Columbia Lakes area of about 1846. If Kinbasket was familiar with the Columbia down to Colville it is reasonable to expect that the Ktunaxa were too.

⁵³ Palliser, p. 155

⁵⁴ Keefer, Choquette, McCoy and Williams (2004), pp. 30, 31

⁵⁵ Reports of November 3, 1873 [RG 10, Vol. 3738, file 28013-1] and November 18, 1886 [RG 10, Vol. 3738, file 28013-1A]

I visited with a band of Indians, offshoots of the Shuswap tribe near Kamloops, who, under the leadership of a chief named Kinbasket, some forty years ago, migrated from Shuswap, and settled in the Columbia valley. Although connected by marriage, and association with the Kootenays, this band has preserved its language, and individuality...⁵⁶

Things were not so easy with the Ktunaxa. At Wild Horse Creek in July 1884 he initially met Chief Isidore, accompanied by most of his tribe:

I explained the object of my visit, and invited them to shew me what lands they most desired to have reserved; owing, however, to their excessive demands, and not being provided with a competent interpreter, I decided to defer the consideration of their land question, and to proceed to the "Tobacco Plains", 60 miles south of Wild Horse Creek, where a portion of the tribe resides; David being sub-chief, and here I was fortunate to secure the services of an experienced interpreter, Mr. John Campbell, who is favourably known to the Indians.

I found "David", the subchief, quite as unreasonable in his demands as "Isidore" had been, claiming the whole country from the boundary line to the Columbia Lakes, an area of 1100 square miles; and I had great difficulty in inducing him to listen to my proposals to the contrary. He repeatedly referred to the large reserves allotted by the United States Government to the Indians, containing millions of acres, and compared them with the small area he asked for; he also pointed out that the chiefs on American territory, only a few miles to the south, received an annual pension of \$500 each; and he complained that the Kootenay Indians had received nothing at the hands of the Dominion government, though the Cree, Blackfeet and Stoneys, on the other side of the mountains, had been furnished with stock, seeds, implements, and even rations.

After considerable discussion, O'Reilly managed to allot Reserve No. 2 of 11,360 acres to the Upper Ktunaxa that day and left for other business. He returned later that month to visit with Chief Isidore where "no result was obtained, however, for several days."

The Chief stated, again and again, that he would not accept any limits to his reservations, unless they included the whole valley of the Kootenay, and Columbia rivers (from the International boundary line) and followed the base of the Rocky Mountains to the Boat landing on the Columbia river.

Again, "after a good deal of persuasion" the Chief accompanied O'Reilly and eventually two more Reserves [No. 1 and 3, containing 18,150 and 8,320 acres respectively] were set aside.

O'Reilly also allotted reserves to the Lower Ktunaxa at this time. He noted that they too had once travelled to the plains to hunt buffalo, but were now "dependent principally on fish and berries."

Files of Indian and Northern Affairs Canada [INAC] indicate that the first two Indian Agents, Michael Phillips and then R.L.T. Galbraith, having lived in the district for many years prior to appointment, seemed quite familiar with the bands in Kootenay Agency, but their writings reveal little in the way of fresh insights into the Ktunaxa and their use of the territory. Unfortunately the RG10 microfilm copies of the letterbooks of both Agents are mostly illegible.

Still, several interesting documents from Galbraith's tenure have been located, including a Memorandum of Agreement between the Stony Indians of Alberta and the Ktunaxa and Kinbasket Shuswap [see the discussion of this group in the next section]. It was designed to put an end to hostilities arising from provocative and destructive hunting incursions of the Stony Indians into the Upper Columbia Valley region. Dated September 27, 1895, and signed by chiefs and headmen of the

⁵⁶ O'Reilly to Superintendent General of Indian Affairs, December 17, 1884.

three groups in the presence of the Assistant Commissioner of Indian Affairs and Agent Galbraith , it is agreed.⁵⁷

That the Stonies shall have the privilege of hunting as far West as the Columbia and Kootenay Rivers, and that in return the Kootenay Indians, and the Shuswap Indians shall have the privilege of hunting as far East as the base of the Rocky Mountains, on the Eastern Slope thereof.

And that this mutual concession is made with the distinct understanding that the Game Laws of British Columbia, and the North West Territories, as the case may be, shall be strictly observed, and that any infraction of the said Game Laws by the Stonies of British Columbia, or by the Kootenays or Shuswaps, in the North West Territories, shall be considered sufficient reason for withdrawing the concessions above made, from the band or bands to which the Party, or Parties Transgressing belong.

The fact of such an agreement suggests a sense of continuing ownership and stewardship on the part of the Ktunaxa towards the Upper Columbia Valley region and its resources. In line with this, the historical documentation reviewed in this section supports the sense that the study area has always lain within the core territory of the Ktunaxa.

10. THE KINBASKET BAND

1. The migration of Kinbasket's people into the Upper Columbia Valley

Documentation located supports the notion that, around the time of European contact in the early 1800s, a group of Shuswap people led by their chief Yeheelna Kinbasket began spending more and more time eastward of their North Thompson traditional home territory. After years of movement, this eventually culminated in the creation of a permanent settlement near Windermere Lake around the middle of the 19th Century. Descendants of these people are now known as the Shuswap Band or sometimes the Kinbaskets, also assert claims to the upper Columbia Valley study area.

Agent Galbraith in a 1914 interview with the Royal Commission on Indian Affairs [the McKenna – McBride Commission] offered this comment on the Kinbasket migration [see immediately below], stating that “...there was some family feud years ago and they passed over the Selkirk mountains and came and settled in the Kootenay country where they originally were known as the men-without-clothes.”⁵⁸

From examination of Hudson's Bay Company archival material dating from the 1820s⁵⁹ it is clear that this band of Shuswaps began trading with the Company by at least the mid 1820s. For example, they are mentioned in Post Journals as visiting the Jasper House Post during October, 1827; January, March, November and December, 1828; November, 1829; November and December, 1830; and March and April, 1831.⁶⁰ This material, however, is inconclusive about which passes through the Rockies were used by the Kinbasket Shuswap during this period.⁶¹

⁵⁷ From RG.10, Vol. 3855, file 80143

⁵⁸ From *Kootenay Agency – Transcript - Examination of Indian Agent Galbraith*, pp. 72-140, Royal Commission on Indian Affairs in the Province of B.C.

⁵⁹ Journals of Thompson's River Post [B.97/a-1] and Jasper House [HBCA B.94/a1-3]

⁶⁰ HBCA B.97/e-1, 2 and 3. It is possible that the Shuswaps had been visiting the post for several years prior to 1827 since it opened in 1821, but the available Post Journals only run from 1827-1831.

⁶¹ For example, Yellowknife Pass may have provided an easier and more direct route than the Athabaska Pass.

The Shuswap were encouraged in that direction through the express strategy of Governor George Simpson.⁶² For example, when camping at Big Bend in 1824 with some “Freemen” [trappers] and their followers, Simpson discovered that these Freemen

"were preparing to go on a War Expedition against a poor helpless inoffensive tribe of Indians "Shewhoppes", natives of the North branch of Thompsons River knowing them to be weak and unprovided with the means of defense and solely with a view to plunder and gain themselves renown as Warriors by taking a few Scalps without incurring danger...I have been anxious to encourage those Indians to frequent the Establishment in the Mountain [*Rocky Mountain House, according to the Merck footnote*] in order to draw them from Thompsons River as in the event of their being prevailed on to go the former place for their supplies and with their returns we should be enabled to abandon that heavy and unprofitable Establishment [*Fort Thompson, according to a Merck footnote*] for a Year or two, but this unprovoked warfare was likely to defeat my plans; on the score of humanity as well of interest. I therefore spoke my Mind very plainly to those freemen, told them we meant to protect the Shewhoppes and if they did not instantly abandon their cruel intentions they should not this Winter have even a particle of ammunition at any of our Establishments and that next Season they should be bundled down to Canada where starvation & misery would follow them. This lecture had the desired effect and they promised that they would no longer entertain hostile feelings towards those people. Those freemen are fully in our power and if they break their promise I shall keep my word in regard to them.

Although Simpson never visited the Upper Columbia beyond Big Bend, his policies may have had a major impact on its aboriginal history.

On the ground this movement of the Shuswap was strongly facilitated by their connection to the engaging Quebecois free trader Francois Morigeau, who trapped and hunted in the area, travelled and camped frequently with them and generally sold his furs to Jasper House.⁶³ Flannigan notes that even though they were called “free”, these traders “were issued letter orders similar to military orders, telling them exactly where they could go and who they could employ.”⁶⁴

As noted, the documentation located is inconclusive about when the Kinbasket Band actually settled in the Columbia Valley. For example, De Smet’s letter of September 9, 1845 indicates that Morigeau with his “little family” accompanied by three Shuswap families had traveled “in all haste” to meet him near the source of the Columbia in order to secure long desired baptisms. However, where they travelled from and whether this was a permanent settlement is not indicated.

In an article written on his passing⁶⁵, Baptiste Morigeau is quoted as saying his father first came to the East Kootenays in 1819 with a Swampy Cree wife, who returned east after some years, leaving three of their children including Francois Jr. He then brought a second wife from east of the Rockies, a Scots Metis named Isabella, who bore him at least four sons and five daughters, including Baptiste who was born in 1840. A number of these children including Baptiste subsequently married into both Kinbasket and Ktunaxa families. Baptiste claimed that it was Chief Paul Kinbasket who assigned land in the area to him upon his marriage in the 1850s.

2. Winifred A Weir’s Book

Tales of the Windermere, self-published in 1980 by Ms. Weir, whose ancestors were among the earliest settlers in the area, is written in a folksy style and contains chapters on historically prominent

⁶² Merk, *George Simpson’s Journal*. . . 1824-1825, p.30

⁶³ B.97/e-1 and 3

⁶⁴ Flannigan, 2001, p. 19

⁶⁵ Taken from a reprint of Basil Hamilton’s article in the *Cranbrook Courier*, Jan. 21, 1932, copy in the Fort Steele archive [Dave Kay Fonds, No. 43-44].

families in the Golden area, most notably for our purposes the Morigeaus and Kinbaskets. The general detail appears to be in good agreement with Shelagh de Hart's book [following] which was published more than 20 years later.

Regarding the Morigeaus, this material asserts categorically that it was Francois Morigeau Sr. who was baptized by de Smet, and that Baptiste Morigeau married Collette a daughter of Paul Kinbasket. [pp. 107-109].

The book also conveys a history of the Kinbasket migration as part of an imagined conversation between Marianne Kinbasket and her granddaughter Rosie [p. 122]:

Your great-great-grandfather Gelhulnah had brought your great-grandfather Paul Ignatius with him. It was long ago, maybe 1819 or some year near that. It was a hard trip over the mountains but the Kinbaskets are never afraid. Paul went back to the Shuswap country and then returned here."

Chief Paul Ignatius Kinbasket had brought his people from the Shuswap Lake country in the 1850s, travelling through the Big Bend country of the Columbia to settle finally in the Windermere valley.

With a group of his band he had travelled from the Adams Lake area, across the Purcell Mountains. They stayed for a time at a large lake in the Big Bend country, the lake named Kinbasket Lake by Walter Moberly...Whether the mosquitoes drove them on or whether they were headed for the Windermere Valley is not known but here they arrived.

3. Shelagh Dehart's Book

Another interesting source of information for this aspect of East Kootenay history is the memoir of a direct descendant of the Kinbasket chiefs, Shelagh Dehart, edited by her granddaughter, Dusty Dehart and published in 2007.⁶⁶ Titled *The Kinbasket Migration and Other Indian History*, this book offers a number of important recollections that illuminate the area's history.

For example, one might be forgiven if an impression was made from a number of other sources consulted that "Kinbasket" was one chief. In fact, as Ms. Dehart makes plain, this is a hereditary name that was used by the leader of the band and refers to her three male ancestors, great-great grandfather Yelheelna, his son Paul Neass [Paul Ignatius], and her own father, Pierre. According to her narrative, the wanderings of the Shuswap happened over a period of many years, starting when Yelheelna was a young man and ending after his death, when his son and successor Paul founded the present Kinbasket settlement. Since it is likely that Yelheelna was the old established chief of the Shuswaps described in the HBC records dating from the 1820s,⁶⁷ the book shows how "Kinbasket" could still be actively travelling through the mountains with Provincial Surveyors nearly half a century later.

The book asserts that this band spent a number of years living in the vicinity of the Boat Encampment, and that oral tradition describes how busy a place it was with comings and goings of many kinds of people, including priests. This again is consistent with the use of Boat Encampment by the fur trade, especially from the 1820s on, as a key stop on the route known as the Columbia

⁶⁶ Published by Palliser Printing, Invermere, B.C., 2007. It may be argued that, logically, such a publication should not be part of this study which is essentially predicated as a survey of written historical materials from "non-tribal" sources, i.e., not directly from Ktunaxa/Kinbasket people themselves. However, it is included here both as a publication and because it is illuminating and forms some interesting corroborations with other sources referenced in this study.

⁶⁷ For example, the Kamloops – North Thompson Journal entry for November 8, 1822, mentions "the old North Branch Chief...and family are in the habit of going some times to the east of the Rocky Mountains & Jaspers House..."

Express and the employment by the HBC of Shuswaps as packers, hunters and guides. The claim that Yelheelna met David Thompson therefore becomes plausible, and ties in with suggestions that these Kinbasket Shuswaps were present in the area of Boat Encampment by 1811.

According to Dehart, the migration began as an exploration of some young Shuswap men from the Adams Lake area [pp. 28-29]:

They were really exploring and so they went north on Kinbasket Lake up to Canoe Reach and on to Valemont. They explored all of Kinbasket Lake on both sides. They camped for a few days before they got to the Columbia River. From there they crossed the river and kept following the shore. They again camped at Downie Creek where it enters the Columbia River for quite some time. They were away from their people a long time and when they went home, they told the people about it. The Elders told them “That’s Kootenay Country, very dangerous”.

...

The Elders tried to stop the explorers, they forbade them to keep going into enemy territory, the dangerous Kootenay Country but the young ones continued to explore.

Eventually the explorers grew into a band, with Yeheelna as their chief, staying for some time at the Boat Encampment and making occasional forays southward up the Columbia Valley. The Shuswaps were evidently fearful that they would be attacked for encroaching on Ktunaxa territory and then very happy with ultimate acceptance into the northerly portion of the Ktunaxa’s territory. Referring to the meeting that established peace between them, deHart indicates that the main body of the Kinbaskets were camped at the confluence of the Beaver and Columbia Rivers at that time, with a smaller group including Chief Yeheelna camping further upstream near present day Donald [p. 33]. According to her book, the Ktunaxa had watched the Shuswap for a long time before offering Yeheelna and his small group a welcome and friendship through the making of signs and offering of gifts [p.34]. Dehart then indicates that the Ktunaxa continued to freely hunt or travel there, often in the company of their new neighbours.

Regarding the founding of the Kinbasket settlement Dehart goes on to say:

The Indians met the Morigeau’s [sic] near Windermere Creek sometime before 1840. The first priest Father de Smet came in 1845. He baptized the Morigeau children and a few Indian children, among them Chief Pierre’s oldest daughter Maras.⁶⁸ The Kinbasket’s and the Morigeau’s [sic] were already settled here before that. The Weir’s settled after that but they all had met the Shuswaps before the priests came.

Although these accounts confirm that the Kinbaskets acknowledge that they migrated from Shuswap territory, it is difficult to ascertain exactly when they settled in Ktunaxa territory. Although Winifred Weir indicates that it was in the 1850s, Shelagh deHart appears to suggest it occurred before the visit of Father de Smet in 1845. And as we have seen in earlier portions of this report, Walter Moberly [p. 22] and Peter O’Reilly [p. 23] both indicate they were told this happened in the mid-1840s.⁶⁹

⁶⁸ This reference to Chief Pierre is likely incorrect, unless he had a daughter at a very young age. Other parts of her account indicate the Chief at this time was Paul Neass.

⁶⁹ In their November 2009 *Review of First Nations Right & Title Interests - Columbia Valley Transmission Project Area*, done for the proponent, Dorothy Kennedy and Randy Bouchard also refer to surveyor Turnbull’s separate report on the 1865-66 Columbia River Expeditions [headed by Moberly], and the observation that the Kinbaskets were yet to begin the cultivation of potatoes and other crops. To them, this suggests that the Kinbaskets had settled quite recently in the Lake Windermere area.

11. OBSERVATIONS BY LOCAL INDIVIDUALS

As noted previously, a number of archives in towns of the East and West Kootenays have been visited in the course of this study, including those of Castlegar's Selkirk College, Nelson's Touchstone Museum, the Arrow Lakes Historical Society of Nakusp, the Kootenay Lake Archives at Kaslo, the Fort Steele Heritage Town and Revelstoke Museum Archives. Often operated by volunteers who are passionate about the history of their area, they often prove to be useful repositories of local information about the region. Unlike the West Kootenays, however, the few local sources that have been found to contain unique information or perspectives on Indians in the study area mostly address the migration of the Kinbasket Shuswap into the area.

1. W. A. Baillie-Groman

Although the following excerpts concern the Ktunaxa in the vicinity of Kootenay Lake, it is felt that they are worth including in this study as illustrating the breadth of Ktunaxa activity in their traditional range. A wealthy big game hunter and author from England, Baillie-Groman made numerous hunting expeditions during the 1880s into the Columbia Plateau on both sides of the national boundary, and was especially drawn to the Kootenays, where he lived for a number of years and was employed in various official capacities for the Province, including the promotion of land reclamation projects in the Columbia Valley. On several occasions he employed Lower Kootenay Indians as guides in the Selkirk and Purcell Mountains and appears to have considered himself an authority on the Kootenay region.

In one of his writings,⁷⁰ he makes it expressly clear that he felt the Lower Kootenay Indians were the Indian owners of the area around Kootenay Lake. Referring to the "the well-fitted out Alpine expedition of the Rev. W.S. Green", which found very hard going in the Selkirks, he states that it made its attempt from a poor starting point:

Had I had the pleasure of meeting Mr. Green before completion of his exploration I think I might have saved him a considerable amount of hard work, and assisted him in the defining of the more prominent, though nameless, landmarks he saw from the elevated points he gained. Thus the big river he saw (to the southward) from the top of Mount Bonney, is the head water of the Lardo (or Lardeaux) up which I have been several times, which flows into the big Kootenay Lake, and not, as Mr. Green surmises, into the Upper Arrow Lake, a low watershed about sixteen miles in width separating the Upper Arrow Lake from the Trout or Fish Lake, from which the left or eastern fork of the Lardo flows. One great advantage he would have gained had he directed his attack from the southward would have been the presence of a small tribe of Indians (the Lower Kootenay Indians), picked men from which could have been used with much advantage as porters, and even as guides, for Mr Green is somewhat misinformed when he says, that "no Indians are resident in the Selkirks." The above-mentioned tribe inhabit what might be called the heart of the Selkirks, i.e., the country round the big Kootenay Lake, and as I have had four or five of these exceptionally good native mountaineers with me for weeks at a time, and I used to know every one of the fifty-two or fifty-three "bucks" (male adults) of which the tribe consists, I could probably have given Mr. Green some useful hints. In *The Field* of Aug. 30, 1884, I gave a little sketch of these Indians, and mention the fact that the hunting grounds in the mountains around Kootenay Lake, which grounds extend well up the headwaters of the above-mentioned Lardo, are laid out in sections, each buck and his family having a huge slice of this American Switzerland, which is called after him; so that when inquiring for the native name of any prominent peak or mountain lake, one is told the name of the buck in whose preserve it happens to be located.

⁷⁰ Baillie-Groman, 1899; also 1907, pp. 304-305

These Indians do all their hunting on foot, using the larger streams (such as the Lardo) as far as they can take their canoes. In most cases the squaw, who, as is so common among the American aborigines, is used more as a pack animal than as a human being, and even the half-grown children “pack” up the mountains till a suitable camping place near timber line is found, where they will remain for days, and from whence the noble lord of creation can then follow with greater ease the goat; or where he can lie in wait for them at the licks, which are much frequented by these animals during certain parts of the year.

Baillie-Groman was also very enthusiastic about the mountaineering abilities of his Ktunaxa guides:

I will back a Kootenay to beat by miles in a long day’s climb the best white mountaineer Switzerland or Tyrol ever turned out, and I am speaking with a twenty or more years’ experience in the Alps.

Again, this passage supports the notion that the Ktunaxa generally did not confine themselves to major river valleys but actively used the whole of their territory and felt a degree of ownership that extended throughout the region’s watersheds and upland areas.

2. Darris Flanagan

A contemporary author based in northern Montana near the B.C. border, Flanagan has put together extensive research on the location and history of Ktunaxa passage through the Rockies, culminating in a book titled *Indian Trails of the Northern Rockies*. He identifies 24 distinct passes used by the Ktunaxa, from Pipestone in the south near Butte, Montana to Yellowhead Pass in the north [See Figure 4, following page]. He notes that due to their shifting usage over time by the Ktunaxa, some of these passes were not known to Eurocanadian explorers until the later 1800s.

Flanagan indicates that there were two main factors influencing which of these passes the Ktunaxa might use, their “annual economic cycle” and their sense of where their enemies, primarily the Blackfeet tribes, might be. Concerning the annual round, he states [p. 22]:

From berry picking to fishing to buffalo hunts, this cycle determined when to hunt male and female bison. The summer hunt was for the bulls whose tender meat was savored and not yet affected by the coming mating season.

Correspondingly, hides of bulls taken in summer made the best cover for the lodges; eight were required for each tipi. On the other hand, the winter hunt was for the fat cows whose robes were best for bed and body robes. The Kutenai also understood the nature of their prey; according to informants, a bison migrated about 300 miles a year from the north in the spring to the south in the winter as well as eastward in the summer and westward towards mountain valleys in the winter. As a result of this economical cycle, different families or groups used trails at different times of the year. In addition travelers often went east by one pass and west by another.

In describing the 24 passes, he groups them under three headings “Salish”, “Predominantly Kutenai” and “Fur Trade”, the latter of which includes the Athabaska and Yellowhead Passes. The Salish passes are all located in the U.S., and obviously were shared with those people. Some of the more important “Kutenai” passes more commonly used were South and North Kootenay, Crows Nest, Vermilion, Howse and Kicking Horse. He states that the northern passes of Athabaska and Yellowhead “only came into use...when transporting furs to avoid the Blackfeet.”⁷¹

12. ETHNOGRAPHIC ASSESSMENTS OF TERRITORIAL BOUNDARIES AND USE

The several ethnographic works relating to the area have been a prime source of information and authoritative opinion on extent and use of the traditional territory of the Indians of the Columbia Plateau. A number of these works have combined thorough and evaluative research into primary sources of documentation [emanating from fur traders, missionaries, surveyors and others] and first hand field work. Perhaps the earliest significant attempt to define traditional territories of the region’s Indians was made by Tolmie and Dawson c. 1885. More recent relevant studies reviewed to date include Teit [1907], Boas [1928], Schaeffer [1937], Ray [1939], Turney-High [1941], Smith [1984] Brunton [1985] and Bouchard & Kennedy [2000], the latter three not based on original field work but containing comprehensive reviews of the available material. Other authorities considered include Chamberlain, Curtis and Jenness but their treatment of territory does not appear as comprehensive. The studies referenced in this report suggest some differences as to the northern boundary of Ktunaxa territory but, with one exception⁷², conclude that the study region lies within Ktunaxa territory.

Teit, Ray and Turney-High have compiled classic ethnographies, in that they spent years among their subjects and have based their views on first hand oral accounts. Like Turney-High, Schaeffer spent several years doing field research among Ktunaxa on both sides of the international border, although his material is not published and he does not appear to have constructed a map of Ktunaxa territory in the materials consulted.⁷³

While most of these studies and other ethnographic reviews have produced maps of traditional territories, they must be approached with some caution.⁷⁴ Apart from different analytical approaches, they represent to some degree snapshots of a region where there has been dynamic interplay between tribal groups and consequently some shifting of perceived boundaries.

1. William Tolmie and George Dawson

Tolmie was a trained medical doctor who had a long career with the Hudson’s Bay Company, culminating as a Chief Factor with the Hudson Bay Company, after which he became a successful provincial politician. Late in life, he teamed with the eminent scientist and surveyor George Dawson to produce an extensive study of aboriginal languages in British Columbia, published in 1884. With

⁷¹ In fact, HBC records indicate the Ktunaxa rarely traded furs over these routes, preferring to head south to Kootenay Post, Spokane House and Fort Colville. Other sources [e.g., the Schaeffer interviews and the Ktunaxa Creation Story] suggest their use of the Yellowhead and Athabaska Passes predates the fur trade.

⁷² The sole exception is Teit’s work, apparently based on the occurrence of Shuswap Salish language. As will be discussed in more detail, using his map to indicate traditional territory leads to over-estimates of Shuswap territory which are not in agreement with other authorities.

⁷³ Schaeffer also produced a PhD thesis arising from this work, but at date of writing, the author has been unable to secure a copy.

⁷⁴ See, for example, Vibert, quoted on p. 37 of this report.

respect to the Ktunaxa, their work appears to demonstrate some depth of knowledge, showing basic dialectic sub-divisions. Their map [Figure 5] indicates that Ktunaxa traditional territory extended north, down the Columbia to Boat Encampment, and included the beginning of the Athabaska Trail. This is further north than other ethnographers who more commonly place the northern limit of Ktunaxa territory in the vicinity of Golden. However, Tolmie's long career in the western fur trade would have made him highly aware of the circumstances of the Columbia Brigade, including use of the area and its people for transporting furs to the Pacific coast. The date of their work is of special interest in that, some of their informants or their parents would have been alive at the time of contact, unlike the later ethnographic studies reviewed in this report.

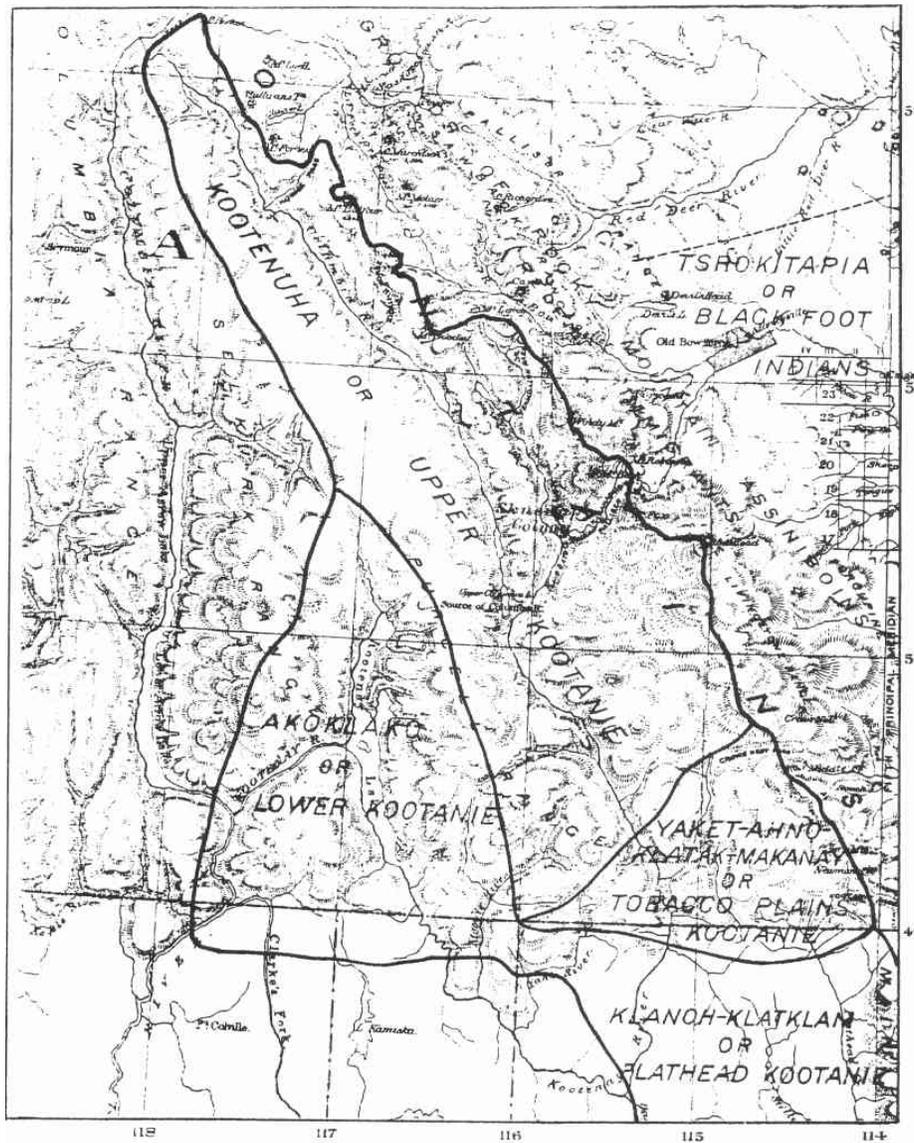


Figure 5. Detail from a “Map shewing the Distribution of the Indian Tribes of British Columbia. By W.F. Tolmie and G.M. Dawson.” [From Allan Smith, 1984]

2. James Teit

Around the turn of the last century, this early ethnographer spent a number of decades c.1900 living with the North Thompson Shuswap people, mastering the language, gathering oral traditions, studying their way of life and travelling throughout Salishan territory. While his important work *The Salishan Tribes of the Western Plateaus* does not appear to treat with the Ktunaxa directly, it is valuable for its examination in some detail of their historical Salish neighbours. His assessment of aboriginal territory [Figure 6], perhaps influential in Shuswap territorial claims, shows a very expansive Shuswap component compared to other ethnographers, in that it entirely encompasses the Big Bend area up the Columbia to the vicinity of Windermere and down the Columbia to include the Arrow Lakes.

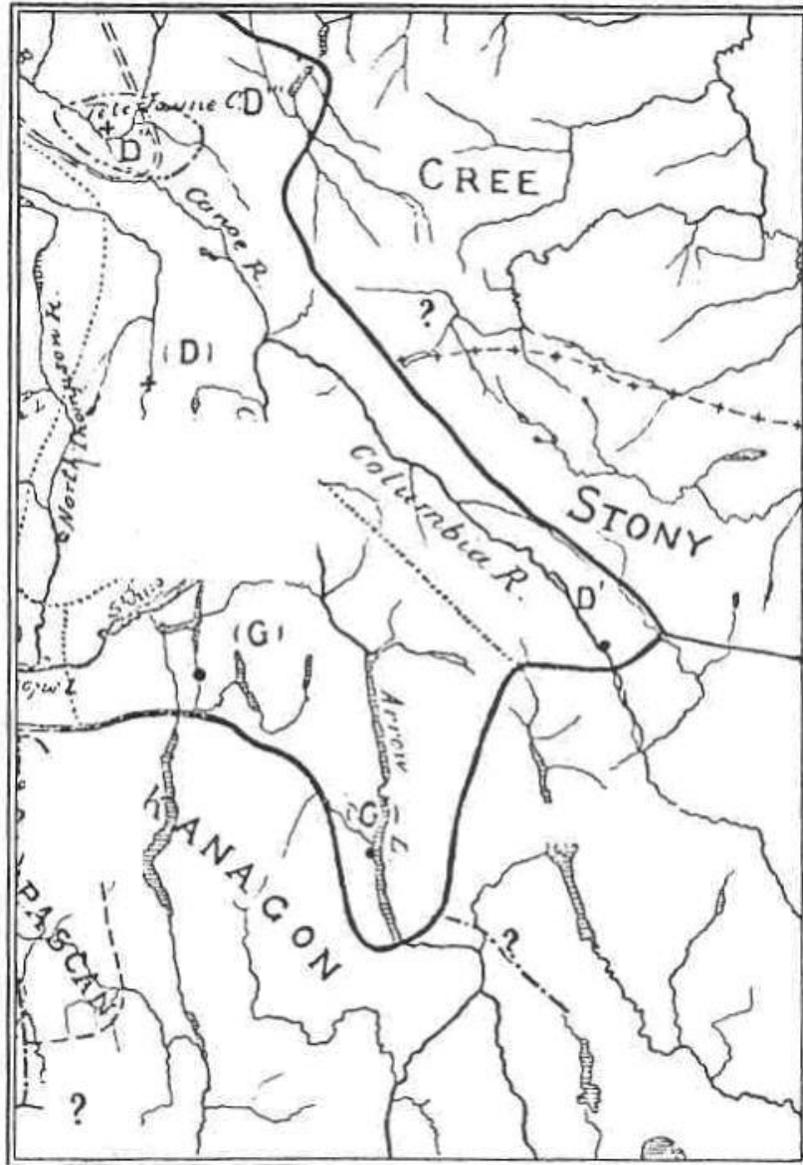


Figure 6. A portion of Teit's map (1909:450) reproduced from Smith (1984), defining the Ktunaxa-Shuswap boundary as of the mid-nineteenth century. The letter 'D' by the upper Columbia denotes the Kinbasket people of the Upper North Thompson Band.

An important part of Teit's analytical technique was to trace the occurrence of Salish place names as

determinants of their territory, and use this to infer traditional Salishan occupation of those areas [pp. 209-221]. His findings with respect to the study area are firmly based in the post-contact era, much of it the outgrowth of the Kinbasket settlement at Windermere Lakes. As such they ignore the much older occupation of this area by the Ktunaxa who, after permitting the settlement of the Kinbaskets in the mid 1800s, shared this area with them⁷⁵.

Note also the inclusion of the Arrow Lakes area as Shuswap speaking despite hard historical evidence that Ktunaxa, Sinixt and Okanagan people were also using the area. It appears that Teit's map should be simply construed as a map where Shuswap Salish could be heard during the lifetime of his informants and not a meaningful delineation of traditional territorial boundaries at or predating the time of contact.

An interesting contrast to Teit is afforded by the language based assessments made by the ethnographer Verne Ray of the traditional territory of the Sinixt people, now largely gathered in the Colville, Washington area. His 1936 map [Figure 7] suggests that Sinixt territory [vertical cross hatching] included all of the Big Bend area, extending up the Columbia to the vicinity of Golden.

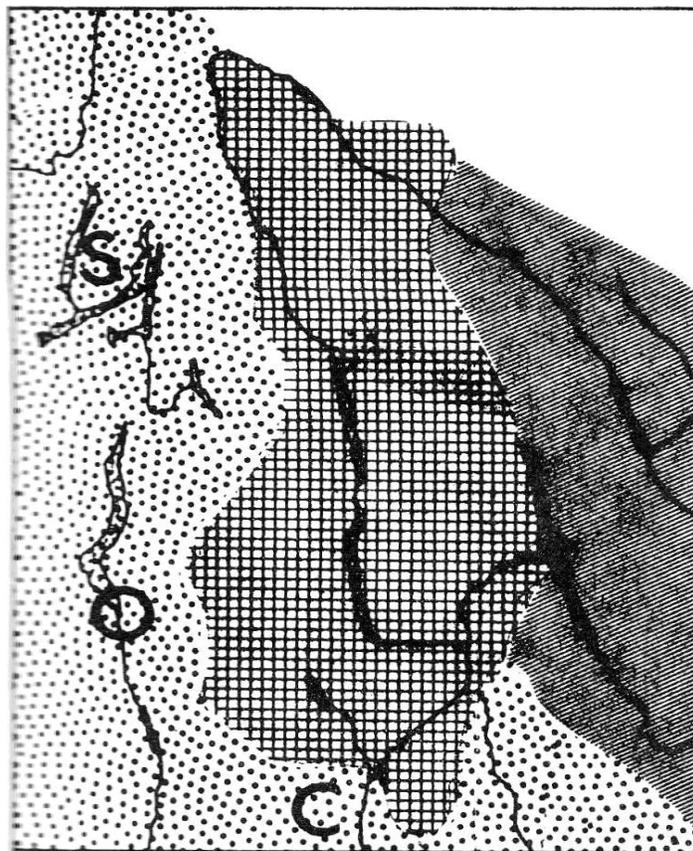


Figure 7. Traditional territories of the Plateau Indians, by Ray [detail, from Turnbull⁷⁶]. “S”, “O” and “C” indicate Salish, Okanagan and Colville peoples respectively.

⁷⁵ As seen for example, in Shelagh Dehart's book

⁷⁶ Turnbull, Charles J., (1977).

Another example comes from a map assembled for local presentation by Wayne Choquette [Figure 8, following page] which shows Ktunaxa place names extending to Golden, Revelstoke and northward to the Kootenay Plains in Alberta which equally, by the logic of Teit and Ray, would suggest that these are within Ktunaxa territory.⁷⁷

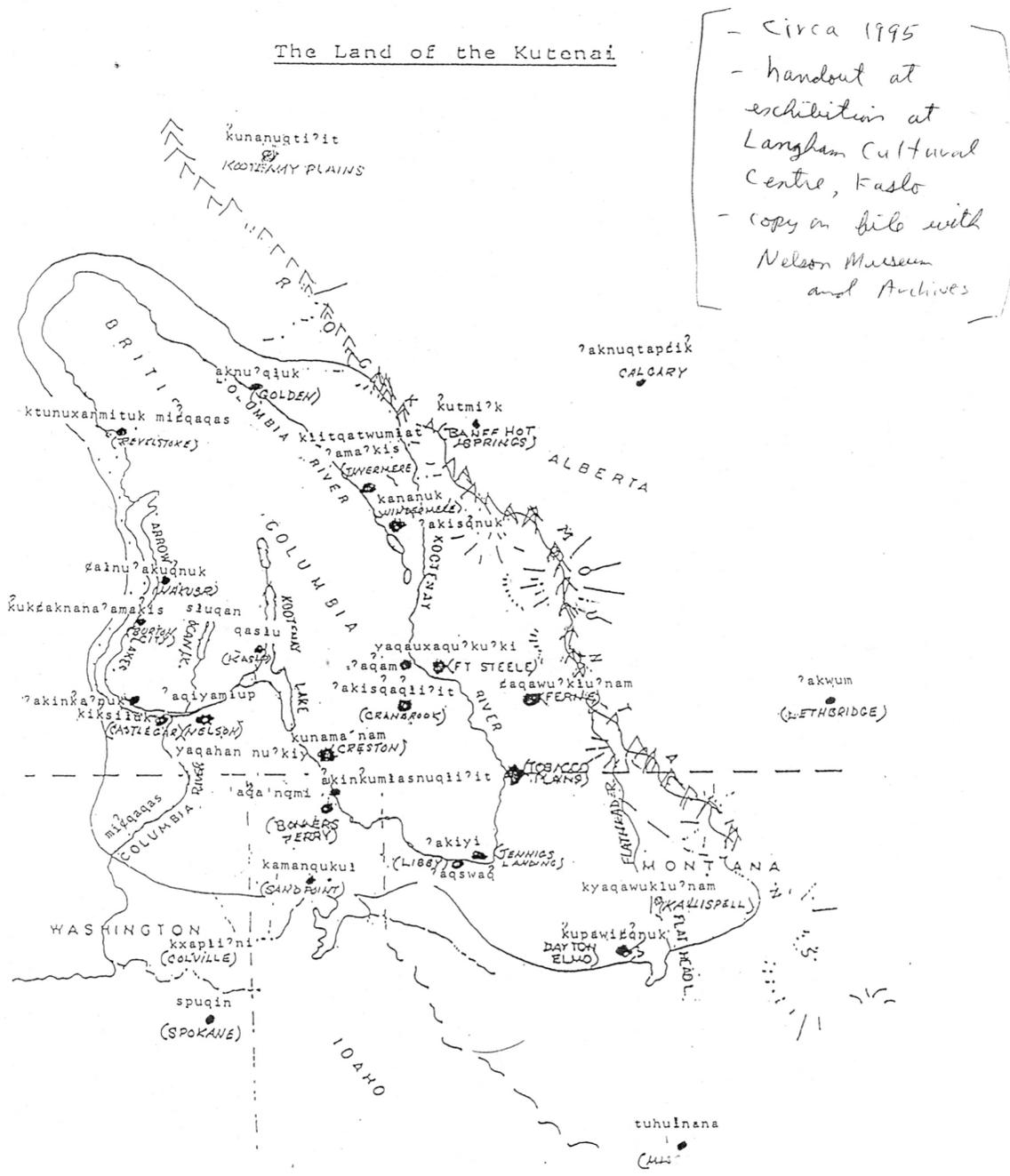


Figure 8: Territory of the Ktunaxa Territory, showing Ktunaxan place names, from W. Choquette.

⁷⁷ This deficiency would also seem to extend to the linguistic method employed by Bouchard and Kennedy, examined in later in this study.

Obviously, these place names may also have been developed out of familial relationships or post contact employment in adjacent lands, and this may also have contributed to the evident overstating of Shuswap and Sinixt territories.⁷⁸

Vibert⁷⁹ describes more generally how such mechanistic interpretations can be misleading:

Not only did language not coincide with culture, it did not coincide so neatly with territory. Language was little obstacle to the movement of people, goods, and ideas in the Plateau...

Before we leave Teit, it should also be noted that he authored an article concerning the origins of the Ktunaxa⁸⁰, at least a part of whom were living on the Plains before contact with whites and their resulting devastation by smallpox and rifle bearing Blackfoot. Much of the article concerns the fate of the Tona'xa, who appear to have been a plains oriented Ktunaxa, possibly associated with the Michel Plains Ktunaxa. In this regard, he mentions that in pre-contact time, Ktunaxa may have occupied portions of southwestern Alberta:

The Piegan claim that before the white man dominated their country, the Blackfoot, Blood and Piegan lived north of Macleod; the Kutenai in the vicinity of the present Blood Reserve.

3. Claude E. Schaeffer

As a less published ethnographer, Schaeffer is not as well known in the field as some others, but in the late 1930s, working around the same time as Turney-High, he assembled a very large and valuable collection of field notes on the Ktunaxa, which he ultimately converted into some nine volumes of typescript notes. Although research has yet to discover a map of his that delineates aboriginal territories, he recorded valuable information relevant to our purposes from his many informants, who generally indicated an abundance of fish and game in the Upper Columbia Valley, yet an impressively large Canadian range from the U.S. Border to Yellowhead Pass and east of the Rockies.

Some of the main fishing spots on the upper Columbia were named [Vol. VII, p. 31]:

- "1. yakinasu'kwl 'red water' (from story of water monster yawu'nik that was speared here). Name given to salmon fishing site at Briscoe, on the Columbia⁸¹. The Kutenai fished here in August and was first fishing of season, as they followed the salmon up the Columbia River.
2. roatqranur "where lake empties into river". A fishing site near Athalmer. This was a shallow place where the salmon spawned. This was last site at which Kutenai fished [for salmon?] in October.
3. raras'ituk, "mouth of river". A fishing site at mouth of Coldspring Creek where it empties into Columbia, not far from Fairmont Springs. Kutenai fished here in September, following fishing at Briscoe. (Coldspring Creek or Dutch Creek?).
4. kotwa.akak, "berries of rosebush". A site on north side of Geary Creek, where it empties into Columbia. Kutenai speared Salmon here.

Louis Arbell, who appears to have been a highly valued informant judging by the number of references, claimed that:

⁷⁸ For example, we call the capital of Russia "Moscow", but that doesn't mean we can claim "Moskva" [the Russian pronunciation] as part of Canada.

⁷⁹ Vibert, *Traders' Tales*, p. 30.

⁸⁰ Teit, *Traditions regarding the Tona'xa* *America Anthropologist*, Volume unknown, pp. 625-632, 1930. The Blood Reserve is located at Cardston, in the southwest corner of Alberta.

⁸¹ Briscoe is about midway between the Windermere and Golden.

The Columbia Lakes moved down the Columbia River, past Kinbasket Lake and along Canoe River, then up through the Yellow Head Pass ["Yakti.kL", = "foot print"], to east of the plains. Then they moved south along east bench of the Rockies and returned by one of the many passes, Vermillion, Kicking Horse, Elk or Crow's Nest, etc., to the west side of the mountains.

Chief Arbell also observed that the Columbia Lakes area had “no deer” [but] an abundance of elk, moose, goats and sheep. Paul David advised that “the T.P. [Tobacco Plains] and St. Mary’s Kutenai used to hunt moose and elk, as far north as Golden.” [Vol. V, p. 46]

Schaeffer himself observed in a letter to his thesis advisor Dr. Wissler dated July 13, 1937 that “the Windermere Kutenai” participated in the buffalo hunt to the extent that they had horses, but noted that “...the veneer of Plains trait was very thin” [Vol. IX]. The Columbia Lakes people therefore had placed a strong reliance on fishing and local game hunting for a very long time, consistent with this observation in Schaeffer’s notes [Vol V, p. 50]:

‘Lived near town of Fairmont Springs and used these springs for treating the sick in the old days...They hunted north along the Sillimacheen River (yaginasu.ke - "Red River", named from the blood of salmon speared in this river)...

Schaeffer recorded that Eustace informed him about some of the seasonal round of the old qatmukinik people of Toby Creek, ancestors of the Columbia Lakes Ktunaxa:

Katamu was a regular place on Toby Creek, at Columbia Lakes, where these people secured their second batch of salmon. Must have spent considerable time there, since that name was given them... At close of fishing seson, the Katamukunek split up, some set out to hunt bison, others elk and at end of season would meet to winter together in the south. Some returned Katamu after New Year's, to spend the months of January, February and March, hunting mountain sheep and wild fowl. Often Kutenai from Tobacco Plains joined them, as game was plentiful there...

In his letter to Dr. Wissler, he also gives an indication of the impressive range of the Ktunaxa when he describes the area covered by the Michel Plains people:

...[I]n addition to the Columbia Lakes and Tobacco Plains groups, there is left the group about Crow's Nest Pass (whom Teit called Tunaxa and claimed were living entirely east of the Divide). Strangely enough, I have been able to secure but little information on the latter group from informants here. The Chief told me the Tunaxa made a two year circuit of the region, fishing one fall at Columbia Lakes, then crossing the Rockies by Yellowhead Pass (near which is the Kutenai Parc mentioned by Henry Thompson, per your letter and which he confirms) moving south along the mountains in search of bison and recrossing again at North Kootenay Pass, and even as far south as Missoula, and then coming north to Tobacco Plains. This route refers to period after introduction of the horse, it being rather improbable that such a territory could be covered on foot in that length of time...

Clearly the Ktunaxa had a heavy dependence on fish and game in the upper Columbia Valley, but Schaeffer reports a deep sadness in his informants at the passing of this richness, expressed in a poignant statement to him by Francais Adam Vol. VII, p. 3]:

Nowadays the Kutenai get insufficient fish and game and believe that they may undergo a physical deterioration, similar to that of white foods when spoiling or rotting.

There appears very little in Schaeffer’s notes concerning relations of the Upper Ktunuxa with the Shuswap. However, he was told by Louis Joseph that “The Columbia Lakes were never attacked by Shuswap shamans” [Vol. VI, p. 52]. This indicates an amicable sharing of territory began after the

Ktunaxa agreed to their settling in the Windermere area.

Schaeffer's work does not appear to be a comprehensive examination of traditional territory but his field notes alone indicate that the Ktunaxa had a strong interest in the upper Columbia down to Boat Encampment and were known to pass through the Yellowhead Pass to the plains east of the Rockies.

4. Harry Holborn Turney-High

Perhaps the best known published ethnography of the Kutenai was written by Turney-High in 1941 following several summers of detailed field work primarily among the Upper Ktunaxa. The model adopted by Turney-High for determining traditional territory was essentially based on whether the Ktunaxa could travel and collect food in a place without fear of attack by another tribe. This contrasts with the delineation of Salish territory based on place names employed by Teit and Ray.

The author summarizes the limits of Kutenai territory largely as given to him by Chief Paul of Tobacco Plains [p. 23], noting "His description was so accurate that verification among the other bands contributed only minor corrections." According to his map [Figure 6], the northern boundary on the east appears to be held at the Blaeberry River a short distance north of Golden and on the west in the vicinity of Revelstoke.

On the north the Kutenai considered their land to be marked by a small stream which runs into the Columbia on the other side of Golden, or at about Donald, B.C.

The eastern boundary was clearly marked by the Rocky Mountains. Once on the other side, Kutenai parties were challenged by the Blackfoot bands. The Kutenai did consider the eastern face of the Rockies theirs, however, and maintained their right to hunt there...

He accepts the more conservative word of the Bonner's Ferry Ktunaxa in placing the southern boundary at Flat Head Lake in Montana, beyond which they would be challenged by the Pend d'Oreille Indians. The western boundary, according to his informants, extended to the western shore of the Arrow Lakes.

With reference to this map of Ktunaxa territory [Figure 9], Turney-High's informants told him that they were free to range throughout the area shown. The dotted areas in the southern and western portions of the range indicate traditional lands claimed by his Ktunaxa informants but questioned by authorities such as Ray. His own doubts lead to follow up interviews, after which he wrote:

With but one exception they all claimed Arrow Lake and its shores, although admitting there were no Kutenai villages there. They said that the lake was one of their important sources of fish, that their fathers regularly visited it by canoe, and that they expected to find no enemy or rival there or on the way there... While the majority opinion is the one represented on the map in this work, it must be considered a moot point.

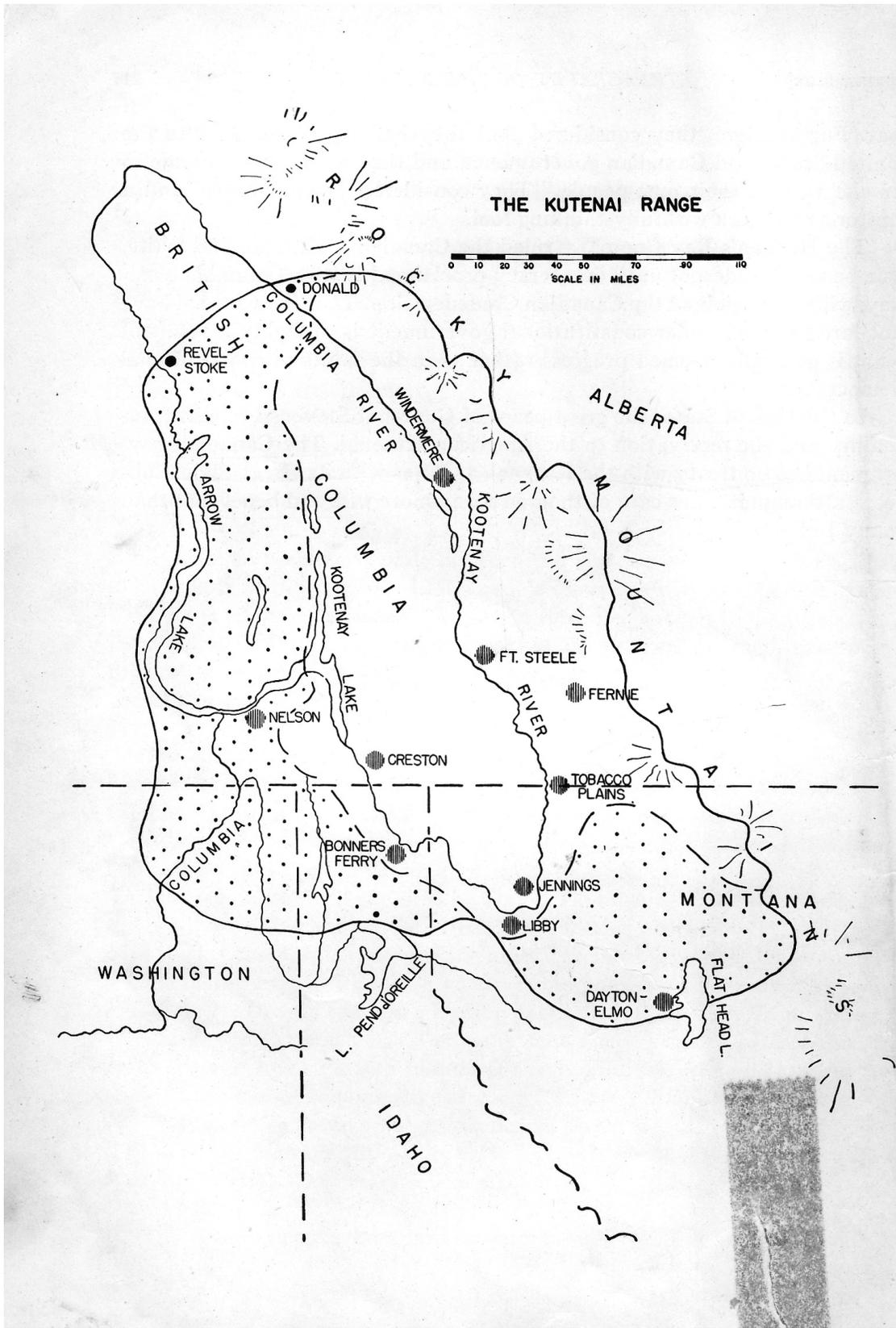


Figure 9. Ktunaxa Territory, according to Turney-High

Concerning the Windermere area, the author notes that “The Tobacco Plains people say that the Windermere, B.C., band is the most recent of the Upper Kutenai bands” [p. 15] and that the American Kutenai whom he muses might be better called “Middle Kutenai” are more recent still. Although this is an ancient site of the Ktunaxa, Turney-High later states of the people at Windermere [p. 20]:

This is quite a modern band and should not be given a separate enumeration. After a meeting with Governor Stevens in Montana, Chief Michel was dissatisfied with the United States arrangement and moved with the dissidents to Windermere, B.C. Many of the people there are of Libby-Jennings origin.⁸²

However some of the Windermere people appear to be of more ancient Upper Kutenai lineages and certainly other references [e.g. Borden, Schaeffer] indicate that this is a very ancient site of the Ktunaxa.

Before leaving Turney-High, it is worth examining what he has to say about hunting and fishing practices of the Ktunaxa, practices which would likely have been carried out in the study area. While the main goal of Upper Ktunaxa hunters was the buffalo for which they crossed the Rockies in large hunting parties several times a year, the Lower Ktunaxa were focused on the deer:

As the Upper Kutenai chiefs sent messengers inviting the Lower Kutenai to join their communal bison hunts, so the Lower Kutenai chieftains sent similar invitations to the Upper Kutenai to join their deer drives [p. 39].

Although the bison was a major focus for most of the Upper Ktunaxa, other important animals were caribou, elk for hides, moose and bear [pp. 40, 41]

Turney-High also notes [p. 41] that the Ktunaxa were avid bird hunters and that “duck flesh was a staple.” Ducks were caught in snare nets. Geese were shot with bow and arrows. Seagulls were also eaten “when hunger demanded”.

Regarding fishing, Turney-High states [p. 44]:

No trait marks the Kutenai off from the Plains more than their systematic fishing...

Again, the reciprocal relationship between Upper and Lower Ktunaxa was at work, whereby the Lower Ktunaxa would be invited to go on buffalo hunts while the Upper Ktunaxa would be invited to participate in large weir fishing. Fish listed as important to the Ktunaxa included salmon, bull trout [dolly varden], suckers, sturgeon and whitefish⁸³ [pp. 44, 45], but Turney-High [p. 50] states categorically:

⁸² Michel’s decision to reside with his followers at Windermere included a ringing endorsement of its plenitude. According to Malouf and White [n.d.], he told the Ktunaxa at Dayton and Elmo:

I like it better in Canada. I'm not going back anymore and I'm going to leave you. I have found a good place to live with good land where you can never go hungry. There are lots of animals, fish, ducks, geese, deer, and elk. You can select a new chief.

⁸³ This list also includes a fish called e’pat! by the Ktunaxa but unknown to Turney-High. It likely is the fresh water ling cod or burbot, which can attain lengths of 2-2½ feet in the upper Columbia [Schaeffer’s Field Notes, Vol. VII, p. 93]. According to the memorial written about early Windermere by Violet Andrews [copy with the Ktunaxa Nation Council archive], this fish was prized by Indians and settlers alike who would usually take it by hook and line ice fishing [see picture, p. 101].

Salmon played an important part in the Kutenai economy, but it is obvious that the members of the trout family were paramount in their thinking.

The author indicates that the Upper Kootenay were considered as very skilled at hook and line fishing but notes they also practised small weir fishing of faster flowing waters using their distinctive conical traps in a funnel shape across the stream. Another type of distinctive trap “was devised for use at waterfalls...[and] used in the autumn when the fish could be expected to be going down stream seeking deeper water” [p. 47]. The importance of these freshwater fisheries to the community is indicated in the following:

An Upper Kutenai could build a fish trap only after obtaining permission from the chief. No one could build more than one. The fisher was given a definite franchise for a specific stream, in return for which he entered into a contractual relation with the band in the person of its chief. The chief guaranteed him exclusive right to the site, but the owner had to share the product of the weir with some eight or nine families.

Fishing was aided by the extensive use of canoes, especially by the Lower Ktunaxa, of the “sturgeon nosed” type, with low pointed bow and sterns that were under the water, and designed primarily for paddling in lakes.

A migrating Kutenai band could assemble a fleet of respectable size. Bull Robe [informant] says that he heard of an expedition of the Libby-Jennings and Tobacco Plains bands travelling by river to Windermere in a fleet of one hundred and fifty-five canoes.

The seasonal round of the food quest is summarized in this way. Early in the spring the Ktunaxa went to their fishing grounds and in the late spring harvested roots. Then came the early summer bison hunt, where they were often joined by the Coeur d’Alene and Spokane Indians. This was followed by a general time of rest, especially for the horses, although women did lay in the annual berry supply. In the late summer, salmon fishing was a prominent activity, most notably in the Windermere area, or westward towards Arrow Lakes. During the early autumn, the Lower Ktunaxa undertook their deer drives while the Upper Ktunaxa resumed hunting buffalo. Turney-High also mentions that there was a third buffalo hunt in the winter, but one carried out by snow-shoe, not with riding and pack horses.

Additionally, in the late summer, salmon fishing was a prominent activity, most notably in the Windermere area, or westward towards Arrow Lakes.

Although the buffalo hunt formed a central element in the Upper Ktunaxa way of life, Turney-High makes clear that the hunting of deer and bear and the fishing for bull trout and salmon were fundamentally important as well. He concludes his remarks on subsistence as follows [p. 55]:

The Kutenai considered their land a fortunate one wherein any industrious man could get plenty to eat for himself and family. Scarcity, need, and famine were so unusual that they were considered of supernatural origin.

5. Bill Brunton

Bill Brunton’s views of the traditional territory of the Ktunaxa are found in *Volume 12, Plateau*, of the *Handbook of North American Indians*, published by the Smithsonian. The primary contribution taken from his article is his map at Fig. 6 entitled “Kootenai territory at contact in 1792...” and like Turney-High, he marks the northern limit of Ktunaxa territory in the vicinity of Golden, B.C.

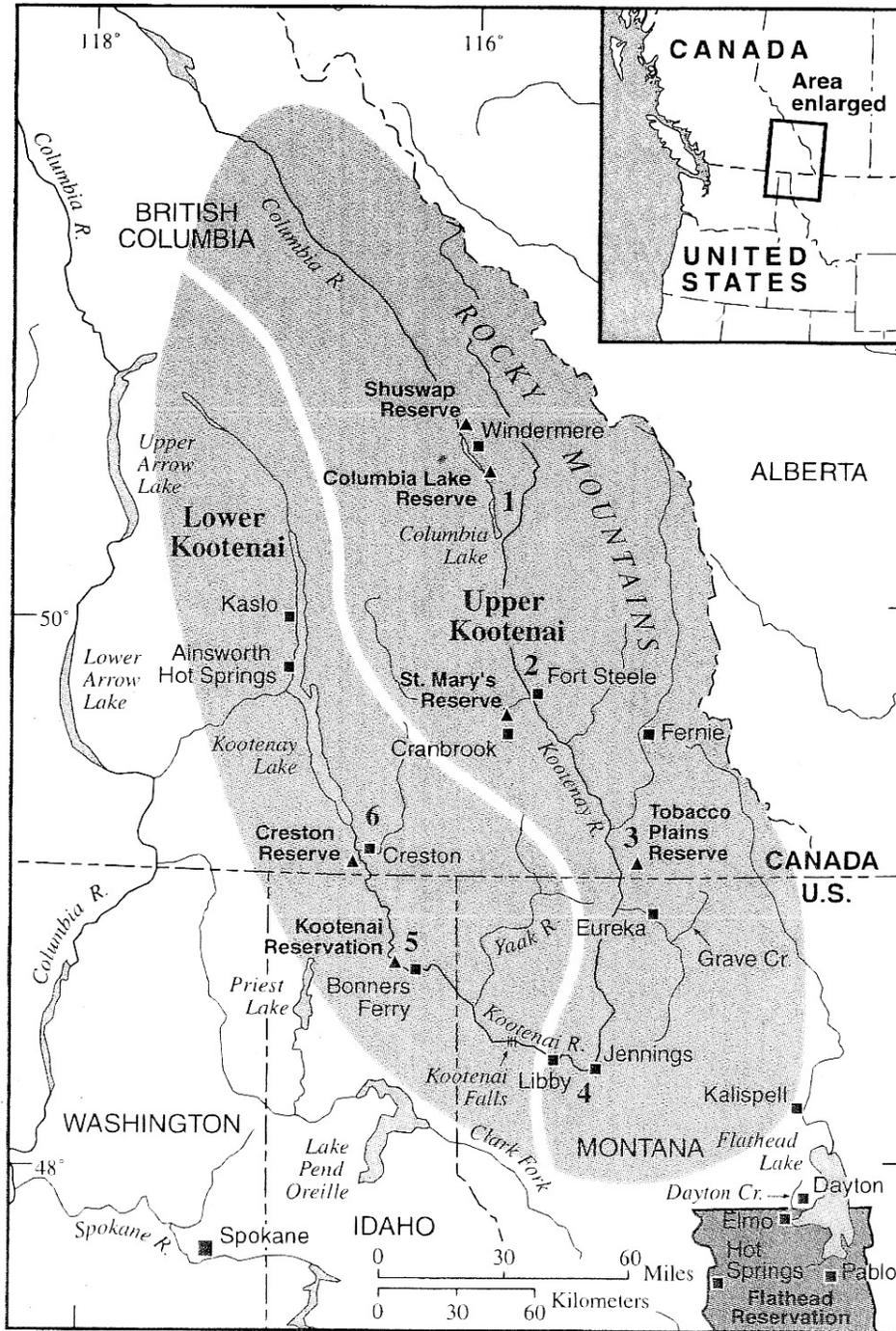


Figure 10. Ktunaxa territory, according to Brunton.

Brunton's map [Figure 7] indicates a territorial division between the Lower and Upper Kootenay that appears to follow the Purcell Range. He does not offer much more for our specific purposes, although he notes that the first missionary establishment, named St. Mary's and begun in 1840 with the arrival of the Jesuit Father de Smet, was abandoned in 1850 with "limited" influence on the Ktunaxa. He also advises that about 80 per cent of Ktunaxa died of small pox outbreaks that recurred as late as the early 1900s.

6. Allan Smith

In 1984, on behalf of the U.S. Army Corps of Engineers, Smith prepared a report entitled *Kutenai Indian Subsistence and Settlement Patterns, Northwest Montana*. Although the reasons for commissioning the report concerned Ktunaxa groups in the Lake Kooconusa area of Montana, Smith pointed out [p. 7] that the study should take a look at the whole of the Ktunaxa range:

The Lake Kooconusa groups were, however, by no means limited in their subsistence foraging to their own band lands. In their food quest they wandered freely over the total territory of the Upper Kutenai and seasonally even joined Lower Division people in exploiting their downriver food resources.

In assessing the origins of the Ktunaxa, Smith writes [preface, p. vii]:

A tentative reconstruction of the subsistence and settlement patterns of the Upper Kutenai suggests four successive protohistoric and early historic periods: (1) a prehorse, prefirearms, prebison period when hunting, fishing, and plant gathering were pursued year-round in a relatively balanced manner west of the Continental Divide by small wandering camps; (2) a period when mid-winter foot treks for bison meat east of the Rockies were initiated by certain groups near the mountains but otherwise life was little changed; (3) a late prehistoric period which saw the introduction of the horse, and a significant turn on the part of several bands toward equine-dependent bison hunting on the Plains during warmer seasons to complement the earlier winter bison hunts on foot, toward a decreased utilization of the traditional food resources within their tribal homeland, and toward fewer but larger and more sedentary settlements when resident in their own territory; and (4) an early postcontact period when firearms were obtained, bison hunting received a still greater emphasis on the part of most of the Upper people, and certain minimal elements of Western culture were adopted.

Smith evaluates the relevant work on traditional territory done by numerous ethnographers, sometimes addressing shortcomings he perceives in their analyses. Like Turney-High, he points out that Verne Ray spent very little effort in gathering Ktunaxa data. His discussion of Teit's work is also interesting. For example, he notes [p.12] that "Teit recognizes no distinct Lakes "tribe" in the Arrow Lakes sector and along the Columbia to the north." He also asserts that "Teit's findings seem to establish beyond argument that the Kinbasket group represented an early postcontact thrust of various eastern Shuswap peoples into aboriginal territory of the Columbia Lakes Band of the Kutenai."⁸⁴

His map [Figure 11] shows the northern boundary of Ktunaxa between present day Donald and Golden, crossing eastward through the Rockies via Howse Pass. It draws the western boundary of the Ktunaxa roughly in line with the Purcell Mountains, denying the Ktunaxa a share of the Revelstoke and Arrow Lakes areas.

Smith appears to suggest that it's more than coincidence that Ray, who spent a great deal of time among the Fort Colville Indians, and Teit who lived with and married into the Shuswaps delineate

⁸⁴Although much of the Columbia Lakes Band derives from the followers of Chief Michelle, who arrived from the U.S. in the 1850s, they were joined by other Ktunaxas whose ancestors had occupied the area for a very long time.

vastly greater areas for these tribes than other ethnographers. This appears to be a gentle criticism that some ethnographers have exhibited a bias in favour of their subject tribes when it comes to delineating traditional boundaries.

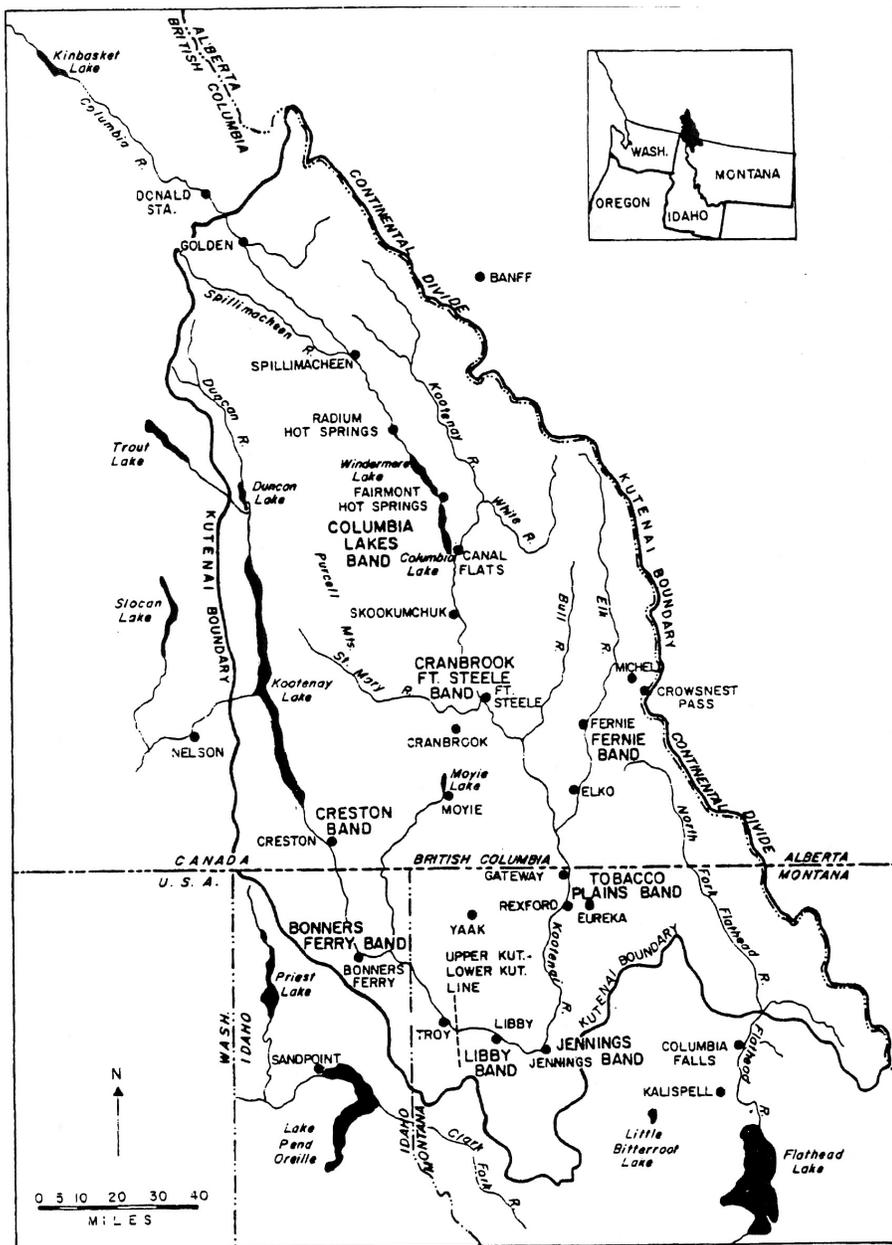


Figure 11. Approximate boundaries of Ktunaxa traditional territory, according to Smith

7. Randy Bouchard and Dorothy Kennedy

Their *Ethnography and Ethnohistory in British Columbia's Lower Kootenay/Columbia Hydropower Region, 2000* appears to be an exhaustive synthesis of available documentation and ethnography relating to the Lower Kootenay / Columbia Hydropower Region. It has close to 70 pages of bibliography alone, indicating that a very wide range of material has been reviewed.

Bouchard and Kennedy, who also contributed a chapter on the Okanagan Indians in Volume 12 of the Handbook of North American Indians, believe that the traditional boundary line of the western portion of Ktunaxa territory runs relatively straight north as an extension of the Washington – Idaho state border until it reaches Golden [Figure 7].

Following Teit’s practice as they have in other studies,⁸⁵ Bouchard and Kennedy cite “Lakes place names” as evidence that the Columbia River and adjacent areas from Revelstoke to below the U.S. border were Sinixt lands and lay outside Ktunaxa territory. In this, their analysis falls prey to the same weakness as Teit’s, especially in that it does not appear to account for Ktunaxa names for such places [see pp 26-27, above].⁸⁶ However, the net result is that they essentially agree with Allan Smith in a delineation of Ktunaxa territory that includes the study area.

13. SUMMARY OF FINDINGS

- (i) With one disputable exception, there is a consensus among authoritative ethnographers that the study area, extending from Golden to the Columbia Lakes, is wholly within Ktunaxa traditional territory.
- (ii) The archaeological and historical information located indicates that the study area has been a focal point of the regular seasonal round of the Ktunaxa, in particular those from the Columbia Lakes area, for at least many centuries and probably far longer.
- (iii) Lands and waters in the subject area have been historically very rich in fauna, with large numbers of ungulates [deer, elk, moose, mountain goat, sheep], fur bearing animals [beaver, marten, bear], fish [salmon, bull trout, burbot] and birds [ducks, geese].
- (iv) The Kinbasket Shuswap people began migrating towards northern portions of traditional Ktunaxa territory in the early 1800s, encouraged in part by the Hudson Bay Company and its free traders. Initially fearful of reprisals for encroaching on Ktunaxa territory, they eventually settled in the area of Windermere Lake in the mid-1800s with the permission of the Ktunaxa.

⁸⁵ Consistent with their usual approach, Bouchard and Kennedy’s register much of their work under the name “The B.C. Indian Languages Project.”

⁸⁶ It should also be pointed out that, although the historical research in their report is extensive, their selective interpretation and use of documentation can be unfortunate. For example, in their enthusiasm to reconstruct the history of a once extensive and powerful Sinixt nation, they slough off Ross’s account of meeting of people expressly identified as Ktunaxa living in the Arrow Lakes in the 1820s as mistaken. Another concerns the 1861 report of Colonial Gold Commissioner William Cox, implying in their reference that he only met with the Sinixt concerning troubles with gold miners, in particular a violent incident that occurred at the mouth of the Pend d’Oreille River. In fact, the report indicates that Cox not only met separately with the Lower Ktunaxa and acknowledged their presence at that incident, he marked out a reserve for them at the confluence of the Kootenay and Columbia Rivers.

BIBLIOGRAPHY for KTUNAXA AIUS –THE UPPER COLUMBIA VALLEY

Archival Sources

Arrow Lakes Historical Society, Nakusp, B.C.
B.C. Archival & Research Services [BCARS], Victoria, B.C.
Department of Indian Affairs and Northern Development [INAC], RG 10 microfilm collection
Fort Steele Heritage Town Archives
Hudson's Bay Company Archives [HBCA], Winnipeg, Manitoba
Kootenay Lake Archives, Kaslo, B.C.
Ktunaxa Nation Council Archives and Library, Cranbrook, B.C.
Selkirk College, Archives and Local History Collection, Castlegar, B.C.
Shawn Lamb Collection, Touchstones Museum, Nelson B.C.
Revelsok Museum and Archives
Union of B.C. Indian Chiefs
University of British Columbia Library, Special Collections Division
University of British Columbia Library, Koerner Division
Vancouver Public Library, North West Collection.

Published and Archival Sources

- Affleck, E.L. *Kootenay Yesterdays*, Vancouver: Alexander Nichols Press, 1976
Kootenay Lake Chronicles, Vancouver: Alexander Nichols Press, 1978
- Ahearn, Josie. *Indigenous Peoples of the West Kootenay*, Report for School District #8 (Kootenay Lake), 2005
- Andrews, Violet Richardson Bridger. *The Windermere I Knew. Violet's Story*, Minuteman Press, Calgary, 2002
- Baillie-Grohman, W.A. *Camps in the Rockies...*, London: C. Scribner's Sons, 1882;
Stalking the Haplocerus in the Selkirks, Camp and Field, 140, May, 1895;
Seven Years of Pathfinding in the Selkirks of the Kootenays., Field, The Country Gentleman's
Newspaper, May 11, 1899: 657-8;
*Fifteen years' sport and life in the hunting grounds of western American and British
Columbia*, London: H. Cox, 1907
- Baker, Paul E. *The Forgotten Kutenai*, Mountain States Press, 1955
- Belyea, Barbara, ed. *Columbia Journals - David Thompson*, Montreal: McGill-Queen's University Press, 1994
- Birdstone, Violet. *Ktunaxa Nation Aboriginal Interests and Traditional Use Study – Waneta Power Expansion and
Power Project Arrow Lakes Area*, Consultant Report, copy on file with Ktunaxa Nation Council, 2006
- Boas, Franz. *Kutenai Tales*, Bureau of American Ethnology, Bulletin 59, Washington, 1918
- Borden, Charles. *Results of Two Archaeological Surveys in the East Kootenay Region of British Columbia*,
Research Studies, Vol. 24; Pullman: Washington State University, 1956
- Bouchard, Randy and Kennedy, Dorothy. *First Nations' Ethnography and Ethnohistory in British Columbia's
Lower Kootenay, Columbia Hydropower Region*, Victoria: B.C. Indian Languages Project, 2005
- British Columbia Dept. of Education, *Kootenay*, British Columbia Heritage Series: Our Native Peoples, Series 1,
Volume 8, Victoria, 1952
- Cebula, Larry. *Plateau Indians and the Quest for Spiritual Power, 1700-1850*, University of Nebraska Press, Lincoln and
London, 2003

- Chamberlain, A.F. *Notes on the Kootenay Indians*, The American Antiquarian and Oriental Journal, No. 17, 1887, pp.68-72
Report on the Kootenay Indians of South-Eastern British Columbia,
The British Association for the Advancement of Science, 1892
On the North-western Tribes of Canada,
The British Association for the Advancement of Science, 1893
- Chittenden, Hiram and Richardson, Alfred Talbot. *Life, Letters and Travels of Father Pierre-Jean de Smet, 1801-1873*, New York: Harper & Rowe, 1905
- Choquette, Wayne T. *Archaeological Resource Overview for the Nelson Forest Region*, Prepared for the Archaeology Branch, B.C. Ministry Responsible for Culture, copy on file with Ktunaxa Nation Council, 1993
Archaeological Component of Duncan Reservoir Water Use Planning Project, Report for B.C. Hydro, copy on file with Ktunaxa Nation Council, 2005
- Coccola, Father. *Memoirs*, Mss. 199, St. Eugene Fonds, Fort Steele Museum and Archive
- Cole, Jean Murray, ed. *This Blessed Wilderness: Archibald McDonald's Letters from the Columbia, 1822-1844*, Vancouver: UBC Press, 2001
- Collier, D., Hudson, A.E. and Ford, A. *Archaeology of the Upper Columbia Region*, University of Washington Publications in Anthropology, Vol. 9, No. 1, Seattle: University of Washington Press, 1942, pp.1-178
- Coues, Elliott, ed. *New Light on the Early History of the Greater Northwest: The Manuscript Journals of Alexander Henry and David Thompson, 1799-1812*, New York: Harper, 1897
- Cox, Ross. *Adventures on the Columbia River...*, New York: Harper, 1832
- Curtis, Edward. *The Kutenai*, 1911
- Dehart, Shelagh Palmer Kinbasket, and Dehart, Dusty. *The Kinbasket Migration and Other Indian History*, Palliser Printing, Invermere, B.C., 2006
- De Smet, Father P.-J. *Oregon Missions, and Travels Over the Rocky Mountains, 1845-1846*, Edward Dunegan, New York, 1867
- Douglas, David. *Journal Kept by David Douglas, 1823-1827*; William Wesley & Son, London, 1914 [digitized by Google Books]
- Dryer, Matthew S. *Kutenai, Algonquian, and the Pacific Northwest from an Areal Perspective*, Proceedings of the Thirty-Ninth Algonquin Conference, copy held at Ktunaxa Nation Council Library Archive, n.d.
- Farwell, A.S. *Report on the Kootenay Indians*, from B.C. Sessional Papers, 47 Vic., p. 325
- Flanagan, Darris. *Indian Trails of the Rocky Mountains*, Stoneydale Press, Stevensville, Montana, 2001
- Gates, Charles, ed. *Five Fur Traders of the Northwest. Peter Pond et al.*, Minnesota Historical Society, St. Paul, 1965
- Haines, Frances. *Northward Spread of Horses Among the Plains Indians*, American Anthropologist, N.S., 40, 1938
- Hodge, Frederick Webb, ed. *Handbook of North American Indians*, Smithsonian Bulletin, Rowman and Littlefield, 1971
- Hopwood, Victor, ed. *Travels in Western North America, 184-1812. David Thompson*, MacMillan, Toronto, 1971
- Hungry Wolf, Adolf and Beverly. *Indian Tribes of the Northern Rockies*, self published, 1991
- Johnson, Olga Weydemeyer. *Early Libby and Troy, Montana*; self published, copy held by Touchstones Museum, Nelson, 1958;

Flathead and Kootenay: The Rivers, the Tribes and the Region's Traders, Glendale, California: The Arthur H. Clarke Co., 1969

- Kane, Paul. *Wanderings of an Artist Among the Indians of North America...*, Longman, Brown et al, London, 1859
- Kay, D., and McDonald, D. *Looking Back to Yesterday*, a very large series of articles [over 500] from The Daily Townsman, copies held in the Fort Steele Archives, 1970s
- Keefer, M., Choquette, W., McCoy, Laura and Williams, R. *Ktunaxa Aboriginal Interests: Traditional Use and Archaeological Overview of the Proposed Jumbo Glacier Alpine Resort*, Consultant report, copy on file with the Ktunaxa Nation Council, 2004
- Keefer, M., and McCoy, P. *All Living Things: A Ktunaxa Ethnobotany*; copy on file with the Ktunaxa Nation Council, 1999
- Kootenay Culture Committee, confederated Salish and Kootenai Tribes. *Ktunaxa Legends*, Salish Kootenai College Press, 1997
- Kutenai Language Task Force. *Kutenai Nation Resource Book*, Cranbrook, 1989
- Lewis, William S. and Phillips, Paul C., ed. *The Journal of John Work*, Arthur H. Clark, Cleveland, 1923
- Linderman, Frank B. *Kootenai Why Stories*, Blue Ribbon Books, New York, 1926
- Malouf, Carling & Thaine White. *Early Kutenai History*, Flathead Lake Lookout Museum, Lakeside, Montana, No. 10, n.d.
- McLeod, Malcolm. *Peace River: A Canoe Voyage from Hudson's Bay to Pacific by George Simpson...in 1828*, from *A Journal of...Archibald McDonald*, Edmonton: Hurtig, 1971
- Michel, Mary Anne. *Kootenay Indian of the Past and Today*, self-published collection of essays, copy held by Fort Steele Heritage Museum Archive, undated
- Merk, Frederick, ed. *Fur Trade and Empire, George Simpson's Journal...1824-1825*, Cambridge, Belknap Press, 1968
- Nelson Daily News. Copies held in the Shawn Lamb Collection, Touchstones Museum, Nelson
- Nisbet, Jack. *Mapmaker's Eye – David Thompson on the Columbia Plateau*, Washington State University Press, 2005
- Ogden, Peter Skene. *Traits of American-Indian Life and Character*, Smith, Elder & Co., London, 1853
Snake Country Journals, 1827-1829, Hudson's Bay Record Society Ltd., Glasgow: University Press, 1971
- Palliser, Capt. James. *Journals, Reports and Detailed Observations...Presented to the Houses of Parliament, 1863*, London: Eyre & Spottiswood, 1863.
- Parker, Rev. Samuel. *Exploring Tour Beyond the Rocky Mountains...Performed in the Years 1835, 1836 and 1837...*, Self-published, Ithaca, N.Y., 1838 [digitized by Google Books]
- Pond, Peter. *Adventures in the American Northwest*, Peter Pond et al. *Journal of American History*, Vol. 1, 1907
- Rappagliosi, Father Philip. *Letters from the Rocky Mountain Indian Missions*, ed. Robert Bigart, University of Nebraska Press, 2003
- Ray, Verne, F. *Cultural Relations in the Plateau of Northwestern America*, Los Angeles: The Southwest Museum, 1970
- William Rodney. *Kootenai Brown, Canada's Unknown Frontiersman*, Heritage House Publishing Co., 1996

- Ronan, Peter. *Historical Sketch of the Flathead Indian Nation...1813-1890*, Ross and Haines, Inc., 1965
- Ross, Alexander. *Fur Hunters of the Far West*, Smith, Elder and Co., London, 1854
- Royal Commission on Indian Affairs for the Province of British Columbia, *Final Report*, Victoria: Acme Press Ltd., 1916
- Schaeffer, Claude, *Kutenai Field Notes, Montana and British Columbia*, Unpublished typescript held in Ktunaxa Nation Council Archive, 1937;
Le Blanc and La Gassé: Predecessors of David Thompson in the Columbian Plateau,
 Museum of the Plains Indian for the United States Department of the Interior, 1966
- Smiley, H.D. *The Kootenai Puzzle*, Tobacco Plains Ranch, Montana, 1976
- Smith, Allan H. *Kuteani Indian Subsistence and Settlement Patterns*, Project Report No. 2, Vol. 2, Pullman: Center for Northwest Anthropology, Washington State University, 1984
- Snead, Paul G. *Kootenay River Diversion - Cultural Heritage Resources, Phase I Impact Statement*, Unpublished study, January, 1978
- Stanley, George F.D. *Mapping the Frontier* [The Journal of Charles William Wilson], Toronto: Macmillan of Canada, 1970
- Teit, James, A. *The Salishan Tribes of the Western Plateau*, from the 45th Annual Report of the Bureau of American Ethnology, U.S. Government Printing Office, 1930;
Traditions Regarding the Tona'xa, American Anthropologist, pp.625-632, 1930
- Thwaites, Ruben [ed]. *Franchere's Voyage to the Northwest Coast, 1811-1814*; Translated and Edited by J. V. Huntingdon, Redfield, New York, 1854
- Tolmie, W. Fraser, and Dawson, George M. *Comparative Vocabularies of the Indian Tribes of British Columbia*, Montreal: Dawson Brothers, 1884
- Turnbull, Charles J. *Archaeology and Ethnohistory in the Arrow Lakes, Southeastern British Columbia*, Archaeological Survey of Canada, Paper No. 65, Ottawa, 1977
- Turney-High, Harry Holbert. *Ethnography of the Kootenai*, Memoirs of the American Anthropological Association, New York, 1941.
- Tyrell, J.B., ed. *David Thompson: Narrative of His Explorations in Western America, 1784-1812*, Champlain Society, Toronto, 1916
- Vibert, Elizabeth. *Traders' Tales*, University of Oklahoma Press, 1997
- Walker, Deward E. *Handbook of American Indians, Volume 12, Plateau*, Smithsonian Institution Press, Washington, 1997
- Weir, Craig. *Written in Stone: Exploring Kaslo's Prehistory*, self-published, copy held by Kootenay Lake Archives, Kaslo, B.C.
- Weir, Winifred. *Tales of Windermere*, self-published, Windermere, 1980
- Yerbury, J.C. *Nineteenth Century Kutenai Settlement Patterns*, Western Canada Journal of Anthropology, Vol. IV, No. 4, 1975, pp. 23-35

SHORT RESUME OF BRIAN D. ROBERTSON

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Work experience

1. I have been providing archival research and documentary analysis for B.C. First Nations and Federal agencies for well over fifteen years. In recent years I have been involved in projects with both the Specific Claims Branch and Residential Schools Branch of DIAND as well as the Ktunaxa, Katzie and Fort Nelson First Nations.
2. Prior to this, I served as the primary researcher and archivist for the Tsleil Waututh FN (Burrard Band) from 1992 to 2000 in the Federal and B.C. Supreme Court actions concerning the False Creek [Kitsilano] Indian Reserve and assisted in the development of their Treaty related claims. I also provided research services for other FN during this time, including participation in a major traditional foods study done for the Heiltsuk First Nation.
3. Apart from a good working knowledge of relevant archival sources and ethnohistorical materials, I am familiar with the Indian Act and the organization, policies and procedures of DIAND and have a practical appreciation of the legal precedents in aboriginal law concerning fiduciary responsibility and aboriginal title.

Education and other relevant experience

5. I have a Bachelor's degree in Engineering from the University of British Columbia (1967) which, along with subsequent employment in the resource sector by both the Federal Government and private industry, has contributed to my understanding of the technical, economic and public policy issues underlying resource extraction. I have also completed a Master's Degree in Administrative Science from the City University of London (1970).
- 6.. My background also includes research in community based management of fisheries and forestry and employment as a commercial salmon fisherman. I believe these experiences have given me a strong and sympathetic understanding of the resource issues facing B.C. First Nations.

APPENDIX 3

Map – Traditional Territory of the Ktunaxa Nation

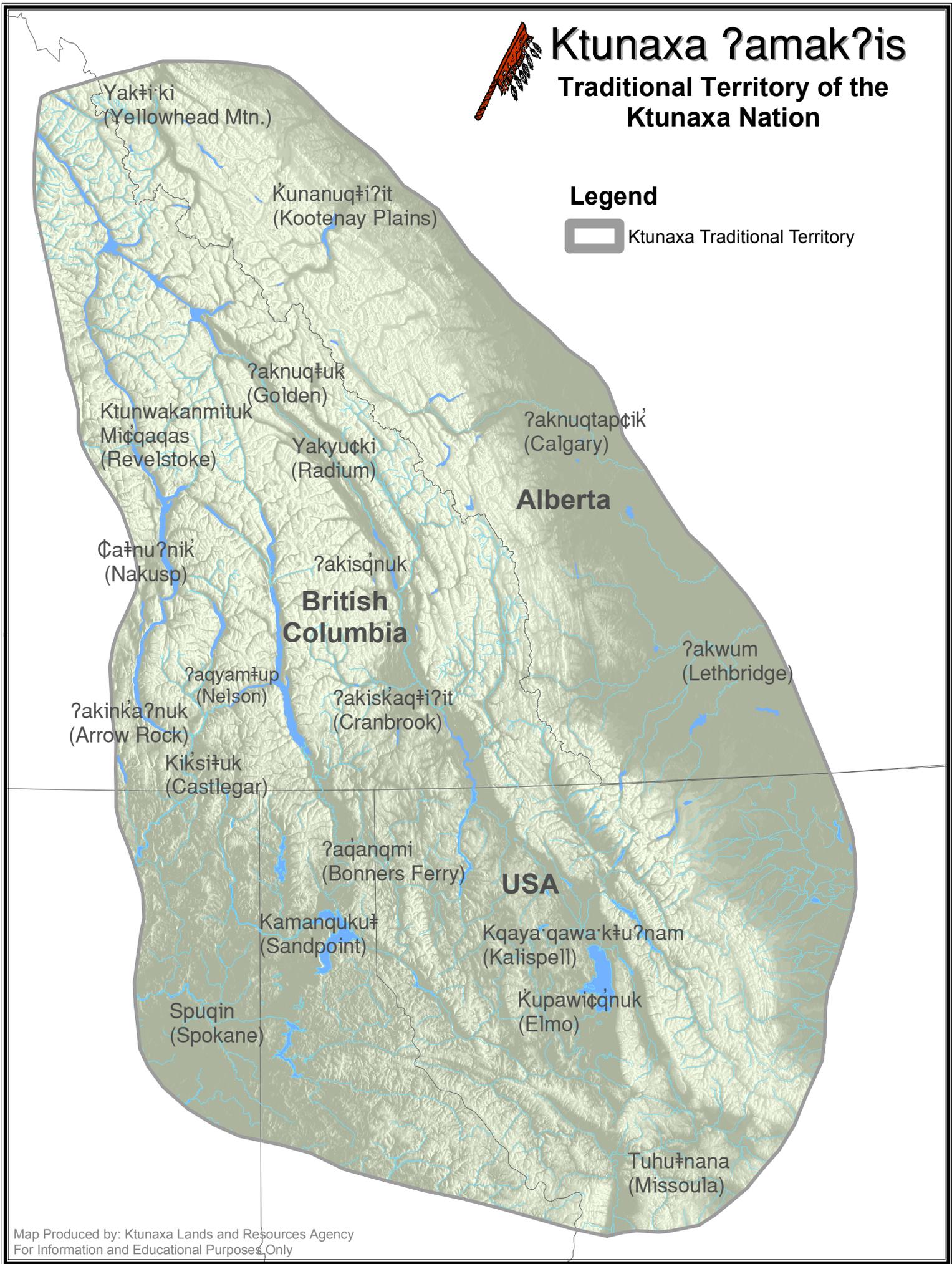


Ktunaxa ʔamakʔis

Traditional Territory of the Ktunaxa Nation

Legend

 Ktunaxa Traditional Territory



APPENDIX 4

**Map – Ktunaxa Traditional Districts –
Yaqaʔ Hankatiʔiʔki na ʔamak**

Yaqat Hankatiiki na ?amak

As a Nation we are striving to achieve strong, healthy citizens and communities, speaking our languages and celebrating who we are and our history in our ancestral homelands, working together, engaging our lands and resources, as a self-sufficient, self-governing Nation.



Ktunaxa Kinbasket Treaty Council
Land Use Plan

Traditional Districts

- ?aknuqʰaʰam ?amakʰis (Land of the Eagle)
- Qukin ?amakʰis (Land of the Raven)
- ?amna ?amakʰis (Land of the Wood Tick)
- ?aʰpu ?amakʰis (Land of the Wolverine)
- Miʰqqaqas ?amakʰis (Land of the Chickadee)
- Kyawaʰ ?amakʰis (Land of the Spruce Grouse)
- Land Use Plan Area
- Creation Story Route

The Creation Story

In ancestral times referred to by the Ktunaxa as the animal world, there were references made many times by the Creator to when there will be ?aqʰsmaknik (people).

At that time, there was some disturbance caused by a huge sea monster known as Yawuʰnik, who killed many of the animals. A council was called by the Chief animal, Naʰmuqʰin. Naʰmuqʰin was huge. He was so tall that he had to crawl on his hands and knees, for if he stood up his head would hit the ceiling of the sky.

It was decided that Yawuʰnik had to be destroyed. A war party was formed. Yawuʰnik plied the Kootenay and Columbia River System including Columbia Lake and Arrow Lakes.

Yawuʰnik was sighted in the Columbia Lake near Yaqan Nuʰkiy and the chase was on. At that time, the Kootenay River and the Columbia Lake were joined. As the chase proceeded, Naʰmuqʰin gave names to many locations along the Kootenay River, Kootenay Lake, Arrow Lakes and the Columbia River.

Yawuʰnik was pursued down the Kootenay River past the Wasa sloughs, now called Wasa, BC. Skinkue got into trouble here when he fell into the river and had to be rescued by Wasa, (horse-tail).

The chase went by where the St. Mary's River empties into the Kootenay River, ?aqam, where the St. Mary's Reserve is now located, then on down river to Kankak (spring) where Mayuk (weasel) joined the war party. There were animals on both sides of the river as the chase continued, and among the party was a parasite, ?a kukʰakuwum, who had to be carried on the backs of other animals. His name was ?umtus and he was mean and bossy. The other animals grew tired of his nagging and dumped him into the river at a place now known as Yaqatʰ watmitquʰiki ?umtus.

Leaving the land of the Eagle, ?aknuqʰaʰam ?amakʰis and into the land of the woodtick, ?amna ?amakʰis, past Wasaʰki (Waldo) then on past the now 49th Parallel and then past Kaxax (Turtle), now underwater, near Rexford, Montana. The chase went on by ?a kiʰyi (Jennings) and on by ?aqswaq (Libby) then into Skinkue ?amakʰis (the land of Coyote), past ?aqanqmi (Bonner's Ferry, Idaho) then northerly past the now international boundary into ?aʰpu ?amakʰis, the land of the Wolverine, past Yaqan Nuʰkiy (Creston, BC), then up the Kootenay Lake past ?aqasqnik (Kuskannok, BC). The chase went on by ?akuqʰi (Akokli Creek), past Ksanka Creek. Yawuʰnik chose to follow the Kootenay River past ?aqyamʰup (Nelson, BC). The chase was now in Miʰqqaqas ?amakʰis (the land of Chickadee).

At Kiksiʰuk, (Castlegar, BC) Yawuʰnik went north into the Arrow Lakes, past ?akinkaʰnuk (Arrow Rock) where arrows were shot into a crevice in the rock. If the arrow was true, the journey continued, if the mark was missed, beware, danger ahead. The journey continued past ?amnaʰnik (Nakusp) then up past Ktunwakammituk Miʰqqaqas (Revelstoke, BC) where the Columbia River flows into the Arrow Lakes, then up and around The Big Bend then down past ?aknuqʰuk (Golden, BC) past Yankusuʰki (Briscoe, BC) then on past Yakyuʰki. The chase carries on through Kwataqnik (Atholmere) then past Kananuk (Windermere, BC) past ?akisqnik (Windermere Lakes), then back into the Columbia Lake, Yaqan Nuki, (Canal Flats, BC). This completed the cycle of the chase.

Yawuʰnik would once again escape into the Kootenay River and the chase would go on. The chase would go on and on. Every time the war party thought they had Yawuʰnik cornered, Yawuʰnik would escape again.

One day sitting on the river bank observing the chase was a wise old one named Kikum. Kikum told Naʰmuqʰin, "You are wasting your time and energy chasing the monster. Why not use your size and strength and with one sweep of your arm, block the river from flowing into the lake and the next time the monster enters the lake you will have him trapped." Naʰmuqʰin took the advice of Kikum and did as he was told. The next time Yawuʰnik entered the lake, he was trapped. Having successfully corralled Yawuʰnik, a decision had to be made as to whom the honor of killing Yawuʰnik would be bestowed upon. The honor was awarded to Yamaqʰat (Red-headed Woodpecker).

When Yawuʰnik was killed, it was taken ashore and was butchered and distributed among the animals. There remained only the innards and bones. The ribs were scattered throughout the region and now form the Hoo Doos seen throughout the area.

Naʰmuqʰin then took the white balloon-like organ, known as the swim bladder, and crumbled it into small pieces and scattered it in all directions saying, "These will be the white race of people." He then took the black ingredient from the inner side of the backbone, the kidney, and broke it into small pieces and scattered them in all directions declaring, "These will be the black race". He then took the orange roe and threw the pieces in all directions saying, "These will be the yellow race of people."

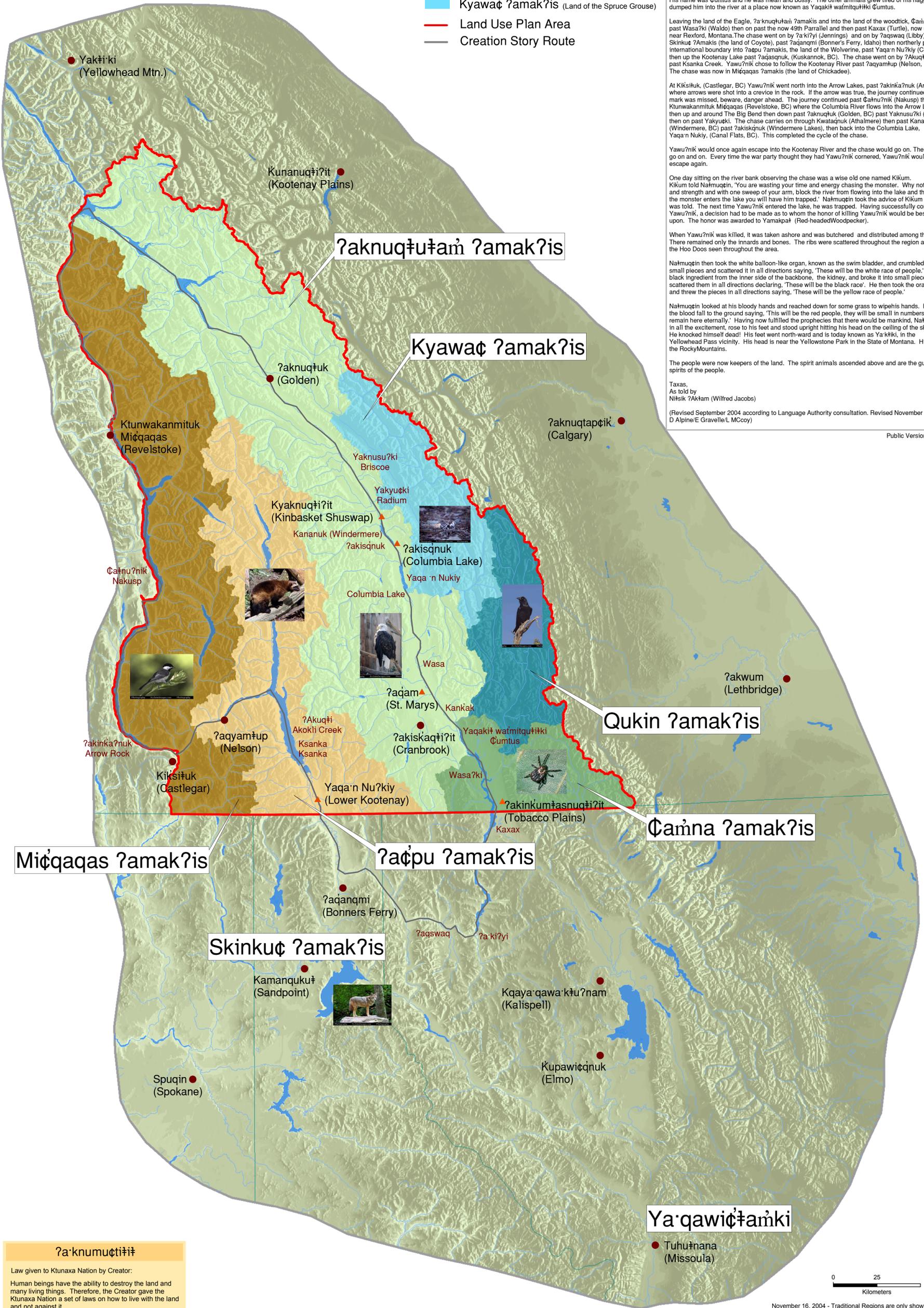
Naʰmuqʰin looked at his bloody hands and reached down for some grass to wipe his hands. He then let the blood fall to the ground saying, "This will be the red people, they will be small in numbers and will remain here eternally." Having now fulfilled the prophecies that there would be mankind, Naʰmuqʰin, in all the excitement, rose to his feet and stood upright hitting his head on the ceiling of the sky. He knocked himself dead! His feet went north-ward and is today known as Yaʰkiki, in the Yellowstone Pass vicinity. His head is near the Yellowstone Park in the State of Montana. His body forms the Rocky Mountains.

The people were now keepers of the land. The spirit animals ascended above and are the guiding spirits of the people.

Texas,
As told by
Nihsik ?Aktam (Wilfred Jacobs)

(Revised September 2004 according to Language Authority consultation. Revised November 2002
D Alpine/E Gravelle/L McCoy)

Public Version September 2004



?aʰknumuʰtiʰiʰ
Law given to Ktunaxa Nation by Creator:
Human beings have the ability to destroy the land and many living things. Therefore, the Creator gave the Ktunaxa Nation a set of laws on how to live with the land and not against it.

APPENDIX 5

***Violet Birdstone, Columbia Valley Transmission Corridor:
Supplemental Ktunaxa Nation Oral History and
Traditional Use Information.
May 2010***

Columbia Valley Transmission Corridor

Supplemental Ktunaxa Nation oral history and traditional use information

May, 2010
Violet Birdstone

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Introduction

The purpose of this project was to investigate written and oral history information sources pertaining to Ktunaxa use and occupancy of the upper Columbia valley in the vicinity of the proposed Columbia Valley Transmission Corridor. The project took place from January to March, 2010. A sample of seven known informants was chosen for the interviews which included mapping recollected traditional use activities.

Ethnographic Sketch

The Ktunaxa people are the original people of the Kootenay region, whose anglicized name it bears; they have occupied the region since early postglacial time (Choquette 1993a). The archaeological record in the region goes back at least 10-12,000 years. The Ktunaxa relationship to the land is supported by their legends, their teachings and by the archaeological record. The Ktunaxa are found in the literature under a variety of different names, including: Kootenay, Kutenai, Cootenaha, Lakes, Flatbow and others. The Ktunaxa Territory covers approximately 70,000 square kilometers of south-eastern BC: this area is commonly referred to as the Kootenay region of BC (KKTC 2000). The Ktunaxa language is a cultural isolate, meaning that the language is related to none of the other neighbouring languages.

Within the Ktunaxa Nation there are two major divisions, the Upper and Lower Ktunaxa. Like neighbouring nations on the prairies, the Upper Ktunaxa lived primarily in tepees and led a highly nomadic and cyclical lifestyle. The Upper Ktunaxa traditionally occupied the East Kootenay and south-western Alberta, as well as, adjacent areas in Montana; the Upper Ktunaxa were characterized as being primarily big game hunter/gatherers (Turney-High 1969), although fishing was also an important activity.¹ The Lower Ktunaxa traditionally occupied areas of BC's West Kootenay, Eastern Washington and the Idaho Panhandle. The Lower Ktunaxa led a life that was oriented towards the usage of the lower Kootenay and Columbia River systems (KKTC – TUS 1998). The Ktunaxa Nation collectively holds a vast ecological knowledge of the region including Ktunaxa names for over 160 species of plants catalogued to date, as well as, place names and legends throughout the Traditional Territory.²

History of the Columbia Valley as told by a Ktunaxa Elder, the late Andrew Michel

Andrew Michel, a Ktunaxa Elder and member of the St. Mary's Indian Band, told his story on the area, a story that was passed on to him, in an interview which took place between 1974 and 1977. He wanted to ensure that any one of his colleagues could tell the same story. Andrew Michel was born in 1891 and died on September 9, 1977.³

¹ *Ethnography of the Kutenai*, Harry Holbert Turney-High, Kraus Reprint Co., New York, 1969 pp 45.

² Aboriginal Interests for Mt. MacKenzie Ski Hill, Revelstoke, BC, Michael Keefer, Ethnobotanist.

³ Vital Event Death Registration, BC Archives, Reel 13580.

“Well I’m going back, somewhere’s, I don’t know what year it was when the natives used to be all over the Kootenay river, and the headwaters of the Columbia. All the places.

Talking about the past I might as well bring it out. And tell what the people were doing in them days. And that was passed onto me and most of the fellows that are still in existence and they can say the same thing.

To start with down in the head waters of the Columbia on each side of this lake, east and west, there used to be, Indians used to be living along from the headwaters down. I’ll go down to, from the head waters down to Colville.

From there back this way all the creeks that’s running into the Columbia, that was their trap line, hunting ground and where the cultivation used to be on that. Where the Indians used to get, little here and little there. And they had the potatoes of that time, the wild potatoes and things like that, what they used to pick up from the hillsides and along that, pick berries. Today, there’s still wild potatoes still existing. And those potatoes used to come normally and that’s what the potatoes are today. The wild onions, what they call the wild onions, there’s two different onions. One is poison and the other one is all right to eat. That’s what the Indians used to use in them days.

And another thing they had. Well, they used to get their seed here and there, in the line of tobacco. Tobacco was made right at the headwaters of the Columbia. That was the headwaters where the plant, wild tobacco was raised and was found by the Natives of North American. This plant used to stand between two and three feet sometimes. And used to produce good leaves. And this tobacco plant what you got, it used to come out when the fall time comes. The seed used be gathered up and what was left in them springs was left alone.

In the spring time those things the Indians would plant potato seed, in places, different places. And, this thing happen to be right down to Grasmere. In the place we call Tobacco Plains.

The seed was taken from the headwaters of the Columbia, and the seed was brought down there and the Indians start to planting the tobacco seed. What you call tobacco. And that’s the reason why this tobacco plant got its name because Indians down there at Grasmere used to get a lot of seeds from there and they transplant the seed. And that’s the reason why they call this place Tobacco Plains. That’s the name that they got if from. They were raising tobacco.

And around there I go right from Grasmere down. Tobacco Plains was a place where everything used to be. On each side. Down. I will go as far as Eureka and down into the Elk River. That’s where the Indians used to camp all over them places where the water runs all into the river, Kootenay River. You’d find all these animals, or whatever they used to use for their own benefit.

For their own arrow, for their own things what they used to get. That was made from elk sinews and everything like that put together and what used to put this glue on what they got from the elk meat that used to be made for bows. And the

arrows used to be made and that's what they used to use for killing everything, what they wanted.

Today, coming back this way on the west side of the Kootenay along this place all them places where the Indians and all the people used to stay ... and all them places Akinqagos and all them places along there. Kuyanuxunuk, Akwiskaqluxunanuk. All them places used to be filled with Indians and that is where they used to existing."

He also talks about the food chain route:

... along the Kootenay River, Kootenay Lake, Slocan, Revelstoke and, back in the Kinbasket Lake, Shuswap Lake. And, all them places. Here's Flathead Lake on each side. Where the natives used to be spread all over the country. As far as you go down, north. The farthest you go, is around this last place what they call Trout Lake. Or whatever that place is, that's where the Indians used to be.

He continues to name the places around the Columbia Lake area and up to Golden, BC where Aboriginal people used to live.

All those places what I was talking about where potatoes and where tobacco seeds used come from. They're still there, still existing in this place what I'm talking about. And those little seeds.

... on the east side what they call Kumugani, Akinganuk, I named all them places around there. Akinguganuk, Yakwilak, Yakil anuklilwiklit. All them places I've each by name. When the Indians were existing around there. (There) were so many at the headwaters of the Columbia. And, they were way down towards Golden way. Some of them took up the good land around there and today the good land that was worked by the Indians, are on the white man's farm today."

Ktunaxa Creation Story

The area described by the late Andrew Michel lies within the region encompassed by the Ktunaxa Creation Story. The Ktunaxa Creation Story describes Ktunaxa territory which includes the Columbia and Kootenay River systems and the Arrow Lakes area in British Columbia. The legend, as told by Joe Pierre Jr., is about a Land Monster (Natmuqse) and Water Monster (Yawonek) – beings who lived in pre-human times. It begins in the Kootenay Lake area, and ends at the head of the Columbia, where the water monster is slain. As the other beings chase the Water Monster (Yawonek), one of the main features is that, it is wounded, at a place that is now called Spillimacheen. The place is given a Ktunaxa name of "red waters" because the Water Monster's wound caused the waters to turn red when it bled.

When the Water Monster (Yawonek) is slain, it is dismembered and its remains form the human race, all the colors of the people. The stained blood on the Land Monster's hands form the red race, including the Ktunaxa people. Its body forms the Rocky mountains.

Upon completing his task, the Land Monster, (Natmuqse), who is very tall, stands up in all his glory, and hits his head on the ceiling of the sky, which knocks him dead. He falls with his feet

landing around the Yellow Head Pass, a place the Ktunaxa name Yakliki (where his feet lie), with his head at a place near the place called Missoula (Montana).⁴

In Olga Weydemeyer's Johnsons' *Flathead and Kootenay*, she describes Little Jim Eneas, past eighty and blind, but very straight-backed as he sat on his block of wood outside the cluttered cabin near Windermere. "I tell you," he offered, according to Johnson, with quiet emphasis and a tolerant half-smile for the ignorance of the Whites. When asked where Kutenais came from to here. "They no come here from nowhere. This is true what I tell you." In Little Jim's voice she noted that there was an echo of dignity and authority.

This is how – a big fish live in Nelson [Kootenay] Lake; grow very big; eat brother and wife of Big Chief, swallow canoe and all. Big Chief so high, when he walk up Nelson Lake – water deep there, you know, deep, deep – it only come up to his thighs. He walk all over lake, chase fish up Columbia [after, apparently, going down the lower Kootenay into the Columbia], way up into Columbia Lakes, tramp in mud to make flats – you know Canal Flats – so big fish can't get back [down the Kootenay River]. then he throw stone, kill fish, cut him open and let out brother and wife. Then cut him up – [Jim's gestures showed the victor throwing the remains of the fish around.] Lips make cliffs at Dutch Creek and at St. Mary's River, across; back makes hill east side Canal Flat Lake, look just like fish back. Then he take [some part of fish body], work up with hands, so scatter around, make Kutenai Indians. So there you are.

The big fish or water monster – in Kutenai, Yawonek, the Deep Water Dweller – does his dirty work in the legends of many native North American tribes. Little Jim's story is a version of one continuity of the "War on the Sky" (Kootenay) series told by Boas. ...⁵

Little Jim's story on the big fish, Yawonek is slightly different from Joe Pierre Jr's version of the story but contains the same characters – the water and land monsters. In Little Jim's story, the formation of the Dutch Creek Hoodoos and Canal Flats are specifically mentioned.

Traditional Districts

The Ktunaxa Traditional Districts map was developed based on a compilation of video recorded interviews with past elders who outlined the areas through many meetings. The map describes six districts in the East and West Kootenays as far north as Yellowhead Pass. The Upper Columbia River Valley lies mainly in Eagle's territory.

⁴ Joe Pierre Jr. Interview, January 29, 2010.

⁵ O. W. Johnson, The Arthur H. Clark Company Glendale, California, 1969 *Flathead and Kootenay: The Rivers, the Tribes and the Regions Traders*.

Ktunaxa Bands

There are presently six bands of Ktunaxa consisting of four ‘northern’ or Canadian bands* and two “southern bands” in the USA. The following is a brief summary on the six bands.

- ?Akisqnuq First Nation (aka Columbia Lake Band) near Windermere, B. C.: this band consists of the descendants of the qatmukinik (Toby Creek) and Whiteswan Lake (ka?intak Bands).
- Tobacco Plains Band (?akanuxunik) near Grasmere, B. C. Originally lived near Graves Creek and Small Creek. At the time of the government imposing reserves, this band was camping at the present day border crossing at Roosville, B.C.
- St. Mary’s Band (?aqamnik), woodland Ktunaxa, were forced to relocate from Joseph’s Prairie (present day Cranbrook) to the St. Eugene’s Mission area.
- Lower Kootenay Band (?akaklhalxu) lit. Swamp people, is located just south of Creston.
- Bonners Ferry Band (?akankminik) is located in Northern Idaho at Bonners Ferry.
- Elmo Montana Band (ksanka) members were moved onto the Confederated Salish Kootenai Tribe by the U.S. government in 1855 from the Jennings, Montana area. (Keefer 2002).

* Previously, the Shuswap Band of Invermere, B. C. was part of the Ktunaxa group but since have identified themselves as Shuswap. Their members include individuals with Ktunaxa and other ancestry as a result of intermarriages between the Shuswap people and the Ktunaxa and other First Nations people. ⁶

Ktunaxa names for tribes to the west

Colville – Qxapli’nik
Gros Venture – qini’in
Kettle Falls – Calnu’nik ⁷
Nez Perce – Sahaptin ⁸
Okanagan – Oknakin ⁹
Pend d’Oreille – Kanuklulam
Shuswap – Kisamnik
Sngaytskstx – Calnu’nik
Upper Colville – Calnu’nik

Ktunaxa names for tribes to the East

Blood Indians – Wanmunintik
Cree – Kuckiyawi ¹⁰
Stoney – Klulamaka
Blackfeet Sarcee – Kackakilsaq ¹¹

⁶ Catholic Marriage records, Cranbrook, BC.

⁷ KNC, TUS Holdings CD Minidisk #420 Lawrence Morgan Language Interview – F. Whitehead.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ksanka Kootenai Dictionary, Kootenai Culture Committee, CSKT, Elmo, Mt., 1999 pp128.

¹¹ Ksanka Kootenai Dictionary, Kutenai Culture Committee, Elmo, Mt., 1999.

Ktunaxa names for tribes to the south

- Flathead – Kanuklulam
- Elmo Kutenai – Ksanka
- Bonnors Ferry Kootenai - ?akankminik
- Pend d’Oreille – Kanuklulam
- Blackfeet – Kackakilsaq

Extinct Ktunaxa bands:

- Tunaxa Band – Oldman river watershed.
- ?akanaxunik Band was formerly based around the confluence of Small and Graves Creeks.
- Libby Band (ksuqkinik) - Libby Montana.
- Whiteswan Lake (qa intak) Band – Sparwood.
- ?akiyiniq or “thigh bone or femur people – lived around the present day Jennings Montana area.
- ?akukua isukinik Band – Tweed and Warland Montana.
- Qatmukinik Toby Creek Band - Toby Creek area.¹²
- Galisa – near Nelson, BC.¹³

List of Ktunaxa and English Place Names collected - Columbia Valley

The following is a list of Place names in the Columbia valley. The names were collected from various sources during the interviews and mapping activities.

Ktunaxa	English
Ky uki quxa	Larsen Lake
?ak nuq luk (double bar l)	Golden
ya quti kaxaki	Shuswap Creek
K taqa kinuk nana	Fairmont Hot Springs
A'k un kak	Steamboat Mountain
?Akakus	Findlay Creek
lalasitik	Coldspring Creek - at mouth of Athalmer
lutglanu	Coldspring Creek - at mouth of Athalmer
Yakin Nukaki	Dutch Creek Hoodoos
Qatmuk	Toby Creek
?Akanulunmituk	A Lake up Windermere Creek
Kaksilik	Creek South of Fairmont
Qanqwil	Creek up the Columbia Glacier

¹² Laura McCoy per. com & Schaeffer “Kootenay Social Life #49.

¹³ C. E. Schaeffer Unpublished Ms.

Klunwakaqlalali?it	Wilmer, BC
Yakawalak	On the Columbia Lake shore
Klananautka	West side of Columbia Lake
Yakil ?unilil Kwilqli	Near Columbia Lake, & Five miles south of Fairmont on west side
Kyakw?utak	Near Columbia Lake
Kumugani	Near Columbia Lake
?akinganuk	Near Columbia Lake
?akinmitukpawal	Near Columbia Lake
yakwilak	Near Columbia Lake
?akqicgunuk	Near Columbia Lake
yakipal	Horsethief Creek
Yaqunaki	Windermere
Yaknusuki	Spillmacheen river
Yakin Nukaki	Dutch Creek Hoodoos
?akakgulmitiyuk	A Lake up Windermere Creek
Kitmuk	Radium Hot Springs
KwataknuK	Athalmer
Yakliki	Yellowhead Pass (where Yawonek's feet lie)

Traditional Use Information from informants

A small number of informants were interviewed about the locations of their traditional use activities in the upper Columbia region. It is notable that favourite sites are visited for more than one activity. Hunting, camping and berry harvesting can take place at one time. People don't usually go out to the bush for one purpose.

The attached table Appendix 1 is a list of the places used by the members interviewed. It also contains other sources of information gathered from publications.

Summary

In Andrew Michel's history of the area he states that all the rivers flowing into the Columbia (river) were used by the Ktunaxa people from the head of the Columbia down as far as Colville, which lies in Washington state. Elder Michel also noted that: (i) many Ktunaxa lived along the upper Columbia from its headwaters to Golden; (ii) they carried out various activities while traveling for food harvesting purposes, such as planting wild potatoes and tobacco along the way while hunting and fishing; (iii) the people knew where to harvest wild onions and other food

staples while en route; and (iv) the Ktunaxa used to harvest the wild tobacco at the head of the Columbia and transplant them to Tobacco Plains.

The Creation Story, the traditional use information of seven informants, the short history by Ktunaxa Elder Michel, and the map of the Traditional Districts all confirm that the proposed Columbia River Transmission Corridor area is a main source of food harvesting and location for other activities for the Ktunaxa people.

APPENDIX 1

HUNTING AREAS within the CVTC area are in bold		
NAME		Number of respondants used the area
Bugaboo Creek	Hunting area	2
Brisco on West side Road to Bruce Creek	Elk and White Tail Deer Hunting	2
Frances creek	Hunting area	1
Forster Creek	Hunting area	2
Horsethief Creek	Hunting area	3
Steamboat Mountain	Hunting	1
Toby Creek - the whole creek	Hunting and camping area	2
West Road Parson to Invermere	Hunting area	1
Beaver Creek	Hunting	1
Brewer Creek	Hunting	1
Chimney Mountain	Hunting	1
Canal Flats trail to Kootenay Nat'l Park	Hunting	1
Doctor Creek	Moose Hunting	1
Dutch Creek	Hunting area	1
Dunbar Lake	Hunting	1
East of Brisco -area	Hunting area	1
East side of Columbia & Lake Reserve	Hunting area	1
Edgewater	Hunting	2
Farnham Creek	Hunting	2
Findlay	Hunting	1
Fenwick Creek	Hunting	1
Fairmont Mountain	Hunting for elk, deer and wild chickens	1
Kinbasket Lake	Hunting for elk, deer	1
Jumbo Creek	Moose Hunting	1
Lussier River	Elk Hunting	1
Shuswap Creek	Hunting area	2
Kootenay River, Kootenay National Park	Hunting	1

BERRY HARVESTING within the CVTC are in bold		
NAME		
Bugaboo Creek	Huckleberry picking	1
Francis Creek	Huckleberry picking, camping	1
Forster Creek	Huckleberry picking	1
Steamboat Mountain	Huckleberry picking	1
Susan Lake	Huckleberry picking, camping	2
Chimney Mountain	Picking huckleberries	1
Findlay Creek	Berries, (huckleberries)	1
John Wolf's Mine	Huckleberry picking	1
Hobo Creek	Huckleberry picking, camping	1
Kootenay River in Kootenay Nat'l Park	Huckleberry picking, camping, & hunting	1
Little Elk Creek	Huckleberry picking, camping	1
Perry Creek	Huckleberry picking	1
Settlers Road Creek	Huckleberry picking, camping	1
Tegart Pass	Huckleberry picking	1
Windermere Creek	Berry picking	1

CAMPING, FISHING & RECREATION within CVTC area are in bold		
NAME		
Francis Creek	Huckleberry picking, camping	1
Susan Lake	Huckleberry picking, camping	1
Toby Creek - the whole creek	Hunting and camping area	2
Brady Creek	Camping and recreation	1
Blaeberry River	Recreation	1
Bush Arm	Camping and recreation	2
Columbia Lake	Fishing	1
East Side of Columbia Lake	Camping and recreation & Fishing	1
Edgewater	Habitat, recreation	1
Goldie Creek	Camping and recreation	1
Kootenay River in Kootenay Nat'l Park	Huckleberry picking, camping, & hunting	2
Madias Creek	Camping and recreation	1
Salter Creek	Camping and recreation	1

Settlers Road Creek	Huckleberry picking, camping	1
Tatley Creek	Work, Camping & recreation. (The old Martin Merigeau, Columbia Lake band	1
Tegart Pass	Huckleberry picking, camping	1
Windermere Lake	Fishing (winter) & day camp	1
OTHER ACTIVITIES - LEGENDS, ETC. within the CVTC area are in bold		
NAME		
Creek near Brisco	Where Skincoots (Coyote) spears the giant water monster, Yawunik causing it to bleed. The blood becomes a creek	
Spillmacheen River	Where the Ktunaxa used to Spear for salmon	1
Hoodoos	Ceremony	
Spirit Trail area (?)	Animal People used to live on East side of Columbia Lake	1
Yellowhead Pass	Legend: Land Giant Nalmuqci's feet lie there	

APPENDIX 6

Ktunaxa Creation Story, the Ktunaxa Nation Website



WHO WE ARE

- ▶ WHO WE ARE
- ▶ LATEST NEWS
- ▶ NATION NETWORK
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- ▶ MEMBER LOGIN
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- ▶ TREATY NEGOTIATIONS
- ▶ EMPLOYMENT SERVICES & JOBS

KTUNAXA CREATION STORY

In ancestral times referred to by the Ktunaxa as the animal world, there were references made many times by the Creator to when there will be ?aqŧsmaknik (people).

At that time, there was some disturbance caused by a huge sea monster known as Yawu?nik, who killed many of the animals. A council was called by the Chief animal, Naŧmuqcin. Naŧmuqcin was huge. He was so tall that he had to crawl on his hands and knees, for if he stood up his head would hit the ceiling of the sky.



WHO ARE THE
KTUNAXA?

KTUNAXA CREATION
STORY

KTUNAXA HISTORY
TIMELINE

KTUNAXA NATION
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LINKS

It was decided that Yawu?nik had to be destroyed. A war party was formed. Yawu?nik plied the Kootenay and Columbia River System including Columbia Lake and Arrow Lakes.

Yawu?nik was sighted in the Columbia Lake near Yaqa'n Nu?kiy and the chase was on. At that time, the Kootenay River and the Columbia Lake were joined. As the chase proceeded, Na?muq?in gave names to many locations along the Kootenay River, Kootenay Lake, Arrow Lakes and the Columbia River.

Yawu?nik was pursued down the Kootenay River past the Wasa sloughs, now called Wasa, BC. Skinku? got into trouble here when he fell into the river and had to be rescued by Wasa, (horse-tail).

The chase went by where the St. Mary's River empties into the Kootenay River, ?aqam, where the St. Mary's Reserve is now located, then on down river to Kankak (spring) where Mayuk (weasel) joined the war party. There were animals on both sides of the river as the chase continued, and among the party was a parasite, ?a:kuktakuwum, who had to be carried on the backs of other animals. His name was ?umtus and he was mean and bossy. The other animals grew tired of his nagging and dumped him into the river at a place now known as Yaqaki? watmitquti?ki ?umtus.

Leaving the land of the Eagle, ?a:knuq?u?am?amakis and into the land of the woodtick, ?amna ?Amakis, past Wasa?ki (Waldo) then on past the now 49th Parrallel and then past Kaxax (Turtle), now underwater, near Rexford, Montana. The chase went on by ?a:ki?yi (Jennings) and on by ?aqswaq (Libby) then into Skinku? ?Amakis (the land of Coyote), past ?aqanqmi (Bonner's Ferry, Idaho) then northerly past the now international boundary into ?a?pu ?amakis, the land of the Wolverine, past Yaqa'n Nu?kiy (Creston, BC), then up the Kootenay Lake past ?aqasqnuq, (Kuskannok, BC). The chase went on by ?Akuq?i (Akokli Creek), past Ksanka Creek. The Yawu?nik chose to follow the Kootenay River past ?aqyam?up (Nelson, BC). The chase was now in Mi?qaqas ?amakis (the land of Chickadee).

At Kiksi?uk, (Castlegar, BC) Yawu?nik went north into the Arrow Lakes, past ?akinka?nuk (Arrow Rock) where arrows were shot into a crevice in the rock. If the arrow was true, the journey continued, if the mark was missed, beware, danger ahead. The arrow was true and the journey continued past ?a?nu?nik (Nakusp) then up past Ktunwakanmituk Mi?qaqas (Revelstoke, BC) where the Columbia River flows into the Arrow Lakes, then up and around The Big Bend then down past ?aknuq?uk (Golden, BC) past Yaknusu?ki (Briscoe, BC) then on past Yakyu?ki. The chase carries on through Kwataqnuq (Athlmer) then past Kananuk (Windermere, BC) past ?akiskqnuq (Windermere Lakes), then back into the Columbia Lake, Yaqa'n Nukiy, (Canal Flats, BC). This completed the cycle of the chase.

Yawu?nik would once again escape into the Kootenay River and the chase would go on. The chase would go on and on. Every time the war party thought they had Yawu?nik cornered, Yawu?nik would escape again.





One day sitting on the river bank observing the chase was a wise old one named Kikum. Kikum told Naʔmuqʕin, 'You are wasting your time and energy chasing the monster. Why not use your size and strength and with one sweep of your arm, block the river from flowing into the lake and the next time the monster enters the lake you will have him trapped.' Naʔmuqʕin took the advice of Kikum and did as he was told. The next time Yawuʔnik entered the lake, he was trapped.

Having successfully corralled Yawuʔnik, a decision had to be made as to whom the honor of killing Yawuʔnik would be bestowed upon. The honor was awarded to Yamakpaʔ (Red-headed Woodpecker).



When Yawuʔnik was killed, he was taken ashore and butchered and distributed among the animals. There remained only the innards and bones. The ribs were scattered throughout the region and now form the Hoo Doos seen throughout the area.

Naʔmuqʕin then took the white balloon-like organ, known as the swim bladder, and crumbled it into small pieces and scattered it in all directions saying, 'These will be the white race of people'; He then took the black ingredient from the inner side of the backbone the kidney, and broke it into small pieces and scattered them in all directions declaring, 'These will be the black race'; He then took the orange roe and threw the pieces in all directions saying, 'These will be the yellow race of people.'



Naʔmuqʕin looked at his bloody hands and reached down for some grass to wipe his hands. He then let the blood fall to the ground saying, 'This will be the red people, they will remain here forever'.

Naʔmuqʕin, in all the excitement, rose to his feet and stood upright hitting his head on the ceiling of the sky. He knocked himself dead. His feet went northward and is today known as

Yaʔkʔiki, in the Yellowhead Pass vicinity. His head is near Yellowstone Park in the State of Montana. His body forms the Rocky Mountains.



The people were now keepers of the land. The spirit animals ascended above and are the guiding spirits of the people.

Texas.
As told by Elder
Niʔsik ʔAkʔam
(Wilfred Jacobs)



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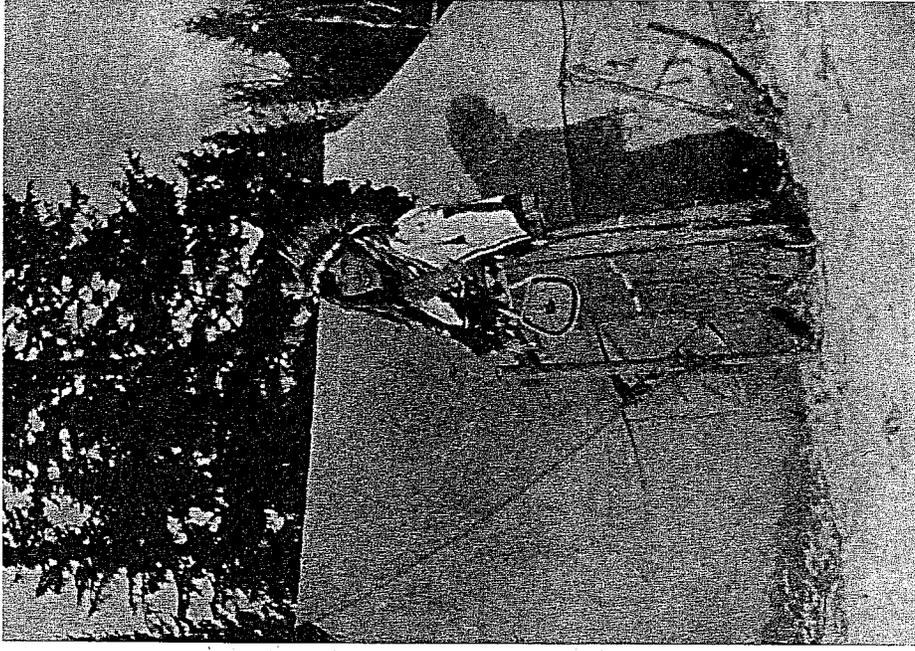
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APPENDIX 7

Excerpt from: Shelagh Dehart, *The Kinbasket Migration and Other Indian History*. (Invermere: Palliser Printing, 2006)

The Kinbasket Migration



And Other Indian History

By Shelagh Palmer Kinbasket Dehart

Introduction *By Dusty Dehart*

I am a granddaughter of Elder Shelagh Palmer Kinbasket Dehart. This is Grandma's book and it covers the history of the first four of our family's eight generations that have lived in the Columbia Valley.

My family has heard these and other stories since we can remember. The power of Grandma's memory and her duty to pass this information on to the next generations astounds me. Not all is written here in this book as some of it belongs only to our family or to other individual families and the stories demand respect because of their confidential nature. Grandma has forbidden me to write or share certain names or stories as their descendants are still alive and they may be negatively affected. She does not believe in feuds that are carried over to the next generation. Grandma has always been about keeping the peace. I remember asking her what she wishes for every year when she blows out her birthday candles. She always had the same answer, "I wish for the family to always love each other and to get along, peace in the family is what I always wish for."

One of the many things Grandma stressed to us continually was that when one is told something, one must only repeat it in its truest form. This was a lesson that was taught to everyone at a very young age when Grandma was growing up and so she taught us to do the same. Grandma's Grandmother use to tell her that if a story was changed in any way, it would then be forever altered and could get worse with every telling. That's how lies and evil can grow and spread. So never retell anything unless you do it right, there is simply too much at stake. Especially when the information being passed on is critical to survival or involves someone else. I have kept an original copy of Grandma's words, word for word. We did have to do some minor editing (mainly just grammar) within this copy in order for better understanding.

Grandma says that it is now time, time to record the way it really was, all of it. The way she knew it to be. Some of the old ways are still very much a part of her. Some of her habits, her core beliefs and family values have never changed. She has passed on to her grandchildren, her children, her closest friends and others whom asked, bits and pieces of history all along the way throughout her life. She was practicing a very old art. The art of oral history telling. Telling it exactly the way it was told to her.

Grandma wanted this book to be in chronological order if possible. I found it a very difficult task as each story has trigger points where there is a story within a story. I learned that this is part of how oral history preserves itself. Therefore this book is a history book that is made up of smaller stories within a bigger story about our Shuswap ancestor's migration to the beautiful Columbia Valley. Grandma felt it was very important to record this history and this information as it is in jeopardy of being lost. Some say the Shuswap people were here long before our ancestors made their way here in the 1700's (possibly late 1600's) That we don't know but what we do know is what Grandma was taught and told by her Grandparents and her relatives. This book is Grandma's book.

Unfortunately I do not know the Shuswap or Kootenay language, yet. Grandma never learned how to spell the Shuswap or Kootenay language even though she was fluent in speaking both all of her life. I apologize in advance for any spelling errors that I may have made. I did research the proper spelling but I wrote some of the Indian words as they sounded so that we could at least get an idea of how it sounds. I also may have misspelled names, my deepest apologies if that is the case. Please feel free to contact me with any corrections or suggestions as we will be printing more editions in the future.

This has been a journey unlike any I will ever experience again. In writing this book with Grandma, and all that it entails, I have literally gotten to know my ancestors as if I was sitting around a fire with them. I always knew their names, some of their stories and who they were, but now, I feel like I have actually met them. Because of the gift of storytelling, I felt what they felt, saw what they saw and tasted what they ate. I am so fortunate that I had an opportunity to become a part of this book. Most importantly, the book became a part of me.

I am so blessed to have been chosen to take this journey with my Grandmother. We have cried and laughed so hard together I will never be the same again. As they say, the journey is the destination. It sure is.

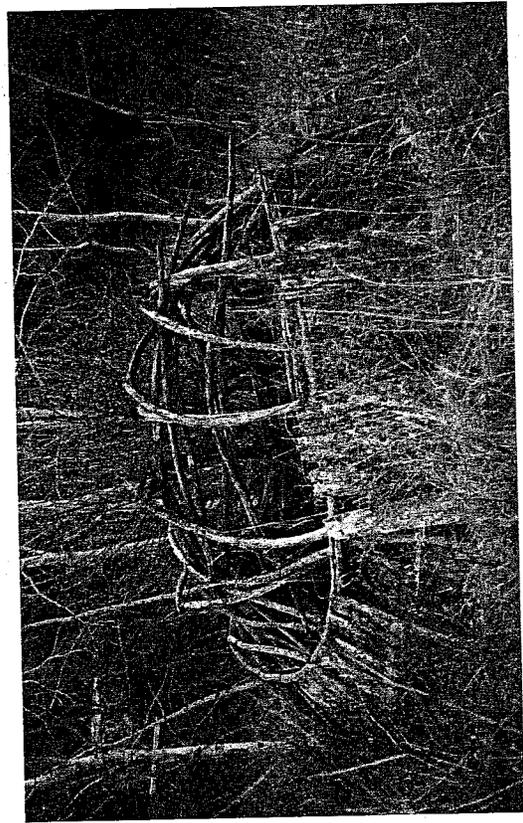
We hope that you enjoy this journey into the past.

What My Ancestors Said

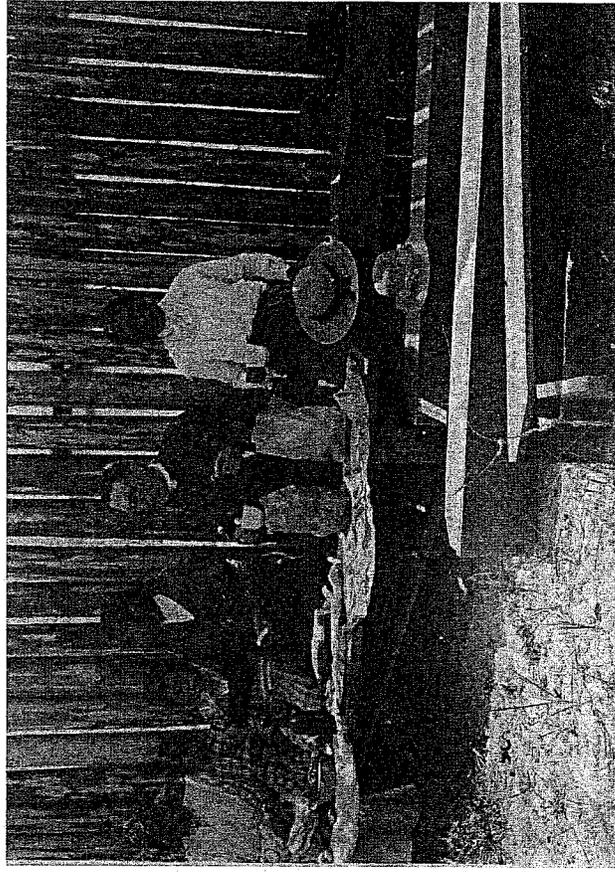
My information is from the people themselves. The people that migrated from their own country to the Kootenay country. I began repeating the stories I was told by the time I was three years old. I was a storyteller even then. You see, the parents were always teaching all of the children, all of the time, for the future. No one did any writing so it was always passed on through telling stories or through legends. The old people were all great storytellers. This is the way they kept up the history. We were told that it must always be passed from generation to generation, word for word. We were well instructed as children to remember what was said because we had to pass it on. So I did. I am the last one to pass it on. Now it is up to you.

This is what my ancestors said...

Shelagh



What remains of an original sweathouse at Stoddart Creek, B.C.



Shuswap Village 1924. Midday meal time, in the shade. From left to right; Mrs. Chief Pierre Kinbasket (my Grandmother Marion), two of my sisters Kate and Tracie Palmer, Amelia Kinbasket Palmer (my mother), Father Evans and Rosalee Kinbasket (my aunt).

Father Evens lived in Wilmer. It would be midday mealtime and here he'd come on horse back. Everything would be going "clickety click, clickety click". He had leggings, boots, all English style. His arms would be going the same as the horses feet, what a sight. Ma was sure to have something for him to eat. They couldn't speak to each other, one spoke Shuswap and the other English. They say he was sent to live in the country because he had very bad health, but you know, there was nothing wrong with him.

The Migration

This is the way it started, three friends, all young men from Adams Lake were supposed to be going hunting. Every other year or so young men would go hunting for long periods of time. From Adams Lake they took an old trail along Seymour Arm, went across the Columbia River and made camp at Downie Creek. There they stayed and made a dugout canoe. From Downie Creek camp they sailed up the Columbia River. They came to a big lake, Kinbasket Lake. Although it was not named Kinbasket Lake at this time. They were away from their people for a long time and the weather was cold. It was time to go home. When they went home they told the people about their travels.

A year or so later the same men were joined by two or three other young men from Chu Chua (Adams Lake area). One of these young men was named Yelheelna Kinbasket, my great great Grandfather. They went right over the mountains near Adams Lake and followed the lake where they made a dugout canoe and went right across the lake. They were really curious and were wondering what was up the river and on the other side of the Columbia Mountains so they kept going.

They were really exploring and so they went north on Kinbasket Lake up to Canoe Reach and on to Valemont. They explored all of Kinbasket Lake on both sides. They camped for a couple days before they got to the Columbia River. From there they crossed the river and kept following the shore. They again camped at Downie Creek where it enters the Columbia River for quite some time. They were away from their people a long time and when they went home, they told the people about it. The Elders told them "That's Kootenay Country, very dangerous". You see, the Kootenay used to go down and slaughter the Shuswap people and sometimes kidnap the women. There's a story about one such woman, I called her Spiderwoman.

Spiderwoman

Many many years later, here in the Columbia Valley, my Grandmother disliked this woman that lived on the Kootenay reserve. She claimed she was a cousin of hers. The mother or the grandmother of this woman was the one that was kidnapped and this woman would call my Grandmother "Cousin". She claimed that she was a descendent of one of the kidnapped Shuswap girls. Grandmother would have nothing to do with her. I call her the Spiderwoman because the Kootenay called her Nukinka, which means spider.

The Kootenays would float down the Columbia River during berry time when all the Shuswap were together. They would slaughter the Shuswap by the dozen. Sometimes they would kidnap, sometimes not.

The Elders tried to stop the explorers, they forbid them to keep going into enemy territory, the dangerous Kootenay Country but the young ones continued to explore. They would camp and then go climb the highest mountain to look around at the land and to plan trails. That was the only way in those days to know what was out there. For direction instead of a compass, they would go by the sun, the moon and the stars. You can imagine how long it took to go up and down the mountains with all the thick bush and trees.

When this group returned they said it was okay so another group joined them and they went and explored even further south of Kinbasket Lake. They made a camp and lived at the Boat Encampment junction north of Golden where Kinbasket Lake begins. It took a long time to explore the country because they would go slow and notice everything. They would not carry their dug out canoes, so they had to make new ones along the way. It was also very dangerous business. They never traveled at night because of rock slides or avalanches. They were not without accidents along the way.

The Crevasse Man

One such accident was the Crevasse Man. This is a story from my Grandmother. This happened before my Grandmother's generation. This story seems unbelievable. There was new fallen snow and it was deep in the mountains. On one of the trips over here from their country, a man and his dog were ahead of the others and all of a sudden they both fell into a deep crevasse and disappeared. With the deep snow they couldn't do anything. They were calling and calling them. They had no rope in those days but they had rawhide braided together. Some were thick and some very thin and some were very long so they put something heavy on one end and held on to the other end. They thought the man might grab hold of it and they could pull him out but nothing. Then it became dark so every one went away from there to where it was safe. They thought for sure the man and the dog were both dead. Usually if someone falls into such holes, they are never seen again.

They made a big bonfire and were crying and calling this man's name. It was great sadness. All of a sudden out of nowhere the Crevasse Man says "Here I am" and there he was, standing there with his dog Meemloose! It was the bonfire he could see and that's what he walked towards. He was hurt very badly. He had a big lump on his head for a long time.

The story was that he was saved by his dog. When he fell down there, he got caught up. He was very fortunate indeed as there were roots from trees sticking out into the crevasse and they helped to break his fall. It was really dark and cold down there and he couldn't see anything. Out of the dark his little dog came to him. The dog Meemloose thought his owner had gone to sleep and he woke the man by licking his face. Meemloose was an old white dog with big black spots. He had a very short tail and he looked like he had patches of black all around his eyes. It was a good thing the man had his hunting knife and flint on him when he fell in as they were useful to him. He had to chip at the ice in some spots where it was too narrow to go through. It was definitely harder getting out than it was getting in. The man had a small rawhide rope and so he put one end around the dog's neck and he held on to the other end. The dog started ahead of him and he followed. They kept going through these tight spots and drops, until they came out. It was like a big ditch underground that they had come through. He had followed the dog all the way out and he saw the bonfire.

Shaman (Medicine Man)

When the explorers went away, they would be away for a year, two or some times, three years. When the people would start worrying about the explorers the Shaman would tell them not to worry and that the explorers were fine.

The Shaman just knew. A Shaman is a man that has supernatural powers, or the gift of clairvoyance. They were respected by the Shuswap Indians at all times. They never married and they lived in forests and would seldom mix or join the people. They seem to live in silence except for the birds and their songs and other noises of nature. There are still those of us that love to relax in the bush and listen to nature, such as a gentle breeze going by.

There is a Shuswap Indian word for Shaman. We did not call them "Shaman" or "Medicine Men" but those are the closest English words that come close to describing what they were.

How did one become a Shaman? The elders would keep an eye on young boys and keep track of their growth. A young Shaman must be healthy, strong, active, observant, obedient, helpful and kind to people. They are taught how to recognize poisonous and edible roots and berries and how to prepare them for eating. They are taught how to get a fire going. Most of them always went bare footed and there were even foot races that tested their speed. Most of them could even climb trees in bare feet. As they got older their feet would get to the stage that they would never feel rough ground or slivers because their skin was so thick from going barefoot almost all their lives.

When the chosen boys would reach the age of around ten or eleven, they would leave their parents and go on to search and practice what they were taught. They say that some of them never came back. Only the healthiest and the best of the good children were chosen to become a Shaman. What the people were looking for, was if one of them was gifted. The boys were instructed on how to live in the bush, what to do, and what to listen for and so on. When it was time, four or five boys would go into the bush and they would take a long time before they started coming back. Some would come back with "clairvoyance".

My Grandmother told me that one day she walked by one of these men and he said "Do not be shocked but your mother will be dead when you cross the river". Her mother was sitting behind a bush on the other side of the river, very sick. It was like something was chewing her stomach. She was dead by morning.

My Grandmother used to say that the boys never went together, they would go alone because each one had their job to do and to practice. They were all about the same age. If the people worried about the children in the bush, the children would come out and tell them not to worry because they were fine. Very few would get this gift, maybe just one out of a group. My Grandmother was around nine or ten years old when the last Shaman died. This was about the time the priests came. This power has been gone since the priests came.

She said that nobody would ever have that power again because who would teach the children how to go out in the bush? Who would raise the children that way and so on? The power was lost forever when the last Shaman died. Grandma said people will try and revive it, but don't believe them because they have to start as children and be taught by a Shaman. She used to say they will never get that gift again. She said nowadays you see them and they say they have the power and a lot of them believe it. They dress up in feathers and costumes and sing and dance. She was so disgusted with all their feathers waving in the air and their yipping because Grandmother said the kids with the gift are quiet and they like to be alone. Sometimes they would sit for long time. Just sit like they are asleep, seemingly in a daze. It's like meditating, but they would be away. They didn't like coming out of it because it was so peaceful and beautiful in their world. If anything happens that is news for the people the Shamans would go to the camp and tell them. They were really never with the rest of the people. The Shamans liked to be silent and they liked to be alone.

Well I believe everything my Grandmother and Grandfather told us because they were so religious. My Grandmother said that if someone said something, remember their exact words and do not even change one word. She said it was like planting a seed and once you tell another and they tell another, the seed spreads and so on. If things get changed, this is how hate begins. I never forgot the things she used to say. I was old enough to remember.

The Boat Encampment

During the migration "home" became the Boat Encampment junction. The Indians lived there on and off. It was sort of like a village or a hamlet. It was a place to stay over night and visit. Two catholic priests came there to visit the Shuswap people. Some of the people got baptized there. They don't know where the priests came from or where they went. So many people would go visiting there. After the Indians moved to the Columbia Valley they still went back there. It was not that long ago, as my Grandmother knew that place. The Boat Encampment was near the mouth of Kinbasket Lake.

Chief Yelheelna Kinbasket

When they left the people in Shuswap country they had their Chief there so they had to have one here. He had to be kind to everybody, be helpful, be a good person, be everything. The higher ups, the mothers, the fathers and the relatives would watch a person to see if they would make a good chief. They all know which ones they are thinking of so they would watch until it is time to get a new chief and so they agree, "That's the one". When they first started exploring they didn't have a chief and they needed a leader so Chief Yelheelna Kinbasket, my great great Grandfather became their chief. He was not afraid of anything. He was a very brave and good person. Chief Yelheelna Kinbasket was the first chosen Shuswap chief in the Columbia Valley. He was middle aged at that time.

From the Boat Encampment they kept exploring south. I don't know how many years later the explorers got to Beavermouth, the last main camp north of Golden, south of Donald. They lived there for two or three years. It was between Beavermouth and Donald, these places used to have Indian names, that they met the Kootenay for the first time. They met them in an area of big timber, hardly any bush and where there are hills. The Kootenay had watched them from the hills and this is where they made peace with the enemies, the Kootenays.

The First Meeting of the Kootenay and Shuswap

There were six to seven Shuswap men and towards spring time they were in their pit house in the morning when the dogs started barking. They thought it was a bear the dogs were after. One of the Shuswap men went up the ladder and looked out. He came down the ladder and he whispered "There are Kootenay out there". They were the enemies. Chief Yelheelna said to them "Follow me and do as I do". And so, naturally, they followed him with their bows and arrows.

They came out of the pit house and there were six to eight Kootenay standing in a line with their bows and arrows. Chief Yelheelna faced the first one that he thought was the leader. Everybody stood beside their Chief and lined up the same as them and faced the Kootenays. My Grandfather used to say it was a terrible and scary moment. Nobody said a word, they were just staring at each other. And then the leader of the Kootenay men stepped over to the one that was in front of him, the one that looked like the Shuswap leader. It was Chief Yelheelna.

It was the Kootenay that made the first move, to make peace between the two bands. The Kootenay leader offered his bow and arrows to Chief Yelheelna. Chief Yelheelna offered his to the Kootenay leader and then all the Kootenay and Shuswap men exchanged their bow and arrows. From that point they knew that they were welcome. They could not communicate of course so they made signs. They made the Shuswap understand that they had been watching them for a while, a summer and a winter. The Shuswap had seen strange moccasin tracks which were distinctive in that the toes were severely turned in with short distances between steps, unlike the dreaded and brutal Blackfoot people who took long steps. They had suspected the tracks were the Kootenay enemies from the south.

You see the Kootenay were living at Fort Steele at this time and I guess they seldom came up here. They saw the Shuswap tracks and they kept an eye on them through time. So this time they approached them, and the Shuswap understood what the Kootenay were telling them about tracks and keeping an eye on them, and they were friendly enough, but the Shuswap were darn scared. I told you about the time they used to go down and slaughter the Shuswap and kidnap the young women. This time though, the Shuswap understood that they were welcome to be with them.

Well of course the Shuswaps near Golden went to Beavermouth and told the other Shuswaps what happened. So now and then they would meet the Kootenays and eventually they were able to understand the Kootenay language, and so they were welcomed to come visit them in Fort Steele.

After the first meeting, they parted peacefully and at times would meet by accident. On one of these times, the Kootenay Chief made signs for Chief Yelheelna to come with him. They followed him and stayed at the Kootenay camp in Fort Steele close to the Kootenay River. Another time, in the fall Chief Yelheelna was given signs to follow the Kootenays over the mountains and they were taken through the Crowsnest Pass. They camped on a land that looked bare as far as you can see. The Kootenay invited them to go buffalo hunting with them on the prairies in the country of the Peigans and the Blackfoot Indians, (which they did twice a year). They were great enemies of the Kootenay, the Piegans and the Blackfeet. The Shuswap and the Kootenay's use to call the Blackfeet "The Bloods". Eventually the Kootenay offered to take the Shuswap to Missoula to show them where to go to buy things like mirrors, beads and farming stuff. That's where the Shuswap got their first plow from.

When the Shuswap went buffalo hunting with the Kootenay they say that they would know where the enemies were and what they were doing at all times. The Piegans and the Bloods that is. They had to spy on them so they knew where to camp so they wouldn't be seen by them because if they are found out the enemies would kill them. Sometimes when the buffalo hunters would come home with buffalo meat and hides, you could hear moaning and crying. The wounded were strapped to the saddle horses. They had been wounded by the Piegans or the Blackfeet, not the buffalo.

The Last Kootenay Indian Scalped

The men are all on horse back when they go to hunt buffalo and at one of these fights with the enemies, the Piegans and the Blackfeet, they claimed that the Shuswap got out of there in a hurry and made a new camp somewhere else, but one of them was missing. At sunrise in the morning they were looking all over the place to see if there were any more Blackfeet. And in the sun they could see something shiny, like a reflection. A bunch of them came up on the brow of the hill to watch this. It was a person walking towards them. It was the missing man. There was blood all over him and he had no hair. He said that they had pulled him off his horse and cut his scalp right around starting at the front of his forehead. He thinks someone must have stood on his chest and then they rolled him over and they just pulled his long hair right off his head and they all shouted "Victory!" They were swinging his scalp over their heads. They were victorious! They were the winners. He said he became unconscious and they must have thought he was dead. When he came to early in the morning, before the sun was up, he started walking towards his people. That's when someone saw him.

When I was a little girl about five years old I saw this man. He always had a kerchief on his head like a woman. They used to say his scalp took on terrible scars and he never took off the kerchief because of them. I have seen it with my own eyes, and he wasn't an old man, he was just past middle age. So it hasn't been very long since the last fight. The last scalping of a Kootenay man. That is the Shuswap story.

Beavermouth

You see they traveled by water and that is the reason it took so long as they had to build dugout canoes. And so at Beavermouth, that is where they settled for some time. They found herds of caribou there and so they stayed for several winters. They used to see French people on foot there. The French would stop at their camp, eat with them, and sleep in their pit houses in wintertime or teepees in summertime. Sometimes it was one person, sometimes two or three that would come. They came from the north and would go south always. They couldn't communicate at all verbally with the French people.

Horse Steps and Horse Ladders

The men made a trail from the Beavermouth to Revelstoke before they came to Golden. Then they brought the horses, women and children on this trail from villages around Adams Lake. When they started to cut the trail from Shuswap country to here there were places where it was rocky and too steep for the horses. They had their own kind of axes but not as good as today. They would cut steps in the rocks. Horse steps. They made their knives and axes from special rocks that they could only get in certain places.

They would also cut trees down and stack them like a ladder for the horses. They called them horse ladders. They made the trail from Squilax to Eagle Pass and right down into Revelstoke. Tall long trees but strong enough to hold people and horses, they used as foot bridges. It took years to build these bridges.

Women Confront A Mean Man

Years later a bunch of women and a man crossed one of these bridges over a major river near the top of Rogers Pass. They still call that river by its original name. The wife of this man was packing a dog that was very sick. They could use dogs to pack things you see. Her husband was a very mean man and he was making her pack the sick dog. He told her not to let go of the dog. The dog was big and heavy and was getting sick all over the woman and in her long beautiful hair. She could hardly hang on to the dog because of the vomit. If she fell off the bridge it meant certain death.

The other women went across the bridge behind and in front of the woman, the dog, and the husband, and they told the man to tell his wife to drop the dog over the bridge or they would drop the man over it. So he did, and then they took the woman and cleaned her up. That man was never mean to her again.

All The Women Disappeared

Before this settlement at Beavermouth, there was a group of a few women that had been brought over. The men went hunting one day and did not come back for a few days and when they did there were no women. They had all gone home because they hated the country. Just imagine making the trail and bringing the horses and women then they all went back. So off the men went to catch the women but they never caught them. The whole works ended up at home. This migration or journey to the Columbia Valley took years but what you read in history books makes it sound as though they just came and were here in a short time. It happened over many many years.

Before the horse ladders, the women never came. In those days from the time the boys were very young, the women would teach them how to mend and sew their own clothing and how to cook so if ever the boys or men were away and there was no one to keep them, they could look after themselves. The men were precious and respected. They were the only means of keeping the family alive, they provided for them. Men were always first before the women because the women thought that the men had a very hard life to keep the family. So the women kept good care of the men. There was no reading or writing then so the way the men spent their spare time was mending, sewing, drying meat and fish and cooking. Clothing was always made a head of time but mending was always to be done.

Baby Swans

When they brought the women and children they all made their home at Beavermouth. They were there for some time, years, before they moved again. They used to come to Golden from Beavermouth for a visit although there was nobody around except a few white people. The mosquitoes were so thick there that they would put all the babies in a circle, then gather hundreds of baby swans and put them amongst and around the babies. The swans were so stupid that they would just sit there all night eating mosquitoes. The little chicks were very tame and stayed where you put them because they are water birds and they had them on dry land with the papooses. You could hear them "Whiddook, whiddook" all night long as they caught the mosquitoes. The adults would sleep with a thin blanket around their heads to keep the mosquitoes away.

Strange White People

One day before Chief Yelheelna died, the men were walking along the Columbia River shore north of Golden where that white stuff is near a creek, I think it is called Blaeberry Creek now. They saw some white men but knew they were not French. They were "So yapmeh". That's the Kootenay word. In Shuswap they were called "Summa". It means "strange white people suddenly appearing from nowhere". They were different white people than the French. They knew this because they knew the French and these were definitely different white people. Of course the Indians could hear them talking and even their language was all together different. And so it was, at nighttime more Indian men would come and join them and talk about the big news that there were different white people there. They would watch them at night when the white men would have their camp fire and listen to the way they talked. And so some of the young men started talking amongst themselves.

Chief Yelheelna heard that there were rumors that the young ones were going to kill the strange white people. So the Chief called them over and gave them heck and told them that these white people were not doing anything wrong so why should they kill them.

Shortly after that the young ones tiptoed over to introduce themselves. They noticed that the white men didn't have very much to eat. They also noticed that they were always fishing but not getting many fish and they were wondering why that was when it was so plentiful. The Chief told the young ones to go out and get a deer and butcher it for them and give it to them. They did and they were offered tobacco by the white people, but Indians didn't smoke in those days. They did have pipes but it was only for certain special or serious occasions and they smoked their own tobacco called Kinnikinnick. It was made from Kinnikinnick leaves and was mixed with red willow bark.

APPENDIX 8

**Hunting Agreement Between the Ktunaxa, the Kinbasket and the
Stonies – September 27, 1895.**

112105

Memorandum of Agreement made in duplicate at Windermere, District
of East Kootenay, Province of British Columbia, This
27th Day of September, 1895.

Between:-

Abel, Chief of Columbia Lakes, Kootenay Indians.

Piello, Headman, of the Kootenay Indians, St Mary's.

Charlie Kinbasket, 2nd Chief of Shuswap Indians at
Columbia Lakes.

Pierre Kinbasket, Shuswap Chief.

On the One Part,

And,

John Cheneka, Chief of the Stonies, residing at Morley,
in the N.W. Territories, and

George Crawler, Councillor of said Stoney Indians,

On the Other Part.

The said Chief and Headmen, Abel, Piello, Pierre Kinbasket,
John Cheneka, George Crawler, acting for themselves, and on
behalf of the several Bands to which they respectively belong,
because of the friendly relations hitherto existing between
their several Bands,

Do hereby agree as follows:-

That the Stonies shall have the privilege of hunting as far
West as the Columbia and Kootenay Rivers, and that in return
the Kootenay Indians, and the Shuswap Indians shall have the
privilege of hunting as far East as the base of the Rocky
Mountains, on the Eastern Slope thereof.

And that this mutual concession is made with the distinct
understanding that the Game Laws of British Columbia,
and the North West Territories, as the case may be, shall

be

Source: PAC, RG.10 (Black) File 80143 Vol. 3855

be strictly observed, and that any infraction of the said Game Laws by the Stoney of British Columbia, or by the Kootanays or Shuswaps, in the North West Territories, shall be considered sufficient reason for withdrawing the concession above made, from the Band or Bands to which the Party, or Parties Transgressing belong.

In witness whereof the Parties to this Agreement have set their hands hereto, this Day and Year above written:-

Signed in the presence of, A.E. Forget, Asst Indian Comms'r. R.J.T. Calbraich, Indian Agent, Kootenay. George Golding, J.P. John McDougall, Missionary on Stoney Res.	}	his	Abel. x Chief Columbia Lake,
		mark	Kootenay Indians.
		his	Pielle. x Headman, St Mary's Res.
		mark	
		his	Charlie x Kinbasket. Second Chief,
		mark	of Shuswap Indians.
		his	John x Cheneka. Chief Stoney
		mark	Indians.
		his	George x Crawler. A Stoney Indian.
		mark	
		his	Pierre x Kinbasket. Shuswap Chief.
		mark	

I hereby certify that this Agreement, previous to its being signed, was carefully translated and explained to the Kootenays and Shuswaps Indians, by Lewis Stowekin, Official Interpreter at the Kootenay Agency, and by the Rev John McDougall, to the Stoney Indians.

sgd A.E. Forget.

APPENDIX 9

**Letter from Indian Agent Michael Phillipps to
Superintendent A. W. Vowell.
September 30, 1891**



80143

13

(Copy)

Fort Steele, Kootenay B: C.

Sept. 30th. 1891.

A. W. Vowell Esq.

Supt. of Indian Affairs

Victoria, B. C.

Sir,

Isadore and a number of the leading men of the tribe came to the Office to day: they complain bitterly about the Stoney Indians. Up to within the last few weeks the head waters of the Kootenay River, Elk River and all its tributaries have been occupied by the Stoney Indians and their camps. They are simply destroying all the game in the Country. Our own Indians will in a few days(as soon as they have finished digging their potatoes) be starting out on their fall hunt, to lay in a sufficient supply of dried meat to last them from Christmas until Easter.

Where are they to go to ? their hunting grounds have been occupied by these Stonies during the Summer, who literally exterminate the game and beaver, by killing the animals during the Summer and breeding season.

(2)

season. A number of half breeds have also arrived lately (also hunters): they say they come from 100 miles north of Edmonton and are going to remain here.

Although I have already written to you on the matter of these Stoney Indians I fear I have hardly been able to explain to you how very serious the injury already done to these Indians is. This is the third Summer the Stonies have spent on this side of the mountains.

Not only should their Agent explain to them that when they cross on to the Western water shed they are trespassing on the hunting grounds of the Kootenays, but they should also be prevented from coming over.

At present it is "grave outrage upon our Indians: the Stonies are so far more liberally dealt with: and they can purchase supplies at a third of the price the Kootenays have to pay.

Much of the sickness and misery amongst these Indians during the past two Springs was from insufficient food and from having no meat.

Even yet hunting forms the means of
making

(3)

making a living for at least two thirds of the
tribe. The destruction of the deer will also
mean no buckskin or moccasins to clothe their
feet in the winter.

The Stonies bear a good
name, but as I mentioned to you, when I spoke
to them about killing deer for the skins only
they were none too civil. Saying that their
Chief was on the other side of the mountains.
It must be explained to them that when they
come here, they come under the laws of British
Columbia.

I trust you will explain to the Supt.
General the injury done: & try & save the deer
& beaver here for our own Indians.

I am, Sir,

Your obedient servant,

(Signed) Michael Phillipps

*Correct Copy
M. Phillipps*

APPENDIX 10

**Kenton Andreashuk, Memorandum Regarding *Columbia Valley
Transmission Line Project – Fisheries/Aquatic Review of
Environmental Overview Assessment.*
Canadian Columbia River Inter-tribal Fisheries Commission.
May 18, 2010.**

Canadian Columbia River Inter-tribal Fisheries Commission
7468 Mission Road, Cranbrook, B.C. V1C 7E5
Tel: 250-417-3474; Fax: 250-417-3475; e-mail: kenton@ccrffc.org

Memorandum

DATE: May 18, 2010

TO: Bill Green, CCRIFC Director

CC: Ray Warden, Director-KNC Lands and Resources

FROM: Kenton Andreashuk, CCRIFC Senior Technologist

RE: **Columbia Valley Transmission Line Project – Fisheries/Aquatic review of Environmental Overview Assessment, Impacts to riparian areas.**

Proponent/Location

Columbia Valley – Invermere to Golden along the Columbia River

Background

The proponent wishes to construct a new power transmission line between Invermere and Golden on the east side of the Columbia River Valley. The proposed 130km long transmission line corridor will cross several fish bearing and non-fish bearing streams as well as crossing the Columbia River at Golden.

I reviewed the AECOM Environmental Overview Assessment in January 2010 and provided a comments memo at that time. Subsequently, we met with the proponent and their consultants to discuss identified issues and concerns. My attention was drawn to the proponent's 'Approved Work Practices for Managing Riparian Vegetation' (AWPMRV) at that meeting, which I then reviewed, noting that the AWPMRV related to management of riparian areas during transmission line maintenance work, as opposed to during transmission line design and construction/ In addition, I have reviewed the proponent's responses to the concerns identified in my January 2010 memo report.

Residual issues/concerns

The Columbia River supports 33 fish species already identified in the report.

Our key outstanding concern is the temporary and permanent loss of riparian vegetation and fish habitat functions and associated cumulative impacts to fish species and associated habitats.

Specific Comments/Recommendations

I believe that some of the potential impacts of the project on riparian and stream habitats can probably be partially, but not completely mitigated. Permanent removal of riparian

Application for Columbia Valley Transmission Line

vegetation and large riparian trees in particular at transmission line crossings is likely to result in residual, localized impacts to fish habitat and associated fish populations.

Loss of large tree species from riparian zones will result in the loss of recruitment of large woody debris (LWD) to the stream channel which is a critical component in maintaining a diversity of stream habitat conditions. Large riparian trees also stabilize stream banks and prevent or reduce soil erosion and the excessive recruitment of sediments into the stream. Large riparian trees also provide shade that regulates water temperatures from becoming lethal to fish species. Riparian trees contribute to organic litter and provide invertebrate/insect food contributions to streams. All of these are important functions which contribute to the productivity of fish populations.

In the context of an individual stream, the impacts to stream productivity from the removal of riparian trees are not likely to be significant. If all of the stream crossings are considered then overall residual impacts to stream and fish population productivity likely to be significant. This impact will also affect Ktunaxa aboriginal fishing rights.

Regards,

Kenton Andreashuk
Senior Technologist
Canadian Columbia River Inter-tribal Fisheries Commission

APPENDIX 11

**Craig Paskin, *Ktunaxa Traditional Use in Association with the
Columbia Valley Transmission Corridor:
A review of the 1996 ?akisq̓nuk Traditional Use Study
Documenting Ktunaxa Activities In and Around
the Columbia Valley Transmission Corridor.*
May 7, 2010**

**KTUNAXA NATION TRADITIONAL USE
IN ASSOCIATION WITH THE
COLUMBIA VALLEY TRANSMISSION CORRIDOR**

**A Review of the 1996 ʔakisq̓nuk Traditional Use Study
Documenting Ktunaxa Activities In and Around
the Columbia Valley Transmission Corridor**

Report prepared for
Ktunaxa Nation Council
BC Transmission Corporation
BC Hydro

Report prepared by
Craig Paskin
Manager, Research and Planning
Ktunaxa Lands and Resources Agency

7 May 2010



KTUNAXA LANDS AND RESOURCES AGENCY

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KTUNAXA NATION TRADITIONAL USE IN ASSOCIATION WITH THE COLUMBIA VALLEY TRANSMISSION CORRIDOR

A Review of the 1996 ?akisq̓nuk Traditional Use Study Documenting Ktunaxa Activities In and Around the Columbia Valley Transmission Corridor¹

1. INTRODUCTION

The purpose of this report is to provide relevant traditional use information in relation to BC Transmission Corporation's Columbia Valley Transmission Corridor (CVTC) project.

BC Transmission Corporation proposes to construct a power line west of the Columbia River from Golden to Invermere. This report will contribute to the consultation process between the Ktunaxa Nation Council and the proponents with respect to the potential impacts of the construction and operation of the transmission line on Ktunaxa interests, including aboriginal title and rights.

This report provides information on Ktunaxa uses and interests as identified from the 1996 Ktunaxa-Kinbasket traditional use study. As such, this report does not claim to provide a comprehensive summary of all Ktunaxa traditional and current interests and uses in the project area. Also, it does not consider historical documentation or ethnographic studies other than those identified in the 1996 traditional use study.

The 1996 Ktunaxa-Kinbasket traditional use study provides the most comprehensive overview of use and occupancy compiled to date. It also provides an in-depth look that exceeds what is capable of being reproduced over the relatively short time allocated to the study period.

2. KTUNAXA TRADITIONAL TERRITORY

Ktunaxa (pronounced 'k-too-nah-ha') people have occupied the lands drained by the Kootenay and Columbia Rivers and the Arrow Lakes for more than 10,000 years.

The Traditional Territory of the Ktunaxa Nation covers approximately 70,000 square kilometres (27,000 square miles) within the Kootenay region of south-eastern British Columbia and historically included parts of Alberta, Montana, Washington and Idaho (see Figure 1).

¹ In recognition that consultation is an ongoing process, the information in this report shall not be used by any proponent or government agency to fulfil any consultation obligations without first consulting with the Ktunaxa Nation to provide them the opportunity to update and contextualize the information.

European settlement in the late 1800s, followed by the establishment of Indian Reserves, led to the creation of the present Indian Bands. This forced relocation onto the reserves with the additional forced attendance of children at Indian Residential Schools severely impacted Ktunaxa culture.

The Ktunaxa Nation is comprised of Nation members who live among seven reserves or communities located throughout the historic traditional Ktunaxa territory. Five communities are located in British Columbia, Canada and two are in the United States (see Table 1). Many Ktunaxa citizens also live in urban and rural areas "off reserve".

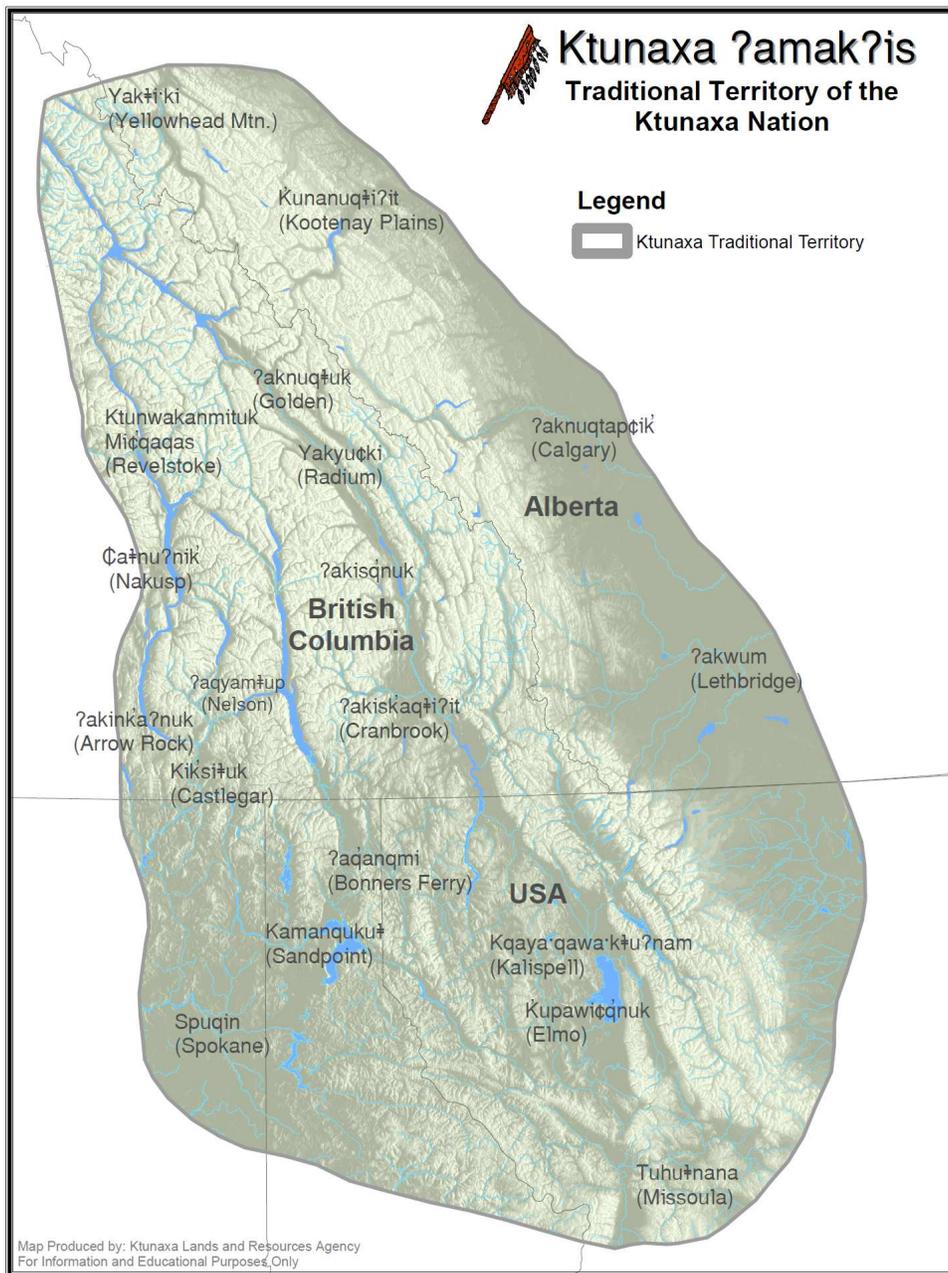


Figure 1: Ktunaxa Traditional Territory

Table 1: Ktunaxa Bands and Locations

Ktunaxa Name	Also Known As	Location
ʔakisq̓nuk	Columbia Lake Band	Windermere, BC
ʔaɗam	St. Mary's Band	Cranbrook, BC
ʔakinink̓umʔasnuq̓iʔit	Tobacco Plains Band	Grasmere, BC
Yaqan nuʔkiy	Lower Kootenay Band	Creston, BC
Kyaknuq̓iʔit	Shuswap Band ²	Invermere, BC
ʔaɗanq̓mi	Kootenai Tribe of Idaho	Bonnars Ferry, Idaho
K̓upawiw̓q̓nuk	Ksanka Band	Elmo, Montana

3. STUDY AREA

The CVTC footprint is, as provided by the BC Transmission Corporation (BCTC), along the west side of the Columbia River from Invermere to the Golden area. The study area for this report includes the CVTC footprint as well as the landscape adjacent to the proposed transmission corridor. This area fits entirely within the Ktunaxa Traditional Territory. The places, rivers and lakes crossing (i.e., potentially affected by) the CVTC footprint were included in the assessment (see Figure 2).

The study area for the report also includes the Columbia River watershed (i.e., all the tributaries and lakes flowing into the Columbia River) that envelops the CVTC and from Columbia Lake to Boat Encampment. The CVTC is situated within this Columbia River watershed study area. This larger study area provides a broader landscape context in which the CVTC is located (see Figure 2).

4. METHOD

This report is based on a review of data from a traditional use study conducted in 1996 as currently archived at the ʔakisq̓nuk Band Office³. This section first describes the method of identifying Ktunaxa activities and places within the study areas, and then subsequently briefly describes the methods used in the 1996 traditional use study to collect the original data.

4.1 Method for Columbia Valley Transmission Corridor Study

The ATUS data was reviewed for activities (hunting, trapping, fishing, cultural activities, etc.) and places related to activities within and adjacent to the CVTC. Places identified

² The Shuswap Band used to belong to the Ktunaxa-Kinbasket Tribal Council (KKTC), but withdrew its membership a few years ago. At the time of the 1996 Ktunaxa-Kinbasket traditional use study, Shuswap belonged to the KKTC. The Shuswap Band includes individuals of Kinbasket (Shuswap) ancestry, individuals of Ktunaxa ancestry, and individuals with both Kinbasket and Ktunaxa ancestry.

³ In this report, the 1996 traditional use study, because it was primarily collected by and subsequently held at the ʔakisq̓nuk Band Office, is referred to as the ʔakisq̓nuk Traditional Use Study (ATUS).

by interviewees in the ATUS were listed. All those places that were identified for various activities by interviewees, whether for their own use, accompanied by other individuals, with families, if they went with parents or with grandparents, and if other Ktunaxa used the place were counted. As it was not possible to ascertain the actual number of people involved without reviewing the original interview data, the categories of families, parents, grandparents, other Ktunaxa, and all Ktunaxa were counted in units of one. That is, if an interviewee mentioned that they went to a place with their grandparents, the grandparents were counted as only one unit as it was not possible to ascertain

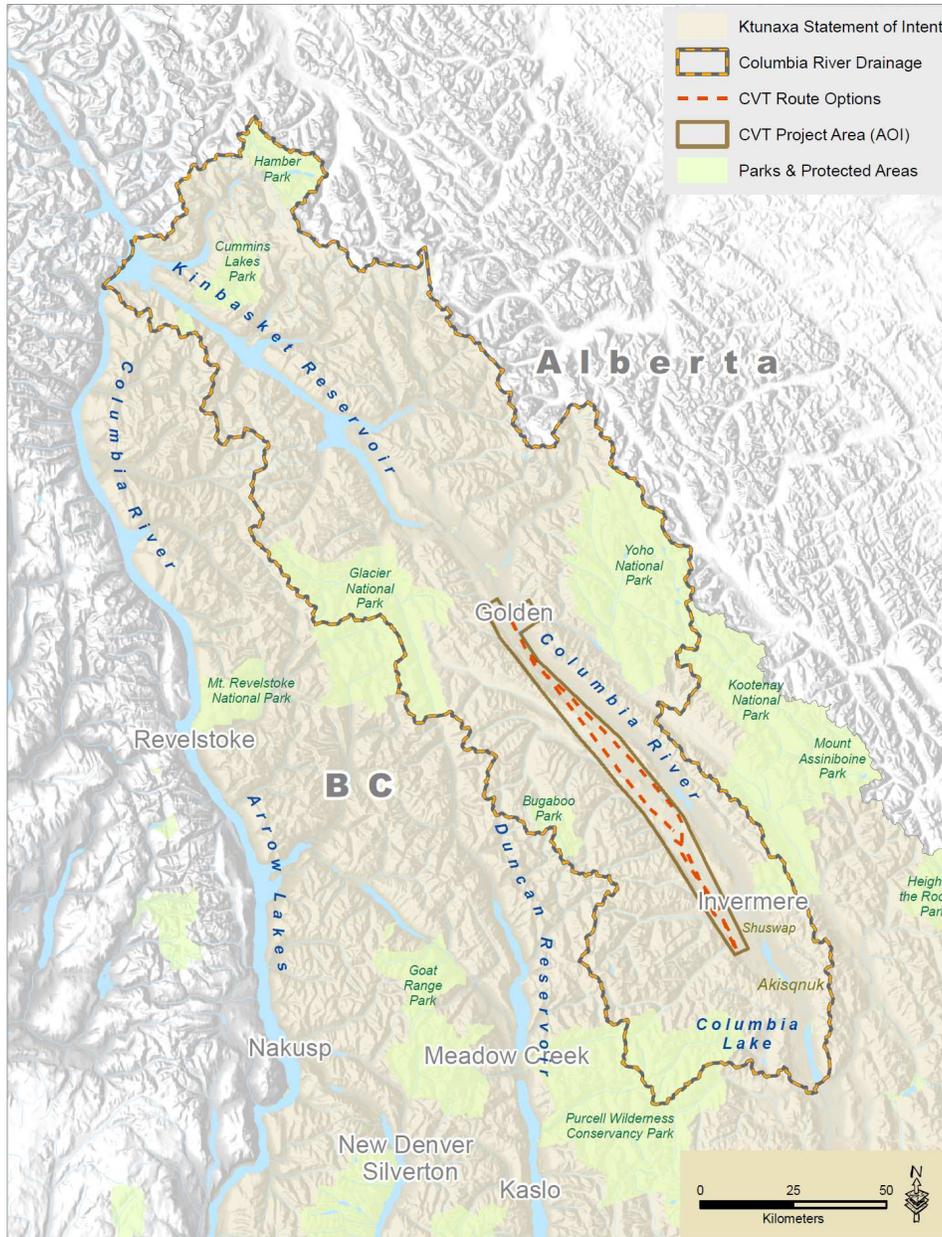


Figure 2: Columbia River Watershed and CVTC Study Areas

whether both or only one pair of grandparents went (i.e., there could have been from one to four grandparents attending). The interviewee was also counted as one unit; hence, a count of two (one for the interviewee and one for the grandparents) was given for the place.

Since the purpose of this report is to describe the places used by and activities of Ktunaxa citizens, Kinbasket respondents with no Ktunaxa ancestry were not included. Several key staff members within the Ktunaxa Nation Council (KNC) identified ATUS interviewees as either having Ktunaxa or Kinbasket ancestry or both. Those interviewees identified as having solely Kinbasket ancestry, and the information they provided in the ATUS, were not used in the analysis of the data.

4.2 ATUS Methodology

The methodology of the ATUS itself was to interview Ktunaxa and Kinbasket citizens⁴. These citizens provided information and mapping of people, places and activities throughout the Traditional Territory. The information collected included who conducted what activities where and sometimes when. The time periods of activities ranged from the 1990s back to the 1880s and earlier. Consequently, ATUS data are based on both direct and indirect experience and information.

Caution should be exercised when interpreting the results of the ATUS and its corresponding maps. With only 102 interviewed, the ATUS represents only 8.5 percent of the approximate 1200 Ktunaxa and Kinbasket citizens. A higher interview ratio would likely show greater activity across a more extensive area than is currently shown.

The information produced during the ATUS interviews was subsequently entered into a database and the maps were digitized. The database linked the information to the maps. Due to the technology available at the time, the information was mapped as inclusive polygons; that is, it was not possible to analyze the data or conduct any intensity-of-use mapping. In other words, the maps produced show extent-of-use rather than intensity-of-use⁵.

The ATUS project also identified historical and written bibliographic resources related to the Traditional Territory. These resources were also entered into the database and digitally mapped in cases where there was a reference to an activity and place or location.

5. RESULTS ASSOCIATED WITH THE COLUMBIA RIVER WATERSHED

The Columbia River watershed provides context to the CVTC study area (see Figure 2). Within the Columbia River watershed, 78 places associated with activities were identified. Interviewees identified these places 218 times. In addition, there were 440 mentions (interviewees, accompanying individuals, families, parents, grandparents, and other Ktunaxa) who used the identified places. Appendix 1 lists the places and activities identified for the Columbia River watershed and by whom.

⁴ A total of 102 Ktunaxa and Kinbasket members were interviewed. Approximately 350 places (270 directly plus 80 places identified through written sources) were identified.

⁵ Intensity-of-use can be ascertained if the original data is re-digitized and analyzed with contemporary GIS technology. This has not been done yet, but there are immediate plans to do so.

There were 30 types of activities identified by the ATUS interviewees. The type of activities identified included ceremonial/religious, interactions, food harvesting, material harvesting, medicinal harvesting, habitation, recreation, and transportation. Historical places and activities were also identified. Appendix 3 lists all the uses and activities associated with the identified places.

ATUS interviewees also identified, where possible, when use and activities occurred. The information reviewed indicates that Ktunaxa citizens have used the Columbia River watershed since before the 1880s up to contemporary times. See Appendix 4 for the time periods for Columbia River watershed activities.

6. RESULTS FROM THE CVTC STUDY AREA

Within the CVTC study area, 22 places associated with activities were identified. Interviewees identified these places 71 times. In addition, there were 125 mentions that used the identified places (interviewees, accompanying individuals, families, parents, grandparents and other Ktunaxa). See Appendix 2 for places and activities identified for the CVTC area and by whom.

There were 17 associated uses and activities. These activities included ceremonial/religious, food harvesting, material harvesting, medicinal harvesting, recreation, and transportation. Bugaboo Creek had the most variety of activities associated with it.

This information indicates that Ktunaxa citizens have used places associated with the CVTC since before the 1880s up to contemporary times. Appendix 5 identifies the time periods for places associated with the CVTC.

7. DISCUSSION

7.1 On the Methodology

The purpose of this report was to provide relevant traditional use information in relation to the CVTC. This was accomplished using the ʔakisq̓nuk Traditional Use Study as it was the most comprehensive and readily available information. It was the most useful data that showed both recent historical and contemporary Ktunaxa use of the study area.

Many proponents of projects request traditional use studies only in relation to their study area. These *ad hoc* and area-specific studies often suggest that FNs do not have strong strength-of-claim. This is often because of their short time frame for conducting studies and the limited resources available for properly developing and implementing a TUS methodology and recording, analyzing and presenting the corresponding data. These area specific approaches to traditional use studies encourage other project proponents and the government to further mistakenly assume that the territory outside of the study area is not significant.

Furthermore, these often repetitive studies contribute to interviewee fatigue and frustration at having to answer the same questions over and over again. Consequently, they may be reluctant to participate in other, more comprehensive studies that are of more value to the Ktunaxa.

Ad hoc project-based traditional use studies are extremely time dependent and often have limited budgets that do not allow for a comprehensive and strategic approach. The results do not tell an accurate, true or comprehensive story. Often that story is superficial in nature. Abbreviated time frames do not respect Ktunaxa interests or give the Ktunaxa time to tell their story fully, accurately and appropriately (see below).

The Ktunaxa Lands and Resources Agency is currently in the process of developing a comprehensive use and occupancy study program to address the issues identified above. This requires careful planning and implementation that *ad hoc* TUS approaches do not allow. This strategy includes developing a comprehensive work plan, reviewing other previous traditional use studies to determine their contemporary value, developing a thorough methodology, developing appropriate databases, developing survey templates and manuals, and training key personnel on interview techniques. Much of this work is very time consuming but is required before any interviews can take place.

Although difficult, the approach to telling the Ktunaxa story within the study area was to use the results of the ATUS. The challenge stemmed from a number of factors. Firstly, the ATUS was archived at the ʔakisq̓nuk Band office. Secondly, although the original documents were readily accessible, the electronic database was not. Thirdly, once the electronic database was found, time and effort was required to convert it from very old versions of FoxPro to a contemporary version of Microsoft Access. Fourthly, once converted, the data had to be analyzed to identify what information was specific to the study area.

Given the challenges to using the ATUS, the results show the importance of places and activities to the Ktunaxa in the Columbia watershed, as well as within the CVTC area, both historically and contemporarily.

7.2 On Activities within the Columbia River Watershed

The ATUS proved to be a valuable source of available information as 61 interviewees (59.8% of all ATUS interviewees) identified 78 places within the Columbia River watershed, of which 440 “units” (individuals, families, parents, grandparents, grandparents, and other Ktunaxa) participated in numerous activities. That is, either individuals participated in activities at the identified locations themselves, or knew of others who did so.

These numbers indicate the importance of the Columbia River watershed to the Ktunaxa since before 1880 up to contemporary times.

7.3 On Activities in the CVTC Study Area

The number of interviewees (35 or 57.4% of interviewees that identified places in the Columbia River watershed and 34.3% of all ATUS interviewees) indicates the importance of the CVTC study area to the Ktunaxa. The ATUS identified that 125 “units” (individuals, families, parents, grandparents, grandparents, and other Ktunaxa) participated in numerous activities at 22 places associated with the CVTC. This information indicates that Ktunaxa citizens have used the area since before 1880 up to contemporary times.

The ATUS, because of the map scale and use of polygons, did not contribute to identifying specific locations that may be jeopardized by the placement of transmission line structures and the construction of access roads and trails. The lack of specific Ktunaxa values in relation to specific sites may be the result of either the map scale used or that interviewees were reluctant to reveal specific sites such as spiritual, ceremonial or sacred locations.

8. CONCLUSIONS

The 1996 ATUS shows that the Columbia River watershed and areas associated with the CVTC are important to the Ktunaxa for a variety of activities and uses and has been so since before the 1880s and continuing into contemporary times. If more citizens had been interviewed, the ATUS would have shown even greater importance of the Columbia River watershed and CVTC.

The ATUS, however, was unable to show specific values that may be impacted by the transmission line corridor. This is not to say there are no values that could be impacted; rather, the challenge is identifying those values. As is often the case with sensitive cultural or sacred sites, people may be unwilling to provide what is essentially very private or confidential information. Hand-in-hand with that challenge is identifying the appropriate people who might have knowledge of the area and who are willing to identify specific values. Also, the ATUS, because of its technical mapping limitations at the time, cannot show specific locations.

Consequently, the next steps include disaggregating the ATUS polygons into their component parts. This will allow a better picture of where specific activities took place within the CVTC. To date, the original ATUS map transparencies have been scanned into a database. Subsequent steps will include digitizing the scanned maps into a geographical information system and linked to the interview information. This process should be completed by September 2010 at the earliest or January 2011 at the latest.

Correspondingly, Ktunaxa individuals are in the process of being identified who may have an interest in or knowledge of the CVTC and who may be willing to participate in subsequent interviews. Once these individuals are identified, in-depth interviews will focus specifically on the CVTC. This process should be completed by the end of 2010.

As the CVTC is used for ceremonial/religious, food harvesting, material harvesting, medicinal harvesting, recreation, and transportation, it is recommended that BC Transmission Corporation manage the corridor to at least reflect the potential scarcity of important food, medicinal and material plants. In order to do so, it is recommended that the BC Transmission Corporation hire a qualified ethnobotanist who specializes in plants used by the Ktunaxa.

It is also recommended in regards to the CVTC that Preliminary Field Reconnaissance, Archaeological Overview Assessments and Archaeological Impact Assessments be conducted to ascertain the archaeological resources that may be impacted by the transmission line corridor and corresponding structures and facilities.

APPENDIX 1: PLACES AND ACTIVITIES IDENTIFIED BY ATUS INTERVIEWEES FOR THE COLUMBIA RIVER WATERSHED

ID	Place	Interviewee Used Place	Accompanying Individuals	Families	Parents	Grand-parents	Other Ktunaxa	All Ktunaxa	Total	Use Categories*
116	Arbel Creek	1					1		2	10, 12
180	Barite Mine	1		1					2	12
122	Beavermouth	2		1	1				4	12
184	Blackwater Creek	1	1		1				3	7
182	Blaeberry River	1	1		1				3	12
140	Blue Lake	3		1			3		7	7
111	Brewer Creek	4		4	1		3		12	7, 10, 17
104	Brisco	3		3	1	1	3		11	6, 7, 8, 10
110	Bugaboo Creek	5				1	2		8	10, 11, 12, 13, 17, 19, 21, 25
32	Canal Flats	9	1	4	1	2	3		20	3, 7, 9, 10, 24
106	Cartwright Lake	6		3		1			10	7
132	Cleland Lake	2		1					3	7
44	Columbia Lake	6		2	1	2	2	1	14	7, 10, 12, 17, 25
316	Columbia Lake East Side (cave)	1	1				1		3	1
322	Columbia Lake East Side (General)	1							1	3, 10
348	Columbia Lake East Side (Unnamed Creek)						1		1	9
52	Columbia Lake Reserve	10	5	4			1		20	2, 7, 10, 12, 17, 20, 26
42	Columbia River	11	3	4	2				20	4, 7, 10, 17
45	Crooked Tree Road	1			1	1			3	12
98	Donald	8		5					13	12
25	Dunbar Creek	3		3					6	7
34	Dutch Creek	6		5		2	2	3	18	7, 10, 12, 23, 24
80	Earl Grey Pass	1							1	10
123	Edgewater						1		1	26
119	Elkhorn Ranch						1		1	14
41	Fairmont Hotspots	5		2	1			1	9	7, 12, 17, 22
19	Fairmont Meadows	2	1	1		1			5	3, 10, 12
135	Fairmont Hoodoos						1	1	2	26

ID	Place	Interviewee Used Place	Accompanying Individuals	Families	Parents	Grand-parents	Other Ktunaxa	All Ktunaxa	Total	Use Categories*
139	Foster Creek	2		2					4	7, 10, 12
105	Francis Creek	3				1	1		5	7, 12
21	Golden	3				1		3	7	1, 7, 10, 12, 30
181	Gypsum Twin Lakes							1	1	7
133	Horse Creek	3	2	1					6	7
31	Horsethief Creek	7		2					9	7, 9, 10, 12, 27
134	Howler's Beach	1							1	7
102	Invermere							1	1	7, 26, 28
179	Jade Lake	3		3					6	7
46	Johnsons Road	1			1	1			3	12
39	Jumbo Creek	10	5	2	1	2			20	7, 10, 11, 12, 16, 17
273	Kicking Horse River	1						1	2	7, 10, 25
109	Kinbasket Lakes	1		1					2	7, 10
165	Lake Enid	4	1	2			1		8	7, 10, 15
173	Langs Lake	2							2	7
2	Madius Creek	3	1	1	1	1	1		8	9, 10, 12, 17
79	Marl Creek	1	2		1				4	12
92	Mount DeSmet	1							1	10
187	Mount Swansea						2		2	25
91	Mount Tegart	1		1					2	10
164	Munn Lake	3		2			3		8	7
323	Near Armstrong Bay (Battle Site)	5	2						7	5
113	Paradise Mine	1							1	10, 12
278	Pinto Mountain	1							1	16
117	Radium	6		2					8	22
185	Rocky Point Lake	1	1						2	7, 10
107	Roger's Pass	1							1	12
29	Shuswap Creek	11		2		1			14	4, 7, 8, 9, 10, 12, 16, 21, 30
162	Shuswap Reserve	2		1					3	10,12, 26
18	Shuswap Village						2		2	10, 11, 17
33	Spillimacheen	6		2			3		11	7, 9, 12

ID	Place	Interviewee Used Place	Accompanying Individuals	Families	Parents	Grand- parents	Other Ktunaxa	All Ktunaxa	Total	Use Categories*
147	Spirit Trail						3		3	5, 30
178	Steamboat Lake	2							2	7
72	Steamboat Mountain	2		2	1				5	10, 12
76	Stoddart Creek	2		2					4	10, 25, 26
73	Susan Lake	10		6				1	17	7, 10, 12
68	Tatley Creek						1		1	10
136	Templeton Falls	3							3	7
26	Templeton River	1	1						2	7
157	Teneese Flats			1					1	10
114	Thunder Hill			1	1				2	3, 10, 12
246	Timber Ridge								0	3
75	Toby Creek	5	1	2	1				9	7, 9, 10, 12
131	Waitabit Creek	2							2	7
84	Warspite Creek	1							1	10
103	Westside Road	5		2				3	10	10, 12, 18, 25
47	Wilmer	2		1					3	10, 12
64	Windermere	2		1	1		3		7	2, 3, 10, 12, 21
115	Windermere Creek	1	1		1		1	1	5	7, 10, 12, 17, 30
74	Windermere Lake	3		1	1	1		2	8	7, 10, 17
TOTAL		218	30	87	21	19	46	19	440	

* See Appendix 3.

APPENDIX 2: PLACES AND ACTIVITIES IDENTIFIED BY ATUS INTERVIEWEES ASSOCIATED WITH THE COLUMBIA VALLEY TRANSMISSION CORRIDOR

ID	Place	Interviewee Used Place	Accompanying Individuals	Families	Parents	Grand-parents	Other Ktunaxa	All Ktunaxa	Total	Use Categories*
110	Bugaboo Creek	5				1	2		8	10, 11, 12, 13, 17, 19, 21, 25
106	Cartwright Lake	6		3		1			10	7
132	Cleland Lake	2		1					3	7
42	Columbia River	11	3	4	2				20	4, 7, 10, 17
25	Dunbar Creek	3		3					6	7
139	Foster Creek	2		2					4	7, 10, 12
105	Francis Creek	3				1	1		5	7, 12
21	Golden	3				1		3	7	1, 7, 10, 12, 30
31	Horsethief Creek	7		2					9	7, 9, 10, 12, 27
102	Invermere							1	1	7, 26, 28
179	Jade Lake	3		3					6	7
273	Kicking Horse River	1						1	2	7, 10, 25
165	Lake Enid	4	1	2			1		8	7, 10, 15
173	Langs Lake	2							2	7
164	Munn Lake	3		2			3		8	7
185	Rocky Point Lake	1	1						2	7, 10
178	Steamboat Lake	2							2	7
72	Steamboat Mountain	2		2	1				5	10, 12
136	Templeton Falls	3							3	7
26	Templeton River	1	1						2	7
75	Toby Creek	5	1	2	1				9	7, 9, 10, 12
47	Wilmer	2		1					3	10, 12
TOTAL		71	7	27	4	4	7	5	125	

* See Appendix 3.

APPENDIX 3: USE CATEGORIES

Code	Primary	Secondary	Tertiary	Description
1	Ceremonial/Religious	Gathering Place	meeting or gathering or fasting/praying	
2	Ceremonial/Religious	Gathering Place	seasonal dance site	
3	Ceremonial/Religious	Repository for the Dead	grave or graveyard	
4	Ceremonial/Religious	Spiritual Cleansing	sweat house/lodge	
5	Cross-Cultural Interaction	Conflict	battlefield	
6	Cross-Cultural Interaction	Euro-Cdn Sites Important to Natives	trading post	
7	Food Harvesting	Fishing Area or Station	fishing area	
8	Food Harvesting	Preparation, Fishing	fishing camp	
9	Food Harvesting	Hunting Area	hunting camp	
10	Food Harvesting	Hunting Area	hunting territory or trail	
11	Food Harvesting	Preparation, Hunting	meat preparation	drying meat, making pemmican, hide tanning
12	Food Harvesting	Vegetation Harvesting Area	berry ground	
13	Food Harvesting	Preparation, Vegetation	berry drying	
14	Food Harvesting	Vegetation Harvesting Area	garden	
15	Food Harvesting	Vegetation Harvesting Area	mushrooms	
16	Food Harvesting	Vegetation Harvesting Area	root digging area	wild potatoes, bitterroot
17	Materials Harvesting	Trapping	trapping	
18	Materials Harvesting	Vegetation	pole cutting area	
19	Materials Harvesting	Vegetation	root source	
20	Materials Harvesting	Aboriginal Mining	clay source	
21	Medicinal	Vegetation	Medicinal plant area, jute, pitch	
22	Medicinal	Therapeutic Feature	hot springs	
23	Habitation Sites	Private, Secular Activity	bathing area	
24	Habitation Sites	Seasonal Habitation	travelling camp	
25	Recreation Sites	Gathering Area	camping	
26	Recreation Sites	Gathering Area	meeting or gathering or picnics	
27	Recreation Sites	Gathering Area	leisure	
28	Recreation Sites	Gathering Area	dances	
29	Traditional History	Legendary Event Association	battle	
30	Transportation	Land Route	trail	

APPENDIX 4: TIME PERIOD FOR COLUMBIA RIVER WATERSHED ACTIVITIES

ID	Place	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890	1880	Earlier
116	Arbel Creek													
180	Barite Mine													
122	Beavermouth		•	•	•	•	•	•	•					
184	Blackwater Creek													
182	Blaeberry River													
140	Blue Lake													
111	Brewer Creek	•	•	•	•	•	•	•						
104	Brisco	•	•	•	•									
110	Bugaboo Creek													
32	Canal Flats							•	•	•	•	•	•	•
106	Cartwright Lake													
132	Cleland Lake													
44	Columbia Lake	•	•	•	•	•	•	•	•	•	•			
316	Columbia Lake East Side (cave)				•	•	•	•	•	•	•	•	•	•
322	Columbia Lake East Side (General)											•	•	•
348	Columbia Lake East Side (Unnamed Creek)												•	•
52	Columbia Lake Reserve	•				•								
42	Columbia River				•	•								
45	Crooked Tree Road													
98	Donald													
25	Dunbar Creek										•	•	•	
34	Dutch Creek					•								
80	Earl Grey Pass													
123	Edgewater													
119	Elkhorn Ranch													
41	Fairmont Hotsprings													
19	Fairmont Meadows	•	•			•	•							
135	Fairmont Hoodoos													
139	Foster Creek	•	•											

ID	Place	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890	1880	Earlier
105	Francis Creek													
21	Golden			•	•	•	•	•	•	•	•			
181	Gypsum Twin Lakes													
133	Horse Creek													
31	Horsethief Creek				•	•	•							
134	Howler's Beach													
102	Invermere													
179	Jade Lake													
46	Johnsons Road				•	•								
39	Jumbo Creek			•	•	•	•	•	•					
273	Kicking Horse River													
109	Kinbasket Lakes													
165	Lake Enid													
173	Langs Lake													
2	Madius Creek	•	•	•	•	•	•	•	•	•	•	•	•	•
79	Marl Creek		•	•										
92	Mount DeSmet													
187	Mount Swansea													
91	Mount Tegart													
164	Munn Lake													
323	Near Armstrong Bay (Battle Site)													•
113	Paradise Mine													
278	Pinto Mountain													
117	Radium													
185	Rocky Point Lake													
107	Roger's Pass													
29	Shuswap Creek													
162	Shuswap Reserve													
18	Shuswap Village		•	•	•	•	•	•	•	•	•	•	•	•
33	Spillimacheen			•	•	•	•	•	•	•	•	•	•	•
147	Spirit Trail													
178	Steamboat Lake													

ID	Place	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890	1880	Earlier
72	Steamboat Mountain	•	•	•	•	•								
76	Stoddart Creek					•								
73	Susan Lake		•	•										
68	Tatley Creek	•	•	•	•									
136	Templeton Falls													
26	Templeton River	•	•	•	•	•	•	•	•	•	•	•	•	•
157	Teneese Flats													
114	Thunder Hill													
246	Timber Ridge													
75	Toby Creek				•	•								
131	Waitabit Creek													
84	Warspite Creek													
103	Westside Road													
47	Wilmer													
64	Windermere													
115	Windermere Creek													
74	Windermere Lake			•	•	•	•							

APPENDIX 5: TIME PERIOD FOR CVTC ACTIVITIES

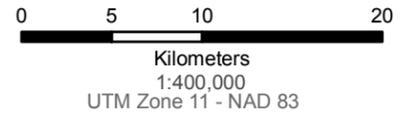
ID	Place	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890	1880	Earlier
110	Bugaboo Creek													
106	Cartwright Lake													
132	Cleland Lake													
42	Columbia River				•	•								
25	Dunbar Creek										•	•	•	
139	Foster Creek	•	•											
105	Francis Creek													
21	Golden			•	•	•	•	•	•	•	•			
31	Horsethief Creek				•	•	•							
102	Invermere													
179	Jade Lake													
273	Kicking Horse River													
165	Lake Enid													
173	Langs Lake													
164	Munn Lake													
185	Rocky Point Lake													
178	Steamboat Lake													
72	Steamboat Mountain	•	•	•	•	•								
136	Templeton Falls													
26	Templeton River	•	•	•	•	•	•	•	•	•	•	•	•	•
75	Toby Creek				•	•								
47	Wilmer													

APPENDIX 12

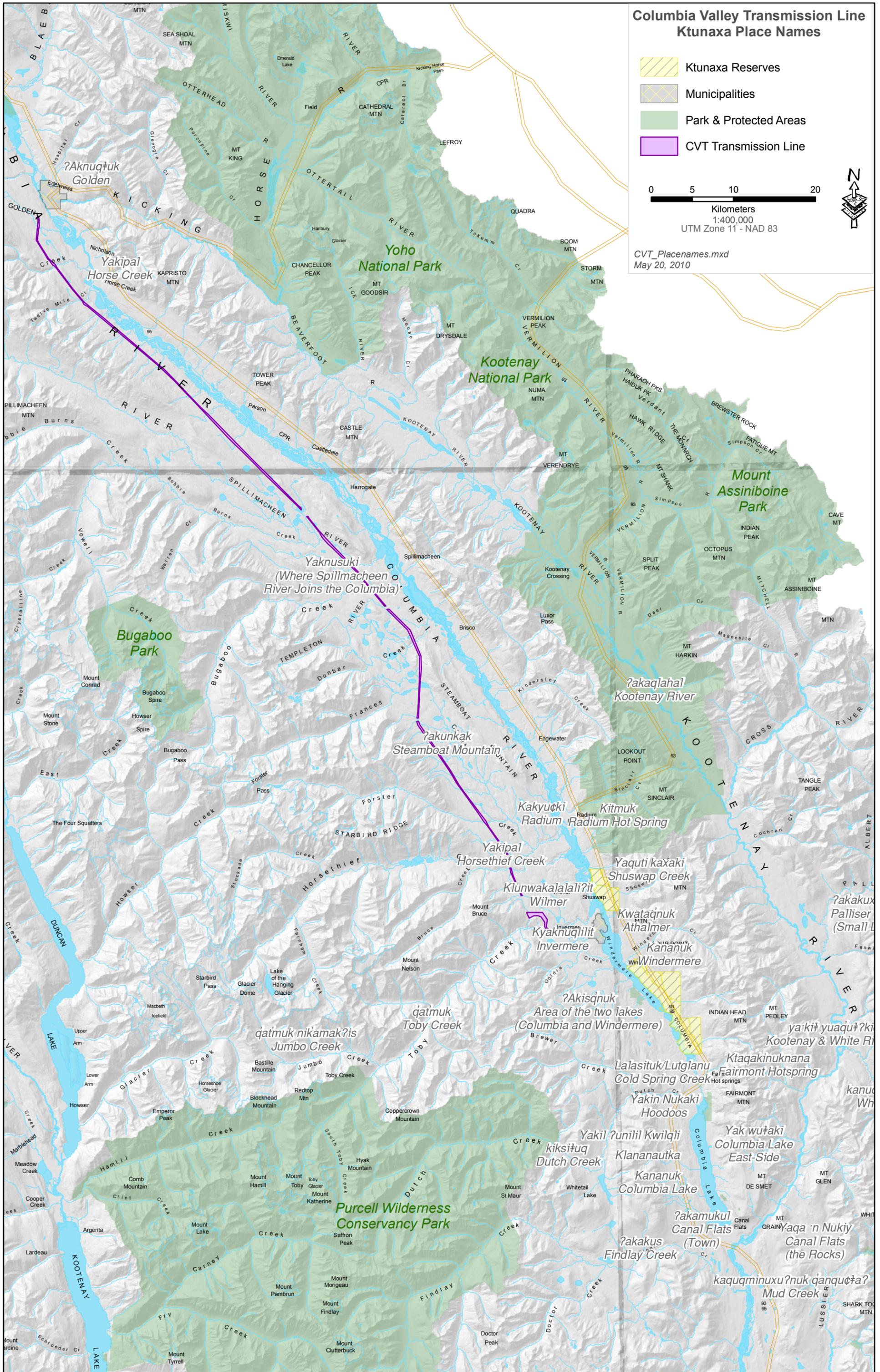
**Map – Columbia Valley Transmission Line and
Ktunaxa Place Names**

Columbia Valley Transmission Line Ktunaxa Place Names

-  Ktunaxa Reserves
-  Municipalities
-  Park & Protected Areas
-  CVT Transmission Line



CVT_Placenames.mxd
May 20, 2010



APPENDIX 13

**Trevor Kinley, Memorandum Regarding *Environmental Overview
Assessment for the Columbia Valley Transmission Project.*
January 12, 2010**

MEMORANDUM

DATE: 12 January 2010
TO: Bill Green, Director, Ktunaxa Nation Council
FROM: Trevor Kinley, R.P.Bio., Senior Wildlife Biologist
SUBJECT: Environmental overview assessment for the Columbia Valley Transmission Project

This memo is my review of *Columbia Valley Transmission Project Environmental Overview Assessment Final Draft for Discussion*, produced by AECOM Canada Ltd. for the British Columbia Transmission Corporation and dated October 2009. I also considered information that has become available since the submission of that report, namely:

- the selection by BCTC of a 100-m wide route within “Option B” as the leading candidate for the transmission line, as of late November;
- the possible “Moonraker Diversion” proposed in late December, i.e. moving the northernmost 15 km of the route farther west than either of the primary options; and
- recent discussion of possible alternative routing for about 4 km of the line at its southernmost end, to avoid the two proposed crossings of Toby Creek.

As per your instructions, I have focused on the wildlife and vegetation chapters. Comments on each are listed below. Several observations are relevant to both chapters. Part of the leading option could follow a route cleared several decades ago but never completed. Also, the shortest distance between any of the proposed routes and the Columbia River wetlands is at least 400 m, except where crossing between the new substation and Golden, so effects on that wetland system are likely to be minimal to nil. Finally, I have no information on conditions within the possible Moonraker Diversion other than from having been in part of it several times over the past few years, so my ability to comment on that segment is limited.

Vegetation

The investigators identified the potential occurrence of rare plants, rare or sensitive ecosystem elements, and invasive plants through desktop studies and fieldwork. They then made recommendations to mitigate the potential loss of valued elements or the spread of weeds. This general approach seems reasonable, given that (a) this assessment was an overview, not a detailed study, and (b) the investigators recommended a more detailed assessment when an alignment is selected (6.3.5.1, last para.). There are, however, several points of concern:



1. Only about half of the sensitive ecosystems expected in the study area could be mapped due to limitations in the available PEM mapping (6.3.3, 4th para. and Table 6-4). While the investigators may have been able to identify some of the others from air photo interpretation or during field work, sensitive ecosystems may be under-represented in mapping associated with this report.
2. It is not clear that the mitigative measures listed in Table 6-9 (and other tables where that material is presented) would in fact allow a Moderate Potential Impact on sensitive ecosystems to shift to a Low Potential Impact as indicated in Figures 6-2 to 6-9. The relevant mitigation action from Table 6-9 appears to be to “follow standard access trail and road building practices”. However, the entire width of one or both options for the proposed right-of-way is classified as a sensitive ecosystem over many kilometres, yet presumably access to those areas will be needed. It is difficult to have confidence in the EMP finding ways to downgrade impacts to “Low” through the placement or method of access without more specific information on routes and measures. As such, the assertion that there will be a Low Potential Impact on sensitive ecosystems does not seem to be well supported.
3. The potential to reduce impacts to old forests, dry slopes and wetlands from Moderate to Low (Figures 6-2 to 6-9) appears to be better, given that most occur in discontinuous patches that can generally be avoided through detailed route selection. However, there are three caveats on that statement:
 - a. Just north of the Frances Creek crossing on Option B (BCTC’s preferred option), the combination of old forest, wetland and dry slopes covers a large enough area that it cannot be avoided through careful structure placement, without moving outside of the proposed alignment.
 - b. Even in cases where those three types cover large portions but not all of the kilometer-wide analysis strip, the cost and engineering considerations entailed in “bending” the line around them may decrease the likelihood of doing so.
 - c. Avoiding older forest stands will maintain options for those stands to be more permanently set aside as Old Growth Management Areas or similar reserves. However, unless such reserves are in fact formally established, those stands will ultimately be logged. Also, even routing the line into areas currently at an earlier seral stage will result in such areas remaining in a permanently cleared condition, and prevent them from ever becoming mature or older stands. Thus, considering broader scales, the benefit of preferentially siting the line in younger stands would be dampened.
4. The assessment does not consider the potential effect of the transmission line’s presence on fire-dependent ecosystems. In most of the IDF biogeoclimatic zone, very frequent fires historically removed most of the understory and smaller trees, leaving larger trees of fire-resistant species such as Douglas-fir and western larch. This led to mainly open forests and non-forest through much of the southern Rocky Mountain Trench, supporting a unique assemblage of plants and animals. While that natural process has been largely lost through fire suppression, the Rocky Mountain Forest District leads the province in ecosystem restoration (selective logging combined with burning on appropriate sites). A new transmission line would result in some immediate shift from closed stands to open habitat

within the IDF, but two longer-term considerations are that (a) the plant cover resulting from ongoing R.O.W. maintenance is unlikely to match what might have otherwise be achieved through ecosystem restoration, and (b) the likelihood of restoration activities being conducted under or near the transmission line might be reduced, given the steps needed to protect infrastructure from fire.

5. Even with measures to limit weed spread during construction (6.3.5.2, Table 6-9), the presence of a permanent corridor having perpetually disturbed vegetation and allowing access to trucks and off-road vehicles will almost certainly increase the spread of invasive weeds. For example, despite ongoing weed management, both diffuse and spotted knapweed occur regularly along the existing transmission line between the Invermere and Athalmer substations.
6. Table 6-9 and other tables covering the same material do not specifically include the recommendations made in the text to conduct more detailed plant surveys throughout the final route (last sentence of 6.3.5.1), such as Nuttall's sunflower. Such surveys would make potential mitigation actions more effective.
7. There is a small western redcedar swamp in the vicinity of the Moonraker Diversion, just north of Canyon Creek. I do not know whether it actually aligns with the route.

Wildlife and Wildlife Habitat

There are several wildlife-related issues that could benefit from further consideration or clarification:

8. The comments above relating to vegetation also relate to wildlife habitat suitability or effectiveness, particularly bullets #2 through 5.
9. As with most environmental assessments, there is little information on invertebrates, which no doubt make up the great majority of wildlife diversity and biomass. This may be to some extent unavoidable, but does leave a gap in the ability to predict impacts.
10. Possibly the most significant wildlife issue is the potential effect on the mountain goat herd that uses mineral licks along Toby Creek, where the existing transmission line crosses and the current proposal indicates two additional crossings under both of Options A and B. The licks are along the breaks of the south side of the canyon. Evidence of the goats was not recorded during fieldwork (5.2.6.1) but their regular spring-summer use of the site continues. Fewer goats have been recorded recently, but prior to declines in the 1990s several dozen were regularly there. Presumably numbers would increase again under appropriate conditions. Given the currently low numbers and the strong response that mountain goats typically display to disturbance, there is some chance of total abandonment of the site. Several different sources of disturbance are possible. Of these, the simple presence of the lines and towers seems unlikely to be a significant concern. Similarly, loss of forest cover nearby is in itself unlikely to result in displacement (it might actually be of benefit by improving sight lines, though if so this could readily be achieved through forest harvesting).

A third concern, the timing of construction activity, could probably be controlled to reduce the chance of displacing the goats. The two more intractable issues are (a) disturbance from line inspection, maintenance and repair, particularly with helicopters, and (b) enhancing long-term human access to the site by creating more corridors and clearings that recreationists would use. Further to Table 5-13, these are relevant to both sides of the canyon, not just the south, because people standing on the north side can easily be within 100 m of (and above) goats on the south side.

This topic has been discussed between BCTC and local stakeholders since the release of the overview assessment. There appears to be general agreement that access management is needed to limit disturbance to the goats regardless of whether or where the new transmission line is built, because recreational access to both sides of the canyon continues to increase. Access management is identified in the report (5.2.7.5, 3rd para.) and BCTC has apparently offered to support such efforts. However, several key points remain outstanding, including whether or not (a) access management is likely to be effective in preventing human use near the goat licks (given that consultation, regulation enactment and enforcement are needed); (b) two more crossings of the canyon would materially increase the risk to goats, especially if access management is only partially successful; and (c) the risk justifies a change in route (see below).

The existing Invermere substation is almost certainly outside of the zone of direct influence, and is north of the canyon. If the line were to continue generally northward from it rather than re-crossing it twice more, there would be no additional concern for goats. There are several possibilities in this regard. One of these overlaps heavily with existing areas of disturbance or access, has arguably the least impact on a nearby rock-climbing site and has no overlap with private land. This would be to roughly parallel the existing smaller transmission line for about 0.8 km northward from the substation almost to Toby Creek Road, then instead of bending with the existing line, continue in the same direction (NNW) directly across Toby Creek Road and through a broad gully bisecting a rocky ridge for a further 0.8 to 1 km. At that point, the line would intersect Bear Mountain Forest Service Road, and could roughly follow that road northwest then southwest for 2 km more until reaching the currently proposed route (existing R.O.W.) along the base of Mount Bruce. This would be about 0.5 km longer than the current proposal. It would result in new access routes over less than 1 km.

One additional (minor) point relates to the suggestion in Table 5-13 that the proponent should contact the Columbia Valley Trust when goat research is complete, regarding access management. This presumably refers to the Columbia Basin Trust, which is funding that work. On that point, CBT is a funding body and does not make management decisions; the Ministry of Environment would be the more appropriate contact.

11. More generally, new access would be created through much of the new transmission corridor. Transmission lines attract use by trucks and off-road vehicles because even with minimal new road development and the removal of stream and wetland crossing structures they offer straight, cleared, efficient routes across country. Such use is likely to damage rare, sensitive and other ecosystem element and increase exposure of wildlife to both legal and illegal kills and potentially vehicle collisions. Managing access to limit impacts to wildlife (5.2.7.5, 4th para.) is a worthwhile goal, but it is not clear how this could realistically be

achieved at the scale of the entire CVT line. BCTC's preferred option (B) has lower current access overall than Option A, so would result in a greater incremental impact on the basis of access development.

12. The mitigation actions relating to nesting birds (5.2.7.4, last para.; Table 5-13) involve avoiding key habitats to the extent practical, clearing forest only outside of the nesting season where feasible, and conducting nest surveys then creating buffers around nests if clearing does occur during the nesting season. The extent to which these will reduce impacts will depend on the interpretation of "practical" and "feasible".
13. Similarly, the effect of recommended mitigation for invertebrates, reptiles and amphibians (5.2.7.1, 5.2.7.2, 5.7.2.3 and Table 5-13) is difficult to judge now, as the recommendations are contingent upon such actions being "feasible".
14. The only red-listed vertebrate confirmed in the study area is the badger. Steps have been identified to minimize risk (5.2.7.5, 2nd para.; Table 5-13). One additional step would be to avoid creating roads or placing structures over existing burrows of badgers or their main prey, Columbian ground squirrels. As noted in bullet #4 above, habitat for species such as badgers associated with fire-dependent ecosystems may be reduced over time as a result of the need to protect transmission infrastructure.
15. The potential presence of the blue-listed southern red-backed vole (*galei* subspecies) might more appropriately be identified as "Likely" rather than "Unknown" in Table 5-6, as it is relatively widespread and the route covers quite a large area of suitable habitat (old or riparian forest in the ESSF, MS and ICH zones).
16. Table 5-7 identifies the least chipmunk as having been detected in the study area. If accurate, this is a significant finding. In the East Kootenay, the two subspecies of least chipmunk present are both at risk (*selkirki* subspecies is red-listed, *oreocetes* subspecies is blue-listed), and neither is known to occur in valley-bottom locations (total known *selkirki* range limited to timberline and above in just a few locations west of the south end of the CVT alignment; *oreocetes* restricted to similar habitats in the Rockies). See *Rodents & Lagomorphs of British Columbia* (Nagorsen) for details. If the validity of this identification is confirmed, mitigation steps would be appropriate. Also, the location of the observation does not appear in the maps of listed species (figures 5-2 to 5-9).
17. Olive-sided flycatchers (blue list) were recorded once in the surveys, near the northern end of the proposed route. As a point of interest, they do occur near the south end of the route as well (pers. obs.).
18. This will not affect the assessment of impacts or mitigation options, but the list of garter snakes (Table 5-10) does not mesh with expectations for this area. The Northwestern garter snake (*Thamnophis ordinoides*) occurs west of the Cascade Mountains; a more likely candidate for the Columbia valley is the western terrestrial garter snake (*T. elegans*). Similarly, the "valley" subspecies of the common garter snake (*T. sirtalis fitchi*) is typically found in western B.C., whereas the "red-sided" subspecies (*T. s. parietalis*) occurs in eastern B.C. It is quite possible that the latter is what was observed.

A final comment relevant to both vegetation and wildlife relates to the selection of Option B as the leading candidate. This has the benefit of avoiding one known patch of a rare plant (marsh muhly) that occurs on Option A. However, Option B includes more area of sensitive ecosystems (6.3.3., last para.; see bullet #2 above), has lower current accessibility overall (Figure 7-9; see bullet #11 above), and includes an apparently unavoidable impact area (bullet #3a above). It is not clear from the material available to me why this option was chosen.

MEMORANDUM

DATE: 20 January 2010
TO: Bill Green, Director, Ktunaxa Nation Council
FROM: Trevor Kinley, R.P.Bio., Senior Wildlife Biologist
SUBJECT: Mountain Goat Addendum to the Columbia Valley Transmission Project

This memo is my review of *Columbia Valley Transmission Project Addendum to Environmental Overview Assessment Report – Mountain Goats*, produced by AECOM Canada Ltd. for the British Columbia Transmission Corporation and dated 13 January 2010. I reviewed the original overview assessment in a memo of 12 January 2010. In it, I identified the potential effects to mountain goats using mineral licks at Toby Creek as a key issue, and noted that although the assessment made relatively little mention of goats, subsequent investigations and discussions on the topic had occurred. The addendum:

- summarizes that more recent material;
- provides mitigation recommendations based on the original alignment proposal, i.e. running the new transmission line from the Invermere substation southwest across Toby Creek then northwest across it again before continuing generally northward toward Golden; and
- notes the presence of goats on Canyon Creek, along the proposed “Moonraker Diversion” at the northernmost end of the proposed transmission line.

Toby Creek

The addendum identifies three potential types of impacts to goats at Toby Creek: increased predator access, disturbance during construction, and disturbance during operations. The mitigation recommendations in the addendum include not increasing the width of the existing cleared right of way, maintaining the tree cover around the existing licks and vegetative cover more generally, limiting intrusion of structures in the canyon, educating site users as to the values there, limiting new access development, discouraging access to the site through coordinated planning, and scheduling activities for times when goats are unlikely to be there (based both on dates and on monitoring). Several items may be of concern with regard to the addendum:

1. It addresses only the transmission line alignment previously proposed by BCTC, and does not consider potential alternatives, such as the keeping the alignment entirely on the north



side of Toby Creek. While the mitigation recommendations are largely appropriate if one assumes that the alignment is to cross the creek, the other alternative is not discussed.

2. The concern over public access to the site is not identified as a potential impact from the CVT Project (Section 2.1, 2nd para.). Perhaps this is a moot point as public access is addressed in the list of mitigation actions (Table 1). However, it is not clear whether the authors' expect that public access would or would not increase as a result of additional crossings. While there is already considerable public use of the general area, additional construction activity seems likely to increase the degree of physical site disturbance and hardening and therefore ease of access. In addition, one of the byproducts of this process is likely to be an increased public awareness of, and desire to see, the goats. It therefore appears likely that, in the absence of effective mitigation, public access to the site would increase to some degree.
3. A key point, to which I alluded in the 12 January memo, is that no convincing evidence has been presented to indicate that additional clearing would increase the risk of predation. Mountain goats typically live in open areas with long sight lines. Their use of low-elevation licks in forested landscapes (such as locally at Toby, Dutch and Kindersley creeks) is often interpreted as a necessary but very risky strategy, because it makes them vulnerable to predators that are able to stalk or ambush them in the forest, such as cougars. If that is the case, clearing might be of benefit, and the retention of "security cover" and low trees and shrubs might be detrimental. Clearing might also increase the amount of lush forage available to them during spring. On the other hand, additional clearing might make goats more visible and therefore attractive to recreationists, resulting in greater disturbance. In the absence of further information such as a literature review or formal consultation with species experts, there is no compelling reason to assume either positive or negative effects of clearing. More details on the type and location of clearing that might be envisioned or possible would add to the ability to assess this situation. Overall, this consideration has high significance in assessing impacts and mitigation options.
4. Regarding the ability to control access, the recommendation to develop a management plan would be appropriate, with or without additional crossings of Toby Creek. One point to note is that despite all access to the goat licks having to pass through Zehnder Farms' land, there may be gazetted public roads through that property, either on alignments that exist, or that have been surveyed but not built on the surveyed alignment. If so, the landowners' ability to prevent access is limited. This reinforces the value of a coordinated plan with government direction. It should also be noted that public access is high, and increasing, on the north side of the canyon, across from the southeast goat licks and the bluffs below and downstream of them used by those goats. Despite the above, reliance on this form of mitigation depends on:
 - a. the ability to gain support for access management from relevant government agencies, including their willingness to address recreationists' concerns;
 - b. the prevention of additional access through the area (the development of additional trails to Panorama is often discussed locally); and

- c. most critically, the likelihood of government agencies following through with effective physical closures and enforcement.
5. It would be worthwhile knowing (a) whether it is realistic to expect that routine inspection and maintenance could be done without helicopters, as recommended for mitigation, and (b) how frequently helicopters would be needed for more urgent matters, such as when searching for downed lines. These answers would affect the level of confidence in the proposed mitigation.

Canyon Creek

I do not have enough information to confidently assess the value of lower Canyon Creek to goats, the impacts that might be experienced there, or the appropriate mitigation steps. If the vicinity of the proposed crossing is consistently used as a mineral lick by a significant number of goats, as at Toby Creek, then re-routing or other major mitigation may be warranted. If use of the canyon there is more dispersed spatially and over time, and especially if it is not associated with a mineral lick or a site for rearing kids, then the steps recommended may be sufficient. It should be noted that the impact on goats at Canyon Creek occurs only under the recent "Moonraker Diversion" proposal, and not options A and B identified in the original overview assessment which passed downstream of the canyon on Canyon Creek.

PROSPECTUS:

Trevor Kinley, M.E.Des., R.P.Bio.

Updated January, 2010

Sylvan Consulting Ltd. has specialized in wildlife and habitat research, environmental planning, technical writing, and natural history interpretation since 1987.

Our most recent work has focused on the ecology of mountain caribou and badgers, assessing environmental impacts, and the management of wildlife in relation to highways.



Sylvan Consulting Ltd. is now managed solely by Trevor Kinley. Nancy Newhouse has recently taken employment with the Nature Conservancy of Canada. In the list of contracts below, asterisks indicate those for which Nancy was the project leader.

Education and Employment Background for Trevor Kinley, R.P.Bio.

- ❖ Partner in Sylvan Consulting since 1987; Registered Professional Biologist since 1993
- ❖ Master of Environmental Design (Environmental Science), University of Calgary, 1992
Ecology and Management of Bobcats (Lynx rufus) in the East Kootenay District of BC
- ❖ B.Sc. in Zoology (first class honours), University of Alberta, 1986

Badger Research, Inventory and Habitat Planning



Project	Contract Monitor
Project Biologist, East Kootenay Badger Project and Badger Habitat Modeling, 1995-2010	Alan Dibb, Parks Canada, Radium Hot Springs (250) 347-6158; Larry Ingham, Fish and Wildlife Compensation Program, Cranbrook (250) 489-6874
Mitigation of Badger Roadkill Risk Through Culvert Upgrades, 2009	Larry Ingham, Fish and Wildlife Compensation Program, Cranbrook (250) 489-6874
Assessment of Risk to Badgers from Wildfire Threat Mitigation in Elkford, 2009	Leigh Anne Isaac, Nupqu Development Corporation, Cranbrook (250) 919-4387
Assessment of Effectiveness Monitoring Program for Badger Wildlife Habitat Areas, 2008-2009	Laura Darling, Ministry of Forests and Range, Victoria (250) 387-8870
Badger Inventory and Habitat Network Mapping, Shuswap Indian Reserve, 2008-2009	Matt Ney, Kinbasket Development Corporation, Invermere (250) 341-3678
Badger Habitat Modeling for Coalbed Methane Exploration Environmental Planning, 2008	Jonah Keim, Matrix Solutions Inc., Edmonton (780) 989-8331
Procedures for Protecting Badger Habitat when Logging, 2008	Gary Molyneux, Timberland Consultants, Nelson (250) 354-3880
Effectiveness Evaluations of Badger Wildlife Habitat Areas, 2006-2008	Todd Manning and Wayne Erickson, Ministry of Forests and Range, Victoria (250) 387-3886
Assessment of Badger Roadkill Risk in Relation to Culvert Presence, 2007	John Krebs, Fish and Wildlife Compensation Program, Nelson (250) 352-6874
Development of Monitoring Protocol for Badger Wildlife Habitat Areas, 2007	Wayne Erickson, (formerly) Ministry of Forests and Range, Victoria
Identification of Potential Badger Wildlife Habitat Areas, 2004-2009	Todd Manning and Wayne Erickson, Ministry of Forests and Range, Victoria (250) 387-3886
Badger Conservation Assessment for British Columbia (contributor), 2006*	Rich Weir, Artemis Wildlife Consultants, Armstrong (250) 546-0531
Survey for Badger and Ground Squirrel Burrows on Federal Land in Upper Columbia Valley, 2004-2005	Alan Dibb, Parks Canada, Radium Hot Springs (250) 347-6158
Survey for Badgers and Ground Squirrels Near Eagle Ranch Golf Course, Invermere, 2004*	Karen Oldershaw, (formerly) Jacques Whitford Ltd., Calgary
"Identified Wildlife Species Account" for Badgers, 2002 (co-author)	Kathy Paige, Ministry of Environment, Victoria (250) 356-7788
COSEWIC Status Report on Badgers in Canada, 1998-1999*	Marco Festa-Bianchet, Universite de Sherbrooke, Sherbrooke, Quebec (819) 821-8000
Recommendations for Assessing Badger Habitat for the West Kootenay Badger Project, 1994*	Maureen Ketcheson, JMJ Holdings, Nelson (250) 354-4913

Caribou Research, Inventory and Habitat Planning



Project	Contract Monitor
Augmentation Plan for the Purcells-South Mountain Caribou Population, 2009-2010	Chris Ritchie, Ministry of Environment, Prince George (250) 614-9910
Mountain Caribou Population Reintroduction Assessment for Banff National Park, 2008-2009	Alan Dibb, Parks Canada, Radium Hot Springs (250) 347-6158
Mountain Caribou Management Zones in Kootenay Region Provincial Parks, 2009	Leo DeGroot, Ministry of Environment, Nelson (250) 354-6386
Mountain Caribou Science Team, Guideline Development, Habitat Planning and Habitat Supply Modeling, 2004-2009	Chris Ritchie, Ministry of Environment, Prince George (250) 614-9910 Mark Zacharias, Ministry of Agriculture and Lands, Victoria (250) 387-5727
Analysis of Caribou-Snowmobile Interactions, 2001-2003, 2008	Gerry Kuzyk, Ministry of Environment, Victoria (250) 387-5842
Assessment of Mountain Caribou Habitat for Priest Lake State Forest, 2005, 2007	Steve Strack, Idaho Department of Lands, Boise, Idaho (208) 334-4143
Caribou Survey Flights, Southern Purcell Mountains, 2002-2007	Larry Ingham, Fish and Wildlife Compensation Program, Cranbrook (250) 489-6874 Leo DeGroot, Ministry of Environment, Nelson (250) 354-6386
Input to a Monitoring Protocol for Snowmobiles and Caribou in Gros Morne National Park, 2006	Wayne Tucker, Parks Canada Agency, Ottawa, Ontario (819) 994-5125
Development of a Preliminary Snowmobile Monitoring Protocol for Caribou Surveys, 2006	Ian Hatter, Ministry of Environment, Victoria (250) 387-9792
Analysis of Effects of Extreme Snowpack Years on Mountain Caribou Movements, 2004-2006	Liz Stanlake, Habitat Conservation Trust Foundation, Victoria (250) 387-1159
Mountain Caribou Element Sub-national Ranking and Characterization Abstract, 2005	Leah Ramsay, Conservation Data Centre, Victoria (250) 387-2733
Analysis of Characteristics of Caribou Mortality Sites in Relation to Live Locations, 2004	(self-directed; presentation for Species at Risk 2004 conference)
Technical Advisor re: Mountain Caribou for Backcountry Recreation Planning, 2004	Steve Flett, Ministry of Agriculture and Lands, Nelson (250) 354-6379
Member, Mountain Caribou Technical Advisory Committee, 1999-2004	Ian Hatter, Ministry of Environment, Victoria (250) 387-9792
South Kootenay Recovery Action Plan (Mountain Caribou), 2003 (co-author)	Chris Steeger, Pandion Ecological Research Ltd., Nelson (250) 354-0150
Technical Advisor, South Kootenay Recovery Action Group (Mountain Caribou), 2003	Guy Woods, (formerly) Ministry of Environment, Nelson
Preliminary Assessment of Potential Caribou Habitat in Northwestern Montana, 2002	Tim Their, Montana Fish Wildlife and Parks, Eureka, Montana (406) 886-4697
Preliminary Caribou Habitat Assessment of the Goat River Watershed, 2002	Roy Howard, Fraser Headwaters Alliance, Dunster (250) 968-4490
Guideline Development and Zonation for South Purcell Caribou Subpopulation, 2001 (co-author)	Guy Woods, (formerly) Ministry of Environment, Nelson
Habitat Modeling for Caribou in the Itcha-Ilgachuz and Rainbow Herds, 2001 (second author)	Jim Young, Ministry of Environment, Williams Lake (250) 398-4564
Identified Wildlife Species Account for Mountain Caribou, 2001	Kathy Paige, Ministry of Environment, Victoria (250) 356-7788
Recovery Action Plan for Southern Purcells Mountain Caribou Subpopulation, 2001	Ian Hatter, Ministry of Environment, Victoria (250) 387-9792
Project Biologist, Purcell Caribou Project, 1992-2001	John Bergenske, Wildsight, Kimberley (250) 427-2535
Habitat Index Card for Caribou in the Southern Purcell	Marcie Belcher, Tembec Industries Inc., Cranbrook

Mountains, 2000	(250) 426-9210
Habitat Modeling for Mountain Caribou in the Columbia Mountains & Highlands, 2000 (second author)	Clayton Apps, Aspen Wildlife Research Inc., Calgary (403) 270-8663
Technical Advisor, Kootenay Regional Caribou Committee, 2000	Guy Woods, (formerly) Ministry of Environment, Nelson
Habitat Modeling for Mountain Caribou in Thompson River Watershed, 1999 (second author)	Clayton Apps, Aspen Wildlife Research Inc., Calgary (403) 270-8663
Assessment of Caribou Habitat in Healy Creek for Forest Practices Board Investigation, 1998	Calvin Sandborn, Forest Practices Board, Victoria (250) 356-1601
Assessment of Caribou Management Guidelines Relative to Habitat Models, 1998 (second author)	John Bergenske, Diversity Consulting, Skookumchuck (250) 422-3566
Mountain Caribou Critical Habitat Assessment, Kamloops Forest Region, 1998 (second author)	Garth Mowat, (formerly) Aurora Wildlife Research, Crescent Valley

Research, Inventory and Habitat Planning for Other Species or Multiple Species



Project	Contract Monitor
Review of Environmental Overview Assessment for BCTC's Columbia Valley Transmission Line Project, 2010	Bill Green, Ktunaxa Nation Council, Cranbrook (250) 420-2744
Review of Environmental Certificate Application for BC Hydro's Mica 5-6 Upgrade Project, 2009	Bill Green, Ktunaxa Nation Council, Cranbrook (250) 420-2744
Assessment of Wildlife Impacts from Spillimacheen Forest Service Road Upgrade, 2009	Bill Rublee, Triton Environmental Consultants Ltd., Kamloops, BC (250) 851-0023
Assessment of Wildlife Impacts from Fish Entrainment Mitigation for Dam Generator Upgrades, 2009	Alf Leake, BC Hydro, Burnaby (604) 528-1924
Literature-Based Inventory of Species at Risk in Proposed Coalbed Methane Exploration Area, 2008	Jonah Keim, Matrix Solutions Inc., Edmonton (780) 989-8331
Review Habitat Ratings for Focal Species on Nature Conservancy Canada Properties, Elk Valley, 2008	Rob D'Eon, Nelson (250) 354-2968
Bird Inventory, James Chabot Provincial Park, 2008	John Grods, Makonis Consulting Ltd., Westbank (250) 469-1087
Moose Surveys (Elk Valley), 2008	Kim Poole, Aurora Wildlife Research, Nelson (250) 825-9202
Bighorn Sheep Research (completion and compilation of analyses conducted by others), 2007	Dave White, East Kootenay Wildlife Association, Canal Flats (250) 349-5478
Impact Assessment (Badgers and Caribou) for Proposed Glacier-Howser Power Project, 2007	Rob D'Eon, Nelson (250) 354-2968
Draft Provincial Management Plans for Lynx and Bobcats, 2006-2008 (second author)	Clayton Apps, Aspen Wildlife Research Inc., Calgary (403) 270-8663
Investigating Impacts of Highways on Small Mammal Communities, 2005-2006	John Bissonette, Utah State University, Logan (435) 797-2511
GPS Collaring of Bighorn Sheep at Radium Hot Springs, 2001-2004	Vivian Jablanczy, Canfor, Radium Hot Springs (250) 347-6407; Alan Dibb, Parks Canada, Radium Hot Springs (250) 347-6158
Habitat Assessment of Darkwoods Property for Caribou, Grizzlies, Ungulates and Biodiversity, 2003	Dave Hillary, Nature Conservancy of Canada, Invermere (250) 342-5521
Development of Habitat Ratings for Bobcats & Badgers using Broad Ecosystem Inventory, 2002	Tony Button, (formerly) Ministry of Sustainable Resource Management, Victoria
Assessment of the Feasibility of Developing Moose Habitat Modeling for Northern BC, 2002	Ian Hatter, Ministry of Environment, Victoria (250) 387-9792
Habitat Type Mapping for Radium Hot Springs Natural	Bill Swan, Osprey Communications, Invermere

Areas Report, 2001	(250) 342-2838
Presenter, Workshop on Use of GPS Collars for Wildlife Research, 1999	Pontus Lindgren, (formerly) Kokanee Forests Consulting, Nelson
Habitat Type Mapping for Invermere Natural Areas Report, 1998	Bill Swan, Osprey Communications, Invermere (250) 342-2838
Assessment of Wildlife Impacts and Mitigation for a Golf Course, Panorama Resort, 1996	Dixon Thompson (deceased), Faculty of Environmental Design, University of Calgary
Bighorn Sheep Habitat Research Plan, 1995	Dave White, East Kootenay Wildlife Association, Canal Flats (250) 349-5478
Riparian Research in the East Kootenay, 1992-1995	Rob Neil, (formerly) Ministry of Environment, Cranbrook
Wildlife Habitat Guidelines for Forest Management, Kootenay Region, 1994 (co-author)	Dennis Hamilton, Nanuq Consulting Ltd., Nelson (250) 352-4665
Private Land Wetland Identification and Classification, Robson Valley, 1994	Larry Ingham, Fish and Wildlife Compensation Program, Cranbrook (250) 489-6874
Maintaining Wildlife Values in Bugaboo/Kane, Mary Anne Creek and Templeton/Rand Areas, 1993-1994	Ed Armstrong, (formerly) Armstrong & Associates Consulting Foresters, Invermere
Historic Status and Distribution of Wildlife in the East Kootenay, 1994	Alan Dibb, Parks Canada, Radium Hot Springs (250) 347-6158
Forestry/Wildlife Referrals - Invermere and Cranbrook Forest Districts, 1994	Peter Holmes, Ministry of Environment, Invermere (250) 342-4266
Identification of Important Wildlife Habitat Types in the Madias and Tatley Creek Watersheds, 1992	Peter Holmes, Ministry of Environment, Invermere (250) 342-4266
Winter Birds and Mammals in the West Arm Demonstration Forest, 1992	Laura Darling, Ministry of Forests and Range, Victoria (250) 387-8870
Bobcat Ecology and Management Study, 1990-1992	Anna Fontana, (formerly) Ministry of Environment, Cranbrook

Environmental Monitoring and Design; Coordination of Conservation Planning



Project	Contract Monitor
Consultant, Highway 3 Wildlife Crossing Structure Planning Workshop, 2009	Tracy Lee, Miistakis Institute, University of Calgary (403) 220-8968
Program Manager, East Kootenay Conservation Program, 2007-2009*	Dave Hillary, Nature Conservancy of Canada, Invermere (250) 342-5521
Assistance with Development of a North American Guide for Wildlife Crossing Structures, 2004-2007*	John Bissonette and Patricia Cramer, Utah State University, Logan (435) 797-2511
Assessment of Potential Conservation Properties in the Elk River Valley, 2006	Dave Hillary, Nature Conservancy of Canada, Invermere (250) 342-5521
Planning for Rare Species Potentially Impacted by a Backcountry Lodge, 2005	Paul Leeson, (formerly) Purcell Lodge, Golden
Roadkill Reduction Planning & Research (infrared camera detection system, repellents), 2000-2004*	Ingrid Brakop, Insurance Corporation of British Columbia, Kamloops (250) 571-1613
Baseline Ecological Conditions for Shoemith Property, Fernie, BC, 2000	Lyle Dorey, (formerly) Rocky Mountain Elk Fndtn, Rocky Mountain House
Baseline Ecological Conditions for Property of H. Annis Included in Conservation Easement, 1999	Lyle Dorey, (formerly) Rocky Mountain Elk Fndtn, Rocky Mountain House
Environmental Monitoring, Spillimacheen Bridge Construction, 1997	Grainger Wilson, Ministry of Transportation and Infrastructure, Revelstoke (250) 837-7646
Environmental Monitoring, Toby Creek Bridge Removal, 1994	Gordon Chudleigh, Ministry of Transportation and Infrastructure, Cranbrook (250) 426-1517

Quality Assurance and Editing of Research Reports



Project	Contract Monitor
Review of Draft 5-Year Update of Caribou Endangered Species Listing, 2008	Suzanne Audet, US Fish and Wildlife Service, Spokane (509) 893-8002
Technical Audit of Forest Licensee Wildlife Management Procedures, 2008	Vincent Corrao, Northwest Management Inc., Moscow (208) 883-4488
Review of Caribou Habitat Research Results, 2008	Joanne Leasing, Meadow Creek Cedar, Kaslo (250) 353-2164
Review of Caribou Management Area Mapping for Nature Conservancy of Canada, 2008	Guy Woods, Woods Wildland Consulting, Nelson (250) 825-9227
Technical Audit of Forest Licensee Caribou and Fisheries Inventories, 2004	Graham Wilson, PricewaterhouseCoopers, Vancouver (604) 806-7000
Review of Caribou Habitat/Population, Moose Habitat/Population/Damage, and Wolf Reports, 2000-2004	Peter Gribbon, Downie Street Sawmills Ltd., Revelstoke (250) 837-2222
Review of Mountain Caribou Cumulative Effects Modeling, 2003	Steve Flett, Ministry of Agriculture and Lands, Nelson (250) 354-6379
Review of West Kootenay Ungulate Winter Range and Lardeau Elk Habitat Use Reports, 2003	Joanne Leasing, Meadow Creek Cedar Ltd., Kaslo (250) 366-4434
Review of Papers on Lynx Ecology, Grizzly Bear Habitat and Landscape Connectivity, 1998-2003	Clayton Apps, Aspen Wildlife Research Inc., Calgary (403) 270-8663
Review of Annual Ungulate Winter Range Research Reports, 2001-2002	Barbara Kingsland, Harrop-Procter Community Cooperative, Harrop (250) 229-5481
Review of Ungulate Habitat Analysis for Pend d'Oreille Valley, 2000	Diane Wunder, Atco Lumber Ltd., Fruitvale (250) 367-7771

Public Involvement and Communication

Wildlife Viewing Planning and Policy

Natural History Interpretation



These projects were completed in 2004 or earlier.
Details are available upon request/

APPENDIX 14

**Trevor Kinley, Memorandum Regarding *Responses by BCTC to My Review of the Columbia Valley Transmission Project.*
May 18, 2010**

MEMORANDUM

DATE: 18 May 2010
TO: Bill Green, Director, Ktunaxa Nation Council
FROM: Trevor Kinley, R.P.Bio., Senior Wildlife Biologist
SUBJECT: Responses by BCTC to my review of the Columbia Valley Transmission Project

On 12 January, I reviewed the *Columbia Valley Transmission Project Environmental Overview Assessment Final Draft for Discussion*, which was produced by AECOM Canada Ltd. for the British Columbia Transmission Corporation. BCTC recently provided responses to my review. This memo provides some follow-up comments on BCTC's responses. Where I reference numbers below, they are those used in BCTC's response document (*CVT EOA ISSUES Response - Veg and Wildlife Final April 23.pdf*).

I would categorize the responses as falling in four categories:

- a. In some cases there is either a fairly clear indication that concerns I raised (i) will be addressed in an update to the EOA report or specific aspects of the Environmental Management Plan (Vegetation #8, Wildlife #7), (ii) were relatively minor so may not be worth pursuing (Vegetation #9, Wildlife #2, 8, 10, 11, 12), or (iii) are being addresses through a separate process (Wildlife #3).
- b. For some items, the concern is to be addressed in the Environmental Management Plan, but it is not possible to determine at this point whether the EMP will be adequate. I would recommend some follow-up on these points after preparation of the EMP, as there is potential for it to vary from mediocre to excellent. These items include:
 - i. Vegetation comment #1 (identification of sensitive ecosystem elements, e.g., wetlands, dry south-aspect slopes and old forest). The EMP should include ground-checking of air photo interpretations.
 - ii. Wildlife comment #4 (access management planning). Access management is normally very challenging in the East Kootenay. A vigorous and long-term approach will be needed if incremental impacts from increased access are to be minimized.
 - iii. Wildlife comments #5 and 6 (recommended mitigation for birds, reptiles and amphibians). An assessment of the adequacy can only be made upon completion of the EMP.



- c. Several of the issues appear to be unresolvable if the transmission line is built; that is, a significant residual effect can be expected even with mitigation:
- i. Vegetation comments #2, 3, 4 and 5 relate to the impact to sensitive ecosystem elements. Mitigation will no doubt reduce the impacts, but it seems very likely that sensitive elements will be subject to some permanent disturbance because not all such sites can be avoided.
 - ii. Similarly, experience suggests that weed management (Vegetation #7), will partly but not fully mitigate the effect of increased soil disturbance, forest removal, and access.
 - iii. Vegetation comment #6 refers to the reduced likelihood of prescribed fire or wildfire being allowed near the transmission line, leading to eventual degradation of fire-dependent ecosystems. Again, this does not seem likely to be resolved through the EMP because of the expected reluctance to allow fire near valuable infrastructure.
- d. Wildlife #9 comment may be significant, pending confirmation of the chipmunk species. It seems unlikely that least chipmunks (listed) would be found on the transmission line route, but possible.

Overall, my main conclusion is that construction of this transmission line, as with any development, will result in a number of unavoidable impacts. These are cumulative to the effects of other industrial and recreational activity on the landscape, not unique to this project. There are encouraging indications that a number of other impacts will be reduced, but the degree to which this opportunity is realized will depend on scrutiny of the EMP (when it is completed) and actions following from the EMP.

APPENDIX 15

**Wildlands CPR, *Ecological Effects of Forest Roads*,
Wildlands CPR website**

Ecological Effects of Forest Roads

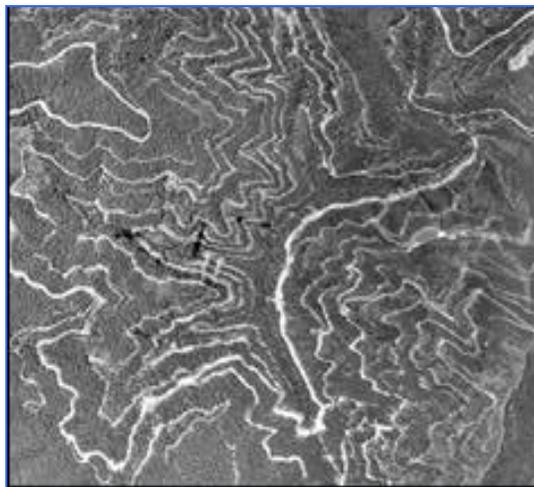
Forest roads are the leading source of sediment-laden runoff into streams, making them wider, shallower and more susceptible to warming by the sun. Increased stream sedimentation also degrades clean drinking water for thousands of communities dependent on National Forest source water, especially in light of climate change. Failing roads also threaten recreational opportunities and impact wildlife.

Aquatic Impacts:

- Sediment runoff from roads and trails ends up in streams and rivers, smothering fish eggs and inhibiting nest building.
- Road construction near rivers and streams is often accompanied by the creation of diversions, ditches, culverts and bridges—which can affect water flow patterns, increase sediment loads, move water from one subwatershed to another, and alter the shape of the adjacent streambed. These changes can reduce fish populations and degrade aquatic habitat.
- Compacted road beds impede water infiltration and also block subsurface waterflows, thus altering the hydrology of the landscape.
- Blocked, undersized or improperly installed culverts can prevent fish from reaching spawning habitat
- Roads constructed on highly erodible soils are prone to severe landslides. Sediments released from landslides and chronic erosion have interrupted and degraded the drinking water supplies of numerous communities.

Terrestrial Impacts:

- Hundreds of studies show that roads directly or indirectly lead to habitat loss and fragmentation, poaching, over-trapping, snag reduction, down log reduction, negative edge effects, movement barriers, displacement or avoidance, harassment or disturbance at specific use sites, and chronic negative interactions with humans.
- An excess of one mile of road per square mile of land will negatively impact many game and sensitive species, including elk, grizzly bears, lynx, and wolves.
- Roads act as pathways for the spread of non-native weeds, pests and pathogens.



Forest Service photo of Clearwater NF road system where roads were built every 200 vertical meters.

Persistent Road Failures on the Clearwater National Forest:

The Clearwater National Forest in Idaho is situated atop highly erodible decomposed granite soils. A legacy of logging has left this forest with some of the highest road densities in the country, with some areas averaging more than 20 miles of road per square mile of land (including skid roads). These roads are “stacked” one on top of the other, repeatedly crossing streams. The area also is prone to winter storms that cause severe flooding, with extreme landslide events occurring every decade or so. In the winter of 1995-96, for example, following a series of storms, more than **900 landslides** occurred on the Clearwater, over half of which were road triggered.

Influence of Climate Change:

Roads reduce the resiliency and adaptability of forest ecosystems to respond to climate change.

Aquatics: Models indicate that climate change will produce greater variability in precipitation, increasing drought in some regions and rain in others. More rain and less snow causes earlier spring runoff with higher peak flows, and lower summer stream flows. In addition, more intense storms can increase flooding and associated road failures.

Terrestrial: The presence of roads can lead to the avoidance of and reduction in available habitat. In addition, roads reduce wildlife connectivity, which can significantly reduce the capacity of wildlife to migrate in response to climate change.



Photos show the potential impacts from the increased risk of hydrological extremes.

Under-maintained, degraded roads are more likely to fail in extreme flood events, thus increasing negative impacts to fisheries, aquatic systems and wildlife. Improving or decommissioning forest roads is one of the most important actions for creating resilient forest watersheds that are capable of both resisting adverse impacts and recovering rapidly from climate change.

For more information, contact Wildlands CPR Restoration Campaign Coordinator Sue Gunn:

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APPENDIX 16

**Wildlands CPR, *Off-Road Vehicle Impacts on Wildlife*,
Wildlands CPR website**



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Off-Road Vehicle Impacts on Wildlife

Forests are home to hundreds of species of fish and wildlife, providing recreational opportunities for hunters, anglers, and wildlife enthusiasts. Millions of hunters and fishermen enjoy pursuing their sport while increasing numbers of birders and photographers enjoy simply catching a glimpse of the diversity of forest life. In addition to recreational benefits, diverse wildlife are a sign of overall ecosystem health and integrity. While there are many threats to preserving wildlife ranging from global warming to development, the negative impacts from off-road vehicles (ORVs) on wildlife have been well documented in the scientific literature. ORVs can impact wildlife through direct mortality, increased legal and illegal harvest, disturbance, and habitat loss.

Direct Mortality

One of the most apparent impacts of ORVs on wildlife is collisions and direct mortality. Direct impact will kill most species, but amphibians, reptiles, small mammals and ground nesting birds are most vulnerable (Wilkins 1982, Rei and Seitz 1990, Fahrig et al. 1995, Ashley and Robinson 1996, Gibbs 1998, DeMaynadier and Hunter 2000). With millions of ORVs traversing the landscape at high speeds (up to 60 mph), the number of animals being killed can be significant.

Habitat Security

Several studies have found that large animals such as elk, wolves, and bears are negatively impacted by the loss of habitat security resulting from increased motorized access. Depending on the species, some wildlife are more sensitive to disturbance during critical times of year, such as winter habitat for ungulates or areas important for grizzly bear food sources during spring (USDI 1987).

Elk have been the most extensively studied animal in relation to motorized access. While recent studies have made a direct connection between ORVs and impacts to elk (Vieira 2000, Wisdom et al. 2004, Wisdom 2007, Grigg 2007), most studies have looked more broadly at the impacts of motorized travel and roads on elk. It can be assumed that these impacts would be similar on ORV routes. Many studies have found that increased motorized access results in decreased elk habitat and security (Lyon 1983; Figure 3), and increased elk mortality from hunter harvest both legal and illegal (Hershey and Leeger 1982, Hayes et al. 2002, McCorquodale et al. 2003, see Rowland et al. 2005 for review).

Closing or decommissioning roads has been found to decrease hunter induced mortality (Leptich and Zager 1991), increase elk survivorship (Cole et al. 1997), increase the number of bulls (Leptich and Zager 1991), extend the age structure (Leptich and Zager 1991), increase hunter success (Gratson and Whitman 2000), and allow elk to remain in preferred habitat longer (Irwin and Peek 1979). Studies have also recommended closing entire areas to motorized use— as opposed to individual roads— to best promote healthy elk populations (Hurley 1994, Burcham et al. 1998, Rowland et al. 2005).

ORVs can also allow access for illegal harvest of wildlife in areas that are difficult for game wardens to patrol. Weaver (1993) reported that increased ORV access increases the trapping vulnerability of American marten, fisher, and wolverine. For wolves, one study found that 21 of 25 human caused mortalities in the U.S. northern Rockies occurred within 650 ft. of a motorized route (Boyd and Pletscher 1999). Wolves often travel on roads and off-road vehicle routes where they risk increased poaching pressure. Several studies have found that wolf persistence is reduced when road density exceeds approximately 1 mi./mi.² (Table 1). Lynx are also thought to be sensitive to road density, but to a lesser extent than wolves (Singleton et al. 2001, 2002). Grizzly bears are at risk from poaching and have been found to be negatively affected by roads and to avoid open roads (Elgmork 1978, Zager et al. 1983, Archibald et al. 1987, Mattson et al. 1987, McLellan and Shackleton 1988, Kasworm and Manley 1990, Mace et al. 1996).

Figure 1. Average habitat effectiveness (a measure of forage quality and available cover) for elk in western Montana with road densities ranging from 0 to 6 miles per square mile (Adapted from Lyon 1983).

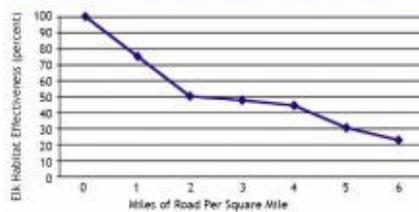


Table 1. Road density levels shown to be deleterious for wolves in the northern Great Lakes region.

Road Density (mi/mi ²)	Study Location	Citation
1.0	Wisconsin	Thiel (1985)
1.0	Ontario-Michigan border	Jensen et al. (1988)
0.9	Minnesota	Mach et al. (1988)
1.2*	Minnesota	Mach et al. (1989)
1.1 (with ~6 humans/mi ²)	Minnesota	Fuller et al. (1992)
0.8 (with ~12 humans/mi ²)	Minnesota	Fuller et al. (1992)
1.0**	Wisconsin	Wydevan et al. (2001)

*Adjacent roadless area allowed higher road density threshold
 **Changing attitudes allowed higher road density threshold

Table 2. Recommended spatial nest buffer zone for selected birds of prey

Species	Spatial Nest Buffer Zone (ft.)	Citation
American kestrel	650	Richardson and Miller (1997)
Bald eagle	1300	Hamann et al. (1996)
Northern goshawk	1600	Jones (1979)
Sharp-shinned hawk	1600	Jones (1979)
Cooper's hawk	2000	Richardson and Miller (1997)
Prairie falcon	2600	Richardson and Miller (1997)
Red-tailed hawk	2600	Richardson and Miller (1997)
Red-tailed hawk	2600	Call (1979)
Mexican spotted owl	3000	LSPAWS (1993)
Oriental	4900	Richardson and Miller (1997)
Golden eagle	5200	Richardson and Miller (1997)

Disturbance

Probably the most widespread impact of ORVs is disturbance to wildlife. Within individual species, a number of factors can influence the degree of ORV impact, including the animal's breeding status, its size, and the size of the group it is with (Burger et al. 1995). Studies have shown a variety of disturbance is possible from ORVs. While these impacts are difficult to measure, repeated harassment of wildlife can result in increased energy expenditure and reduced reproduction. Noise and disturbance from ORVs can result in a range of impacts including increased stress (Nash et al. 1970, Millspaugh et al. 2001), loss of hearing (Brattstrom and Bondello 1979), altered movement patterns (e.g., Wisdom et al. 2004, Preisler et al. 2006), avoidance of high-use areas or routes (Janis and Clark 2002, Wisdom 2007), and disrupted nesting activities (e.g., Strauss 1990).

Again, elk are one of the most studied species in regards to disturbance by mechanized use. Vieira

(2000) found that elk moved twice as far from ORV disturbance than they did from pedestrian disturbance, and Wisdom et al. (2004) found that elk moved when ORVs passed within 2,000 yards but tolerated hikers within 500 ft. Recently, Wisdom (2007) reported preliminary results suggesting that ORVs are causing a shift in the spatial distribution of elk that could increase energy expenditures and decrease foraging opportunities for the herd. Elk have been found to readily avoid and be displaced from roaded areas (Irwin and Peek 1979, Hershey and Leege 1982, Millspaugh 1995, Weber 1996). Additional concomitant effects can thus occur, such as major declines in survival of elk calves due to repeated displacement of elk during the calving season (Phillips 1998). Alternatively, closing or decommissioning roads has been found to decrease elk disturbance (Cole et al. 1997, Millspaugh et al. 2000, Rowland et al. 2005).

Disruption of breeding and nesting birds is a particularly well documented problem. Several species are sensitive to human disturbance with the potential disruption of courtship activities, over-exposure of eggs or young birds to weather, and premature fledging of juveniles (Hamann et al. 1999). Repeated disturbance can eventually lead to nest abandonment. These short-term disturbances can lead to long-term bird community changes (Anderson et al. 1990). Several authors have recommended spatial nest buffer zones from motorized recreation for raptors (Table 2). On the Loa Ranger District of the Fishlake National Forest in southern Utah, successful goshawk nests occur in areas where the localized road density is at or below 2-3 mi./mi.² (USDA 2005).

Loss of Habitat

The cumulative effect of loss of habitat security, soil erosion, vegetation loss, introduction of non-native invasive species, and forest fragmentation results in the loss of functional wildlife habitat that supports healthy individuals and populations of wildlife. Animals may be impacted directly and/or indirectly. A direct impact may be an ORV that collapses a small mammal burrow or runs an animal over. An indirect impact would be reduced habitat for cavity-nesting species caused by increased access for firewood collection (Bury 1980). Any additional habitat loss for sensitive, threatened, and endangered species is also of concern. Wilcove et al. (1998) reported that as many as 13 percent of endangered species are impacted by ORVs.

The indirect impacts of ORVs can have cascading effects throughout the ecosystem. For example, on an intensively used ORV route in Idaho, native shrubs, bunch grasses, and microbial crust were greatly reduced close to the route and replaced with non-native cheat grass (*Bromus tectorum*) and the native shrub, rabbitbrush (*Chrysothamnus* sp.; Munger et al. 2003). Because of these habitat changes, fewer reptiles were found alongside the route than were found 325 ft. away.

— *Adam is Science Coordinator for Wildlands CPR and Allison is Conservation Biologist for the Wild Utah Project.*

References

- Archibald, N.J., R. Ellis, and A.N. Hamilton. 1987. Responses of grizzly bears to logging truck traffic in the Kimsquit River Valley, British Columbia. *International Conference on Bear Research and Management* 7: 251-257.
- Ashley, P.E., and J.T. Robinson. 1996. Road mortality of amphibians, reptiles and other wildlife on Long Point Causeway, Lake Erie, Ontario. *Canadian Field-Naturalist*. 110(3): 403-412.

- Boyd, D.K., and D.H. Pletscher. 1999. Characteristics of dispersal in a colonizing wolf population in the central Rocky Mountains. *Journal of Wildlife Management* 63: 1094-1108.
- Brattstrom, B.H., and M.C. Bondello. 1979. The effects of dune buggy sounds on the telencephalic auditory evoke response in the Mojave fringe-toed lizard, *Uma scoparia*. Unpublished report to the U.S. Bureau of Land Management, California Desert Program, Riverside, CA. 31p.
- Burcham, M.G., W.D. Edge, L.J. Lyon, C.L. Marcum, and K.T. Weber. 1998. Final report of the Chamberlain Creek elk studies, 1977-1983 and 1993-1996. Missoula, MT: School of Forestry, University of Montana. 260p.
- Burger, J., M. Gochfeld, and L.J. Niles. 1995. Ecotourism and birds in coastal New Jersey: contrasting responses of birds, tourists and managers. *Environmental Conservation* 22: 56-65.
- Bury, R.B. 1980. What we know and do not know about off-road vehicle impacts on wildlife. in Richard N.L. Andrews and Paul Nowak, editors. *Off-Road Vehicle Use: a Management Challenge*. (University of Michigan Extension Service) Michigan League. The University of Michigan, School of Natural Resources. USDA, Office of Environmental Quality.
- Call, M. 1979. Habitat management guides for birds of prey. Bureau of Land Management, Technical Note 338, Denver. 70p.
- Cole, E.K., M.D. Pope and R.G. Anthony. 1997. Effects of road management on movement and survival of Roosevelt elk. *Journal of Wildlife Management* 61: 1115-1126.
- DeMaynadier, P.G., and M.L. Hunter. 2000. Road effects on amphibian movements in a forested landscape. *Natural Areas Journal* 20: 56-65.
- Elgmork, K. 1978. Human impact on a brown bear population (*Ursus arctos* L.). *Biological Conservation* 13(2): 81-103.
- Fahrig, L., J.H. Pedlar, S.E. Pope, P.D. Taylor, and J.F. Wegner. 1995. Effect of road traffic on amphibian density. *Biological Conservation* 73: 177-182.
- Gibbs, J.P. 1998. Amphibian movements in response to forest edges, roads, and stream beds in southern New England. *Journal of Wildlife Management* 62(2): 584-589.
- Gratson, M.W., and C.L. Whitman. 2000. Characteristics of Idaho elk hunters relative to road access on public lands. *Wildlife Society Bulletin* 28(4): 1016-1022.
- Grigg, J.L. 2007. Gradients of predation risk affect distribution and migration of a large herbivore. M.S. Thesis. Bozeman, MT: Montana State University.
- Hershey, T.J., and T.A. Leege. 1982. Elk movements and habitat use on a managed forest in north-central Idaho. Idaho Department of Fish and Game. 32p.
- Hurley, M.A. 1994. Summer-fall ecology of the Blackfoot-Clearwater elk herd of western Montana. M.S. Thesis. Moscow, ID: University of Idaho.
- Irwin, L.L., and J.M. Peek. 1979. Relationship between road closure and elk behavior in northern Idaho. Pages 199-205 in Boyce, M.S. and L.D. Hayden-Wing, editors, *North American Elk: Ecology, Behavior, and Management*. Laramie, WY: University of Wyoming.
- Janis, M.W., and J.D. Clark. 2002. Responses of Florida panthers to recreational deer and hog hunting. *Journal of Wildlife Management* 66(3): 839-848.
- Jensen W.F., T.K. Fuller, and W.L. Robinson. 1986. Wolf (*Canis lupus*) distribution on the Ontario-Michigan border near Sault Ste. Marie. *Canadian Field-Naturalist* 100: 363-366.
- Jones, S. 1979. Habitat management series for unique or endangered species. Report No. 17. The accipiters: goshawk, Cooper's hawk, sharp-shinned hawk. Bureau of Land Management, Technical Note 335. 55p.
- Kasworm, W.F., and T.L. Manley. 1990. Road and trail influences on grizzly bears and black bears in northwest Montana. Pages 79-84 in Darling, L.M., and W.R. Archibald, editors, *Bears – their Biology and Management: Proceedings of the 8th International Conference on Bear Research and Management*, February 1989, Victoria, B.C. Bear Biology Association, University of Tennessee, Knoxville. Pp. 79-84.
- Leptich, D.J., and P. Zager. 1991. Road access management effects on elk mortality and population dynamics. Pages 126-131 in *Proceedings of the elk vulnerability symposium*, compilers A.G. Christensen, L.J. Lyon, and T.N. Bozeman, Montana: Montana State University.
- Lyon, L.J. 1983. Road density models describing habitat effectiveness for elk. *Journal of Forestry* 81:

592-595.

- Mace, R.D., J.S. Waller, T.L. Manley, L.J. Lyon, and H. Zuuring. 1996. Relationships among grizzly bears, roads and habitat in the Swan Mountains, Montana. *Journal of Applied Ecology* 33: 1395-1404.
- Mattson, D. J., R. R. Knight, and B. M. Blanchard. 1987. The effects of developments and primary roads on grizzly bear habitat use in Yellowstone National Park, Wyoming. *International Conference on Bear Resources and Management* 7: 259-273.
- McCorquodale, S.M., R. Wiseman, and C.L. Marcum. 2003. Survival and harvest vulnerability of elk in the Cascade Range of Washington. *The Journal of Wildlife Management* 67(2): 248-257.
- McLellan, B.N., and D.M. Shackleton. 1988. Grizzly bears and resource-extraction industries: effects of roads on behavior, habitat use, and demography. *Journal of Applied Ecology* 25: 451-460.
- Mech, L.D., S.H. Fritts, G.L. Radde, and W.J. Paul. 1988. Wolf distribution and road density in Minnesota. *Wildlife Society Bulletin* 16: 85-87.
- Mech, L.D. 1989. Wolf population survival in an area of high road density. *American Midland Naturalist* 121: 387-389.
- Millspaugh, J.J. 1995. Seasonal movements, habitat use patterns and the effects of human disturbances on elk in Custer State Park, South Dakota. M.S. Thesis. Brookings, SD: South Dakota State University.
- Millspaugh, J.J., G.C. Brundige, R.A. Gitzen, and K.J. Raedeke. 2000. Elk and hunter space-use sharing in South Dakota. *Journal of Wildlife Management* 64(4): 994-1003.
- Millspaugh, J.J., Woods, R.J. and K.E. Hunt. 2001. Fecal glucocorticoid assays and the physiological stress response in elk. *Wildlife Society Bulletin* 29: 899-907.
- Munger, J.C., B.R. Barnett, S.J. Novak, and A.A. Ames. 2003. Impacts of off-highway motorized vehicle trails on the reptiles and vegetation of the Owyhee Front. Idaho Bureau of Land Management Technical Bulletin 03-3: 1-23.
- Nash, R.F., G.G. Gallup, jr., and M.K. McClure. 1970. The immobility reaction in leopard frogs (*Rana pipiens*) as a function of noise induced fear. *Psychonomic Science* 21(3): 155-156.
- Phillips, G.E. 1998. Effects of human-induced disturbance during calving season on reproductive success of elk in the upper Eagle River Valley. Dissertation. Fort Collins, CO: Colorado State University.
- Preisler, H.K., A.A. Ager, and M.J. Wisdom. 2006. Statistical methods for analyzing responses of wildlife to human disturbance. *Journal of Applied Ecology* 43: 164-172.
- Rei, W., and A. Seitz. 1990. The influence of land use on the genetic structure of populations of the common frog, *Rana temporaria*. *Biological Conservation* 54: 239-249.
- Richardson, C.T., and C.K. Miller. 1997. Recommendations for protecting raptors from human disturbance: a review. *Wildlife Society Bulletin* 25: 634-638.
- Rowland, M.M., M.J. Wisdom, B.K. Johnson, and M.A. Penninger. 2005. Effects of roads on elk: implications for management in forested ecosystems. Pages 42-52 in Wisdom, M.J., technical editor, *The Starkey Project: a synthesis of long-term studies of elk and mule deer*. Reprinted from the 2004 Transactions of the North American Wildlife and Natural Resources Conference, Alliance Communications Group, Lawrence, KS.
- Singleton, P.H., Gaines, W., and J.F. Lehmkuhl. 2001. Using weighted distance and least-cost corridor analysis to evaluate regional-scale large carnivore habitat connectivity in Washington. The Proceedings of the International Conference on Ecology and Transportation, Keystone CO. September 24-27.
- Singleton, P.H., Gaines, W., and J.F. Lehmkuhl. 2002. Landscape permeability for large carnivores in Washington: A Geographic Information System weighted-distance and least-cost corridor assessment. USDA Forest Service Research Paper. PNW-RP 549. Pacific Northwest Field Station, OR.
- Strauss, E.G. 1990. Reproductive success, life history patterns, and behavioral variation in a population of piping plovers subjected to human disturbance. Dissertation. Medford, MA: Tufts University.
- Thiel, R.P. 1985. The relationships between road densities and wolf habitat in Wisconsin. *American Midland Naturalist* 113: 404-407.
- USDA (U.S. Department of Agriculture, Forest Service). 2005. Fishlake OHV Route Designation Project Draft Environmental Impact Statement (DEIS), Loa, UT.
- USFWS (U.S. Fish and Wildlife Service). 1995. Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*).

USDI (U.S. Department of the Interior, Bureau of Land Management). 1987. Interagency Rocky Mountain Front Wildlife Monitoring / Evaluation Program: management guidelines for selected species, Rocky Mountain Front Studies. Billings, MT. 71p.

Weaver, J. 1993. Lynx, wolverine, and fisher in the western United States: research assessment and agenda. USDA Forest Service Intermountain Research Station Contract Number 43-0353-2-0598. Missoula, MT.

Wilkins, K.T. 1982. Highways as barriers to rodent dispersal. *Southwest Naturalist* 27(4):459-460.

Wilcove, D.S., D. Rothstein, J. Dubow, A. Phillips, and E. Losos. 1998. Quantifying threats to imperiled species in the United States. *BioScience* 48(8): 607-615.

Wisdom, M.J. 2007. Shift in Spatial Distribution of Elk Away from Trails Used by All-Terrain Vehicles. Report 1, May 2007, USDA Forest Service, Pacific Northwest Research Station, La Grande, OR.

Wisdom, M.J., H.K. Preisler, N.J. Cimon, and B.K. Johnson. 2004. Effects of off-road recreation on mule deer and elk. *Transactions of the North American Wildlife and Natural Resource Conference* 69.

Wydeven, A.P, D.J. Mladenoff, T.A. Sickley, B.E. Kohn, R.P. Thiel, and J.L. Hansen. 2001. Road density as a factor in habitat selection by wolves and other carnivores in the Great Lakes Region. *Endangered Species Update* 18(4): 110-114.

Zager, P.E., C.J. Jonkel, and J. Habeck. 1983. Logging and wildfire influence on grizzly bear habitat in Northwestern Montana. *International Conference on Bear Resources and Management* 5: 124-132.

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APPENDIX 17

**Kenton Andreashuk, Memorandum Regarding *Columbia Valley
Transmission Line Project – Fisheries/Aquatic Review of
Environmental Overview Assessment.*
Canadian Columbia River Inter-tribal Fisheries Commission.
January 5, 2010.**

Canadian Columbia River Inter-tribal Fisheries Commission
7468 Mission Road, Cranbrook, B.C. V1C 7E5
Tel: 250-417-3474; Fax: 250-417-3475; e-mail: kenton@ccrffc.org

Memorandum

DATE: January 05, 2010
TO: Bill Green, CCRIFC Director
CC: Ray Warden, Director-KNC Lands and Resources
FROM: Kenton Andreashuk, CCRIFC Senior Technologist
RE: **Columbia Valley Transmission Line Project – Fisheries/Aquatic review of Environmental Overview Assessment**

Proponent/Location

Columbia Valley – Invermere to Golden along the Columbia River

Background

The proponent wishes to construct a new power transmission line between Invermere and Golden on the east side of the Columbia River Valley. The proposed 130km long transmission line corridor will cross several fish bearing and non-fish bearing streams as well as crossing the Columbia River at Golden.

Potential issues/concerns

The Columbia River supports 33 fish species already identified in the report.

The potential concerns include:

- temporary/permanent harmful alteration, disruption or destruction of fish habitat (HADD), specifically modifications to riparian areas composition and structure.
- noise/disturbance and modifications to fish behaviour (i.e. displacement during spawning/rearing or critical life history stages) as a result of construction and subsequent maintenance activity;
- Impacts on water quality (refuelling, increased sedimentation during run off events as a result of clearing right of way and pathways, construction activities and maintenance of the transmission line.);
- Cumulative impacts.

Specific Comments/Recommendations

Section 4.2.2. pp 4-1. “A representative selection of streams along the entire 130km corridor were surveyed.” This is a vague statement. Clarification as to what the definition of “representative” is would be appropriate here. REPRESENTATIVE as to fish species composition; or habitat types; or channel morphology types?

Section 4.4.1 pp 4-3 “Many species are unlikely to be in streams crossed by the corridor options for the CVT project.” Does this statement refer to sculpin species or any general fish species? If the latter is the reference then why do fish appear as present in a number of the stream crossings? Most of the fisheries information was derived from exercise conducted under the provincial Fisheries Inventory Program. Many streams sampled under this program were sampled during conditions favorable to electro-fishing which were often during the lower flow periods of the summer. Fish will often be present in small unnamed or S4 – S5 stream classes during freshet (higher water conditions) of which there are several streams indicated to be crossed if the CVT is constructed. Freshet fisheries observations should be conducted if this is the case and small seasonal streams should not be ruled out as fish bearing.

Section 4.4.2.1 Canyon Creek. The report indicates that Reach 6 of Canyon Creek is an obstruction to upstream fish migration. This information is speculative and is not based on detailed scientific evidence. The photos included in the CVT report do not provide enough evidence that this “entrenched” section of the stream is a barrier to upstream migration. In-situ fisheries observations (e.g. underwater snorkel observations) along with radio telemetry tracking of telemetered fish would provide near definitive evidence of migration or non-migration through this section of Canyon Creek.

Recent local telemetry studies in other similar Kootenay region streams have shown that the type of habitat indicated in the CVT report is indeed utilized by juvenile bull trout in other systems and that entrenched canyons are not migration barriers (e.g. Salmo River and White River). Discounting Reach 6 as non fish bearing should not be applied until further investigations with telemetry is employed. If gradients are steep (>20% slope) with high velocities then such habitat types may in fact be upstream migration barriers.

Section 4.4.2.4 Bugaboo Creek. The report states that Bugaboo Creek is “relatively unproductive”. How was this statement formalized? Were productivity tests performed (periphyton, aquatic invertebrate, TSS/TDS, and fish population estimates) or is this a subjective statement based on the cold water glacial source of the stream? Other local glacial fed streams are productive for fish habitat e.g. White River, Elk River, Kootenay River, Palliser River, etc. Classifying a stream as “unproductive” should not be correlated with allowing more impacts/habitat loss within the watershed.

Section 4.4.2.4 Driftwood Creek. Barriers are described for this system but fish are found above these barriers as the report indicates. Caution should be exercised when “barriers” are described specifically beaver dams. Local studies have shown that what was previously thought to be barriers to upstream fish migration are in fact not migration barriers at all (Prince A. and K. Morris. 2001. Overwintering and Spawning Habitats of Westslope Cutthroat Trout in the Elk River, B.C.). Low head beaver dams may be passable at freshet and other times of the year. Higher elevation dams and other obstructions such as cascades may also be passable at the stream margins as “steps” are often present during freshet or higher water events.

Riparian Impacts

The report discusses the potential for removal/impact to riparian tree and plant communities with specific concerns for the 50m riparian corridor along the Columbia River (Section 4.5.2 Effects Assessment). Where riparian habitat loss occurs how will the loss/impact be compensated for? Will large mature trees which provide critical seasonal thermal cover be removed? If so how will this be compensated for? Will compensation occur off-site or at the area of impact?

Clearing of land often opens space for new 'pioneer' invasive species to become established. e.g. knapweed, hounds tongue etc. How will cleared areas be maintained so that invasive species do not encroach into the riparian area? What method will be utilized for reducing invasive plant species?

Compensation Strategy

The report does mention compensation strategies and the need to follow regulatory guidelines. This is obviously a first step in reducing impacts to the aquatic ecosystem within the study area. However, we do feel that a detailed compensation/mitigation plan needs to be formalized prior to transmission line construction in order to provide detailed examples of how aquatic ecosystem impacts will be compensated/mitigated.

The current application does not provide sufficient detail for compensation/mitigation for us to comment on. Potential concerns associated with the application are summarized above. If you have any questions, please contact me.

Regards,

Kenton Andreashuk
Senior Technologist
Canadian Columbia River Inter-tribal Fisheries Commission