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Archaeological Overview Assessment of proposed rezoning of Parcel A, Lot 3, Lot 4, and Lot 5, District Lot 790, Plan NEP2449, Kootenay Land District.

This report summarizes the findings of a desktop Archaeological Overview Assessment (AOA) of the proposed parcel rezoning located at Parcel A, Lot 3, Lot 4, and Lot 5, District Lot 790, Plan NEP2449, Kootenay Land District (PID 15289559, PID 15289567, and PID 15282228) northeast of the City of Nelson, BC (Figure 1). The subject properties, owned by the Spearhead Group, are slated for rezoning with the Regional District of Central Kootenay (RDCK). Through rezoning application process, an AOA of the subject property was requested by the Ktunaxa Nation Council; therefore, Ben Hall of Spearhead Timberworks Inc. retained Ursus Heritage Consulting Ltd. (Ursus) to conduct an AOA, which included a field review of the property.

The objectives of the AOA are to:

- Identify and evaluate any areas of archaeological potential within the subject study area that warrant detailed archaeological investigation.
- Provide recommendations regarding the need and appropriate scope of further archaeological studies.

Archaeological sites can be defined as physical evidence of past human use of an area that, in the subject region, is typically represented by artifacts, lithic debitage (by-products of toolstone quarrying and lithic artifact production), faunal remains, fire altered rock, hearth/fire pit features, and habitation and subsistence features.

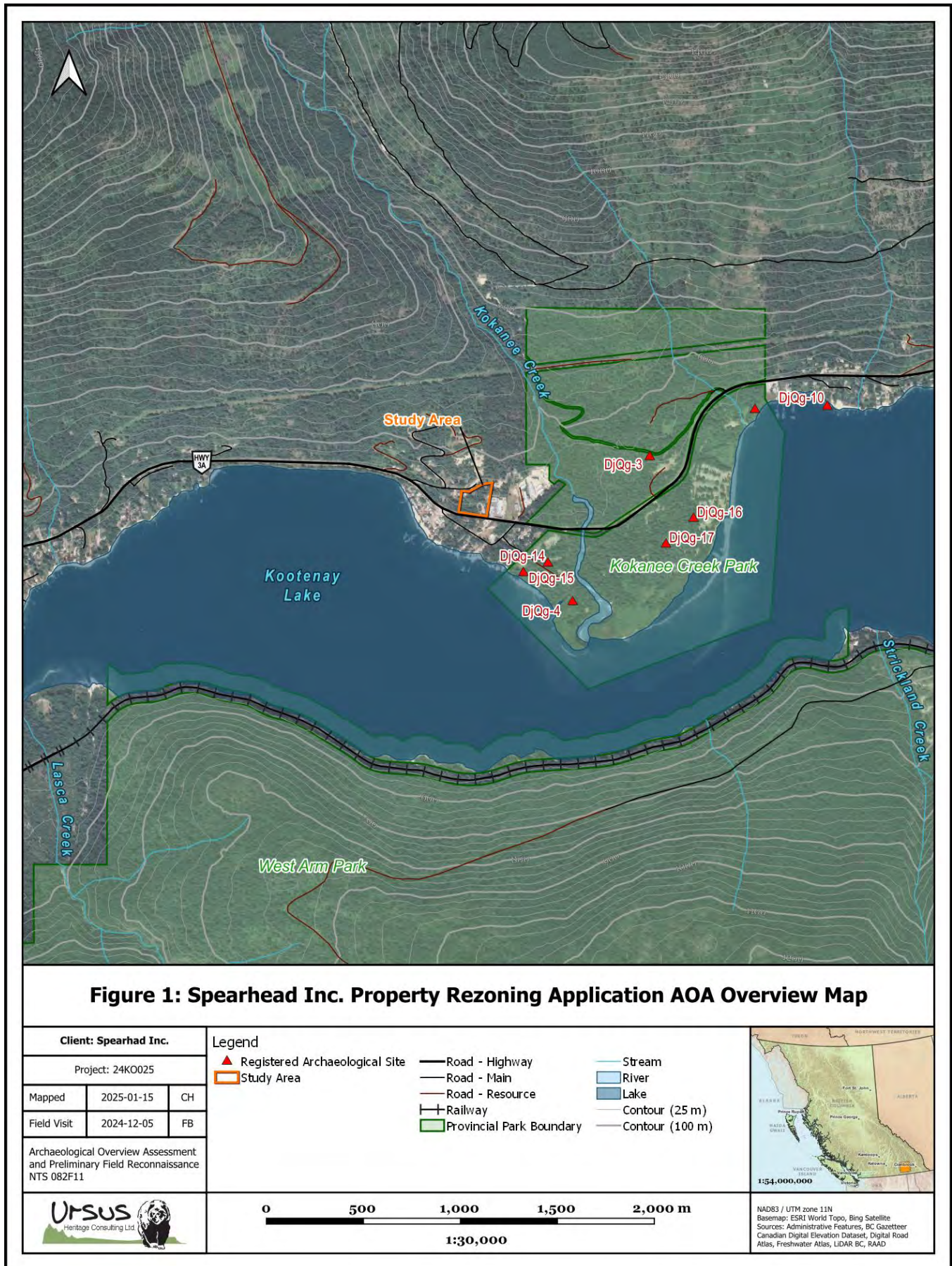
Site Protection

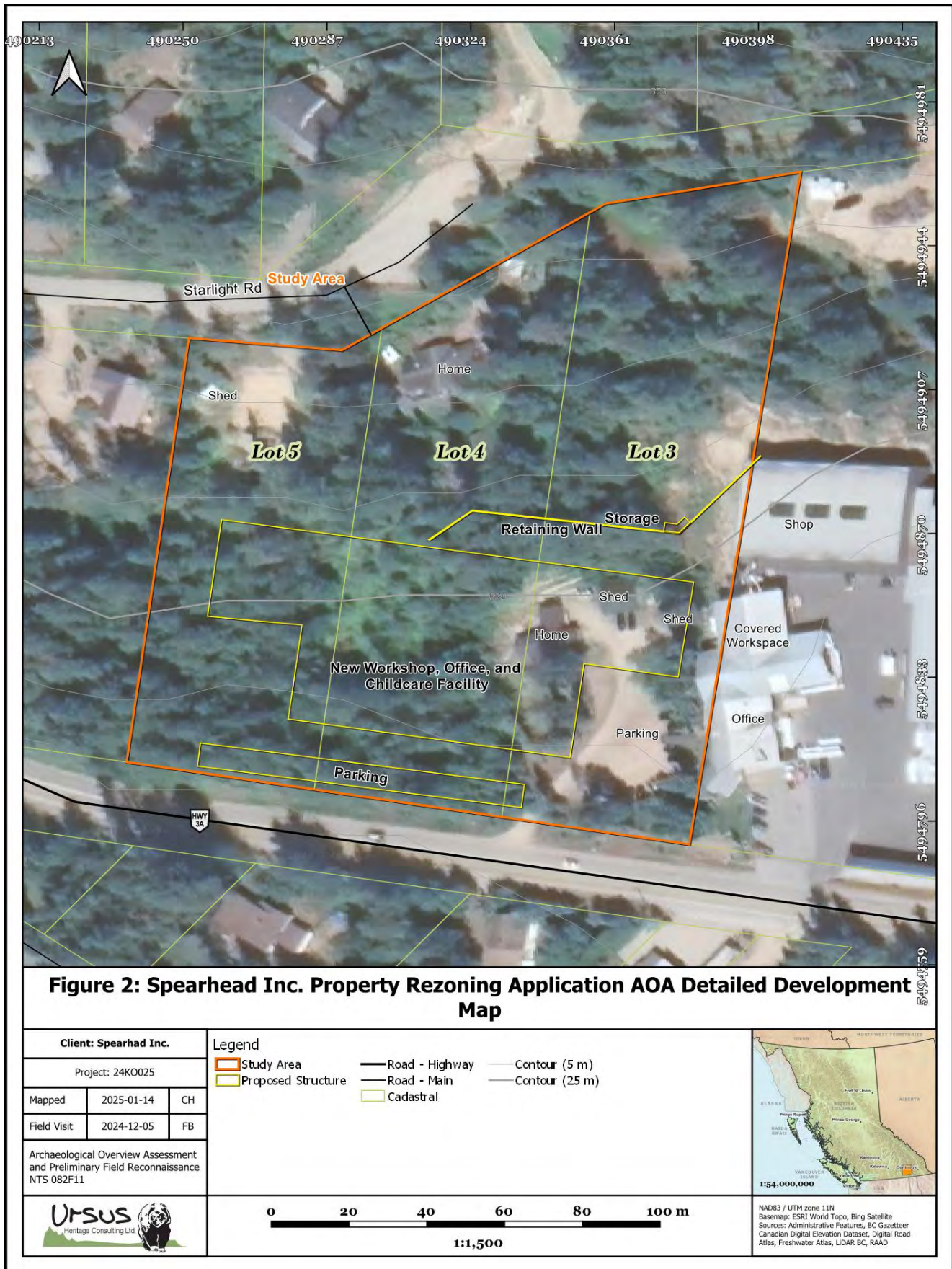
In British Columbia, archaeological sites are protected by the *Heritage Conservation Act (HCA)*. Sites that are automatically protected by the *HCA* include: sites that pre-date 1846; sites of an unknown age that have a likelihood of dating prior to 1846 (i.e., lithic scatters); aboriginal rock art; burial places; and historic shipwrecks.

Project Description

The study area is located on a 2.07 ha (5.12 acre) area occupying three cadastral parcels (PID 15289559, PID 15289567, and PID 15282228) located approximately 0.2 km west of Kokanee Creek Provincial Park and 14.5 km northeast of the City of Nelson. Highway 3A provides access to the study area along the south. The study area adjoins previously developed residential and industrial properties, including a property to the east owned by the Spearhead Group. The study area is located approximately 225 m northeast of the Kootenay Lake and 435 m west of Kokanee Creek.

Should rezoning be successful, proposed development includes the construction of a one-story workshop, a three-story office and childcare facility, paved parking, retaining walls, and storage structures (Figure 2). Two residential structures and three sheds will be demolished. Significant ground disturbance will occur as a result of the proposed development including tree removal, ground stripping, and levelling and grading.





Study Area Setting

The study area is set on the toe of a steeply sloping south-aspect hillside overlooking the alluvial fan of Kokanee Creek where it enters the West Arm of Kootenay Lake. Kootenay Lake is heavily impacted by seasonal water level fluctuations, influenced in part by downstream hydroelectric dams along the Lower Kootenay River. The subject property is located approximately 225 m northeast of Kootenay Lake and 435 m west of Kokanee Creek.

The study area is encompassed by a single biogeoclimatic zone, the Interior Cedar Hemlock (ICH), as defined by the biogeoclimatic classificatory system utilized by the Ministry of Forests (Meidinger and Pojar 1991). The ICH zone typically occurs at low to mid elevations (400 to 1500 m asl) within valley areas of the Interior Plateau and is characterized by cool and wet winters and the summers which are warm and dry. In an undeveloped context, the ICH zone supports western hemlock and western redcedar as the dominant species with western larch, Douglas fir, western white pine and white birch occurring in minor percentages. Shrub and groundcover layers include Utah honeysuckle, Oregon grape, beaked hazelnut, and mockorange; with devil's club, twisted stalk, and a variety of fern species occurring in wetter locations (Meidinger and Pojar 1991). The ICH zone has a wide range of habitat niches for wildlife and attracts many animals including mule deer, white-tailed deer, moose, Rocky Mountain elk, black bear, cougar, and red squirrel. These forests also support a diverse number of birds including barred owl, boreal owl, great horned owl, golden eagle, pileated woodpecker, Stellar's jay, grey jay, and ruffed grouse (Meidinger and Pojar 1991).

First Nation Consultation Area

The BC Consultative Area Database (CAD) identifies the study area as being located within the consultative area of the ?Akisq'nuk First Nation (formerly Columbia Lake Indian Band), ?Aq'am (formerly St. Mary's Indian Band), Ktunaxa Nation Council, Lower Similkameen Indian Band, Okanagan Indian Band, Okanagan Nation Alliance, Osoyoos Indian Band, Penticton Indian Band, Shuswap Band, Sinixt Confederacy, Upper Nicola Band, Yaq'it ?a·knuq'i ?it First Nation (formerly Tobacco Plains Indian Band), and Yaqaan Nu?iy (formerly Lower Kootenay Band).

Previous Archaeological Study and Recorded Sites

The British Columbia Remote Access Archaeological Database (RAAD) application at the Archaeology Branch was queried and revealed that the study area is not located within any landscape-level archaeological potential model approved by the BC Archaeology Branch. No previous archaeological field studies queryable through the BC Archaeology Branch have been completed to date within the study area. Archaeological field studies in the vicinity of the study area have typically been associated with park operations at Kokanee Creek Provincial Park (Alan 1971; Ursus 2020; Ursus 2023; Ursus 2024). There are eight (8) registered archaeological sites within 5 km of the study area (see Table 1).

Table 1. Recorded archaeological sites within 5 km of the study area.

Borden Name	Site Type	Distance from Study area	Year Initially Recorded	Permit(s)
DjQg-15	Precontact: Subsurface and Surface Lithics	340 m southeast	2017	2017-0207
DjQg-14	Precontact: Subsurface Lithics	390 m southeast	2017	2017-0207
DjQg-4	Precontact: Surface Lithic	580 m southeast	1972	1972 Non-permit 1989-0061
DjQg-3	Precontact: Surface Lithic	800 m northeast	1971	1971-0030
DjQg-17	Precontact: Subsurface Lithics	930 m east	2021	2020-0381
DjQg-16	Precontact: Subsurface Lithics	1060 m east	2021	2020-0381
DjQg-13	Precontact: Subsurface and Surface Lithics, Subsurface Fauna	1330 m northeast	2017	2017-0207
DjQg-10	Postcontact: Transportation, Marine, Shipwreck	1760 m northeast	1992	1992 Non-permit

AOA Methodology

The AOA was conducted in accordance with the *British Columbia Archaeological Impact Assessment Guidelines* (Archaeology Branch 1998) and *British Columbia Archaeological Overview Assessment Guidelines* (Archaeology Branch 2023) issued by the Archaeology Branch at the Ministry of Forests. For the current project, the AOA involved:

- A review of pertinent regional archaeological, historical, ethnographic, geological, and biophysical literature.
- A review of the property's biophysical and topographic characteristics.
- An evaluation of the previous impacts to the natural landscape of the study area.
- An evaluation of archaeological site potential.

The archaeological site potential assessment process considers a number of criteria to establish potential ratings for a given landscape. This AOA employs a two-tiered rating system with low or high potential values assigned based on topographical and biophysical characteristics coupled with the examination of a number of cultural and archaeological criteria.

A correlation exists between particular biophysical characteristics and the incidence of archaeological sites. The presence of these biophysical characteristics can be used to predict the likelihood of a location being used prehistorically. Generally, people gravitate toward areas with access to water, shelter, food and raw material resources, seeking out locations that are relatively level, well-drained, with good solar aspect, and provide a good vantage point. Archaeologically it is important to not only examine these biophysical characteristics as they appear currently but to also consider the changes in these biophysical characteristics over time, from the Late Pleistocene through to the Holocene.

The biophysical characteristics that are considered are:

- Presence and nature of water features.
- Wildlife and fish values.
- Slope, aspect, and topography.
- Presence of bedrock exposures, karst, talus, or boulders suitable for rock art locations, caves, rock shelters, or lithic raw material sources.
- Vegetation and forest cover composition and age.

Further to the biophysical characteristics, a number of cultural and archaeological criteria are considered to further refine the archaeological site potential assessment included:

- Connection of study area to First Nations' traditional use localities, oral history, and/or known traditional place names.
- Proximity of study area to previously recorded archaeological sites.
- Prehistoric settlement and resource use of the region with a specific emphasis on the nature and characteristics of Kootenay region archaeological sites.
- Level and type of past historic land use and the resulting impacts.
- The previous archaeological experience of the researcher.

AOA Results

This section contains the determination of archaeological potential for the study area. These results are framed within the context of the background research; including archaeological and ethnographic data, topography and geomorphology, structural geology, paleoenvironmental reconstruction, and the historic record.

The entirety of the study area was assessed with low potential for the presence of archaeological sites. The low potential assessment is based upon:

- Proximity to a major hydrologic feature. The study area is located approximately 225 m northeast of Kootenay Lake and 435 m west of Kokanee Creek. Kootenay Lake is one of the largest lakes in the Kootenay region and supported intensive pre-contact Indigenous occupation and resource use.

It is understood that the study area is proximal to significant hydrologic features that are reflective of high archaeological potential.

- High fish, wildlife, and plant values. Kootenay Lake and Kokanee Creek supported large resident populations of trout, kokanee salmon, sturgeon, burbot, and other coarse fish. The study area is located in an area understood to have supported intensive Indigenous harvesting/processing activity areas that would have generated large and significant archaeological deposits. The environment within and surrounding the study area is a valley bottom with ample access to diverse plant and wildlife communities that would have been utilized by Indigenous peoples. It is understood that the study area contains sufficient proximity to fish, terrestrial wildlife, and plant values that are reflective of high archaeological potential.
- Presence of areas of favourable slope, aspect, and topography. Much of the subject property is set on steeply sloping, convoluted south to south-southeast aspect terrain with frequent bedrock outcrops. The exception is the lower elevations at the southernmost end of Lots 3 and 4, which are characterized by more moderately sloped undulating terrain. It is understood that the terrain within the study area is reflective of low archaeological potential.
- Proximity and setting of previously recorded archaeology sites. Known pre-1846 archaeological sites on and surrounding the alluvial fan of Kokanee Creek are isolated to several small low density site deposits, which are expected to underrepresent the intensity of Indigenous occupation and resource use of the location. This is likely a reflection of the paucity of archaeological investigation in Kokanee Creek Provincial Park and surrounding private residential and commercial lots prior to development. As such, the low volume of previously recorded archaeological sites in proximity to the study area is not considered reflective of low archaeological potential, rather it reflects the limited archaeological study sample size.
- Indigenous cultural history. Bouchard and Kennedy (2000) provide a comprehensive ethnography and ethnohistorical summary of the Lower Kootenay and Columbia Hydropower Region, which includes an examination of the Kootenay Lake area as it relates to its use by Sinixt, Ktunaxa, Okanagan (Sylix), and Secwepemc peoples. Their research indicates that prior to the incursion of colonial settlement, the West Arm of Kootenay Lake was utilized by Ktunaxa and Sinixt peoples (known in earlier ethnographic and historic literature as the Lakes Indians or Arrow Lakes Band) as evidenced by historic and ethnographic accounts and the presence of traditional placenames (Bouchard and Kennedy 2000).
- Previous land modifications and sediment disturbances. The study area has been subject to various levels of previous disturbance resulting from land clearing, residential structure building, highways and road construction, and buried utility installation. The southern end of Lot 3 contains two sheds and a house structure as well as a large parking area, the construction of which encompassed significant cut and fill grading of the naturally undulating terrain that was present prior to the development. On the northern half of Lot 4 is a house set on a leveled and landscaped building site cut into the naturally sloping terrain, with a second leveled and landscaped area immediately below. On the northern half of Lot 5 a shed structure set upon a similar levelled and landscaped building site cut into the naturally sloping terrain.

Fraser Bonner of Ursus conducted the field review on December 5, 2024. The study area was examined and evaluated for the presence of and potential for archaeological sites (Figure 3). No archaeological sites were identified during the field review and based on field observations, the potential for the presence of archaeological sites is assessed as low. This low potential assessment is based on the presence of steeply sloping, convoluted terrain mixed with more moderately sloped undulating terrain with frequent bedrock outcrops (Photos 1 - 3) and an absence of archaeologically significant terrain features such as level, well-drained terraces, benches, and/or promontories that are conducive to the presence of archaeological sites.



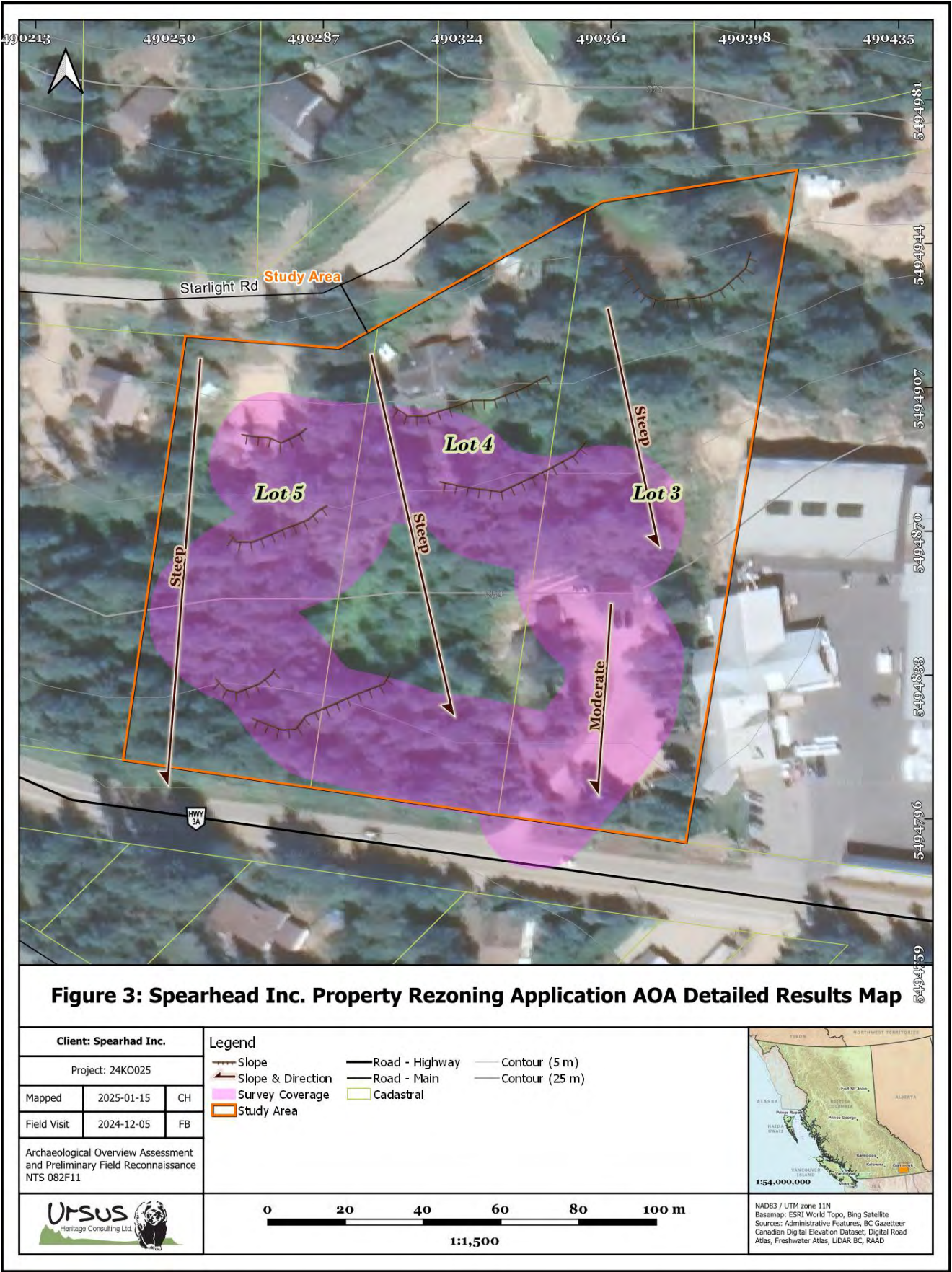
Photo 1. View north of the upper portion of the subject property showing the steep terrain and bedrock outcrops typical to the area.



Photo 2. View northwest of the mid portion of the subject property showing the sloping terrain and informal access road that cuts through the area.



Photo 3. View southwest of the lower portion of the subject property showing the more moderately sloped and convoluted terrain typical to the area.



Recommendations

Based on the results of the AOA, the entirety of the study area is assessed with low potential for the presence of archaeological sites; therefore, no further archaeological study is recommended for the subject properties.

Users of this report should be aware that even the most thorough investigation may fail to reveal all archaeological remains that exist in an area, including sites protected by the BC Heritage Conservation Act (1996). All users of this report should also be aware that: (1) archaeological remains in BC are protected from disturbance, intentional or inadvertent, by the Heritage Conservation Act; (2) in the event that archaeological remains are encountered, all ground disturbance in the immediate vicinity must be suspended at once; (3) it is the individual's responsibility to inform the Archaeology Branch, and appropriate First Nations as soon as possible, about the location of the archaeological remains and the nature of the disturbance; and (4) the Heritage Conservation Act may incur heavy fines and imprisonment for failing to comply with these requirements.

The AOA is concerned with identification of archaeological potential and archaeological sites within the study area. It does not address potential for traditional use sites within the study area. It is not the intent of this report to document First Nations' interest in the land. The study was conducted without prejudice to First Nations' treaty negotiations, Aboriginal rights, or Aboriginal title.

Please contact Ursus Heritage Consulting if you require further information regarding the AOA.

With respect,



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Reviewed by,



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