Mitchell 2 Prescribed Burn
Archaeological Assessment
Kootenay National Park
Final Report

prepared for
Kootenay National Park
Radium Hot Springs, B.C.

by
Roderick J. Heitzmann
Western Canada Service Centre
Parks Canada
Calgary

Parks Canada Archaeological Research Permit 1999-16

January 2000

Management Summary

An archaeological assessment of the Mitchell 2 Prescribed Burn Area, Kootenay National Park was undertaken in September 1999. The Prescribed Burn Area is located on the east side of the Kootenay River and from the confluence with Pitts Creek south approximately 3 kilometers. The proposed burn area will extend from the river eastward to the height of the Mitchell Range. The burn is proposed to remove diseased trees and to stimulate forest regeneration.

Adjacent to the river are a series of low terraces. The valley sides then rise gradually with occasional poorly developed terraces and slump blocks. The area is heavily vegetated with closed forests. Closest to the river are stands of lodgepole pine and white spruce. Higher up the valley sides are stands of mixed conifers consisting of Engelmann spruce, subalpline fir, whitebark pine and lodgepole pine. The archaeological assessments consisted of surface inspections and random shovel testing along the terraces and banks of the Kootenay River in the study area.

No archaeological sites had been previously recorded in this area. No archaeological or historical sites were located during this assessment.

Based on this assessment it is recommended that the project proceed without further concern for cultural resources.

Acknowledgements

This project has been funded by Kootenay National Park under Rob Walker, Vegetation Specialist. I am grateful for his continuing support of this project.

The field assessment was undertaken by Rod Heitzmann and Rena Varsakis. Chis Lynde of Edgewater, B.C., volunteered his time to assist with the project.

Table of Contents

List of Figures

1.0 Introduction

An archaeological assessment of the Mitchell 2 Prescribed Burn Area, Kootenay National Park was undertaken in September 1999 (Figure 1). The prescribed burn area is located on the east side of the Kootenay River from the confluence with Pitts Creek south approximately 3 kilometres. The proposed burn area will extend from the river eastward to the height of the Mitchell Range. The burn is proposed to remove diseased trees and to stimulate forest regeneration.

2.0 Background

2.1 Study Area

The Central Rockies Ecosystem straddles 40 000 km^2 along the spine of mountains dividing Alberta from British Columbia (Komex 1995). This area extends from the Upper Columbia River Valley on the west to the eastern edge of the Alberta Foothills. On the north it is bounded by the valley of the North Saskatchewan River as far east as Rocky Mountain House. On the south it extends to Canal Flats on the west and the Upper Highwood River on the east. This vast area shares a complex assembly of ecoregions, vegetation and wildlife. It is however characterized by high mountains, rolling hills and narrow valleys. Close to half the area is covered by closed coniferous vegetation (35.4%) and open coniferous forest (13.1%). Bare rock and soil is exposed over 19.6% of the area. Alpine meadows are found over 9.0% of the area. The remaining area is covered with deciduous forest (5.3%), shrubland (3.2%), natural grassland (0.9%) snow/ice (2.3%), agricultural (4.6%), cutblocks (4.5%), burns (0.7%), urban development (0.3%) and water (2.1%) (Komex 1995).

Kootenay National Park is located in the south central portion of the Central Rockies Ecosystem. It is located within the Continental Divide Ranges east of the Southern Rocky Mountain Trench. The park borders the Bow, Ball, and Mitchell ranges to the north and east in Banff National Park; the Vermilion/Brisco ranges to the west; and Yoho National Park to the northwest. The park extends approximately 80.8 km from north to south and approximately 24 km from east to west at its widest point, encompassing an area of approximately 1,406 square kilometres.

Kootenay National Park is characterized by a continental macro-climate, predominantly post-glacially deposited soils, and a wide range of vegetation and faunal resources. The reader is referred to Achuff et al. (1984) for a detailed study of the park's biophysical resources.

2.2 Previous Archaeological Studies

Previous archaeological studies in Kootenay National Park have been largely directed at locating and inventorying cultural resources. The first substantive study was conducted in 1971 (Mitchell and Choquette 1974). In 1987, a second major inventory project was conducted by Choquette (1988). This was conducted in advance of the preparation an Archaeological Resources Description and Analysis (Choquette and Pickard 1989). Other archaeological studies have been conducted in advance of park development projects (Perry 1987, Sumpter and Perry 1988, Sumpter et al. 1990, Sumpter and Perry 1992, Heitzmann 1996) . Existing archaeological collections from Kootenay National Park are extremely limited in both their lack of temporal indicators and in the quantity of materials recovered. In addition, forest soil conditions adversely affect bone preservation. The archaeological component of the Kootenay National Park Ecohistory Project has been addressing some of these data gaps. Several sites have been tested and and have provided a series of radiocarbon dates, and cultural tool assemblages. In addition, blood protein analyses of stone tools indicates the hunting of bison, deer, bear, hare and canid at several different sites (Heitzmann 1997, 1998).

Existing archaeological collections from elsewhere in the Rocky Mountain Trench are also restricted in size and content. The closest significant excavations were conducted at the Salmon Beds Site (Heitzmann 1999), two sites on Windermere Lake: EdQa-8 (Bussey 1986), and EcPx-5 (McKenzie 1976), and at EbPw-1 on Columbia Lake (Mohs, 1981; Yip 1982). Further to the south, considerable research has been conducted at the Wild Horse River Site, DjPv 14, by Blake (1981) and Choquette (1985a, 1985b). Major archaeological surveys have been conducted along the Upper Columbia River by Sneed (1979) and in Kootenay National Park by Choquette (1988).

On the east side of the Rocky Mountain Divide, numerous archaeological surveys have been undertaken in Banff National Park (Fedje 1989), in Kananaskis Provincial Park (Head 1977), as well as a variety of other impact study locations. Excavations have been limited to a few sites in Banff National Park including Vermilion Lake Site (Fedje and White 1987), the Second Lake Site (Fedje 1986), the Norquay and Eclipse Sites (Fedje 1987) and at several pithouse sites along the Upper Red Deer River (Langemann 1994,1998). Excavations on the Eastern Slopes in Alberta have occurred principally at Sibbald Creek Site (Gryba 1983), near Exshaw (Kooyman n.d.), at James Pass on the Upper Red Deer River (Ronaghan 1993) and at sites on the Sheep River (McCullough and Fedirchuk 1983). Most of these reflect an archaeological history that has ties to the culture history of the Alberta Plains but with a reliance on mountain lithic materials particularly Banff chert/siltstone and Top-of-the-World Chert.

2.3 Ethnographic Use of the Central Rocky Mountains

The Ktunaxa (Kootenai or Kootenay) are the traditional Native inhabitants of the region centred along the Kootenay River. Ethnographic accounts of the Ktunaxa have been written by Turney-High (1941), Schaeffer (1940) and Smith (1984). This traditional territory extends from just north of Donald B.C. south to Lake Pend d'Oreille, Idaho and Flathead Lake, Montana. The area is bounded on the east by the Rocky Mountains and on the west their territory included Kootenay Lake and may have extended to the west side of Arrow Lake (Turney-High 1941: Map). At the time of first contact with the Ktunaxa people they had a considerable dependence upon hunting bison and possessed many Plains culture traits (Turney-High 1941). One of the areas for which there may be a conflicting claim is the area north from Canal Flats which Teit (1909: 455) identifies as part of the Shuswap area as it was occupied by the Kinbasket band, which was derived from the North Thompson Division of the Shuswap.

Ktunaxa traditional territory formerly extended northward and onto the east slopes of the Rocky Mountains and included the area known as Kootenay Plains. Alexander Henry the Younger noted in 1811

> ...We encamped at the upper end of the Kootanes Plain..I observed near the foot of the Rocks in the rear on the Plain the remains of an Old Kootonoes Camp, where the wood of their tents were still standing. Some of them were constructed with Poles nearly in the same matter as our Indians of the Plains, and I presume covered them with Leather in the same manner. But by far the greater part were constructed in a manner to be covered with Pine branches and grass, and some were made of split Wood thatched over with grass &c...Formerly that nation used to frequent this place for the purpose of making dried provisions...as Buffalo are always numerous, and the Grey Sheep are in abundance...Moose and Red Deer are also plenty. (Gough 1992:508).

Smith (1984) reviewed the variously recorded subgroups or bands. These are "essentially discrete, politically independent population concentrations, occupying as their individual home-country particularly favorable segments of the upper Columbia and Kootenay Valleys" (1984:31). These have varied somewhat through time and their names vary with each recorder. That the various subgrouping fluctuated is partly a reflection of a subsistence base which was diverse and required considerable flexibility and movement. Smith identifies seven band locations for the Upper Kutenai and two locations for the Lower Kutenai (1984:48). Curtis records that based on tradition, at the beginning of the historical period the Kutenai numbered seven hundred lodges, or about five

thousand people (1911:118). Smith (1984:55), however, suggests that the Kootenai in all bands numbered about 1000 people at the beginning of the nineteenth century. In British Columbia in 1963, the population of Kootenay and the affiliated group of Kinbasket Shuswap was 554 (Duff 1964:65).

The Kootenai language is distinct from other North American native languages. This suggests that Kootenai speakers have been a relatively isolated group for a long time. Sapir (1929) and others noted that there are some similarities of Kootenai to the Algonkian language family, especially Blackfoot. However, Haas (1965) could not provide compelling proof of a strong relationship. Morgan (1980) identified similarities between Kootenai and the Interior Salish language family. Evidence indicates that there was “an apparently long standing diffusional connection between Kootenay and Interior Salishan languages...[These]...seem to have gone beyond word borrowing into the realm of grammatical borrowings and interinfluences”. Morgan (1980:iii) concludes “The genetic relationship between Kootenay and Salishan is not close enough to warrent [sic] classifying Kootenay as a Salishan language. Kootenay is a single member language family which is coordinately related to the Salishan family in a language stock which can be called Kootenay-Salishan. Although Kootenay should no longer be considered a language isolate in the absolute sense it is still an isolate within the Kootenay-Salishan language stock”.

PATTERNS OF SEASONAL SUBSISTENCE

The Ktunaxa who lived along the Columbia Trench followed a traditional pattern of moving frequently to exploit seasonally available resources. Typically they crossed the Rocky Mountains to hunt bison on the eastern slopes, usually in spring/early summer and again in late fall or winter. They returned to the Columbia Trench in intervening periods to exploit the more varied resources of region. In particular, spawning salmon on the Upper Columbia were important in late summer. Throughout the remainder of the year, hunting of deer, mountain sheep, mountain goat, and bear was an important activity. Other species like elk, moose, and smaller game were also utilized. Hunting birds was also important during spring and fall migrations. Non-anadromous fish, like trout, ling, and suckers were also taken, with ice fishing taking place in the winter. A variety of plants were also utilized for food and medicinal purposes. In particular, roots and bulbs of bitterroot, camas, and glacier lily were collected in the spring and early summer, and berries were collected throughout the summer. The Ktunaxa subsistence base was complex and varied, but selection choices likely maximized available resources.

The subsistence pattern for the Ktunaxa varied considerable between the various bands as each group’s traditional area possessed unique characteristics. The bands of the Upper Kootenay had a greater emphasis on

hunting, while the Lower Kootenay had a greater emphasis on fishing (Smith 1984).

Schaeffer (1982) identified the annual economic cycle for the Michel Prairie Kutenai prior to the introduction of the horse.

> In winter they journeyed eastward well into the eastern foothills of southwestern Alberta to hunt bison. Mostly, they seemed to have ranged between Crowsnest Lake and Waterton Lakes, but a number of their campsites extended east to the junction of the Oldman and Bow Rivers.
>
> This, and other hunts were carried out on foot, supplemented with snowshoes during most of the winter season. At times they penetrated for some distance into the grasslands to pursue free herds, to raid the Shoshoni Indians, or to visit friendly tribes, such as the Cree. According to Kutenai informants, the Blackfoot were not resident in the foothills of extreme south-western Alberta at this time.
>
> The Michel Prairie band were said to have used dog travois for transport in the level, tree-free country east of the Divide...There is a tradition among modern Kutenai of this group impounding buffalo east of the Rockies...The Michel Prairie people took advantage, as did all the Upper Kutenai, of the buffalo's habit of seeking shelter in the wooded country of the eastern foothills to escape the severe winter storms of the open plains. Thus winter hunting parties moving eastward from the mountains usually encountered scattered buffalo in the vicinity of Crowsnest Lake. There the animals were run into snow drifts in the broken country of Crowsnest Valley, killed with spear or bow and arrows, butchered and the meat cured nearby...In spring, the Michel Prairie band moved westward across the Divide, via Crowsnest Pass, to plant tobacco and to engage in fishing, gathering and upland game hunting...Between planting and harvesting seasons, they hunted elk and other game in Elk River valley. At other times they used to join the Tobacco Plains band in hunting moose and elk north of Columbia Lakes, occasionally going as far north as Golden, B.C.
>
> The Michel Prairie people are believed to have taken fish in Whiteswan Lake during the summer excursion west of the Divide and occasionally in winter in the foothills streams east of the Divide...Apparently at times some of the Michel Prairie group moved north to the Columbia-Windermere Lakes for the fall migration of salmon. Others moved across the Rockies for the fall buffalo hunt, traveling south to Crownest Pass and across to the west side.

A Stony informant George McLean reported the following in 1926:

> The Kootenays and the Stonies always lived in the Rocky Mountains. The only time they traveled on the prairie was early in the fall and in the spring. When they wanted to hunt the buffalo the Stonies and Kootenays were together...They came over the White-Man's pass, the Kootenay pass, the Kananaskis pass (Canmore), the Bow River (west of Banff) pass, the Saskatchewan, and the Crowsnest. When the Kootenays did not come over, the Stonies went over to their side. They kept on that way for years...(Barbeau 1965:135).

When European explorers and fur traders crossed the Rocky Mountains in the early nineteenth century, they encountered K'tunaxa speaking people whom they knew as Kutenai or Kootenay. Fur traders of the Hudson's Bay Company and the North West Company constructed Rocky Mountain House on the upper North Saskatchewan River with the intention of enticing the K'tunaxa to come there to trade. Several groups of K'tunaxa attempted to reach Rocky Mountain House but were harassed by groups of Piegan who did not want to loose their position of trade middlemen with the K'tunaxa nor the Flathead to gain increased access to guns (Nisbet 1994: 97).

In the spring of 1807, David Thompson crossed the Rocky Mountains by way to the Kootenay Plains, Howse Pass and the Blaeberry River. He noted several places the Ktunaxa traditionally used including the Kootenay Plains and a place called Kootenae Pound near the top of Howse Pass. Thompson then travelled southward along the Columbia and established a trading post near Windermere Lake name Kootenae House. On his various trips across the mountains around this time, Thompson also encountered several other Native groups on the eastern side of the Rockies: Cree, eastern Ojibway, Stoney Assiniboine, and Sarcee. In the Columbia Valley, the Kootenay were clearly the resident group, although several groups of Piegan also visited Thompson at Kootenae House demonstrating that they too were capable of crossing the mountain passes.

3.0 Impact Assessment, Proposed Mitchell 2 Prescribed Burn Area

3.1 Introduction

A prescribed burn is proposed for an area of approximately 11 square kilometres from the Kootenay River-Pitts Creek confluence south approximate 3 kilometres and east to the height of the Mitchell Range. Adjacent to the Kootenay River there are several terraces. These rise to very steep slopes on the west side of the Mitchell Range. Virtually all of this area is vegetated with closed forests. Adjacent to the river are FR1-3 and FR1-5 ecosites consisting of lodgepole pine and white spruce

forests (Achuff et al. 1984). Set slightly back from the river is ecosite HD3 which is vegetated with a white spruce/mixed wood community developed on an alluvial fan. Further upslope are DR1 and DR3 ecosites with closed Douglas fir and white spuce-Douglas fir communities respectively. Higher still upslope with slopes between 20 and 50% is ecosite DG1A which consisting of a white spruce-Douglas fir and lodgepole pine dominated forest. As slopes increase to > 45 % the are SB4A and SB3 ecosites vegetated with open mixed coniferous (Engelmann spruce-subapline fir-whitebark pine-lodgepole pine) communities. These ecosites are rated as high significance for elk and deer (FR-1-5, DR1), high importance for mule deer (DG1A, SB3, and SB4A) high winter importance for elk moose and deer (DR3), high importance for goat (SB3) and medium importance for elk and deer (FR1-3) (Achuff et al. 984).

3.2 Methodology

A surface inspection accompanied with judgementally placed shovel testing was undertaken of the terraces adjacent to the Kootenay River and on the higher terrace and fans further east of the river. Archaeological testing consisted of standard 50 x 50 cm tests dug until glacial or fluvial gravels were encountered or to the max. depth possible with a shovel. Soil removed from these tests were screened through a 6 mm mesh screen. Soil profiles of tests were drawn and recorded in field notebooks.

3.3 Results

The Mitchell 2 Prescribed Burn Area is vegetated by closed mixed wood forests The terraces close to the Kootenay River had sandy soil development up to approximately 50 cm below surface when alluvial gravels were encountered. In areas away from the river there were no well developed terraces although colluvial fans were present. Adjacent to Pitts Creek are areas of recent alluvial development. No cultural materials were located throughout this area.

3.4 Conclusions and Recommendations

This area does not seem to have been utilized extensively in the past. No historical resource conflicts were identified. The project can proceed without any concerns for cultural resources.

4.0 References Cited

Achuff, P.L., W.D. Holland, G.M. Coen, and K. Van Tighem
1984 Ecological Land Classification of Kootenay National Park, British Columbia. Alberta Institute of Pedology Publication, Edmonton.

Barbeau, Marius
1965 Indian Days on the Western Prairies. National Museum of Canada, Bulletin No. 163, Anthropological Series No. 46. Ottawa, Queen Printers.

Blake, T. M.
1981 Archaeological Investigations at the Wild Horse River (DjPv 14). Occasional Papers of the B.C. Heritage Conservation Branch, No. 6. Victoria.

Bussey, Jean
1986 Salvage Excavation at EdQa 8, near Invermere, B.C. A Late Middle Prehistoric Camp. Unpublished report on file, Heritage Conservation Branch, Victoria.

Choquette, Wayne
1985a Archaeological Salvage Excavations at DjPv 14, The Wild Horse River Site, Southeastern B.C. Unpublished report on file, Heritage Conservation Branch, B.C.

1985b Archaeological Investigations at DjPv 14, 1985: Contract Report. Unpublished report on file, Heritage Conservation Branch, Victoria.

1988 Results of an Archaeological Resource Survey and Assessment in Kootenay National Park, 1987. Report on file, Parks Canada, Calgary.

Curtis, Edwards S.
1911 The North American Indian, Vol VII. Cambridge, Mass.

Duff, Wilson
1964 The Indian History of British Columbia. Vol. 1 The Impact of the White Man. Anthropology in British Columbia, Memoir No. 5. Provinicial Museum of British Columbia, Victoria.

Fedje, Daryl
1986 The Second Lake Site: Archaeological Mitigation in Banff National Park. Microfiche Report Series 234, Environment Canada, Parks, Ottawa.

1987 The Norquay and Eclipse Sites: Trans-Canada Highway Twinning Mitigation in Banff National Park. Manuscript on file, Archaeological Research Services, Canadian Parks Service, Western Region, Calgary.

1989 Archaeological Resource Description and Analysis, Banff National Park. Unpublished report on file, Archaeological Research Services Unit, Western Region, Canadian Parks Service, Calgary.

Fedje, Daryl and James M. White
1987 Vermilion Lakes Archaeology and Palaeoecology Trans-Canada Highway Mitigation in Banff National Park. Unpublished report on file, Archaeological Research Services, Canadian Parks Services, Western Region, Calgary.

Gough, Barry M. (ed.)
1992 The Journal of Alexander Henry the Younger 1799-1814, Volume 2. The Champlain Society, Toronto.

Gryba, Eugene
1983 Sibbald Creek: 11,000 Years of Human Use of the Alberta Foothills. Occasional Paper No. 22, Archaeological Survey of Alberta, Edmonton.

Haas, Mary R.
1965 Is Kutenai related to Algonkian? Canadian Journal of Linguistics 10:77-92.

Head, Thomas H.
1977 Archaeological and Historical Resources Inventory 1976. Consultant's report on file, Alberta Parks, Recreation and Wildlife, Edmonton.

Heitzmann, R.J.
1995 "Quartz Crystal Workshops in Kootenay National Park." Paper presented at the 28th Annual Canadian Archaeological Association, Kelowna, B.C.(1995). On file, Archaeological Services, Parks Canada, Calgary.

1997 1996-97 Kootenay National Park Ecohistory Archaeology Project. Report on file, Archaeological Services, Parks Canada, Calgary.

1999 Archaeological Investigations at the Salmon Beds. Report on file, Western Canada Service Centre, Parks Canada, Calgary.

Komex International Ltd.
1995 Atlas of the Central Rockies Ecosystem. Prepared for the Central Rockies Ecosystem Interagency Liaison Group (CREILG). Calgary, Alberta.

Langemann, E. Gwyn
1994 "Cultural Depressions". Research Links, Volume 2, No. 3, pp. 4-5, Parks Canada, Calgary.

1998 "A Description and Evaluation of Eight Housepit Sites in Banff National Park, Alberta". A paper presented at the Canadian Archaeological Association Conference, May, Victoria.

McCullough, E.J. and G. J. Fedirchuk
1983 Final Report Archaeological Investigations Eastern Slopes Region Sites EdPp-21, EdPp-22, EfPq-5 and EfPq-6. Consultant's report on file, Archaeological Survey of Alberta, Edmonton.

McKenzie, K.
1976 Report on Archaeological Investigations of Two Southeastern B.C. Sites near the Headwaters of the Columbia River. Manuscript on file, Heritage Conservation Branch, Victoria.

Morgan, L. R.
1980 Kootenay-Salishan Linguistic Comparison: A Preliminary Study. M.A. thesis, Department of Linguistics, University of British Columbia, Vancouver.

Mohs, G.
1981 Archaeological Investigation of a Kutenai Indian encampment: heritage site EbPw 1, Columbia Lake. Manuscript on file, Archaeology Branch, Victoria.

Nisbet, Jack
1994 Sources of the River, Tracking David Thompson across Western North America. Sasquatch Books, Seattle.

Ronaghan, Brian
1993 The James Pass Project: Early Holocene Occupation in the Front Ranges of the Rocky Mountains. Canadian Journal of Archaeology, Volume 17:85-91.

Sapir, Edward
1929 Central and North American Languages. Encyclopaedia Britannica, 14 th. ed., 5: 138-41

Schaeffer, C.E.
1940 The Subsistence Quest of the Kutenai: A Study of the Interaction of Culture and Environment. Unpublished Ph.D. dissertation, University of Pennsylvania.

1982 Plains Kutenai, An Ethnological Evaluation. Alberta History Vol 30(4):1-9.

Smith, A.H.
1984 Kutenai Indian Subsistence and Settlement Patterns, Northwest Montana. Technical Report, U.S. Army Corps of Engineers, Seattle.

Sneed, P.G.
1979 Kootenay River Diversion, Cultural Heritage Resources, Phase I Impact Statement. Manuscript on file, B.C. Hydro and Power Authority, Vancouver, and Heritage Conservation Branch, Victoria.

Teit, James A.
1909 The Shuswap. American Museum of Natural History Memoirs, 4(7):443-620.

Turney-High, H.H.
1941 Ethnography of the Kutenai. American Anthropological Association, Memoirs, No. 48. Menasha.

Yip, A. J.
1982 Archaeological Investigations at the Columbia Lake site, EdPw 1. Manuscript report on file, Heritage Conservation Branch, Victoria.

Figures

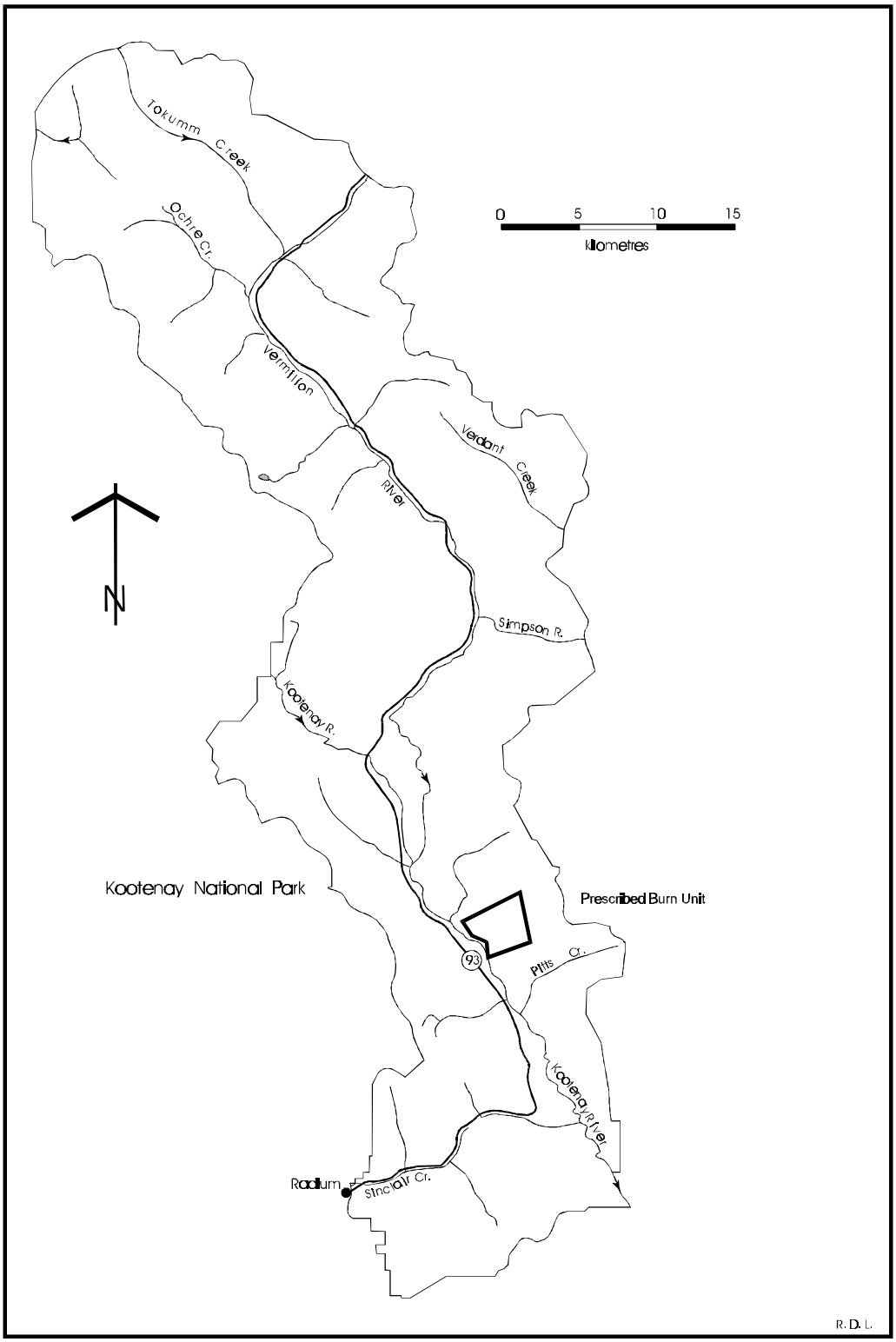

Figure 1 Location of Mitchell 2 Prescribed Burn area, Kootenay National Park.

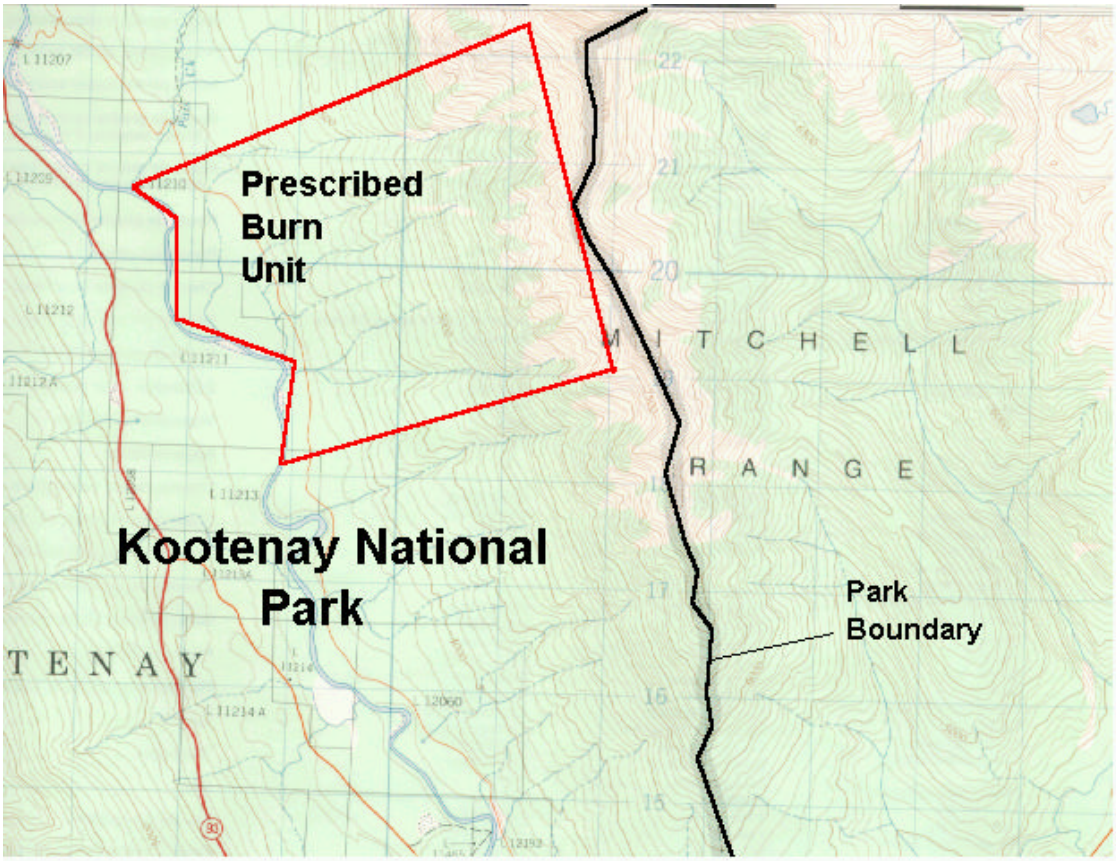

Figure 2 Plan of Proposed Mitchell 2 Prescribed Burn Area,
Kootenay National Park.

Figure 3 View south along the Kootenay River. The Mitchell 2 Prescribed Burn area is on the left, Kootenay National Park.