

# RESEARCH BULLETIN

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## Parks Canada Archaeology in Western Region, 1984

### Introduction

The Western Region Archaeological Research Unit of Parks Canada administered 90 projects in Alberta and British Columbia in 1984 ( See Table 1). All projects were under the financial management and administrative responsibility of the Regional Archaeologist of the Historical and Archaeological Research Section. Projects were completed through utilization of in-house resources, under contract, or through special agreements. This was an increase of 54 per cent over projects covered under permit in 1983. Seventy-two projects were associated with various National Parks and National Historic Parks and Sites in Alberta while 18 projects were related to British Columbia parks and sites. Of these, 57 involved HRIAs (areal and linear site surveys and assessments), eight mitigations (salvage and conservation archaeology involving major or test excavations) and 25 special projects (support activities, special studies, overviews and research).

Most of the heritage resources impact and assessment projects were conducted by Regional Salvage Archaeologist Ian Sumpter. Studies were completed in Elk Island, Waterton Lakes, Jasper, Yoho, Glacier and Banff National Parks. Project Archaeologist Rod Pickard completed three short-term mitigative projects in Jasper National Park at the mining community of



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Pocahontas (ca. 1908-21), the fur trade site of Jasper House (ca. 1830-84), and at two prehistoric sites (FfQm-26, FfQm-34) on Patricia Lake. Major investigations were continued at the early man Vermilion Lakes Site in Banff National Park under the direction of Project Archaeologist Daryl Fedje and assisted by Senior Research Assistant Jim White. Under the supervision of Research Assistant Lynda Gullason, major test excavations were conducted at Rocky Mountain House National Historic Park in support of development activities. Field studies focussed on areas in the vicinity of Hudson's Bay Company fort sites 15R (1835-61) and 1R (1865-75). In-house field research also included a number of mitigative projects supervised by Research Assistant Shawn Haley in Elk Island National Park. All projects were associated with prehistoric sites. Major investigations were completed at the prehistoric Echo Creek Site in Banff National Park under the direction of Project Archaeologist Sheila Robinson. In Calgary, Collections Management Coordinator Heather D'Amour initiated an archaeological specimens reference collection to represent regional assemblages. Finally, the cooperative efforts of the Archaeological Research Unit and the Historic Resource Conservation Section resulted in the successful collections of five soil section transfers to be used in displays.

The end results of all HRIAs and mitigative projects will appear in one of three formats; (1) non-published in-house manuscripts, (2) Parks Canada's Microfiche Report Series (MRS), or (3) Parks Canada's Research Bulletin Series.

#### **Archaeological Investigations in Western Region National Parks, Heritage Resource Salvage Program, 1984**

During the 1984 field season seven major archaeological programs were carried out by the Archaeological Research Unit's salvage crew within the boundaries of six National Parks in Alberta and British Columbia. Of these programs six involved heritage resource impact assessments (HRIAs) on various proposed development projects within Banff, Elk Island, Jasper, Waterton Lakes, Glacier and Yoho National Parks (Sumpter 1984; 1985a; 1985b). A preliminary highway

HRIA study and site inventory was also undertaken within Banff National Park, between km 26 (Sunshine Interchange) and km 47 (Castle Junction) of the Trans Canada Highway (TCH) (Sumpter 1985c).

In general, the research objectives of the six studies were to:

1. Undertake heritage resource impact assessments in the various National Parks, on projects with potential impact to heritage resources;
2. Identify, locate and assess both known and unknown heritage resources relating to the above HRIAs, and
3. Provide recommendations for each heritage resource site regarding mitigative measures necessitated by the development projects.

With these objectives in mind, each project methodology involved a two-stage approach based upon pre-field and field studies. The former entailed a literary search and examination of site data files maintained by the Archaeological Research Unit and Regional Library, Parks Canada, Calgary, the Glenbow Alberta Institute, Calgary, the Archives of the Canadian Rockies, Banff and the Archaeological Survey of Alberta, Alberta Culture, Edmonton. This information search was carried out to determine the extent of previous research in the study region and the number and locations of earlier recorded heritage resource sites associated by physiographic area as well as with individual development project areas. Pre-field activities also included the examination of relevant topographic maps, aerial photographs and interim development plans in order to acquaint the researchers with the project areas to be investigated and to assist in the assessment of the heritage resource potential of the area.

Field studies entailed an on-ground foot reconnaissance of project areas and significant peripheral areas in an attempt to identify known or to discover new heritage resources. The extent of the field research was determined by the scope and nature of the proposed development project and its impact. For linear projects, such as road alignments and trail improvements, foot transects along the proposed right-of-ways were conducted. Due to time constraints, systematic subsurface inspections were limited to locales evincing moderate to high potential for site recovery. In most cases, a

judgemental subsurface testing program was also employed within high potential areas. With respect to aerial surveys, judgementally-placed shovel probes were employed. Depending upon factors such as area, landform and matrix, surficial dimensions of the probes ranged in size from 40 cm to 60 cm per side. Existing exposures (rodent burrows, bison wallows, road-cuts, tree throws and erosional areas) were also examined to supplement those exposures incurred through shovel testing.

#### Banff National Park

During the period of July 3 to August 12 1984, heritage resource impact assessments were conducted by a two-person field crew on 18 development projects. The various projects included eight road/highway improvement or roadway associated construction developments, a ski development, primitive campground improvements, a townsite development, an entrance gateway improvement project, two borrow pits, two trails, one picnic site, an Information Centre development and one recent feature assessment (Fig. 1). In all, 5.66 kilometres of linear survey and approximately 268.25 hectares of areal survey were involved in the program.

Of the 18 proposed projects, eight evinced conflict with heritage resources. Of special heritage concern and value is the recently discovered Echo Creek Site, EhPv-78, a multicomponent site containing late prehistoric and historic assemblages. Due to the site's scientific research significance and proposed development impact, conservation archaeological studies were conducted by the Archaeological Research Unit (See this report). A total of nine heritage resource sites were located, five known and four newly discovered.

A brief description and evaluation of the located sites is given in Table 2. It should be noted that the assessments and recommendations pertain only to site areas situated within the proposed development project right-of-way and that those site areas extending beyond the project zone require further assessment.

In October 1984, a preliminary heritage resource impact assessment study and site inventory program was carried out between km 26 (Sunshine Interchange) and km 47 (Castle Junction) of the TCH (Fig. 1). A systematic



foot reconnaissance (km 26 - km 53.3) and shovel testing program (km 26 - km 47) was conducted within the proposed highway right-of-way. As well, judgementally-placed subsurface shovel probes were employed in moderate and high site potential areas.

The field methodology resulted in the discovery of 15 new heritage resource sites including two palaeontological sites, four prehistoric, one of both historic and prehistoric, and eight historic period sites. Eight of the 15 sites recorded were found to lie near the edge or within the proposed highway right-of-way. In Table 2, each resource site is briefly described, assessed as to site significance, and assigned priority and heritage value, with recommendations. Recommendations range from no further work required to conservation archaeology studies warranted.

#### Elk Island National Park

Eleven proposed development projects were examined by a two-person field crew during May 24 - June 29 1984 (Fig. 2). The projects included four road alignments, three skiing/hiking trail improvements, a recreational area improvement, a picnic area and a parking facility with associated trailhead development, and an entrance kiosk structural assessment. In all, 57 kilometres of linear survey and approximately 71 hectares of areal survey were involved in the program. Of the 22 heritage resource sites located, 12 were previously known and ten new sites were discovered.

Recommendations for the various resource sites range from no further work required to conservation/mitigative measures to be undertaken if resource site could not be avoided from development impact. Three of the 22 heritage resource sites (FjPe-2, FjPf-7 and FkPf-1) were found to be of special concern as they were assessed to be of high heritage value and in direct conflict with proposed development. Subsequently, conservation archaeological studies were carried out (See this report). The 22 sites are briefly described in Table 2.

### Jasper National Park

The Heritage Resource Salvage Unit carried out three HRIAs within Jasper National Park in early June (See figure 3). These included two development projects, a road alignment and a hot pool facility construction, and one heritage site re-evaluation study (FfQm-6, 324R).

One new palaeontological site was discovered (FgQk-1, 514R) during the trenching for the new Miette Hot Springs facility. Tentatively identified as immature bear (Ursus sp.), well preserved faunal elements were recovered from one isolated find spot, approximately 2 m below surface. The two sites are listed in Table 2.

### Waterton Lakes National Park

A total of seven development projects were examined by a two-person field crew during August 13 to 31, 1984 (Fig. 4). These land-modification developments involved a highway improvement project, a park's residence driveway expansion, a staff residence construction development, a temporary bridge replacement and detour, an oil spill disturbance assessment, a natural gas pipeline right-of-way overview and an installation monitoring program.

In total, 25.65 km of linear survey and approximately 35.6 hectares of areal survey were involved in the program. Five of the seven proposed projects were found to be in conflict with a number of heritage resources.

The impact assessment program relocated and assessed a total of 21 heritage resource sites: two palaeontological, one historic, one historic/prehistoric and 17 prehistoric sites. Eighteen of the sites were previously known. Each resource site is briefly discussed in Table 2.

### Glacier National Park

The Heritage Resource Salvage Unit undertook a preliminary heritage resource impact assessment of six areas of heritage concern within Glacier National Park (Fig. 5). These concerns were related to current C.P.R. Rogers Pass

development (WRA-84-25), a number of historic structural features (WRA-84-26A, 26B, and 51), a bridge resurfacing program, one picnic facility expansion and a Work Compound development.

The C.P.R. construction development projects (storage areas, settling ponds, borrow pits and work campsites) were found associated with previously disturbed localities, therefore offering little in heritage resource data recovery potential.

The historic structural features are all related to historic C.P.R. structures and include Glacier House (22T), the Cascade Creek stone rail bridge (352T) and the Loop Creek stone pillars (23T). Because they are all vulnerable to natural and cultural disturbances, recommendations were made that a conservation and stabilization program be initiated to protect these regionally and historically significant heritage resources (Table 2).

#### Yoho National Park

A total of six proposed development projects were examined by the Heritage Resource Salvage Unit during September 6 to 12, 1984. The projects included two gravel pit developments, two picnic area redevelopments, a back-country trail upgrading and rerouting project and a preliminary overview study of the Kicking Horse River Hydro Project (Fig. 6).

In all, ten kilometres of linear survey and approximately 30.4 hectares of areal survey were involved in the program. A total of three new heritage resource sites were located - one prehistoric isolated find and two historic bridge footings (Table 2). The three heritage resource sites were found to be of low heritage value and site documentation represents sufficient mitigative measures.

#### Summary

The Heritage Resource Salvage Program 1984 assessed a total of 52 development projects proposed for six National Parks. The impact assessment program entailed a two-stage research study that involved the location and evaluation of

75 heritage resource sites (48 prehistoric, six palaeontological, three historic/prehistoric and 18 historic period sites). The resource sites ranged from an isolated surface find to highly significant resources. As nonrenewable resources, the latter are of considerable interest and heritage value.

#### **Interim Report - Jasper National Park Historical Resource Assessment Studies**

The Western Region Archaeological Research Unit conducted historical resource assessment studies of two historic period sites (Projects WRA-84-8, WRA-84-9) and two prehistoric sites (Project WRA-84-10) in Jasper National Park from June 26 to September 14 1984. Assessment studies were carried out at the sites of Pocahontas (ca. 1908-21), Jasper House (ca. 1830-84) and two prehistoric sites situated on Patricia Lake (FfQm-26 and FfQm-34).

#### **Pocahontas (FhQ1-14)**

Pocahontas is an historic coal mining area located along Highway 16 near the base of Roche Miette in Jasper National Park (Fig. 3, WRA-84-8). Coal claims were staked in the area in 1908 and, following completion of the Grand Trunk Pacific Railway in 1911, a mine and associated boomtown were established near the tracks. Jasper Park Collieries, the coal company which operated at Pocahontas, continued production until 1921 at which time the mine was closed because of labour and production related problems as well as other economic difficulties.

In 1983 the Archaeological Research Unit completed preliminary inventory activities at Pocahontas, concentrating on the identification of significant historic period remains. It was noted at this time that relic collecting activities represented a major problem and that this problem was reducing the historical resource values of the site. Following the 1983 recommendations, an assessment program was initiated in 1984 to mitigate the loss of material culture remains from a major refuse dump associated with the 1908 to 1921 occupation period. The refuse dump was found to cover a 900 square metre area within a dense

stand of poplar and spruce near Punchbowl Falls. The dump was investigated over a three week period, during which three 1.0 m by 2 m tests and two 1.0 m square tests were excavated. The dump was divided into 5 m square blocks and it was extensively photographed from recorded reference points to facilitate long-term monitoring. A temporary field laboratory was established to inventory metal containers and other artifact types. This proved to be a successful approach for processing the large numbers of artifacts encountered during excavation. Approximately 130 metal container types, a large sample of faunal remains, ceramic and glass fragments, a variety of metal fasteners and a number of miscellaneous artifact types were recorded and brought back to Calgary for curation and detailed studies. The results of artifact studies, which are now in progress, should aid in the interpretation of the coal mining story at Pocahontas. A detailed report on the 1984 studies will be available in 1985.

#### Jasper House (FgQ1-1)

Jasper House is situated on a silt-capped alluvial fan on the west bank of the Athabasca River some 37 km downstream from the Jasper townsite (See Fig. 3; Project WRA-84-9). Jasper House was constructed at this spot in 1830 following a move from an original location on Brule Lake. The site was utilized primarily as a supply depot for exploiting the Columbia and New Caledonia fur districts. Fur brigades travelling from Fort Assiniboine on the Athabasca River obtained provisions and horses for crossing the mountains into British Columbia at Jasper House. The area around Jasper House, commonly known as Devona Flats, offered good winter grazing for the horses. The site continued to be used in a lesser degree as a trading post until about 1884 when it was finally closed down (Morton 1973). According to Stuart (1985: in progress), the structural history of Jasper House is marked by three building phases in 1830, 1858 and the 1890s. The 1830 phase was associated with relocation and establishment of the site by Michael Klyne, the 1858 phase was associated with rebuilding by Henry John Moberly, and the 1890s phase was marked by utilization of the site by Louis Swift, an American homesteader. Jasper House was designated a National Historic Site in 1927.



The Archaeological Research Unit carried out investigations at the site from July 23 to August 24 with a five-person crew. The purpose of the project was to assess the impact of relic collecting activities, map historic period remains, examine the integrity of building remains through test excavations and initiate structural history investigations. The site was extensively photographed and mapped during the field phase. Two separate building locations, two refuse pits and a potential high-use area next to the river were test excavated. Visual historic features including four chimney mounds, three and possibly four building outlines, a cemetery and other small depression features were mapped and recorded.

Assessment studies indicated that relic collectors had disturbed a significant refuse pit, disturbed chimney mounds and collected significant remains from the cemetery and other features of the site. Testing of the buildings indicated that wood remains of one building clearly delineated its orientation and construction technique. Testing of the second building demonstrated that structural remains were largely charred and more difficult to interpret. An interesting sample of butchered ungulate bones was obtained from a small cultural feature. A range of faunal materials, nails, glass trade beads, cartridges, clay smoking pipe fragments and other assorted artifacts were found in a large refuse pit. An assortment of artifacts (beads, nails and cartridges) and faunal remains were found during testing of the two buildings.

Jasper House represents a significant historical resource within the park. Investigations at the site suggested that the site encompasses a number of relatively undisturbed structures and features. Artifact and faunal analysis is presently ongoing. The final report will contain detailed descriptions of the 1984 field investigations and will be completed in 1985. Further investigations at Jasper House are planned for the summer of 1985.

#### Patricia Lake (FfQm-26, FfQm-34)

These two prehistoric sites are situated on the northeastern end of Patricia Lake

on the Pyramid Bench above Jasper townsite (See Fig. 3, Project WRA-84-10). Both sites were discovered in 1983 during inventory and historical resource assessment studies. Site FfQm-26 is located on an undulating morainal surface overlooking the lakeshore, while site FfQm-34 is located within a day-use area across the Pyramid Lake Road from site FfQm-26.

The 1984 program was designed to provide information for the Environmental Assessment and Review Process (EARP) within Parks Canada in view of upgrading of the Pyramid Lake road and the day-use area at some future date. Construction work began on the road in 1984 and was completed from Jasper to Cottonwood Slough. Investigations were conducted at the sites from August 20 to September 14 1984. The objectives of the program were three-fold to determine the spatial limits of the site, to determine temporal and cultural association, and to determine site significance.

The testing program at site FfQm-26 was initiated by gridding the site into a 10 m pattern. Initially all test units were trowelled and hand sorted. This was changed to a methodology whereby all tests were screened through 1/4 in. and 3/8 in. mesh screens. A total of 150 test units were excavated on the grid with 71 yielding lithic artifacts. A large variety of artifact and material types were identified at the site. Artifacts were found to cover an estimated 12,000 square metre area. Within this area three distinct artifact clusters were delineated. Stratigraphy at the site was largely compressed with most artifacts clustering in the upper 20 cm of soil matrix. Artifacts tended to be associated with a red soil horizon of an Eutric Brunisol. A 10 square metre block excavation (two 2 m by 2 m and one 1.0 m by 2 m) produced significant amounts of lithic debitage, unnamed stemmed, side-notched and corner-notched projectile point types (approx. 10 specimens) and miscellaneous tool types. During the testing program a significant number of gravers were identified. No radiometrically dateable materials were found during testing.

A second site (FfQm-34) was tested across the road from site FfQm-26. A total of 63 lithic items were collected from the site, comprised mainly of quartzite, quartz crystal and siltstone material types. A total of 37 shovel tests were excavated. All sediment was screened through 1/4 in. mesh screens. A total

of eight lithic tools and 38 utilized flakes were identified during post-field season artifact analysis. Of particular note was the base of a lanceolate point resembling the Lusk or Agate Basin types.

The lack of temporally diagnostic materials and dateable materials represents a major interpretive drawback of the two sites. However, in view of the lack of excavated materials in Jasper National Park, both sites have added significant information. Future investigations at the site will depend on road development and other upgrading plans. A detailed report on the 1984 program will be completed on the two sites in 1985.

### **Archaeological Investigations in the Vermilion Lakes Area of Banff National Park**

Parks Canada is currently completing the final year of a three-year program of research and mitigation in response to twinning of the Trans Canada Highway along the heritage resource rich landforms north of the Vermilion Lakes in Banff National Park (Project WRA-84-2). Four prehistoric sites were investigated during 1984 (Fig. 7). These include the Edith Trail Site (EhPv-5), the Five Mile Creek Site (EhPv-7), the Vermilion Lakes Site Localities A (EhPv-8) and B (EhPv-15) and the Beach Site (EhPv-72). All of these sites are situated on the north side of the Bow River valley between the Vermilion Lakes Wetlands and the abrupt slopes of the Sawbuck Mountain Range. Each site occupies a unique biophysical setting within this Montane Ecoregion.

#### **The Edith Trail Site (EhPv-5)**

This prehistoric site is situated on an aeolian capped alluvial fan some 300 m north of the modern margin of the Vermilion Lakes Wetlands. A systematic deep

test excavation program in concert with backhoe testing exposed two prehistoric components. One was associated with the 'modern' Luvisol and one was buried by approximately 1.5 m of alluvial gravels and alluvial and/or aeolian silts. Intensive systematic testing and block excavations were subsequently conducted in areas which had yielded the greatest concentrations of prehistoric material.

The upper component was intermittently present across the approximately 10 m by 100 m impact zone. Material culture remains recovered from this component were limited to a few formed tools and a quantity of debitage. Black chert was the dominant material type.

The lower component was apparently very limited in extent. It was associated with a relatively thin silt layer in only a few small areas within the proposed development zone. Alluvial cutting subsequent to deposition had removed most of this silt layer. Few material culture remains were recovered. Concentrated within an area approximately 3m<sup>2</sup> was a quantity of black chert debitage derived from lithic reduction activity. No tools were identified in field. Organic preservation was limited to a small quantity of charcoal.

#### The Five Mile Creek Site (EhPv-7)

This prehistoric site is situated on a substantial aeolian feature overlying an alluvial fan near the eastern edge of the Vermilion Lakes Wetlands. Mitigation was essentially completed during 1983 (Fedje and White 1984). Activities at this site in 1984 were limited to deep backhoe trenching for interpretation of the landform itself and surface collection on the development area subsequent to clearing and grubbing. A quantity of lithic detritus, and tools as well as a few diagnostic artifacts were recovered.

#### The Vermilion Lakes Site (EhPv-7, 51)

This prehistoric campsite is situated at the toe of a debris-flow fan (colluvium/alluvium) on the marshy perimeter of the Vermilion Lakes. The site includes two localities separated by about 100 m of terrain. No intensive

testing or deep testing has been conducted between the two localities but, it is probable that the cultural strata will extend across this area. During the 1983-84 fiscal year a substantial effort was carried out at this site with a focus on the western Locality A. The results of this program (Fedje and White 1984) indicated that the site was deeply stratified, and contained evidence for nine periods of human activity over the past 10,000 years.

In 1984 work was concentrated at the eastern Locality B but also included some additional excavation at Locality A. Excavations at Locality B were initiated in the late winter (February 1984) and completed during the summer months. Approximately  $50\text{m}^2$  ( $100\text{m}^3$ ) was excavated including both systematic deep testing (1.0 m by 2 m and 2 m by 2 m units) and block excavation. In addition, four backhoe trenches were excavated deep into the landform for biophysical interpretation. Two prehistoric components were identified at Locality B. Both lie within the massive silts overlying early post-glacial colluvial and alluvial deposits.

The upper component was associated with the 'modern' luvisol at 10 cm to 30 cm below the present land surface. While analysis has yet to be completed, field inspection of the assemblage tentatively suggest a Late Middle Prehistoric time-frame. Material culture recovery included some 1800 lithic items including five projectile points, a number of tools and a large quantity of debitage (1750 + items). A small amount of poorly preserved bone was also recovered. Several of the projectile points compare most favourably with the Pelican Lake Corner-Notched type but detailed analysis and/or radiogram dating is necessary prior to a firm identification. No intact features were noted and it is likely that this component is at least partly turbated. That a single component may be represented is suggested by the horizontal distribution of the assemblage (approximately 90 per cent of the upper component lithic assemblage, including all projectile points, was recovered from a  $10\text{m}^2$  area in one part of the site) and the similarities within the projectile point assemblage.

The lower component was associated with a very weak regosol at 140 cm to 150 cm below the present land surface. An Early Prehistoric Period time-frame is suggested by the recovery of a large lanceolate projectile point. Approximately 90 additional lithic items were recovered from this component



including a few tools and a quantity of debitage. All of the cultural remains comprising the lower component were recovered from a roughly circular area of about 3 m diameter. Associated with this concentration was a thin scattering of charcoal fragments. No bone was recovered. It is noteworthy that there appear to be close similarities to the lower components of the Locality A (Fedje and White 1984). For example, the lithic material types and technology are virtually identical to that observed in Component 7 (ca. 9,400 B.P.) at Locality A and the projectile point is similar to that recovered from Component 6 of the same locality.

Excavations at Locality A were conducted during the late summer of 1984. Approximately 10m<sup>2</sup> (20m<sup>3</sup>) was excavated. This included a 1.0 m by 3 m unit for confirmation of stratigraphic correlations and a 2.5 m by 3 m block excavation contiguous to the northernmost of the larger blocks excavated in 1983. Analysis is currently in process. No diagnostic artifacts were recovered, although a relatively large sample of lithic and faunal remains was obtained. This will add substantially to the 1983 data for cultural Components 6 through 9 of the Early Prehistoric record. Interestingly, postholes and lithic distributions from the lowest cultural component suggest a circular structure is represented. Several additional radiocarbon dates will be run on bone and/or charcoal from the Early Prehistoric occupation layers. This should aid in refinement of the chronological record.

#### The Beach Site (EhPv-72)

This prehistoric site was situated on a small bench interpreted as an aeolian capped beach associated with a large alluvial fan. The beach itself predates the human occupation of the locale and is correlated with the 1383 m level of Vermilion Lake at ca. 8000 B.P. to 10,000 B.P. (Fedje, White and Robinson 1985; Kostaschuk 1980). In order to mitigate an accelerated development schedule proposed to impact the site in the early spring, test excavations were conducted in late winter (early February 1984). Two 2 m by 2 m units were excavated to a depth of about 1.5 m (level of the basal beach deposits).

Prehistoric cultural material was recovered from approximately 5 cm to 30 cm below the modern soil surface. Preliminary data indicate that the sediments and constituent artifact assemblage were mixed through natural processes. Within this context a limited lithic assemblage was recovered including a quantity of debitage, a few tools and a single projectile point. No bone or intact features were observed. The projectile point recovered compares most closely to the Bitterroot type suggesting occupation during the Early Middle Prehistoric period (Early Plains Archaic).

### **Palaeoecological Research in Banff National Park**

Palaeoecological research is part of the Vermilion Lakes Archaeological Project. Sediment cores from two small lakes in the Bow Valley in Banff National Park have been obtained for pollen analysis and radiocarbon dating.

Grizzly Pond (informal name) is located at the junction of the Cascade and Bow Valleys (U.T.M. PG 035746), on a terrace of Canmore Advance till (Rutter 1972). It is within the Montane Ecozone, and lodgepole pine is the dominant vegetation cover (Holland and Coen 1983). The pond is about 150 m in diameter and less than 2.5 m deep.

Two 5 cm diameter cores were obtained from the deepest portion of the pond, and are each about 4.5 m long. They exhibit similar stratigraphy and sediment lithology. The upper 3.7 m of gyttja contains plant macrofossils and molluscs. Two tephras within the gyttja have been identified as Bridge River and Mazama by glass shard morphology (R. King written communication 1984). Below 3.7 m the gyttja grades into clay with abundant molluscs, lenses of sand and fragments of the macrophytic alga Chara sp.

Copper Lake is on the floor of the Bow Valley near Castle Junction and Vermilion Pass (U.T.M. NG 752791), occupying an apparent kettle. Undifferentiated drift and morainal material surround and underlay the lake, and it is just within the limit of the Eisenhower Junction Advance (Rutter 1972). Copper Lake is within the Lower Subalpine Ecozone and lodgepole pine is the present dominant vegetation cover. The transition between the Lower Subalpine

and Montane Ecozones occurs is within a few kilometres down-valley of Copper Lake (Holland and Coen 1983). Copper Lake is about 200 m in diameter, and apparently 8.6 m deep, at maximum.

Two 5 cm diameter cores of 8 m length are from the deepest part of the lake. Both cores have similar stratigraphy and sediment lithology. The upper 6 cm of sediment is gyttja, and contains 3 tephra. The upper tephra is probably Bridge River, a thick middle tephra is probably Mazama, and the lowest tephra is unknown. Below 6 m the sediment is clay with sand lenses.

Radiocarbon dating and tephra analyses are being undertaken. Preliminary pollen analysis indicates that the clay-gyttja transition contains a sage-grass-pine pollen zone. Pollen analysis is continuing, and diatoms are being analysed. The analyses to-date permit only a preliminary statement of results and potential. Grizzly Pond contains a short post-glacial record, with a basal age estimated at 8000 B.P. This is broadly typical of sediment cores from the northwestern plains and foothills, from ponds which dried during the Hypsithermal. The lower Bow Valley in Banff National Park likely experienced similar climatic conditions. No further analyses are presently planned for this pond. Copper Lake contains a longer post-glacial record and will be the focus of further analysis (1985). Upon completion of the radiocarbon dating and tephra identification, it should be possible to give a minimum age for deglaciation of the Bow Valley at Castle Junction, and to identify a pre-Mazama tephra. The chronology and nature of post-glacial revegetation will be clarified and supported by palaeolimnology. The results will be related to the human occupation of the Bow Valley.

#### **Archaeological Investigations at Rocky Mountain House**

A four week excavation was conducted at Rocky Mountain House National Historic Park in July and August 1984. The field project was federally funded

through the Environment 2000 program. The objective of the project was to provide archaeological clearance prior to construction of interpretive trails in the vicinity of two known Hudson's Bay Company fort sites (Rocky Mountain House); one occupied from 1835 to 1861 (15R) and another occupied from 1865 to 1875 (1R). Controlled shovel testing and hand excavation of sensitive areas was conducted along the trail system. Archaeological monitoring of construction activity also took place. In addition, excavation and assessment of a refuse area eroding out of the bank of the North Saskatchewan River, although not directly impacted by the trails, was also completed. This refuse area was associated with the Hudson's Bay Company Rocky Mountain House, 1835-61.

Excavation units set along the trail alignments were devoid of historic cultural features despite, in some cases, their proximity to palisade walls. A limited amount of historic period material, artifacts and faunal remains, was recovered in the vicinity of the 1835-61 site. Most of this material originated from the disturbed upper cultivation layer. The refuse area along the river was delineated and large quantities of artifacts and faunal remains recovered from undisturbed contexts.

#### **Archaeological Investigations in Elk Island National Park**

1984 archaeological investigations in Elk Island National Park were prompted by plans to develop and expand park facilities. In the fall, a two-person field research team carried out site reconnaissance in five specific locales and mitigative excavations in two others. These field studies (Project WRA-84-68) followed compilation of a list of all known heritage resource sites within or immediately adjacent to the relevant development areas.

The five heritage resource impact assessments were conducted: along the southwest half of Flyingshot Lake Trail; along the proposed Astotin Lake West Road; at the Buffalo Paddock Interpretive Tower site; at the Spruce Grove Interpretive Tower site, and along the western side of the Tawayik Narrows. Site reconnaissance at these locations included surficial inspection, systematic subsurface shovel testing, and judgemental subsurface shovel testing. In the last area, prehistoric site FjPf-7 (521R) was also surveyed, recorded and mapped.

No heritage resource sites were identified along the 4 km length of the Flyingshot Lake trail, where realignment of the Astotin Lake west road is planned, where the Buffalo Paddock Interpretive Tower site is to be impacted, or where the Spruce Grove Interpretive Tower site is to be developed. In all four cases, it has been recommended that proposed construction activities can proceed.

At Tawayik Narrows, between Tawayik Lake and Little Tawayik Lake, development plans include building trails for cross-country skiing and hiking. Bridges may also be built across several natural drainage channels. Here, three prehistoric sites were inspected; site FjPf-7 (521R) (reported in 1977 — See Wilson and Head 1978; See also Sumpter 1984), site FjPf-6 (524R) (reported in 1977 — See Wilson and Head 1978), and site FjPf-112 (523R). Following in-field reconnaissance, a Middle Prehistoric designation was tentatively assigned to the scantily represented occupation at site FjPf-112. It also appears that there is reason to treat the entire narrows area as a single resource utilization area or site (Haley 1984). At present, the Tawayik Narrows area is not immediately endangered by development plans which might adversely affect these sites. Recommendations have been made, however, that the area be periodically monitored.

Mitigative excavations at the East Road Site FjPe-2 (520R) followed discovery of cultural and presumably associated faunal materials there earlier in the season (Sumpter 1984). Through excavation of a 2 m by 2 m pit at the site, some undiagnostic lithics and some poorly preserved faunal remains were recovered. This site probably represents the marginal remains of a larger campsite that may have been destroyed by initial construction of the East Boundary Road. Part of the site may remain undisturbed in the wooded area just outside the park and the proposed development area. Recommendations have been made to proceed with development plans at the site.

Because upgrading of the Astotin Lake picnic area and related hiking trails has been proposed, mitigative excavations were conducted at the Beaver Bay Site, FkPf-1 (522R), which had been identified earlier that year (Sumpter 1984). Systematic excavation of 8 square metres revised the original estimation of the



site and established that it is a campsite and significantly larger than first thought. Apart from historic materials probably associated with the picnic area which were recovered, excavations revealed a single prehistoric component of as yet unknown temporal placement which was probably inhabited in the autumn.

This site can provide a significant amount of information of prehistoric lifeways, particularly because it is relatively undisturbed. Recommendations have been made that more extensive mitigative excavations take place before any proposed developments are initiated. It has also been recommended that the floral and faunal remains recovered in 1984 be analysed and that radiocarbon dating of recovered faunal materials be used to ascertain the date of the Beaver Bay Site's occupation.

#### **Archaeological Investigations at the Echo Creek Site, Banff National Park**

Part of the 1984 heritage resource impact assessment in Banff National Park involved determining how the widening of Norquay Road between the Echo Creek Picnic Area and the Vermilion Lakes Road would affect any prehistoric or historic period sites in areas along the existing road's margins. Surficial inspection and subsurface testing in July identified a large prehistoric site situated on both sides of the road and extending approximately 100 m in length along a slight rise of fluvial/lacustrine deposits. The Echo Creek Site, EhPv-78 (515R), appeared to contain one prehistoric component with well-preserved faunal materials, as well as lithics tentatively associated with the early-middle Late Prehistoric Period. Because road widening, which would destroy much of what remained of the site, was scheduled to begin in the fall, plans were quickly implemented to conduct salvage investigations (Project WRA-84-69).

Initially, a four-week field season involving a crew of five was planned to maximize recovery of information in the short time available. This was eventually extended to eight weeks (August 21 to October 12), with fewer excavators involved in the final weeks. Systematic subsurface testing of the site was continued to determine the horizontal and vertical distributions of cultural

materials more precisely. Areal excavations were initiated in places where concentrations of lithic and faunal elements were uncovered through test excavations. Detailed records of site stratigraphy were made: samples of soils collected, as were faunal remains, charcoals and tephra for dating purposes. For most of the site's matrices, 1/8 in. mesh screens were used, although heavy compaction in some instances made a switch to 1/4 in. mesh necessary. The larger mesh screens were also used in the final weeks of test excavation on southern portions of the site. Where dense concentrations of small lithic and faunal items were uncovered in one 12 square metre area of the site (Operation 4), cultural material-bearing strata were partially screened in the field with 1/8 in. mesh, and subsequently waterscreened with finer meshes. Although this technique did not allow complete recovery of lithic and faunal materials, it substantially increased the archaeological sample from this area. A total of 43 square metres were excavated during the field season. Extending out from four of the 17 test units (1.0m<sup>2</sup>) were areal excavations of four, four, six, and 12 square metres. Shortly before the site was grubbed and excavated by heavy machinery, a series of trenches were excavated by backhoe along 60 m of the site's length to aid the identification of stratigraphic linkages among the areal excavations.

The decision to extend the field season to eight weeks was prompted not only by delays in road construction activities but also by new discoveries which were made as the first test excavation units were opened. The first was that the site contained historic period as well as prehistoric cultural materials. A preliminary search in the Archives of the Canadian Rockies located in Banff quickly associated these with the Brewster Dairy, established in the late 1880s to serve the local population's and the C.P.R.'s needs for fresh dairy products. Because this dairy was one of the few commercial operations allowed in Banff National Park in the late nineteenth century and early twentieth century, and because the Brewsters are celebrated as one of Banff's pioneering families, Echo Creek Site's historic period component gained interesting significance. Information acquired later indicated that 'Jordan's Sawmill' was once located on the site itself. This has yet to be confirmed.

Initial test excavations made during the field season also demonstrated that at least two, if not three distinct cultural components were present in the

Echo Creek Site's prehistoric assemblages. One of these components did indeed represent an early-middle Late Prehistoric occupation of the site (four projectile points tentatively identified as 'Besant' were recovered in situ), but the recovery of more than 20 diagnostic projectile points from a later period indicated that a late-Late Prehistoric occupation was also represented. The excavation of Operation 4, where this later component was found, revealed a complex assemblage of lithic and faunal materials which, by virtue of its intactness, affords a rare opportunity to study prehistoric cultural behaviour of that time period in the Bow River valley. Other areas opened at the Echo Creek Site during the field season revealed a much more complex stratigraphy than had been noted earlier which contained buried soils, deposits of volcanic ash, and quantities of bone and charcoal at various levels.

Although full analysis of the materials recovered from the Echo Creek Site is pending, certain significant features of the prehistoric assemblages and their stratigraphic contexts can be noted, and are summarized below:

Approximately 26,000 faunal remains representing a variety of large mammals, small mammals, fish, birds and invertebrates were recovered from the Echo Creek site. Most are small fragments, but as many as 5 per cent should be identifiable to species. Faunal analysis now in progress will help identify the types of habitats which were utilized by prehistoric site occupants, the time(s) of year the site was occupied, and various aspects of food processing. Preliminary assessment of the Echo Creek Site's faunal assemblages suggests that a fairly broad spectrum strategy of subsistence-related resource procurement had been developed by Park dwellers in the Late Prehistoric period, if not earlier. It can also be suggested that the site's inhabitants had economic arrangements which were sufficiently stable and well-adjusted to local environmental conditions to allow extended, if not year-round occupation of the area.

Approximately 10,000 lithic items were recovered from the site. The variety of materials indicates that its prehistoric dwellers had access to several sources of rocks and minerals used in the production of tools. Some lithic resources may have been imported from places outside modern Banff National

Park. Identification of these 'exotic' sources will eventually furnish the basis for reconstructing patterns of prehistoric population movements and exchange. Associating some of the site's lithics with local quarry sites will also aid reconstruction of prehistoric schedules of resource exploitation in several of the Park's biophysical zones. The variety of lithic resources also suggests that hunter-gatherers occupying the site recognized and sought out specific types of lithic materials whose structural compositions made them particularly suitable for small tool manufacture. This preliminary interpretation is supported by indications that a sandstone-lined hearth located in the midst of a dense concentration of flakes, shatter and cores may have been used for heat-treating lithic materials to improve their flaking qualities. Recently begun analysis of the extensive range of lithic types which were recovered from the site will also provide substantial information about methods of lithic resource use.

Some portions of the upper components in the site showed clear signs of having been modified historically, but for the most part stratigraphic layers remained intact. Recovery of information about the site's stratigraphy, including the collection of soil samples and the production of detailed drawings as well as photographic records, will aid in the reconstruction of some aspects of the site's palaeoenvironmental history. At present, plans for analysing recovered stratigraphic materials are minimal although the dating of some carbon and tephra samples is in process. When the dates for certain deposits are known, it will be possible to estimate the ages of the site's various cultural components more firmly, and to determine a minimal basal date for a habitable Echo Creek Site. The composite layers of silty sands in the top 1.5 m of the site are most likely of fluvial origin although aeolian deposits (of primary and secondary origin) may well be present. Below these fine-textured layers are coarser sands and gravels, presumably once associated with the Vermilion Lakes. The presence of several palaeosols buried within the site's horizons suggests a relatively active and irregular depositional history over the last few thousand years.

In view of the nature and concentrations of organic and inorganic materials which were found in association in several prehistoric cultural components of the site, it is obvious that the site area must have functioned as something more than a hunting spot or an artifact manufacturing station at various times in the past. However, with the exception of two depressions tentatively identified as postholes, no significant prehistoric structural features were noted in the course of the field investigations. This absence of information undoubtedly reflects the limited time which was allotted for the field season and the related fact that proportionally such a small portion of the site — less than 5 per cent — was excavated.

#### **Archaeological Collections Management**

In 1984, Collections Management initiated the establishment of a Regional Reference Collection. The long-term plan is to select artifacts from prehistoric and historic period assemblages which represent common or diagnostic items and themes. The first stage of reference collection compilation has concentrated on historic period materials dating from 1799 to 1950 in the categories of glass (bottles, tableware, pane and mirror), beads, ceramic household items and building hardware. A type collection of lithic materials from prehistoric assemblages is also being prepared, and will be incorporated into the Regional Reference Collection. Collections Management activities have also been directed towards processing, cataloguing and analysing materials associated with the archaeological projects described earlier in this report. Much of the work has been handled through contracts supervised by the Regional Archaeologist, Collections Coordinator and the Project Archaeologists.

#### **Soil Sections Transfer Project**

The Archaeological Research Unit requested the assistance of the Historic Resource Conservation Section (Conservation Services Unit), Western Region, in



preparing soil section transfers in Banff National Park. Initially, only one transfer was to be made at the Vermilion Lakes Site (153R), but as this was successfully accomplished, the Archaeological Research Unit undertook the preparation of two more transfers from this site and two from the Echo Creek Site (515R) in September and October 1984.

The first soil section transfer taken at the Vermilion Lakes Site, on the south wall of Operation 12, was regarded as experimental because the project presented some problems which had not been encountered in earlier soil section transfers. One problem was that the transfer was large (about 3 m by 2 m), and another was that the surface to be transferred was very irregular. Bands of rock and gravel were layered between smooth silty sand layers.

The south wall was first sprayed with a fungicide and a coil consolidant. Then it was sprayed with neoprene rubber latex. When the latex coating dried, a second coat was brushed on. A layer of cheesecloth followed, secured with a third coat of latex. To ensure proper adhesion of the coatings to the surface, the cavities were filled with cheesecloth soaked in latex. Several additional layers of latex and cheesecloth were added to support the weight of the transfer. The archaeologists removed the transfer after it had dried thoroughly, rolling it soil-side in for storage. This procedure was repeated for transfers taken from the west wall (2.5 m by 2 m) and the north wall (3.5 m by 2 m) of Operation 12 at the Vermilion Lakes Site, and for transfers taken from the south and east walls of Operation 3 at the Echo Creek Site. The last two each measured 2 m by 1.5 m.

The five soil section transfers will require further treatment before they are used in displays in Western Region's headquarters, in the Archaeological Research Unit office, and in the new Banff Library. Their surfaces will be cleaned and consolidated, and each transfer will be mounted in supporting frames.

Don Steer, Ian Sumpter, Rod Pickard  
Daryl Fedje, James White, Lynda  
Gullason, Shawn Haley, Sheila Robinson,  
Heather D'Amour (Archaeological  
Research Unit, Western Region,  
Calgary).  
Jerry Svencicki (Historic Resource  
Conservation Section)

TABLE 1

1984 PROJECTS  
ARCHAEOLOGICAL RESEARCH UNIT  
PARKS CANADA  
WESTERN REGION

<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-1	Don Steer	HRIA - Monitoring of Park Landscaping Fort Langley National Historic Park
WRA-84-2	Daryl Fedje	Mitigation - Vermilion Lakes Site (EhPv-8), Banff National Park
WRA-84-3	Ian Sumpter	HRIA - Lake Louise TransCanada Highway Interchange, Banff National Park
WRA-84-4	Ian Sumpter	HRIA (preliminary) - Natural Gas Pipeline Route Alternatives, Waterton Lakes National Park
WRA-84-5	Ian Sumpter	HRIA - East Park Gate Improvements, Banff National Park
WRA-84-6	Ian Sumpter	HRIA - Mount Norquay Ski Area Developments, Banff National Park
WRA-84-7	Ian Wilson	HRIA - Banff Townsite Peripheral Land Zone (contract), Banff National Park
WRA-84-8	Rod Pickard	Mitigation - Pocahontas Archaeology, Jasper National Park
WRA-84-9	Rod Pickard	Mitigation - Jasper House Archaeology, Jasper National Park
WRA-84-10	Rod Pickard	Mitigation - Patricia Lakes Archaeology, Jasper National Park

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<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-11	Ian Sumpter	HRIA - Lake Louise Townsite Developments, Banff National Park
WRA-84-12	Ian Sumpter	HRIA - Carrot Creek Information Centre, Banff National Park
WRA-84-13	Ian Sumpter	HRIA - Astotin Lake Day Use Area, Elk Island National Park
WRA-84-14	Ian Sumpter	HRIA - Tawayik Lake Road and Trail Improvements, Elk Island National Park
WRA-84-15	Ian Sumpter	HRIA - Beaver Bay Picnic Area, Elk Island National Park
WRA-84-16	Don Hanna	Special Project - Lithics Processing/Analysis (contract), Western Regional Office
WRA-84-17	Ian Sumpter	HRIA - North Gate Kiosk Development, Elk Island National Park
WRA-84-18	Ian Sumpter	HRIA - Administration Compound Access Road Construction, Elk Island National Park
WRA-84-19	Ian Sumpter	HRIA - Flyingshot Lake Trail Development, Elk Island National Park
WRA-84-20	Ian Sumpter	HRIA - Wood Bison Isolation Area Development, Elk Island National Park

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<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-21	Ian Sumpter	HRIA - West Boundary Road and Fence Project, Elk Island National Park
WRA-84-22	Ian Sumpter	HRIA - East Boundary Road and Fence Project, Elk Island National Park
WRA-84-23	Ian Sumpter	HRIA - Moss Lake Picnic Area, Elk Island National Park
WRA-84-24	Kevin Montgomery	Special Project - Site Data Compilation Project (contract), Western Regional Office
WRA-84-25	Ian Sumpter	HRIA - C.P.R. Grade Reduction - Rogers Pass, Glacier National Park
WRA-84-26	Ian Sumpter	HRIA - Glacier House Assessment, Glacier National Park
WRA-84-27	Jack Porter	HRIA - Lower Pocahontas Access Road, Jasper National Park
WRA-84-28	Ian Sumpter	HRIA - Relocation and Evaluation of Prehistoric Site FfQm-6, Jasper National Park
WRA-84-29	Ian Sumpter	HRIA - Miette Hot Springs Development, Jasper National Park
WRA-84-30	Don Steer	HRIA (preliminary) - Bow Valley Parkway Extension, Banff National Park

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1984 PROJECTS  
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WESTERN REGION

<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-31	Lynda Gullason	Mitigation - Shortwalk Trail Development, Rocky Mountain House National Historic Park
WRA-84-32	Ian Wilson	Special Project - Heritage Resource Overview and Site Assessment - Iron Gates Pictograph (EdQa-4) (contract), Kootenay National Park
WRA-84-33	Don Steer	Mitigation - Canteen Development Fort Rodd Hill National Historic Park
WRA-84-34	Ian Sumpter	HRIA - Trans Canada Highway Sunshine to Castle Junction, Banff National Park
WRA-84-35	Don Steer	HRIA - TransAlta Gauge Station Installation, Rocky Mountain House National Historic Park
WRA-84-36	Veronica Cadden	Special Project - Regional Reference Collection (contract), Western Regional Office
WRA-84-37	Anne Woollam	Special Project - Photo and Artifact Cataloguing (contract), Western Regional Office
WRA-84-38	Susan Langley	Special Project - Preliminary Underwater Reconnaissance - Project Habakkuk (Patricia Lake), (agreement), Jasper National Park
WRA-84-39	Susan Langley	Special Project - Preliminary Underwater Reconnaissance - Minnewanka Settlements (Lake Minnewanka), (agreement), Banff National Park



TABLE 1

1984 PROJECTS  
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WRA-84-40	Susan Langley	Special Project - Preliminary Underwater Reconnaissance - The Gertrude (Emerald Bay), (agreement), Waterton Lakes National Park
WRA-84-41	Dr. Roger King (U. of West. Ont)	Special Project - Soil Analysis Miette Siding Archaeological Site (contract), Jasper National Park
WRA-84-42	Ian Sumpter	HRIA - Fireside Parking Area, Trans Canada Highway, Banff National Park
WRA-84-43	Ian Sumpter	HRIA - Norquay Road Widening, TCH to CPR Line, Banff National Park
WRA-84-44	Alberta Environmental Centre, Vegreville	Special Project - Vermilion Lakes Site C14 Dating Project, (agreement), Western Regional Office
WRA-84-45	Jack Porter	HRIA - Rock Cairns - Lake Louise Townsite, Banff National Park
WRA-84-46	Don Steer	HRIA - (preliminary) - China Houses/Occupation, Gulf of Georgia Cannery
WRA-84-47	Ian Sumpter	HRIA - Mountain Creek Campground Bridge Exit Road, Glacier National Park
WRA-84-48	Ian Sumpter	HRIA - Beaver River Crossing Picnic Area, Glacier National Park

TABLE 1

1984 PROJECTS  
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WESTERN REGION

<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-49	Ian Sumpter	HRIA - Compound Development Glacier National Park
WRA-84-50	Ian Sumpter	HRIA - Lake Louise Overflow Material Source Area, Banff National Park
WRA-84-51	Ian Sumpter	HRIA - Loop Creek Bridge Trestle Documentation, Glacier National Park
WRA-84-52	Ian Sumpter	HRIA - Johnson Lake Terminus - Parking Expansion and Trail Upgrading, Banff National Park
WRA-84-53	Ian Sumpter	HRIA - Lake Minnewanka Primitive Campground Upgrading, Banff National Park
WRA-84-54	Ian Sumpter	HRIA - Fireside Trail Head/Proposed Edith Pass Trail Rerouting, Banff National Park
WRA-84-55	Ian Sumpter	HRIA - Healy Creek Borrow Area, Banff National Park
WRA-84-56	Ian Sumpter	HRIA - Km 14.9 TCH Animal Underpass, Banff National Park
WRA-84-57	Ian Sumpter	HRIA - Banff Mineral Springs Hospital Site and Gopher Street Relocation, Banff National Park
WRA-84-58	Ian Sumpter	HRIA - Proposed Banff Cemetery Access Road, Banff National Park

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<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-59	Ian Sumpter	HRIA - Vermilion Lakes Drive Cul-de-Sac, Banff National Park
WRA-84-60	Ian Sumpter	HRIA - Highway Improvements, Waterton Lakes National Park
WRA-84-61	Ian Sumpter	HRIA - Staff Residence - Crandell Campground, Waterton Lakes National Park
WRA-84-62	Ian Sumpter	HRIA - Blakiston Creek Bridge (Temporary Replacement), Waterton Lakes National Park
WRA-84-63	Ian Sumpter	HRIA - Fader Creek Development, Yoho National Park
WRA-84-64	Ian Sumpter	HRIA - Great Divide Picnic Area Redevelopment, Yoho National Park
WRA-84-65	Ian Sumpter	HRIA - Site 6, Ottertail Gravel Pit Development, Yoho National Park
WRA-84-66	Ian Sumpter	HRIA - Site 3b, Lower Amiskwi Gravel Pit Development, Yoho National Park
WRA-84-67	Ian Sumpter	HRIA - (preliminary) - Kicking Horse River Hydro Project Yoho National Park
WRA-84-68	Shawn Haley	Mitigation - 1984 Mitigative Archaeology, Elk Island National Park

TABLE 1

1984 PROJECTS  
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PARKS CANADA  
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<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-69	Sheila Robinson	Mitigation - Echo Creek Site Archaeology, Banff National Park
WRA-84-70	Brian Reeves	HRIA - Natural Gas Pipeline/Highway Improvements (contract), Waterton Lakes National Park
WRA-84-71	Ian Sumpter	HRIA - Trail Improvements - Lake O'Hara, Yoho National Park
WRA-84-72	Ian Sumpter	HRIA - Johnson Lake Trail Improvements, Banff National Park
WRA-84-73	Contractor	Special Project - 1984 Archaeology Projects Artifact Photography, Western Regional Office
WRA-84-74	Michael Wilson	Special Project - Vermilion Lakes Site Faunal Analysis (contract), Western Regional Office
WRA-84-75	Ian Sumpter	HRIA - Prince of Wales Oilspill Clean-up (site DgPl-78), Waterton Lakes National Park
WRA-84-76	Gwyn Langemann	Special Project - Jasper House Site Faunal Analysis (contract), Western Regional Office
WRA-84-77	Sharon Keen	Special Project - Artifact Study/Faunal Analysis -Pocahontas (contract), Western Regional Office
WRA-84-78	Ian Sumpter	HRIA - Watt Residence Driveway Investigations (site DgPl-8), Waterton Lakes National Park

TABLE 1

1984 PROJECTS  
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<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-79	Dr. Erle Nelson (Simon Fraser U)	Special Project - Direct Detection Dating - Vermilion Lakes Site (agreement), Western Regional Office
WRA-84-80	Archaeological Research/Conser- vation Unit, WRO	Special Project - Soil Profile Transfers (conservation activity), Banff National Park
WRA-84-81	Helen D. Lemon	Special Project - Support Programme for 1984 Archaeology Projects (contract), Western Regional Office
WRA-84-82	Dr. Roger King (U of West. Ont.)	Special Project - Tephra Analysis (contract), Western Regional Office
WRA-84-83	Brock University	Special Project - Echo Creek Site C14 Dating (contract), Western Regional Office
WRA-84-84	Thayer V. Head	Special Project - Echo Creek Site Faunal Analysis (contract), Western Regional Office
WRA-84-85	Don Steer	Special Project - Stanley Park Heritage Resource Overview, Stanley Park, B.C.
WRA-84-86	Richard Lalonde	Special Project - 1984 Archaeology Projects Drafting Support (contract), Western Regional Office
WRA-84-87	Beth Woolley	Special Project - 1984 Archaeology Projects Artifact Illustration (contract), Western Regional Office

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1984 PROJECTS  
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<u>PROJECT NUMBER</u>	<u>RESEARCHER</u>	<u>PROJECT DESCRIPTION</u>
WRA-84-88	Don Steer	Special Project - Taylor Road (Weir's Beach) Heritage Research Overview, Taylor Road National Historic Site
WRA-84-89	Ian Sumpter	HRIA - Monitoring of Gas Pipeline Installation, Waterton Lakes National Park
WRA-84-90	Brian Vivian	Special Project - Material Culture Records System Reorganization, Western Regional Office



Table 2. Summary of Sites Assessed in National Parks in 1984.

<u>Location/Project</u>	<u>Borden Number</u>	<u>Site Type</u>
Banff National Park - HRIAs (Alberta)		
WRA-84-55	EgPw-1*	Palaeontological site/isolated find
WRA-84-52	EhPu-6	Prehistoric campsite
WRA-84-52	EhPu-10	Prehistoric campsite
WRA-84-72	EhPu-21*	Prehistoric isolated find
WRA-84-54	EhPv-9	Prehistoric campsite
WRA-84-53	EhPv-16	Prehistoric campsite
WRA-84-59	EhPv-49	Prehistoric campsite
WRA-84-43	EhPv-78*	Historic commercial site/ Prehistoric campsite
WRA-84-57	EhPv-102*	Historic Isolated find
Banff National Park - T.C.H. Twinning Project (Alberta)		
WRA-84-34	EgPw-2*	Historic refuse site
WRA-84-34	EhPw-13*	Prehistoric quarry site
WRA-84-34	EhPw-14*	Paleontological site
WRA-84-34	EhPw-16*	Historic bridge footings
WRA-84-34	EhPw-17*	Paleontological site/isolated find
WRA-84-34	EhPw-18*	Prehistoric campsite
WRA-84-34	EhPw-19*	Historic isolated find
WRA-84-34	EhPw-21*	Prehistoric campsite
WRA-84-34	EhPw-22*	Historic structural remains/ Prehistoric campsite
WRA-84-34	EhPx-27	Historic site/isolated surface find
WRA-84-34	EhPx-28	Historic site/surface find
WRA-84-34	EhPx-29*	Historic stone cairn
WRA-84-34	EhPx-30*	Historic stone cairn
WRA-84-34	EhPx-31*	Prehistoric campsite
WRA-84-34	EhPx-32*	Historic surface find
Elk Island Park - HRIAs (Alberta)		
WRA-84-22	FjPe-1	Prehistoric surface find
WRA-84-22	FjPe-2	Prehistoric campsite
WRA-84-19	FjPe-22*	Prehistoric surface find
WRA-84-22	FjPe-23*	Prehistoric campsite
WRA-84-22	FjPe-24*	Prehistoric surface find
WRA-84-68	FjPf-6	Prehistoric campsite
WRA-84-14A	FjPf-7	Prehistoric campsite

\*Denotes site discovered during 1984 survey

Table 2 continued

<u>Location/Project</u>	<u>Borden Number</u>	<u>Site Type</u>
WRA-84-14A	FjPf-14	Prehistoric surface find
WRA-84-14A	FjPf-15	Prehistoric campsite
WRA-84-14A	FjPf-16	Prehistoric campsite
WRA-84-21	FjPf-108*	Prehistoric isolated find
WRA-84-14A	FjPf-109*	Prehistoric surface find
WRA-84-19	FjPf-110*	Historic surface find
WRA-84-19	FjPf-111*	Prehistoric surface find
WRA-84-68	FjPf-112*	Prehistoric surface find
WRA-84-14A	FjPf-113	Historic cabin remains
WRA-84-13	FkPe-2	Prehistoric campsite
WRA-84-13	FkPe-4	Prehistoric beach quarry
WRA-84-13	FkPe-7	Prehistoric beach quarry
WRA-84-13	FkPe-100*	Prehistoric campsite
WRA-84-13	FkPe-101*	Prehistoric campsite
WRA-84-15	FkPf-1	Prehistoric campsite
WRA-84-18	FkPf-48*	Prehistoric campsite
WRA-84-18	FkPf-49	Historic residence
Jasper National Park - HRIAs (Alberta)		
WRA-84-28	FfQn-6	Prehistoric campsite
WRA-84-29	FgQk-1*	Palaeontological site
Waterton Lakes National Park - HRIAs (Alberta)		
WRA-84-4	DgPk-34	Palaeontological site
WRA-84-4	DgPk-40	Prehistoric campsite
WRA-84-60A	DgPk-87*	Prehistoric isolated surface find
WRA-84-60C	DgPl-3	Prehistoric base camp
WRA-84-78/60D	DgPl-8	Prehistoric base camp
WRA-84-60E	DgPl-9	Prehistoric base camp
WRA-84-89/60B	DgPl-10	Prehistoric base camp/ historic cabin remains
WRA-84-4	DgPl-19	Prehistoric campsite
WRA-84-4	DgPl-20	Prehistoric rock cairn
WRA-84-4	DgPl-45	Prehistoric campsite
WRA-84-4	DgPl-48	Prehistoric campsite
WRA-84-4	DgPl-49	Prehistoric campsite
WRA-84-4/75	DgPl-78	Bison kill
WRA-84-4	DgPl-98	Prehistoric campsite
WRA-84-4	DgPl-100	Historic earth ring

Table 2 continued

<u>Location/Project</u>	<u>Borden Number</u>	<u>Site Type</u>
WRA-84-4	DgP1-101	Prehistoric isolated surface find
WRA-84-4	DgP1-128	Prehistoric campsite
WRA-84-4	DgP1-137	Prehistoric campsite
WRA-84-60F	DgP1-140	Bison kill
WRA-84-89	DgP1-151*	Prehistoric campsite
WRO-84-89	DgP1-152*	Palaeontological site
Glacier National Park - HRIAs (British Columbia)		
WRA-84-26B	EhQi-1*	Historic railway bridge structure
WRA-84-26A	EhQj-1*	Historic hotel complex
WRA-84-51	EhQj-2*	Historic railway bridge structure
Yoho National Park - HRIAs (British Columbia)		
WRA-84-63	EhQd-13*	Historic bridge footings
WRA-84-64	EiQb-15*	Prehistoric isolated find
WRA-84-67	EiQc-2*	Historic bridge footings

\*Denotes site discovered during 1984 survey

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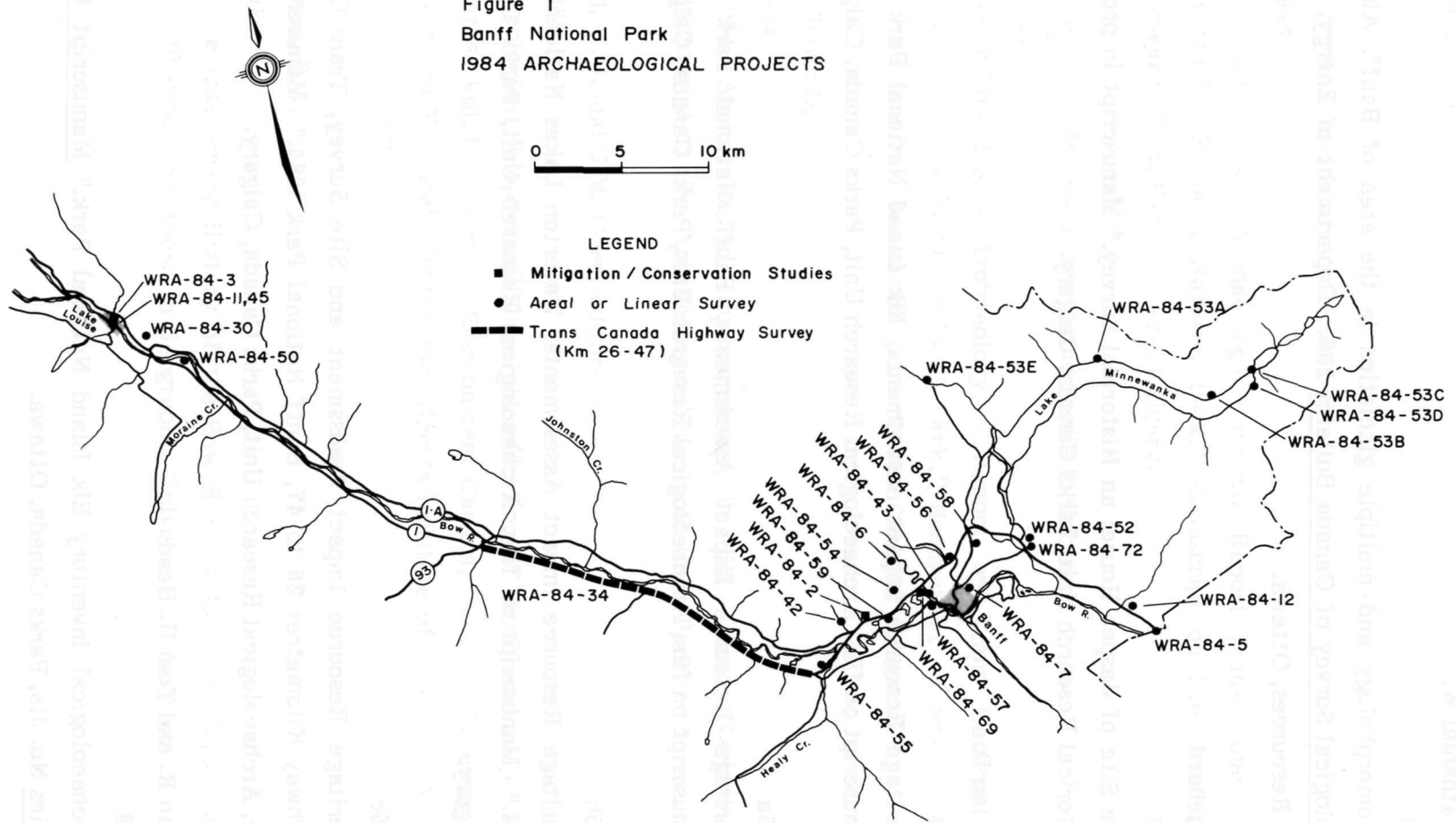
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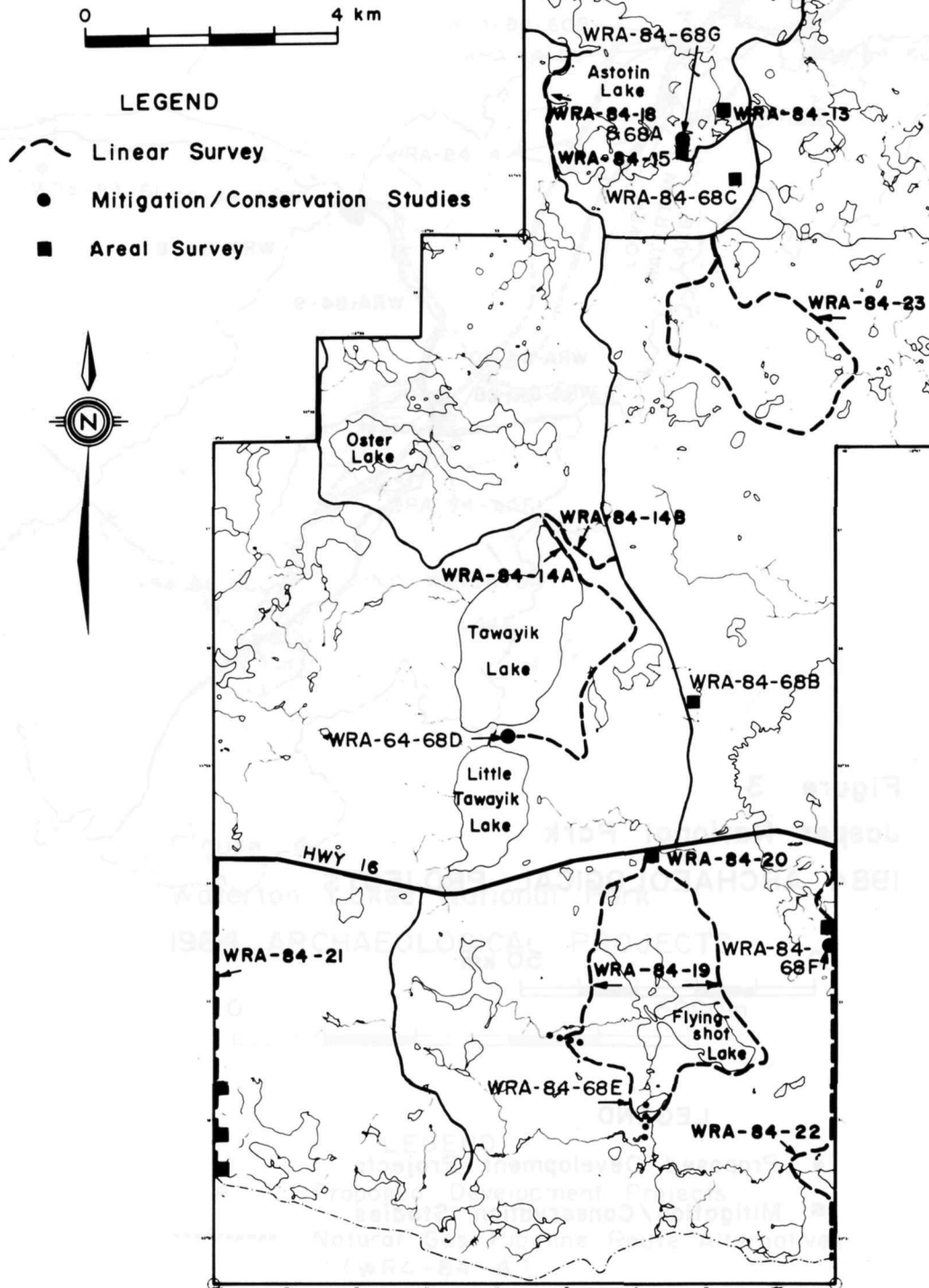
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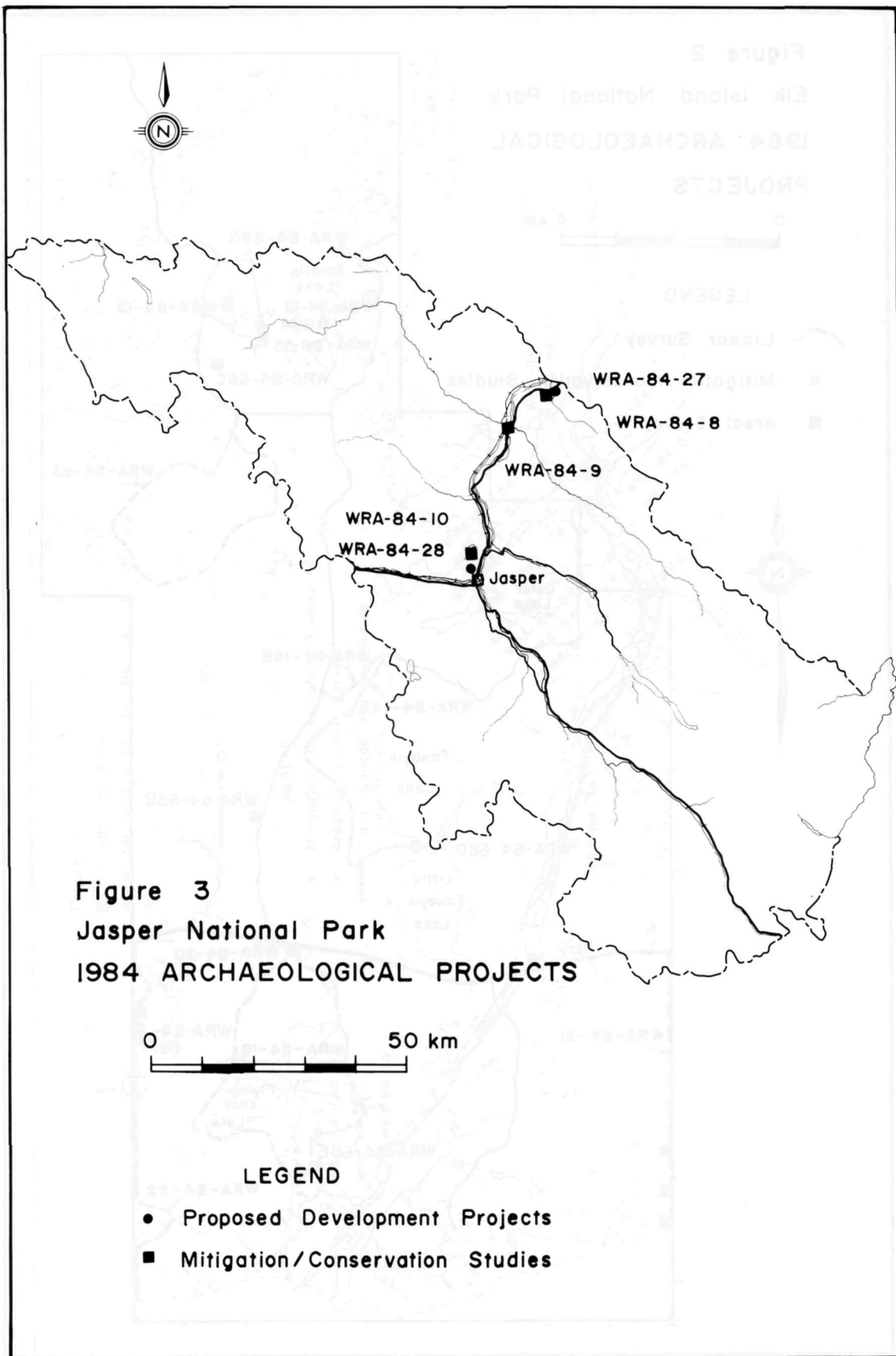
Figure 1  
Banff National Park  
1984 ARCHAEOLOGICAL PROJECTS





**Figure 2**  
**Elk Island National Park**  
**1984 ARCHAEOLOGICAL**  
**PROJECTS**





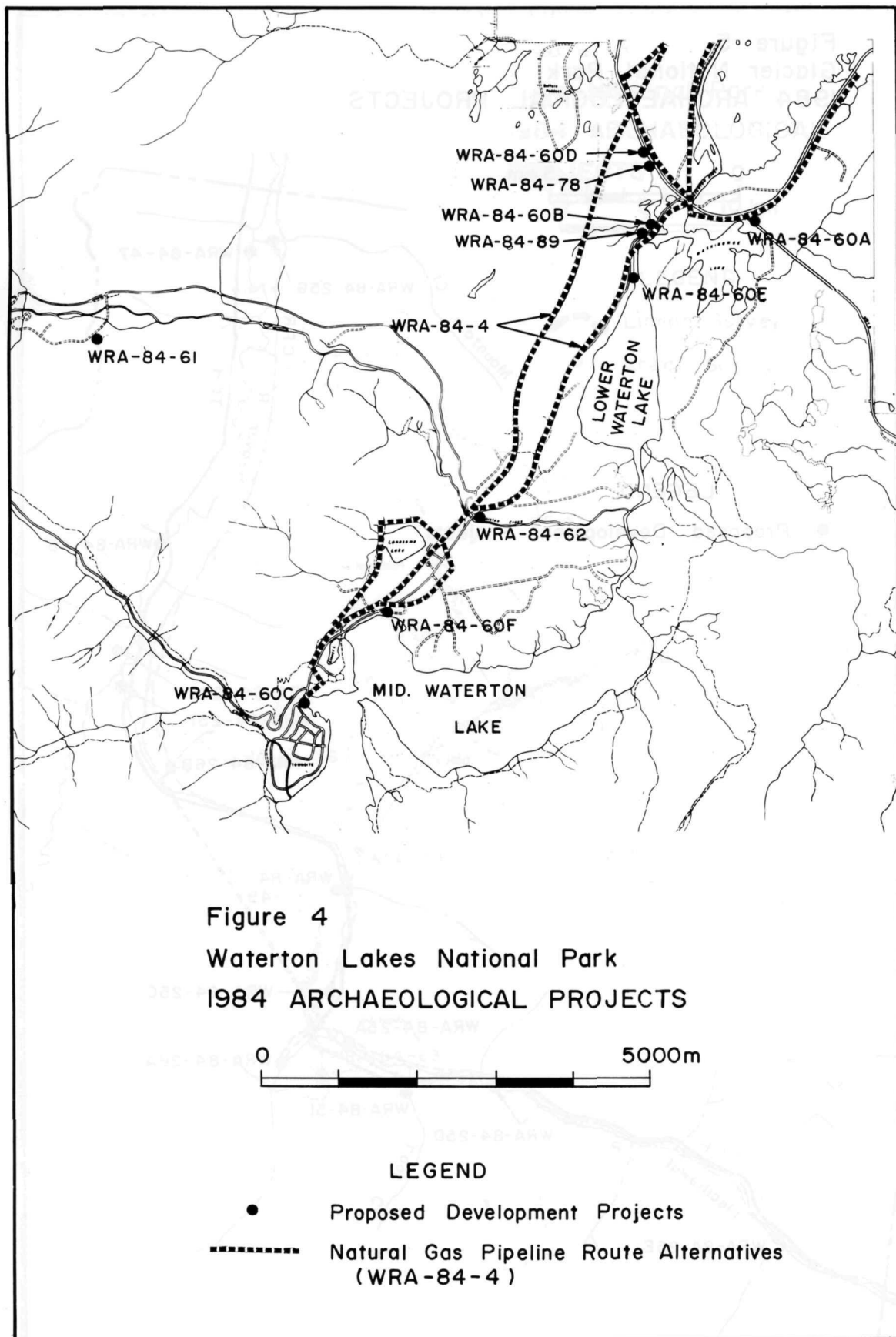


Figure 5  
Glacier National Park  
1984 ARCHAEOLOGICAL PROJECTS

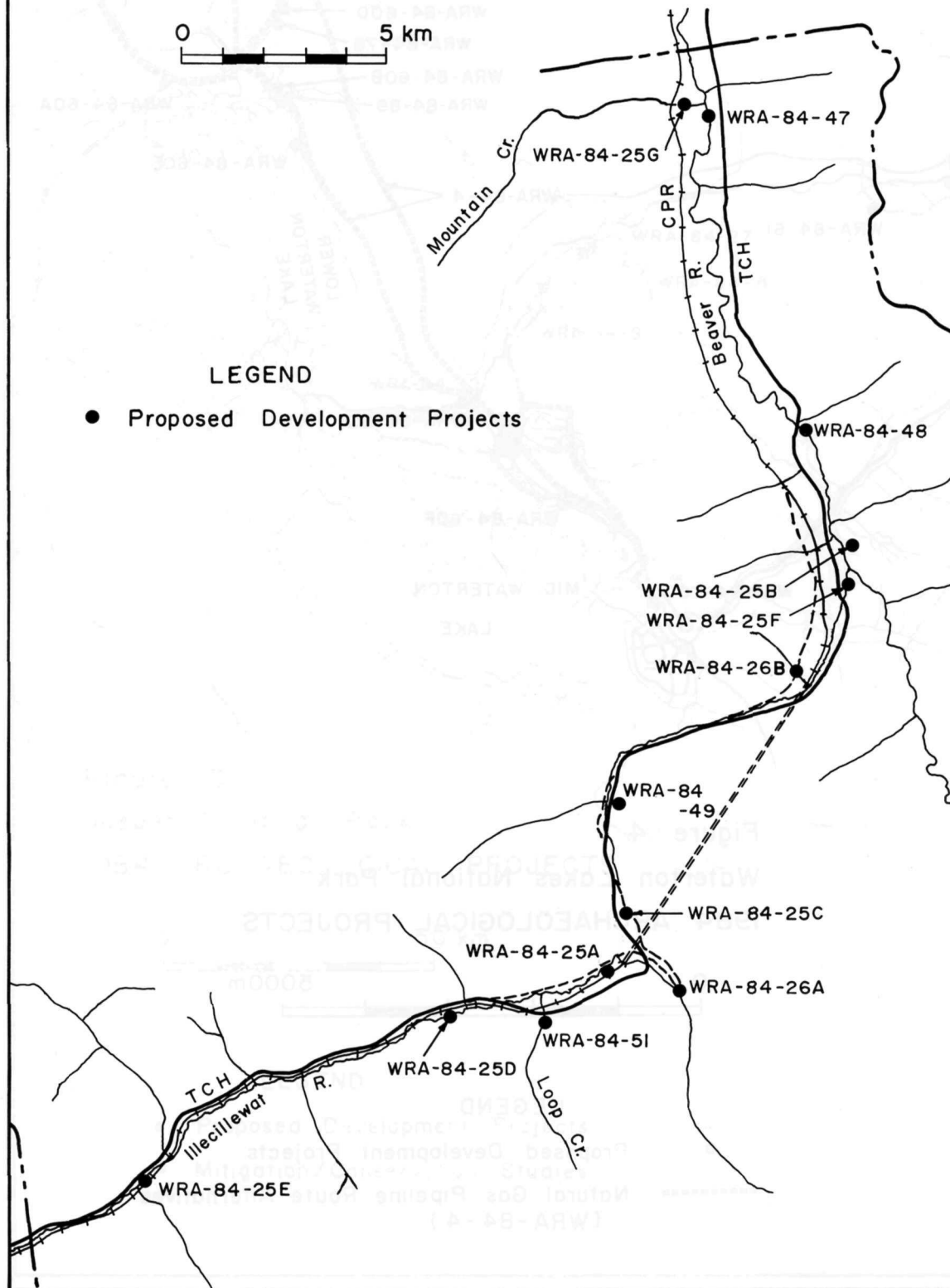


Figure 6  
Yoho National Park  
1984 ARCHAEOLOGICAL  
PROJECTS

