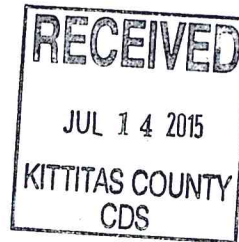


REISS-LANDREAU RESEARCH

Archaeological and Biological consulting

PO Box 2215, Yakima WA. 98907 Phone (509) 952-5130, Fax 498-9818
chrislandreau@charter.net

Wayne Nelsen
Encompass
108 E 2nd Street
Cle Elum, WA 98922



July 27, 2009

Dear Mr. Nelsen:

Enclosed you will find our archaeological inventory for Lake Shore Meadows. We did not locate any cultural resources on site. Please let me know if you need anything else related to this project.

Thank You

A handwritten signature in cursive script, appearing to read "Chris Landreau".

Christopher Landreau
Reiss-Landreau Research

CULTURAL RESOURCES REPORT COVER SHEET

Author: Christopher Landreau

Title of Report: Archaeological Review and Inventory of the Lake Shore Meadows Project, Kittitas County, Washington

Date of Report: 7-29-2009

County (ies): Kittitas Section: 21Township: 21Range: 14E E/W

Quad: Cle Elum Lake Acres: 31

CD Submitted? Yes No PDF of Report? Historic Property Export Files?

Archaeological Site(s)/Isolate(s) Found or Amended? Yes No

TCP(s) found? Yes No

Replace a draft? Yes No

Satisfy a DAHP Archaeological Excavation Permit requirement? Yes # No

DAHP Archaeological Site #:

- Please submit paper copies of reports **unbound**.
- Submission of PDFs is encouraged.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

**Archaeological Review and Inventory of the Lake Shore
Meadows Project, Kittitas County, Washington**

July 22, 2009

RLR Report 2009-171-32

By
Christopher Landreau M.S.

REISS-LANDREAU RESEARCH

*PO Box 2215 Yakima, WA 98902
PH 509 952-5130 Fax (509) 498-9818 E-Mail: chrislandreau@charter.net*



Consultation Provided to:
Encompass Engineers
Cle Elum, Washington

Executive Summary

Reiss-Landreau Research (RLR) conducted a visual reconnaissance survey and inventory of 31 acres of undeveloped land in Kittitas County, Washington. The property is located west of Salmon La Sac Road, on the east side of Lake Cle Elum, Washington (Figure 1). Twenty-eight acres is set aside for twelve one acre shoreline homes (Figure 2), as well as a hilly inland wooded area to be left as raw land (Figure 3). **No historic or prehistoric remains were encountered anywhere on this property, and we believe that in terms of archaeological resources, this development project should proceed.**

The preliminary research conducted at the State of Washington Archaeological archives in Olympia revealed nine archaeological sites around southeast Lake Cle Elum, and within two miles of the project area. Almost all of the sites were found at lake level, and were primarily prehistoric lithic scatters.

Legal Information:

Cle Elum Lake Quad

10 06 43 513E 52 39 329N

T21N R14E Section 21

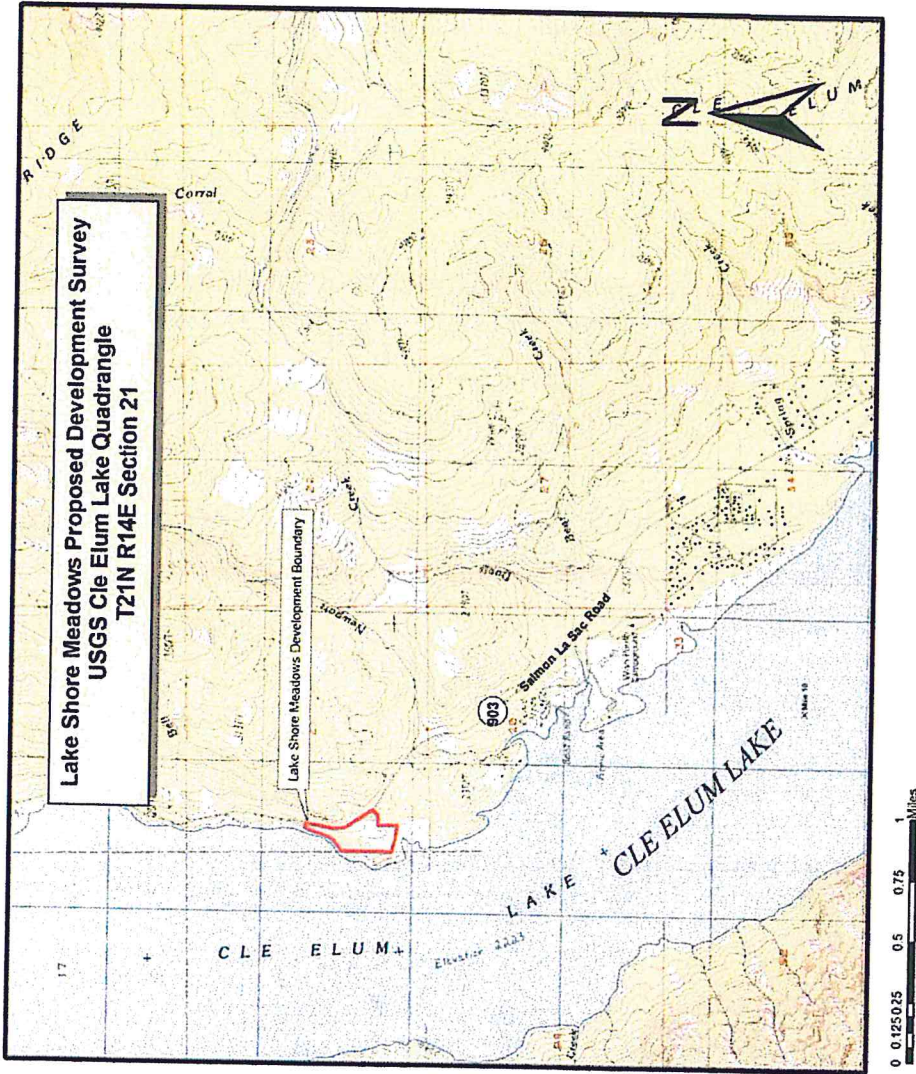


Figure 1: Project Topography

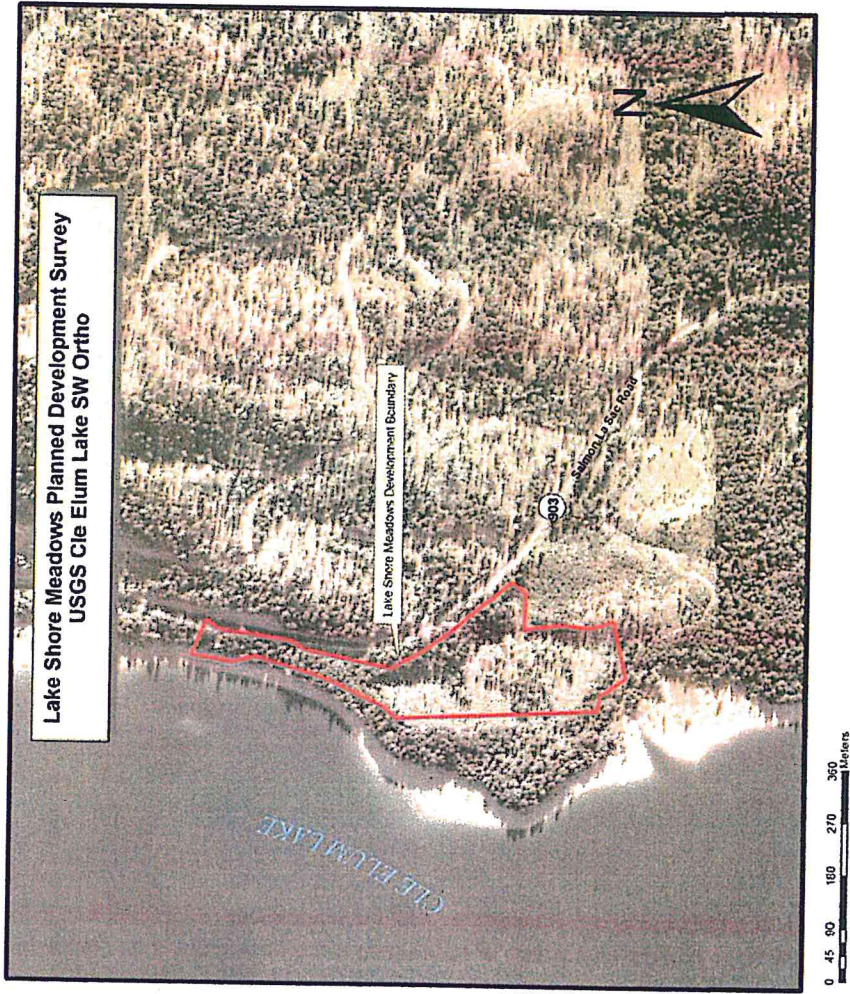


Figure 2: Project Orthophoto

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LAKE SHORE MEADOWS CLUSTER PLAT
A PORTION OF THE WEST 1/2 OF THE WEST 1/2 OF SEC. 21,
TOWNSHIP 21 NORTH, RANGE 14 EAST, W.M.,
KITTITAS COUNTY, WASHINGTON

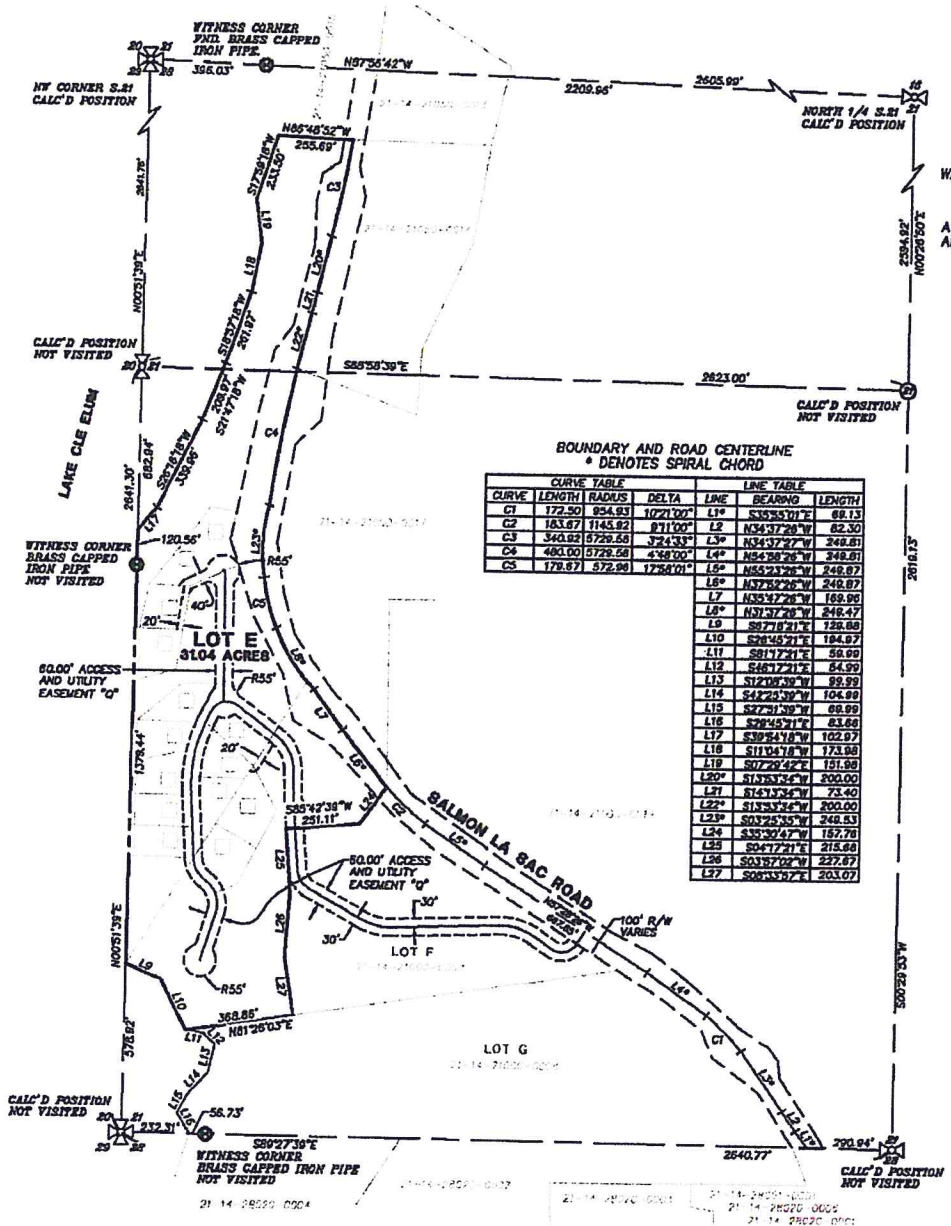
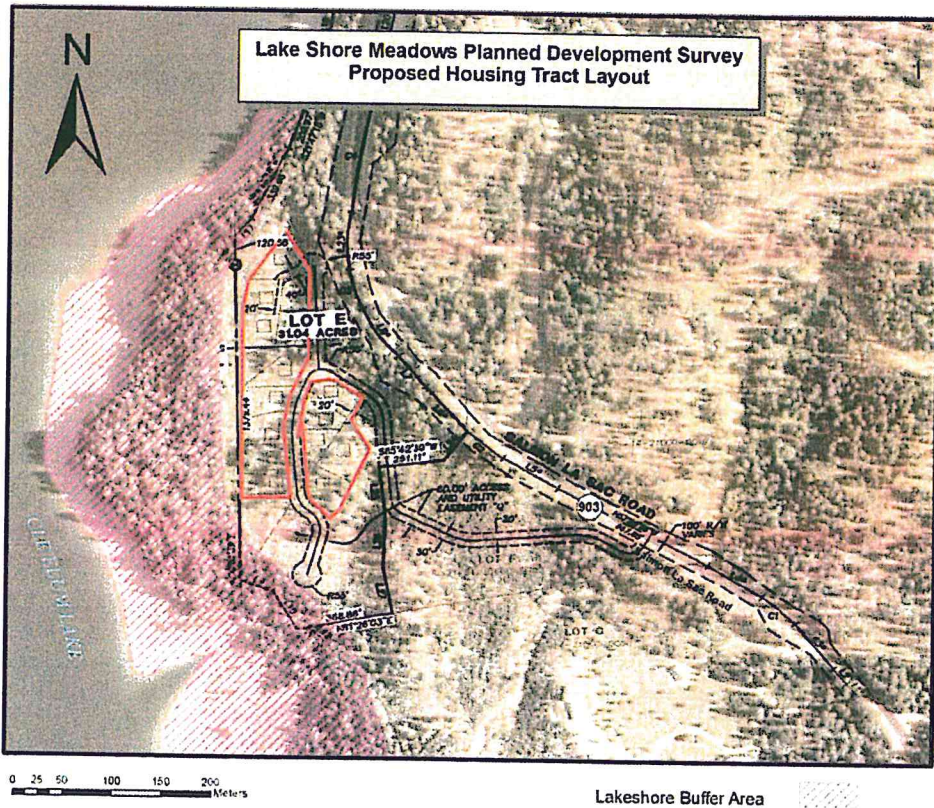


Figure 3: Project plan



Comment [c1]: No Fig #s after the first map

Figure 4: Plan with shoreline buffer and sat photo

Project Description

EES

A. Project Activities: Encompass Engineers Inc. retained Reiss-Landreau Research (RLR) to conduct an archaeological survey of undeveloped land in Kittitas County, Washington. This project is an inventory of 31 acres adjacent to the Lake Cle Elum Shoreline on the east side of the lake. The property owners wish to develop a set of 12 dwellings on the slopes of Lake Cle Elum. The survey was designed to inventory cultural resources throughout the entire area, including roads and proposed structures

14

Comment [c2]: You say 28 in exe summ

B. Area of Potential Effect (APE): The area of potential effect includes approximately 18 acres of proposed home lots and associated roads and infrastructure.

C. How the APE was determined: The APE was determined by the project engineers.

D. Location and size (in acres) of the survey area: This project is located on the eastern shore of Lake Cle Elum in Kittitas County Washington, and total area is 31 acres.

E. Project proponent, property owner, agency and compliance action: The project proponent is Encompass Engineering and Surveying Inc., the property owner is Al Monjazebe, Kittitas County is the lead agency and required the survey for conditional plat approval.

F. Regulatory: State of Washington Executive Order 05-05

G. Survey personnel: C. Landreau, I. Cain

H. What circumstances led to this survey: This project was a standard regulatory compliance project.

Environmental setting

Lake Cle Elum is located in the Northern Cascades Physiographic region (Lasmanis 1991), which is characterized by recent (Pleistocene) uplift, and massive cascades volcanoes.

"A major northwest-southeast structural break separates the Washington Cascades into northern and southern portions. In a general way, the structure follows the trace of Interstate 90 between Seattle and Ellensburg. The North Cascades consist of jagged mountains with numerous glaciers and are composed predominantly of Mesozoic crystalline and metamorphic rocks." Lasmanis 1991).

Region-wide interactions with glaciers during the last four glaciations within the current ice age have also modified the landscape. The last glaciation, at retreat left several natural deeply scored catchments, of which Lake Cle Elum is one. During the last century, Lake Cle Elum was deepened by an artificially enhanced dam at its southern end, creating a substantially larger storage reservoir.

Easton Ridge is comprised in large part of Teanaway Formation deposits. These are basaltic in character. The rock typically occurs in brown, rusty, and reddish tones. Evidence strongly suggests that during the Eocene, between 49 and 37 million years ago, dikes associated with volcanoes conveyed lava to the surface in an area stretching roughly from Kachess Lake past Table Mountain to the Wenatchee vicinity. (Mabry).

This volcanic activity intruded upon an older geologic landscape of terranes. A terrane can be conceptualized as a large block or "island" of rock. These moved eastward with the Pacific Plate. Once the Pacific Plate encountered the North American plate, beginning roughly 100 million years ago, these blocks of rock were literally smashed against and in some cases pulled under rock formations of the North American plate. During this process, they were added or accreted to those formations. Tremendous

pressure accompanied the collision. Strike-slip faults and thrust faults resulted. Geologic maps of the project areas show various terranes and associated faults (Mabry).

Faulting occasionally caused portions of the land to drop down or pull apart, forming basins. Sediments deposited in such depressions led to the creation of geologic formations. The Roslyn Formation, at 43 million years old, located near Cle Elum Lake, was one of these. It has been estimated at 9,000 feet thick in places. Rock types are primarily sandstone, siltstone, claystone, and shales. Veins of coal developed in the humid, subtropical environment that existed here (Mabry).

The Pleistocene Period, which began approximately 2 million years ago and ended around 10,000 years ago, was a significantly colder era. This was a time of glaciation. The valleys containing Cle Elum Lake and Kachess Lake--which were created during this time-- display the classic "U"-shape associated with glaciated alpine landscapes. Frigid temperatures occasionally yielded, however, to intervals of relatively warmer climate. At these times the glaciers would retreat. Meltwaters impounded behind terminal moraines led to the formation of Kachess Lake and Cle Elum Lake (Bureau of Reclamation).

Vegetation:

Douglas-fir (*Pseudotsuga menziesii*), Vine maple (*Acer circinatum Pursh*) and Grand Fir (*Abies grandis*) are the primary tree species on and around the site. This is a fairly typical east slope, mid elevation Northern Cascades plant community.

Cultural Setting

Ice-bound landscapes were gradually replaced by tundra-like expanses of grasses and cold-tolerant trees such as spruce (Hodges et al., 2003). Peoples pursuing large grazing animals such as mammoth and using Clovis projectile points were in the Wenatchee area 11,500 years ago. People were hunting around Cle Elum Lake 11,000 years ago (I-90 Snoqualmie Pass East Draft EIS).

A warm stretch of weather known as the Altithermal occurred from roughly 8,000 to 4,500 years ago. "Cascade"-type projectile points are associated with this period of increased aridity. Such points have been discovered along the edges of Kachess Lake (Hodges et al., 2003).

The period from 4,500 to 2,500 years ago is known as the Frenchman Springs phase. During this time regional human populations grew and pithouses became more widespread. One house, estimated to be between 5,200 and 2,500 years old, was found near Lake Easton State Park--approximately three miles west of the project area near Kachess Lake (Hodges et al., 2003).

Between 1,000 years ago and the early 1800s, when European and American explorers began arriving, populations continued to increase. Major settlements came into existence along the Yakima River. Fishing was an extremely important activity. Large summer fishing villages were established at the lower ends of Kachess Lake and Cle Elum Lake.

Additionally, people harvested plant and animal foods in upland areas in season. Vicinities around Cle Elum Lake and Kachess Lake were utilized by both Kittitas and Snoqualmie groups (I-90 Snoqualmie Pass East Draft EIS, 2006; Hodges et al., 2003).

The arrival of Lewis and Clark at the beginning of the nineteenth century heralded great changes for native peoples. Native communities were decimated by disease. Missionaries moved into the region in the 1830s and 1840s. Settlers also came, following close behind the missionaries' footsteps. Desiring land, the U.S. Government pushed native groups on both sides of the Cascade Mountains to sign treaties. In 1855 this was accomplished. Reservations were created for the Kittitas, Snoqualmie, and other groups in the Pacific Northwest.

To encourage railroads to extend their lines, the federal government provided them with a means of raising capital through land sales. Rail companies were given every other section on either side of the tracks (Draffan 1998). The Northern Pacific Railroad thus came into possession not only of forested lands, but also lands containing coal. The Northern Pacific wasted no time. Coal mining began in 1886. Rails were constructed to the towns of Cle Elum and Roslyn. Like cattle, coal was sent by rail to eastern markets. By the early twentieth century, coal production reached over one million tons each year. Coal mining crested in the 1920s. With oil effectively competing with coal as a fuel source in the 1930s, coal mining began a decline. Its dying gasp in the Cle Elum-Roslyn area was heard in the 1960s. Slag piles found in these communities are a visible reminder of this history (I-90 Snoqualmie Pass East Draft EIS).

In addition to coal production and active logging operations, the early twentieth century witnessed the construction of dams on Kachess Lake and Cle Elum Lake. These were part of federal programs intended to increase agricultural productivity across the arid West. A reservoir was built at Lake Kachess in 1912. Cle Elum Lake was dammed in 1933. These provided precious water to downstream farms and orchards at places like Thorp, Ellensburg, and Kittitas.

Just as coal faded as an economic powerhouse in the area, logging is currently diminishing in importance. This places great stresses on once-thriving logging communities like Easton. It was born as a logging camp located at the confluence of four railway lines. Easton was the final stop for trains before they headed west over Snoqualmie Pass (I-90 Snoqualmie Pass East Draft EIS).

Major logging corporations like Plum Creek--a direct descendant of the Northern Pacific Railroad and its landholdings--recognize that the heyday of timber operations is past. While Plum Creek still harvests timber, increasing corporate energies are focused on selling unprofitable lands and/or transforming them into recreational and/or homesite properties. Perhaps the most dramatic sale and transformation of the forested landscape near the project areas is the resort development presently taking form on 7,400 acres along the lower Cle Elum River. When completed, it will host roughly 3,000 homes, condominiums, hotels, and golf courses (Tri-County Water Resource Agency 2000).

Sites found in this area reflect the diversity of fish and game that surely must have been present pre-contact, and are reflective of a rich ecological hotspot, as any river fed lake must be. Water flows, prior to damming were unimpeded to the Pacific Ocean, and allowed anadromous fish a direct avenue to enter their preferred upland spawning areas.

Native Americans were seasonally nomadic into this region, to acquire warm weather food resources like berries and salmon, in the relative cool of the mountains. Vast trail systems would have led to Lake Cle Elum, from lower winter villages of the Kittitas and Yakima Valleys.

Literature Review

There are nine known cultural resources previously recorded within three linear miles of this project area.

FS1458 (Hicks and Bishop 1993)

This site is the location of a large scatter of Native American lithics and tools, as well as an historic quarry, excavated into the basalt bedrock. This was a possible contact period campsite noted prior to the development of the dam. The site was recorded in 1992 at low water during a time when a "peat bog" was noted well below the high water mark, and likely north of the current lakeshore, adjacent to the Cle Elum River. This site is located over one mile north of the current project area and will not be impacted.

FS1462 (Hicks and Bishop 1993)

This site is a low water lithic scatter site, likely utilized prior to dam construction. It is located .8 miles southeast of the project area, and will not be impacted by this development.

FS1463 (Hicks and Bishop 1993)

This site is a large low water lithic scatter campsite. It is in the extreme erosive zone of the fluctuating lake Cle Elum. It is located one mile southeast of the project area, and will not be impacted.

FS1466 (Hicks and Bishop 1993)

This site is a small lithic scatter located southeast of the project area. It will not be impacted by the proposed development.

FS1467 (Hicks and Bishop 1993)

This site is a lithic scatter campsite associated with the entry of Bear Creek into Lake Cle Elum. It is located 1.7 miles southeast of the project area and will not be impacted.

FS1468 (Hicks and Bishop 1993)

This site is closest to the project area (.5 miles). It consists of a diffuse lithic scatter found at the lowest draw down of the lake in 1993.

FS1469 (Hicks and Bishop 1993)

This site is located on an eroding slope only visible during extreme low water conditions. It is a small lithic scatter on the western lakeshore and is located across Lake Cle Elum (southwest) at 1.5 miles from the current project area.

FS1991(Hicks and Bishop 1993)

This site is a small lakeside lithic scatter on Lake Cle Elum. It is located across the lake west of the development area and will not be impacted.

45KT1281 (Miller 1997)

This isolated find was located inland 1.5 miles southeast of the proposed development area and will not be impacted.

Landreau (2006) studied an adjacent parcel in 2006 and did not locate any cultural resources.

Research Design

A. Research Goals and questions:

RLR developed a hypothesis for this project, based upon the goal of cultural resources management in a development context in areas where there is little or no previous contextual work. The immediate goal is to evaluate the potential of this project area for the presence or absence of cultural resources.

Hypothesis: That the cultural survey will provide discovery of aspects of the built environment from the agricultural past of the project area.

Data required to answer questions: To evaluate the potential of this project area for traces of the settlement past, RLR prepared a field survey, in conjunction with localized site research.

This study can potentially aid in the reconstruction of past landscapes by identifying and recording elements of the archaeological record.

Inventory Methodology

The survey methodology was determined by the project blueprints (see Figure 3), which outlined the most important sections on which to focus the subsurface evaluations. The property had also been surveyed and flagged in the field for construction.

RLR conducted a two person visual reconnaissance of the project area (Figure 5). The transects were spaced at ten meters, and additional lines were systematically walked in the areas slated for subsurface construction in a more concerted attempt to discern surface features that may represent any archaeological remains.

A. Archaeological survey method: The survey methodology was determined by the surface visibility of the landscape. Ten meter transects were planned for the survey, which is standard for large forested tracts in the region.

B. Depositional Environment: Local soils are influenced directly by the forested lands upon which they sit. Most are colluvial tills from the terminal Pleistocene glacial retreat in the area, and have been re-deposited through wind and water action.

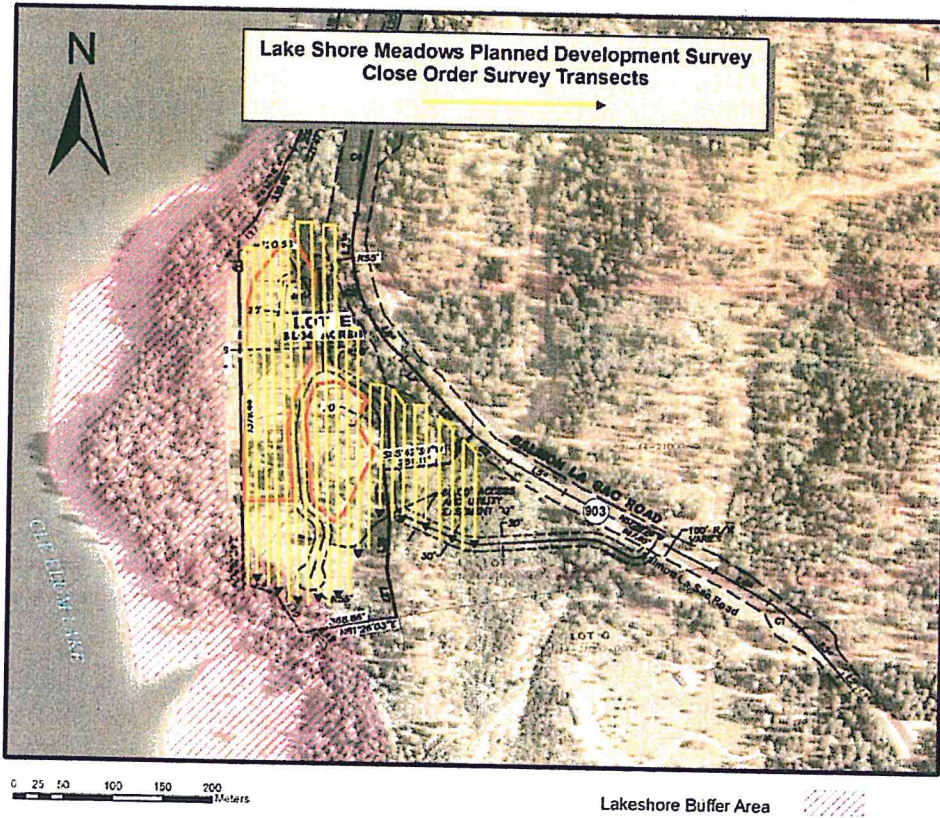


Figure 5: Survey Transects

Survey Results

A. Date of survey, Weather Conditions: July 17, 2009, sunny

B. Field personnel: C. Landreau, I. Cain

C. Actual methodology employed: The survey methodology was determined by standard methodology related to high acreage timber lands in Washington State. Visibility was 10-50% throughout. And Reiss-Landreau Research determined that principally a visual assessment was the most common and effective approach in terms of resources determinations in this environment.

D. Shovel Test probes were not excavated during the course of this survey. Generally in heavily forested areas, with substantial sloping, and over 500 ft from water sources, pedestrian surveys are customary technique for inventory assesment.

Project Recommendations

No cultural resources were identified during the course of this survey. Therefore, Reiss-Landreau Research recommends of finding of NO IMPACT for the purposes of this development. However, potential always exists to encounter buried or otherwise hidden cultural features during the course of construction.

We recommend that at any time during the project, should human or unknown bone be uncovered, or deeply buried cultural deposits encountered, a professional archaeologist should be called, and work should stop until the material is evaluated, and State of Washington procedures for inadvertent discovery are initiated.

Inadvertent Discovery Procedure.

If the inadvertent discovery is Archaeological material:

1. The project proponent and the DAHP will be contacted and work in that area will stop.
2. The archaeologist will contact the Klickitat County representatives in charge of this project.
 - a. Upon notification from RLR of discovery of potential archaeological deposits, RLR will contact the consulting parties. Parties will be contacted by telephone.
 - b. The DAHP and the consulting tribes will be given the opportunity to view the artifacts within 48 hours after the discovery or at the earliest possible time thereafter. The discovery will be kept confidential. After halting

construction, securing the site, and notifying the contractor, the archaeologist will conduct a brief in-field evaluation. The purpose of the evaluation is to determine whether the discovered resources have potential to answer research questions.

- c. Evaluation protocols are described in the following section.
- d. If parties agree that the artifacts are not significant, RLR will ask the construction representatives to resume construction.
- e. If parties agree that the artifacts are significant, Klickitat County or the Washington State DAHP will issue a stop work order until further notice for all construction work in the area defined as a significant site.

Guidelines for the Discovery of Human Remains:

1. All persons who know of the existence and location of human remains must, by law, **notify the county coroner and local law enforcement**. This must be done in the most expeditious manner possible. (RCW 27.44; 68.50; 68.60)
2. Any person engaging in ground disturbing activity that encounters skeletal human remains must **cease all activity which may cause further disturbance to the remains, make a reasonable effort to protect the area from further disturbance, report the presence and location of those remains to the coroner and local law enforcement** (RCW 27.44; 68.50; 68.60). The remains should not be touched, moved, or further disturbed.
3. The county coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. (RCW 27.44; 68.50; 68.60)
4. If the county coroner determines the remains are non-forensic, then the Department of Archaeology and Historic Preservation will take jurisdiction over the remains. (RCW 27.44; 68.50; 68.60)
5. The State Physical Anthropologist will make a determination of whether the remains are Indian or Non-Indian and report that finding to the affected parties. (RCW 27.44, 68.50; 68.60)
6. The DAHP will handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains if there is no federal agency involved.

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Comment [c13]: The refs in the text need some work, as usual!

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Appendix A Photography



Figure 6 timber slash pile



Figure 7: Timber slash pile



Figure 8: Facing Northwest in sloped meadow



Figure 9 Facing west along principal planned roadway in development