

**ARCHAEOLOGICAL OVERVIEW ASSESSMENT OF
GOLDEN LANDSCAPE UNITS G6, G7, G8, G9, G10, G11,
G12, G13, G14, G15, G16, G17, G18, G19, G22,
GOLDEN TIMBER SUPPLY AREA, AND
R5 AND R17, REVELSTOKE TIMBER SUPPLY AREA**

INTERIM REPORT



ARCAS
CONSULTING ARCHEOLOGISTS

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INTERIM REPORT

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BCTS Okanagan–Columbia Business Area and Louisiana-Pacific Canada Ltd.

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MANAGEMENT SUMMARY

This interim report summarizes the methodology used during the archaeological overview assessment undertaken by Arcas Consulting Archeologists Ltd. (Arcas) in 2007 and 2008. The assessment was conducted on behalf of BC Timber Sales Okanagan-Columbia Business Area (BCTS) and Louisana-Pacific Ltd. (LP), for seventeen Landscape Units within the Golden Timber Supply Area. The Landscape Units are located within the asserted traditional territory of the Ktunaxa Kinbasket Tribal Council, Shuswap Band, Akisqnuq First Nation, Shuswap Nation Tribal Council, Okanagan Nation Alliance (for Landscape Units R5, R17, G6 through G18) and Okanagan Band (for Landscape Units R5, R17, G6 through G18).

Assessment of seventeen Landscape Units (G6 through G19, G22, R5 and R17) was undertaken for BCTS and LP in 2007 and 2008. Polygons of moderate and high archaeological potential were drafted onto 1:20,000 scale TRIM-Orthomosaic maps accompanied by a database of criteria defining the scoring and ranking of polygons. The polygons were then digitized into a GIS based format for ease during future resource management planning. As a result of the assessment, 617 polygons of moderate or high archaeological potential were identified within these Landscape Units.

As this study was funded by the Forest Investment Account (FIA), Section 3.4 and Appendix A of the AIA Guidelines (Archaeology Branch 1998) were followed in their entirety as required by FIA.

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The professional opinions expressed in this report are those of the author, and not necessarily those of any other individuals, groups, or institutions involved in the study. Arcas is solely responsible for the content of this report, including any errors, omissions, or other shortcomings.

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1.0 INTRODUCTION

This is the interim report for an archaeological overview assessment (AOA) undertaken by Arcas Consulting Archeologists Ltd (Arcas) in 2007 and 2008. This AOA was carried out on behalf of BC Timber Sales Okanagan-Columbia Business Area (BCTS) Landscape Units within the Golden Timber Supply Area and Louisiana-Pacific Ltd. (LP), for Landscape Units within the Revelstoke Timber Supply Area.

Assessment of seventeen Landscape Units (LUs) was undertaken in 2007 and 2008 (LUs G6 through G19, G22, R5 and R17). The assessed LUs are located along the southeastern corner of BC (Figure 1), within the asserted traditional territories of the Ktunaxa Kinbasket Tribal Council, Shuswap Band, Akisqnuq First Nation, Shuswap Nation Tribal Council, Okanagan Nation Alliance (LUs R5, R17, G6 through G18) and Okanagan Band (LUs R5, R17, G6 through G18).

An interim report was produced at this juncture at the request of BCTS due to the large scope of the project and its extension over two fiscal years for BCTS. A final AOA report will be produced in the 2008 fiscal year. As this study was funded by the Forest Investment Account (FIA), Section 3.4 and Appendix A of the AIA Guidelines (Archaeology Branch 1998) were followed in their entirety as required by FIA.

1.1 Objectives

To assist with the management of archaeological sites, the Archaeology Branch has issued the *British Columbia Archaeological Overview Assessment Guidelines* (Archaeology Branch 1998). These *Guidelines* identify several kinds of archaeological assessments that can be undertaken in response to proposed developments, with the kind of assessment dependent on the stage of development design and the types of archaeological information required. The assessment described in this report consists of an archaeological overview assessment (AOA), as described in the *Guidelines*.

The objectives of the AOA are to:

- Conduct a background library and records search of ethnographic, archaeological and historical documents pertinent to the study area;
- Identify archaeological resource potential and distribution in the study area;
- Recommend further studies including archaeological impact assessments or preliminary field reconnaissances.

This study is concerned with assessing archaeological potential for the Landscape Units indicated above. It does not address potential for traditional use activities and sites. As such, this report does not comprehensively document all First Nations' interest in the land. The study was conducted without prejudice to First Nations' treaty negotiations, Aboriginal rights, or Aboriginal title.

1.2 Definitions

The assessment described in this report is concerned with the prediction of potential for archaeological sites. An archaeological site is a location containing physical evidence of past human activity in the form of artifacts or features. Artifacts are human-made or modified objects, such as stone and bone tools, ceremonial objects, and fire-altered rocks. Features are modifications to the landscape or objects which cannot be moved without altering them, such as burials, culturally modified trees (CMTs), rock art, cabins and structures, trails and roads, and the remains of industrial activities.

The age at which artifacts and features become an “archaeological site” is arbitrary, and can be defined according to particular research or management objectives. Although artifacts and features that have been made recently could be considered to be archaeological remains, many archaeologists only record sites considered to be of archaeological or historical significance and believed to be more than 50 years old. Archaeological sites may have been formed as a result of Aboriginal, Euro-Canadian, or Asian-Canadian activities. Those sites that clearly post-date the arrival of Europeans or are documented by written records are sometimes called “historic archaeological sites”.

Archaeological sites are the result of certain human activities occurring at a specific location. An archaeological site may contain more than one type of archaeological evidence because more than one type of cultural activity can take place at a single location. In mapping and recording archaeological sites, archaeologists use site boundaries to indicate the known extent of physical remains at a particular location. These boundaries are necessary to delineate the physical remains or archaeological sites to ensure their protection from proposed development activities. While boundaries are placed around archaeological sites for management purposes, it should be recognized that traditional Aboriginal use of the landscape associated with these sites may extend beyond archaeological site boundaries.

While archaeological sites are recorded as discrete locations on the landscape, the material remains present at archaeological sites are related to land-use activities which took place over a much wider area, including travel between sites and resource-gathering areas. As such, site boundaries should not be considered to define the extent of traditional activities associated with those sites. Traditional use activities that leave no archaeological evidence, such as berry gathering, medicinal plant collecting, and spiritual practices, are more appropriately addressed through a Traditional Use Study and are not considered in this report.

1.3 Site Protection

In British Columbia, most archaeological sites are attributable to settlement and resource use by First Nations’ people, and if they pre-date AD 1846, are automatically protected from damage, desecration, alteration, or excavation by the *Heritage Conservation Act (HCA)*. Sites are protected whether located on public or private land.

Some sites are protected through designation as “Provincial Heritage Sites” under section 11 of the *HCA*, or through automatic protection under section 13 by virtue of their particular historic or archaeological value. Sites automatically protected under Section 13 include:

- archaeological sites occupied or used before AD 1846;
- rock art with historical or archaeological value;
- burial places with historical or archaeological value;
- heritage shipwrecks or aircraft wrecks; and
- heritage sites of unknown age with a reasonable possibility of having been occupied or used before AD 1846.

Protected sites may be located on public or private land, and may not be altered (changed in any manner) without a permit issued under Sections 12 or 14 of the *HCA*. Additionally, cultural heritage resources (defined as objects, sites, or the locations of traditional societal practices that are of historical, cultural, or archaeological significance to the Province, a community, or an Aboriginal people) require assessment and management under the *Forest and Range Practices Act*. Further archaeological sites of Aboriginal origin not automatically protected by the *HCA* or the *Forest and Range Practices Act* may be subject to legal decisions stemming from *Delgamuukw vs. British Columbia* (1997) regarding the fiduciary responsibility of provincial governments for protecting cultural heritage.

CMTs and other evidence of Aboriginal use not automatically protected under the *HCA* may constitute evidence of the practice of an Aboriginal right. Proposals to remove or impact this evidence should be reviewed with the First Nations in whose traditional territories the evidence is located. Consultation with First Nations should be made in order to determine if a proposed development constitutes an infringement of an Aboriginal right. Consultation should follow the Ministry of Forests Protection of Aboriginal Rights Policy.

1.4 Personnel

The AOA described in this report was conducted by archaeologist Ian Cameron (Arcas), with GIS assistance provided by Ann O’Sullivan, Ewan Anderson (Arcas) and Jose Galdamez (Land and Resources Agency, Ktunaxa Kinbasket Tribal Council). Geordie Howe (Arcas) managed the project and Richard Brolly (Arcas) conducted quality assurance.

Archaeological Overview Assessment of Golden Landscape Units G6, G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18, G19, G22, Golden TSA and R5 and R17, Revelstoke TSA

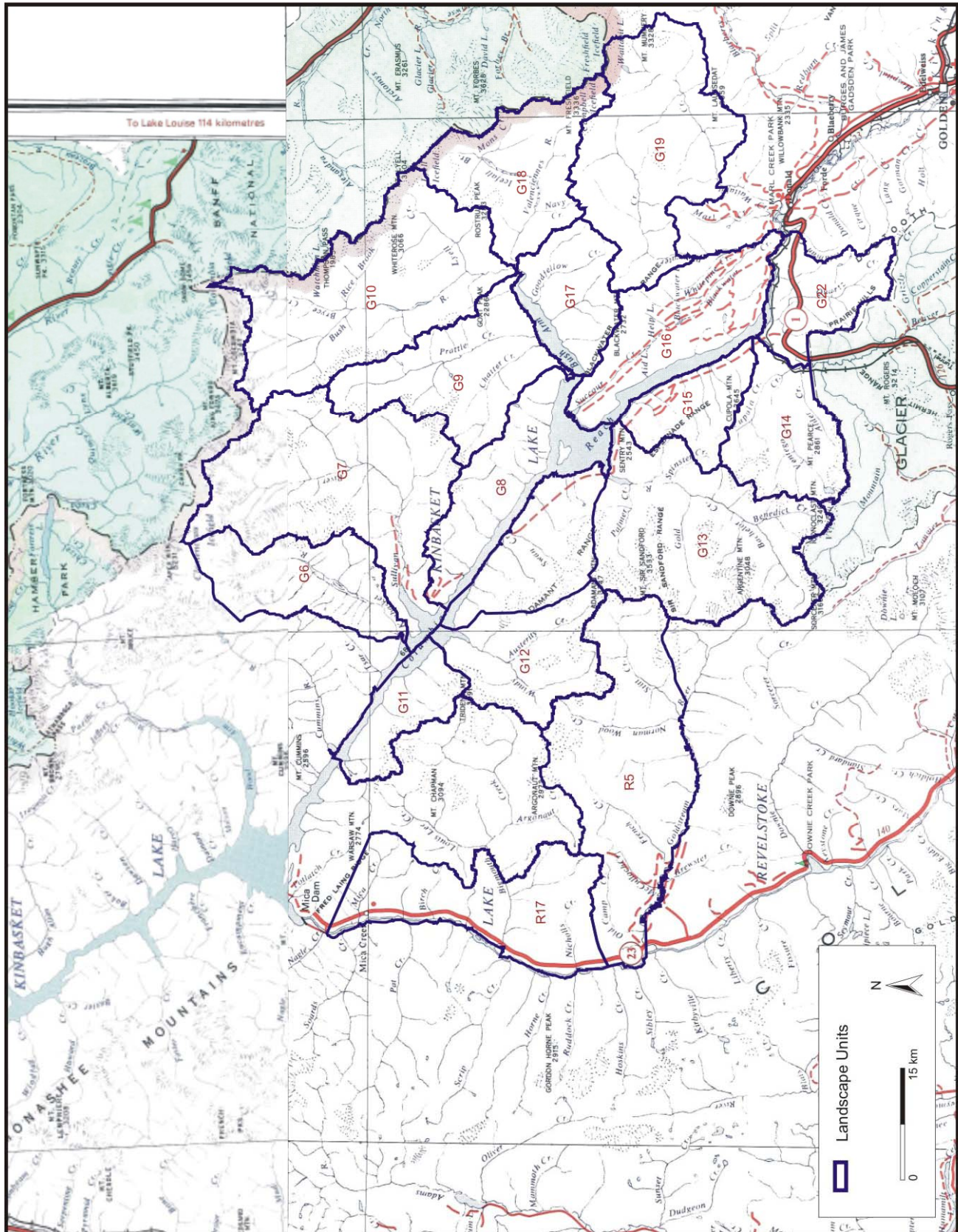


Figure 1. Location of Golden AOA Landscape Units (1:750,000; North Eastern BC, Map No 1D; Ministry of Environment, 1992).

2.0 ASSESSED LANDSCAPE UNITS

Seventeen Landscape Units were assessed. Table 1 summarizes the 15 assessed Landscape Units in the Golden Timber Supply Area (G) and the 2 assessed for the Revelstoke Timber Supply Area (R).

Table 1. Assessed Landscape Units.

Landscape Unit	Area (ha)	General Location	First Nation(s)	Archaeological Site Identified (Borden Number)
G6	26,313	Kinbasket River	Ktunaxa Kinbasket Tribal Council (KTC), Shuswap, Akisqnuq, Okanagan	--
G7	64,017	Sullivan River	KKTC, Shuswap, Akisqnuq, Okanagan	--
G8	31,245	Foster-Garrett	KKTC, Shuswap, Akisqnuq, Okanagan	--
G9	34,193	Chatter-Prattle	KKTC, Shuswap, Akisqnuq, Okanagan	--
G10	59,949	Bush River	KKTC, Shuswap, Akisqnuq, Okanagan	--
G11	15,618	Goosegrass	KKTC, Shuswap, Akisqnuq, Okanagan	EIQm-1
G12	26,179	Windy Creek	KKTC, Shuswap, Akisqnuq, Okanagan	--
G13	56,029	Bachelor Creek	KKTC, Shuswap, Akisqnuq, Okanagan	--
G14	23,815	Ventego Creek	KKTC, Shuswap, Akisqnuq, Okanagan	--
G15	15,911	Esplanade	KKTC, Shuswap, Akisqnuq, Okanagan	--
G16	34,292	Sue Fire/Blackwater Ridge	KKTC, Shuswap, Akisqnuq, Okanagan	--
G17	20,172	Hope Creek	KKTC, Shuswap, Akisqnuq, Okanagan	--
G18	31,428	Valenciennes River	KKTC, Shuswap, Akisqnuq, Okanagan	--
G19	51,389	Blue Water/Waitabit	KKTC, Shuswap, Akisqnuq	--
G22	18,632	Quartz	KKTC, Shuswap, Akisqnuq	--
R5	60,766	Goldstream	KTKC, Shuswap, Akisqnuq, Okanagan	--
R17	39,180	Mica	KKTC, Shuswap, Akisqnuq, Okanagan	--

3.0 BACKGROUND INFORMATION

Study Area and Natural Setting

The study area includes 15 Landscape Units in the Golden Timber Supply Area and the 2 Landscape Units in the Revelstoke Timber Supply Area between the northern Purcell Mountains and the western Rocky Mountains on the southeastern corner of BC (Figure 1).

The study area is within the Southern Interior Mountains Ecoprovince and ranges over three ecoregions including the Northern Columbia Mountains Ecoregion, Western Continental Ranges Ecoregion and the Southern Rocky Mountain Trench Ecoregion (Ministry of Forests Research Branch 1994). The Southern Interior Mountains Ecoprovince is characterized by two distinct climate regimes, one in the valley bottoms of the southern Rocky Mountain Trench and the other in the alpine areas of the Purcell Mountains and Rocky Mountains (Demarchi 1996). This area is situated within three biogeoclimatic zones, the Interior Cedar Hemlock zone, Englemann Spruce-Subalpine Fir zone and Alpine zone. The ecological conditions, vegetation, and wildlife habitats of these biogeoclimatic zones are described by Pojar *et al.* (1991) in *Ecosystems of British Columbia* (Meidinger and Pojar 1991).

4.0 STUDY METHODOLOGY

This study involved the assessment of archaeological potential of provincial forest lands in Landscape Units G6, G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18, G19, G22, of the Golden Timber Supply Area and R5 and R17 of the Revelstoke Timber Supply Area. Polygons of moderate and high archaeological potential were drafted onto 1:20,000 scale TRIM-Orthomosaic maps accompanied by a database of criteria defining the scoring and ranking of polygons. Section 3.4 and Appendix A of the AIA Guidelines (Archaeology Branch 1998) were followed in their entirety as required by the Forest Investment Account.

Background research for this AOA consisted of a review of literature pertaining to local archaeological, ethnographic and geologic studies. A review of literature pertaining to local archaeological, ethnographical and geological studies was conducted. The Remote Access Archaeological Database available online through the Archaeology Branch was also searched for recorded archaeological sites in the project area. Summaries of this research will be provided in the final report. First Nations' communities whose asserted traditional territory overlaps with the Golden TSA were contacted regarding their knowledge of archaeological site distribution.

The individual polygons demarcate archaeological potential onto landforms or landscapes identified through visual analysis of TRIM-Orthomosaic maps. The criteria used to identify polygons of moderate or high archaeological potential have been divided into macrosite and microsite. Macrosite criteria apply to the determination of

archaeological potential in a more regional context while microsite criteria refine the shape, location and degree of potential of a polygon.

Macrosite and microsite criteria for the establishment of potential polygons are described in section 4.1 and section 4.2. The criteria used are reflective of the 2006 AOA model created by Wayne Choquette and were chosen due to their suitability and to facilitate compatibility between this AOA and the 2006 AOA (Choquette 2006).

Each criterion was assigned values between 0 and 3 with a score of 0 indicating that the criterion hardly affected the archaeological potential of the polygon while a score of 3 indicates that the criterion strongly affected the archaeological potential of the polygon. Polygons are deemed to have high archaeological potential if they had a cumulative score of 15 and above and moderate potential if they had a cumulative score between 5 and 14 when all the criteria values were totaled.

4.1 Macrosite Criteria

Macrosite criteria apply to the determination of archaeological potential in a more regional context and these include: known archaeological sites, corridor, bedrock geology, ungulate range and solar aspect. Each of these criteria will be discussed briefly below.

Known Archaeological Sites

The distribution of known sites throughout a region may give some indication as to where these sites may generally be located. As only one recorded archaeological site is located within the LUs in this study, this category was not as useful as other criteria in determining archaeological potential. The lack of recorded archaeological sites within the study area is mostly due to a paucity of archaeological investigation in the Golden and Revelstoke TSA. Table 1 summarizes the recorded archaeological site within the study area.

Table 2. Previously recorded archaeological site in study area.

Site number	Landscape Unit	Type	Landform Association	Relationship to Water
ElQm-1	G11	Lithic scatter	Shoreline	N. end of Kinbasket Lake, W. side of 21 Mile Rapids

As with the 2006 AOA (Choquette), a score of 3 for this criterion will be given to polygons in proximity (1-2 km) to one or more known sites while a score of 2 will be assigned to polygons further away (2-5 km) from known sites and a score of 1 will indicate that the polygon is between 5 and 10 km from known sites. A score of 0 indicates a lack of previously identified archaeological sites in the area (within 10 km).

Corridor

This criterion pertains to transportation/travel corridors in the Golden TSA. Areas that would have made good travel corridors such as the Rocky Mountain Trench including the Columbia River are scored 3 in this criterion. The Columbia River is an important travel corridor and economic resource due to the historical anadromous salmon run. Secondary corridors that might have not been utilized as intensively are scored 2. Minor passes looping through the mountains were scored 1 and valleys ending in steep headwalls lacking passes are scored 0.

Bedrock Geology

This criterion refers to the bedrock geology that is present throughout the study area. This is important as suitable bedrock outcrops could be lithic quarry sites where prehistoric peoples may have obtained stone for tool making. Geology maps in the Golden area created by the Geological Survey of Canada (1980, 1983, 2007) were examined for suitable lithic materials (namely sedimentary and igneous outcrops). The nearest known suitable bedrock outcrops exist in the Rocky Mountains on the Alberta side of the border (Geological Survey of Canada 2007). The bedrock in the northern Purcell Mountains are composed of metamorphosed sedimentary rock not suitable for most stone tools while the Rocky Mountain portion contains no suitable rock formations close to the study area. Bedrock geology was examined as a factor for all Landscape Units but subsequently scored 0 due to the lack of suitable bedrock formations for lithic materials used in prehistoric stone tool manufacture.

Ungulate Range

This criterion refers to the availability of ungulates for hunting by prehistoric peoples. This has an affect upon the site distribution of hunting camp and animal processing sites. At lower elevations within the study area, mule deer, white tail deer and elk ranges exist with occasional use of sub alpine areas for summer grazing. Mountain goat and sheep habitat exists in the alpine areas. Low lying flat marshy areas and meadows were scored higher than steeper dry areas for ungulate ranges though mountain goat and sheep availability was considered for polygons in the alpine.

Solar Aspect

This criterion refers to areas of southerly exposures that tend to be favored by humans due to the increase of solar heating of southerly exposed areas in northern latitudes. This would naturally increase the potential for archaeological sites. South facing terraces over potable water and landforms with some wind protection score higher in this category.

4.2 Microsite Criteria

Microsite criteria refer to factors that refine the shape, location and degree of potential of a polygon. These criteria include: terrace/fan, promontory, saddle, standing water, watercourse, relict watercourse, confluence, and watercourse node.

Terrace/Fan

This criterion refers to areas that are archaeologically important as they are usually well drained, flat and provide fairly open travel corridors. Depending upon the availability of potable water, these areas may have habitation sites. These were also good areas to acquire lithic resources, such as chert nodules, which may be located on some of these landforms, especially if they are the result of glacial processes and the material has been brought in from other areas with suitable bedrock outcrops located outside the project area.

Promontory

This criterion refers to areas where bedrock ridges or promontories provide vantage points where tool production and travel across the landscape may have taken place. Promontories are important for hunting parties as they allow for increased visibility of game. Camp sites could be found in wind breaks located in proximity to promontories.

Saddle

This criterion refers to saddles which are constricted areas at the heads of some valleys that are lower than the surrounding land and may have been used to traverse drainage divides. Archaeological deposits may exist here as they were sometimes used as temporary camp sites. This is also a good description of minor passes between promontories that could have been used as wind protected camp areas.

Standing Water

Besides being sources of water, and possibly fish, areas by standing water can be good for campsites and hunting grounds. While standing water includes swamps, wetlands and still water beside watercourses, polygons next to lakes and larger ponds will score higher in this criterion.

Watercourse

This refers to rivers and streams which can provide fresh water as well as vital food resources. As with the 2006 AOA, this criterion reflects proximity and accessibility to watercourses. Polygons closer to larger watercourses such as rivers will be scored higher in this category than polygons by creeks or streams. Lowland polygons with streams will be scored higher than upland polygons with streams due to the higher potential for salmon to run in lowland streams.

Relict Watercourse

Higher terraces reflecting previous water levels can be areas of high archaeological potential due to the associated activities that may have taken place beside these watercourses in the past.

Confluence

The confluences of watercourses are important archaeologically as they served as settlement areas, sources of water and junctions of travel corridors. The confluences of larger water courses rate higher than those of smaller water courses.

Watercourse Node

As described by Choquette (2006), this refers to areas along watercourses such as nickpoints, rapids, large eddies, pools and waterfalls that could be utilized to serve as fords or perhaps be good fishing locations.

Confidence

As described by Choquette (2006), the need of this measure was requested by the Cranbrook Forest District in the context of emergency situations (ie. fires). This criterion is to be used for risk management. Polygons that score 3 or 2 in this category are in close proximity to known sites and should be managed accordingly. Scores of 1 are given to the majority of polygons where inference of potential is not based off proximity to known archaeological sites.

5.0 CONCLUDING REMARKS

The archaeological overview assessment of 17 Landscape Units conducted in 2007/2008 resulted in the identification of 617 polygons of moderate or high archaeological potential. These polygons were assessed through the application of macrosite and microsite criteria as discussed in the methodology section. The results of the background research and discussion will be presented in the final AOA report.

This interim report is concerned with assessing archaeological potential in the Golden Timber Supply Area and two landscape units in the Revelstoke Timber Supply Area. It does not address impacts to traditional places or land use by this development. As such, this report does not comprehensively document all First Nations' interest in the land. The study was conducted without prejudice to First Nations' treaty negotiations, aboriginal rights, or aboriginal title.

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