

Cultural Resources Monitoring and Inventory for the
Pack River Delta Restoration Project 3.0,
Bonner County, Idaho



March 2025

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Report prepared for Ducks Unlimited
DU Project No. US-ID-56-4
Pack River Delta, Phase 3
ICRIS Project No. 2024-1170
Professional Services for Cultural Resources- Geotechnical Monitoring and Inventory
for Pack River Delta Phase 3 Restoration Project, Bonner County, Idaho

The technical findings and recommendations found herein may not necessarily reflect those of the
sponsoring agency.

Abstract

In the fall of 2024, the technical assistance of the Kalispel Tribe's Cultural Resources Management Program was sought by Duck's Unlimited (DU) as their subcontractor in their efforts to service Idaho State's Department of Fish and Game's (IDFG). IDFG seeks to continue its habitat restoration in the Pack River flats. This is their third phase of in reservoir habitat conversion/restoration within the same area that is coincidental with the Tribe's aboriginal title. As the project has the potential to beneficially affect water ecology and the accessibility of native food resources available therein the Tribe is amicably disposed to the underlying project. The Tribe agreed to the arrangement as it sought to ease the often-burdensome necessities of multiple resource management reconciliation faced in a private/public partnership.

If the underlying project is a private/state partnership, why the need redress Federal historic property management compliance? By both permitted use of Federally titled lands and the use of Federal monies the project met the regulatory definitions. Owing to their fiscal involvement and with the consent of the U.S. Army Corps of Engineers (USACE) the former assumed lead Federal entity status and ever so slowly shared their needs with the Tribe in reporting standards to affect decision making.

Bonneville Power Administration (BPA) is funding the project, which will impact lands managed by USACE. By agreement with the USACE, BPA is the lead federal agency for National Historic Preservation Act (NHPA) Section 106 compliance. Regulatory permissions will be sought through USACE under §404 of the Clean Water Act of 1972 and under authorizations provided by the Rivers and Harbor Act of 1899. The undertaking as defined by 36CFR800.16(y) necessitates a review and examination of relevant information to make a fact-based decision regarding the potential effects to historic properties included on or potentially eligible for inclusion on the National Register of Historic Places (NRHP). To address those potential effects to historic properties, this report summarizes observations and recommendations based on monitoring geotechnical excavations (n=16) and the positive results from the cultural resources inventory for the project area (110 acres).

The intent of this document is to be transparent on a rational pathway forward for multi-resource management that guides the build of the restored littoral habitat with an eye towards historic property conservation. This report details the background research, and a multi-element inspection of historic properties within the project's area of potential effect (APE). It is intended to provide the lead federal agency and its sister agencies with title or permitting authorities a basis of fact to make determination of effects and communicate the same with affected stake holders.

Certification of Results

I certify that this investigation was conducted and documented according to Secretary of Interior's Standards and guidelines and that the report is complete and accurate to the best of my knowledge.

A handwritten signature in blue ink, reading "K. F. Maroney", is written over a horizontal line.

Signature of Principal Investigator

Key Information

PROJECT NAME

Pack River Delta Restoration Project

PROJECT NUMBER(S)

Ducks Unlimited Project No. US-ID-56-4
ICRIS Project No. 2024-1170

LOCATION

Bonner County, ID

USGS QUADS

Oden Bay, ID

LEGAL LOCATION OF SURVEY

T.57N R.1E Section 7

PROJECT AREA

110 acres

AREA SURVEYED

110 acres

PROJECT DATA

Number of previously recorded cultural resources: 5
New cultural resources located and/or recorded: 5

AUTHORS

Kendra L. Maroney

FEDERAL AGENCY

Bonneville Power Administration

REPORT PREPARED FOR

Ducks Unlimited, Inc.

REPOSITORY

Kalispel Tribe of Indians, 1981 LeClerc Rd N., Cusick, WA, 99119

PRINCIPAL INVESTIGATOR

Kendra L. Maroney, M.A

DATE

March 2025

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Project Description

Project

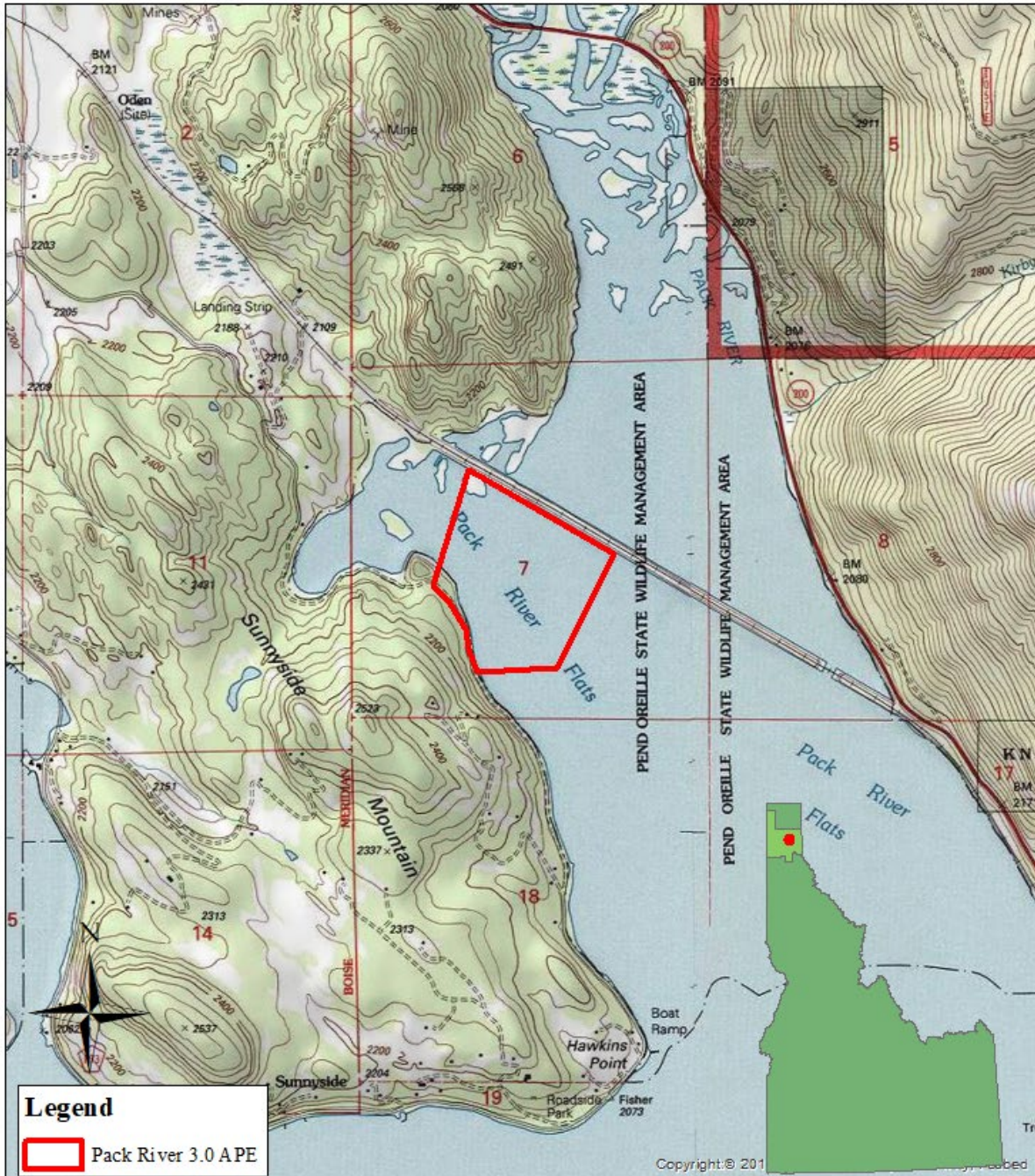
This report summarizes the results of a literature/records review, geotechnical excavation monitoring, cultural resources inventory, and shovel test sampling of the Pack River Delta Restoration Project, Phase 3 in Bonner County, Idaho. Idaho Department of Fish and Game (IDFG) proposes a restoration project on the delta funded through Bonneville Administration (BPA). IDFG contracted with Ducks Unlimited, Inc. (DU) for the habitat restoration designs. The intent of the project is to protect existing landforms from erosion and create landforms and deep-water areas that serve as habitat for fish and wildlife. There have been previous cultural resources surveys of the project area (Miss 1988). Without passing unwarranted negative judgement upon those earlier efforts (they reflected the needs of the day and were scoped accordingly), the contextual data were insufficient from the Tribe's perspective from a modern decision-making standpoint. They lacked geographic precision (both location and scope), consistency as to site function, temporal association, and/or environmental association. The inventory surveys of 1980s and archaeological sampling of the late 1990s largely were mute as to the National Register of Historic Places (NRHP) eligibility status other than the default setting of "when in doubt, just affirm yes." Owing to the vintage of the existing cultural resources survey data and its above-named limitations, this coupled with the dynamic landscape within the project is located the Tribe advocated a re-entry survey and proportionate¹ site evaluative efforts coincidental to anticipated project effects.

Prior to project implementation and in consideration of designs, geotechnical excavations were required to identify different areas of source soils (i.e., sands versus silts) which could be availed in island or fill area construction. Given this ground disturbance in a culturally sensitive area, an archaeological monitor was recommended. The Kalispel Tribe of Indians (KTI) was contracted to complete the geotechnical excavation monitoring. KTI also completed the cultural resources pedestrian survey for the project area, updated archaeological site forms, and completed shovel test sampling around sites to ascertain the presence/absence of subsurface components.

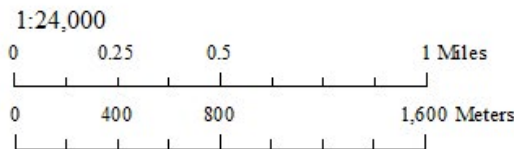
Project Area of Potential Effect (APE)

The area of potential effect (APE) is located within the Pack River Delta in Bonner County, Idaho (Figures 1 and 2). The boundaries are defined by those areas specified by the project team as needed for access and construction. The design team identified areas for geotechnical testing for soil sampling, the access routes for testing, as well as areas proposed for fill (to build habitat islands), borrow areas (to remove material and build up islands), and the construction access routes (Figure 3).

¹ The schedule constraints on the Tribe's time are severe, albeit more historic properties were identified than shovel tested (evaluated) the lesser of the two was the scope that was reasonably severed to fulfill project objectives. Pursuing more site evaluation, typical of commercially incentivized practitioners, would needlessly strip the project of financial resources and over obligate the Tribe's time.



Coordinate System: NAD 1983 UTM Zone 11N
 Projection: Transverse Mercator
 Datum: North American 1983
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 False Northing: 0.0000
 Central Meridian: -117.0000
 Scale Factor: 0.9996
 Latitude Of Origin: 0.0000
 Units: Meter

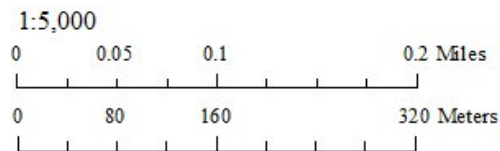


Pack River Delta Restoration Project
 Phase 3
 T57N R1E
 Section 7
 Bonner County, ID
 January 2025

Figure 1. Pack River Delta Restoration Project, Phase 3, area of potential effect 1:24,000.

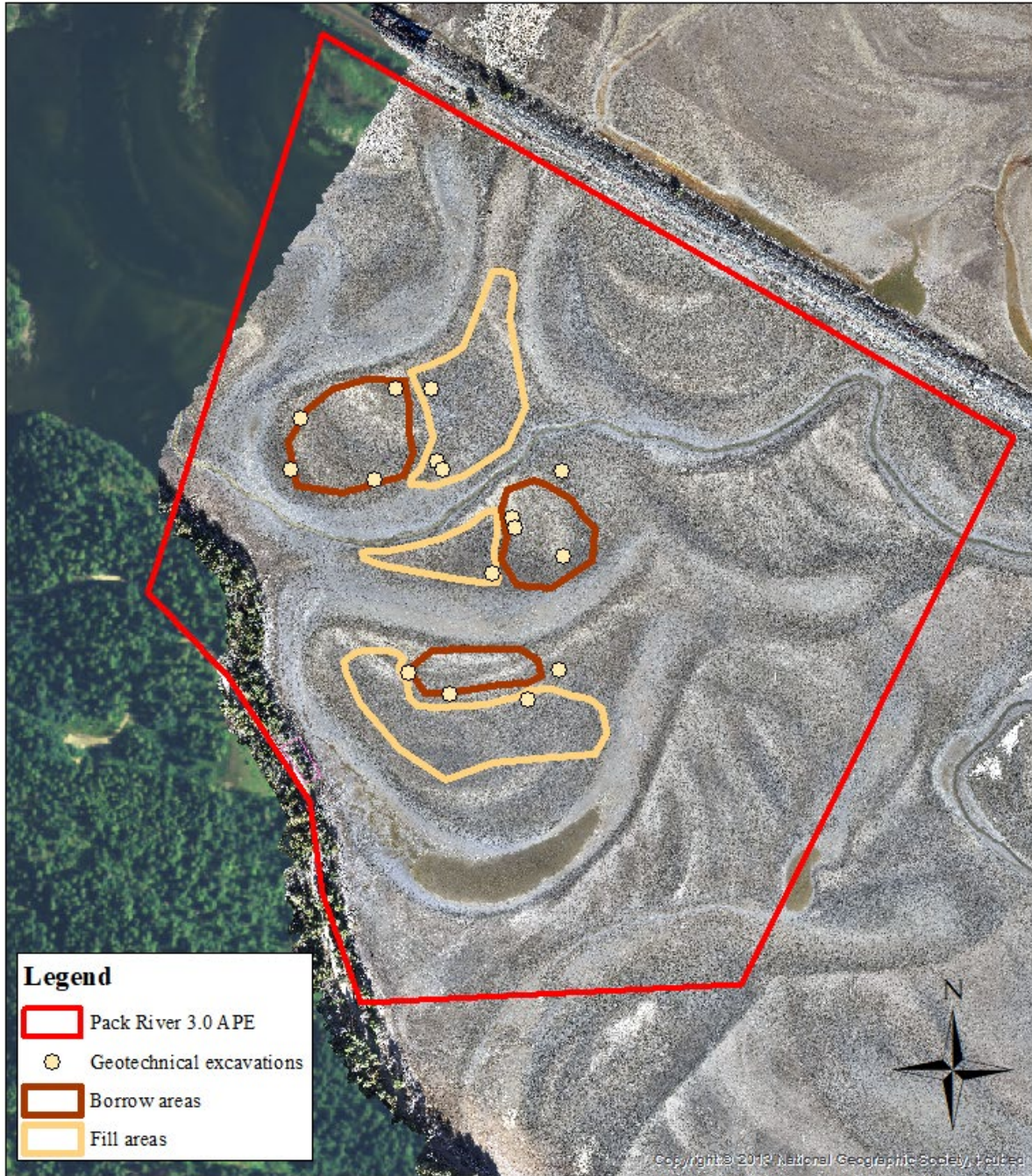


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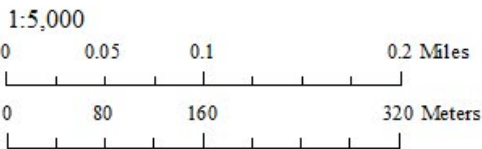


Pack River Delta Restoration Project
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Figure 2. Pack River Delta Restoration Project, Phase 3, area of potential effect 1:6,000.



Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
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False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -117.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter



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Figure 3. Area of potential effect with geotechnical excavations, borrow and fill areas, 1:15,000.

Environmental Setting

Bonner County is located in the northern panhandle of Idaho, within the Kaniksu National Forest and Columbia Mountain Range. The Lower Pack River flows southeast of the Selkirk Mountains and is northwest of the Cabinet Mountains. The landscapes within are variable and can range from steep valley slopes to a flat open meadows. The natural environment provides opportunities for human use and occupation, which were available or constrained by their socio-organizational choices, technologies, and value systems. When calculating the probability of historical use of a landscape, it is fruitful to consider the variables of soil, hydrology, and vegetation. The Pack River enters Lake Pend Oreille from the north and is eloquently described in a cultural resources report from this area as follows:

“The Pack River is a highly sinuous stream with well-defined relict meander scrolls. The floodplain, or flats, is bounded on either side by remnant granitic and Belt Series outcrops. Prior to the construction of Albeni Falls Dam the floodplain in the site area was covered with grass and patches of conifers (1935 aerial map/USACOE). Seasonal inundation of the site area since dam installation has resulted in removal of the vegetation and erosion of the A horizon of the flats” (Miss 2005:256).

This project, and the area itself, borrows the name from its defining characteristics- its delta environment. It is seasonally inundated (April to late-September)² and then water retreats to meanders and the flow of the Pack River in the fall. It is surrounded by rugged forested mountains and hilly terrain. What is now a monotonous “spider” stump field once was a mosaic littoral forest primarily structured by their relative elevation to the water column. Sinuous lateral meander levees, often the oldest of the locally available landforms, would be occupied by a mix of ponderosa pine and fir species. Along the margins of abandoned oxbows, more hydrophilic species would be found (e.g., western red cedar) and opportunistically flanking the main channel of the river would be gallery forest stands of black cotton wood, birch, and aspen. Below these cover types a shrub component, again structured by relative elevation to the water column included ethnographically important species of red osier dogwood and coyote willow and a ground cover of prairie cordgrass intermixed with various edible species of wild carrot, wild onion, and celebrated root crop camas. In the ethnohistoric (c. 1850 to 1930), the Pack River was a diverse pantry of direct and indirect subsistence opportunities with overlapping seasons and harvesting needs. Those needs and their ramifications are discussed in the ethnographic/ethnohistoric context section provided below. The delta is now diminished in native vegetation except for its manufactured habitat islands crowned of alder, pine, and cattail. IDFG installed wildlife habitat islands in 2008 and 2024 which enhanced the delta with wetlands plants. Lowland area to the west is covered by reed canary grass and cattails, and the upper mixed forest is composed of Douglas fir, Ponderosa pine, cedar, lodgepole pine, hawthorn, and alder with a forest floor of grasses, ferns, and Oregon grape.

² This seasonality reflects an artificial hydro-electric operations schedule that is broader in temporal scope than the normal flood regime of the mountains. In terms of depth of inundation, the Albeni Falls project inundates the reservoir ten vertical feet, approximately the same depth pre-project conditions yet for several months longer than was the norm.

Cultural Setting

Prior to contact (1811 AD), the Kalispel are described as a band level society. Their social organization was formed along lines of kinship and winter residency. Their homelands within the Pend Oreille watershed provided a temperate and wet forest, amiable for their family provisioning needs through the scheduled harvest of foods gathered, hunted, or fished. The ethno-historical Kalispel gathered necessary resources and repositioned seasonal surpluses for future uses at winter villages. Forming an economic and political anchor for communities, winter villages balanced the annual variation of performance of highly autonomous kindred and/or residential groups into an economic conformity wherein the social rules of food sharing and mutual civility reduced risk across the community. This adaptive form predicts site type/function and their associated seasonal uses across a watershed. River/creek confluence areas were predictable and reliable fishing locations, littoral wetland margins provided ample geophytes, and the multiple crenulated head valleys of tributary streams accommodated numerous deer yards wherein whitetail was harvested in mass through communal hunting methods (Lyons 2019-2025).

The landscape is culturally rich and is within the home range of the “Ellisport Bay” Band of the Upper Kalispel (ca. 1850-1870 AD³). Dr. Allan Smith conducted ethnographic research among their kindred, the Lower Kalispel in the late 1930s. During his time with the Kalispel, he visited many of the ethnographic places his Kalispel mentors provided, and he recorded them with his own site numbers. Smith provides information relating to three ethnographic sites near the mouth of the Pack River utilized by the Kalispel— seasonal camps and a fish weir location (Smith 1985:131-141). Some have been “substantiated” with the observed colocation of archaeologically enriched deposit (cf Betts 2002:11-3).

David Thompson was the first documented European in the valley. He traveled through the Kootenai River down what he called the “Great Road of the Flathead” to Lake Pend Oreille during his exploration for a shorter route to the Columbia River (Belyea 1994:108; Betts 2002:13). Thompson was a partner in the North West Company and led three parties by canoe on the Pend Oreille River between 1809 and 1812. In the 1880s, “untitled” settlement by immigrant populations began with the search for gold, then followed by those with the desire to homestead. By the 1890s, lands were surveyed, and claims were legally staked. Primitive road systems were built by early settlers. Subsequent transportation improvements in the county occurring with increased market developments and population growth throughout the 1800s and early 1900s. Between 1870-1882, Northern Pacific Railroad was constructed around Lake Pend Oreille with an end track at present-day Rathdrum, Idaho (Betts 2002:20). Additionally, trading in the area occurred in the locality of Mud Lake, a shallow embayment on the west side of the Pack River Delta (Betts 2002:18).

“The Pack River flats were crossed by early travelers on their journeys up and down the Clark Fork River. During the fur trade era of the early nineteenth

³ Note, the dates provided indicate known and/or safely inferred historical points of information that are verifiable and do not reflect the full temporal extend of community occupancy/utilization of this portion of the watershed. Albeit many “upper band” Kalispel families did relocate to Montana ca. 1870, some doggedly remained within the watershed well into the early 20th Century with grave visitation and maintenance and other usual cultural practices continuing nearby until the 1930s.

century, this was the route between the far western HBC posts and Saleesh House established on the Clark Fork near Thompson Falls, Montana in 1809. Euroamerican settlers in the late nineteenth century had barns and fields south of the current railroad grade and used the flats for hay production. The grade itself is a re-alignment that was completed in about 1904 (Selle n.d.). The original crossing was to the south between Sunnyside and Trestle Creek where the remains of a long trestle can still be seen at low water. In the early decades of the twentieth century a lumber mill occupied the east side of the flats almost directly across the Pack River from the site.” (Miss 2005:251)

Pre-Field Research

Historic research

Bonner County Historical Society

The Bonner County Historical Society (BCHS) was helpful in identifying photographs relevant to the project area- these had been noted by Mr. Brian Heck in his research, which prompted our own collaboration with the Museum. The archives were reviewed, several photos were found to be informative and are included below.

Two relevant photos that capture an area to the south of the project area are from the late 1800s, a time when the Northern Pacific Rail Road (NPRR) was in construction. A photo dated to 1882 was taken from the west end of the NPRR trestle at its original location at Hawkins Point, with an eastern view across the Pack River flats towards Trestle Creek, shows the trestle under construction with a canoe on the bank (BCHS Object ID# 119, Figure 4). A later photo, with the same eastern aspect, shows a steam engine as it embarks across the trestle, with the project area in the right side of the photo, inundated and partially obscured with logs and debris (BCHS Object ID# 3702, Figure 5). These photos illustrate the original wooden pier trestle that was used to cross the delta, a 6,500' wooden trestle that reached from Trestle Creek across the Pack River Bay west to Hawkins Point (Sunnyside to Trestle Creek trestle) (Figures 6 and 7). The tracks continued west and then northwest towards Sandpoint on what is now Sunnyside Road, connecting with its present-day route parallel to Hwy 20 near Culver. This NPRR trestle over the Pack River Bay was later replaced between 1904 and 1905 by an all-rock crossing, and the route of the railroad was changed to its present-day northwest route across the Pack River Delta and north to Oden and the parallel course next to Hwy 20 (Figure 8). During low water, pilings can still be seen out in the lake as a remnant of the original trestle. The construction of these trestles is particularly interesting in the context of this habitat project.

In conversations about this project, Mr. Brian Heck of DU and Mr. Pete Rust of IDFG point out that this conversion created one of the earlier significant impacts to the delta (later followed by the construction and operation of Albeni Falls Dam in 1951). Mr. Heck explains that this action reduced the river and floodplain interaction even more than the previous wood piers and concentrated all the Pack River flow out to Lake Pend Oreille in one opening, which limited the ability of the river to meander. This example demonstrates the lasting impact of a decision in history, and how historical records can be used to reconstruct historic (and prehistoric) landscapes to design mitigations and solutions such as the Pack River Delta Restoration Project.

A photo later shows the hay fields and a two-track roadway across the flats, a view towards the trestle. It is labeled "bales of wild hay cut near the mouth of Pack River before Albeni Falls Dam was completed. These flats were flooded every year and as the lake receded wild hay grew in the low lands. The Northern Pacific RR causeway is in the distance and the Pack River is at far left, August 1949" (BCHS Object ID# 13552, Figure 8). Another photo around the same time has the following description: "The Pack River viewed westerly from hillside above the Northern Pacific track. The Pack River Flats and delta showing the natural hay meadows prior to the construction of the Albeni Falls Dam. The photograph was taken from the old highway looking west towards the Sunnyside Peninsula. Hawkins Point is just out of the photograph on the left" (BCHS Object ID# 4924, Figure 9).

“Taken from Ashley Orchards showing Mineral Hill” is a photo that illustrates the meadows and sloughs (BCHS Object ID# 18563, Figure 10). The date of the photo is unknown but is of value when researching this location as it shows a variety of activities on the landscape – haying, fencing, and roadways- and also illustrates the difference in vegetation at that time compared to the barren flat that is today. The topographic map of the project area as it was drawn in 1927⁴ plots the roadway in a different location- rather than its current placement along the hillside- it ran directly through the project area across the flat (Figure 8).

These various photos and maps demonstrate the various activities that have occurred across the project area, all of which had the potential to affect or contribute to the archaeological record (haying, fencing, driving, building, vehicle use, annual flooding, trestle construction, etc.). They are considerations as these will influence present-day observations throughout the pedestrian survey and subsurface testing.



Figure 4. "Photo of Northern Pacific Railroad trestle across the Pack River under construction, 1882." Used with the permission of the BCHS and consistent with the fair use doctrine of the US Copy Right (cf 37CFR201.2 (a) (3))

⁴ United States Department of the Interior Geological Survey, Clark Fork and Pend Oreille Lake, Horse Creek, Montana, to Albeni Falls, Idaho, Edition of 1927, Sheet B. Surveyed in 1926, Topography by W.F. Chenault.



Figure 5. "Northern Pacific balloon stack steam engine approaching the Pack River Trestle across to Trestle Creek, circle late 1800s." Used with the permission of the BCHS and consistent with the fair use doctrine of the US Copy Right (cf 37CFR201.2 (a) (3)).

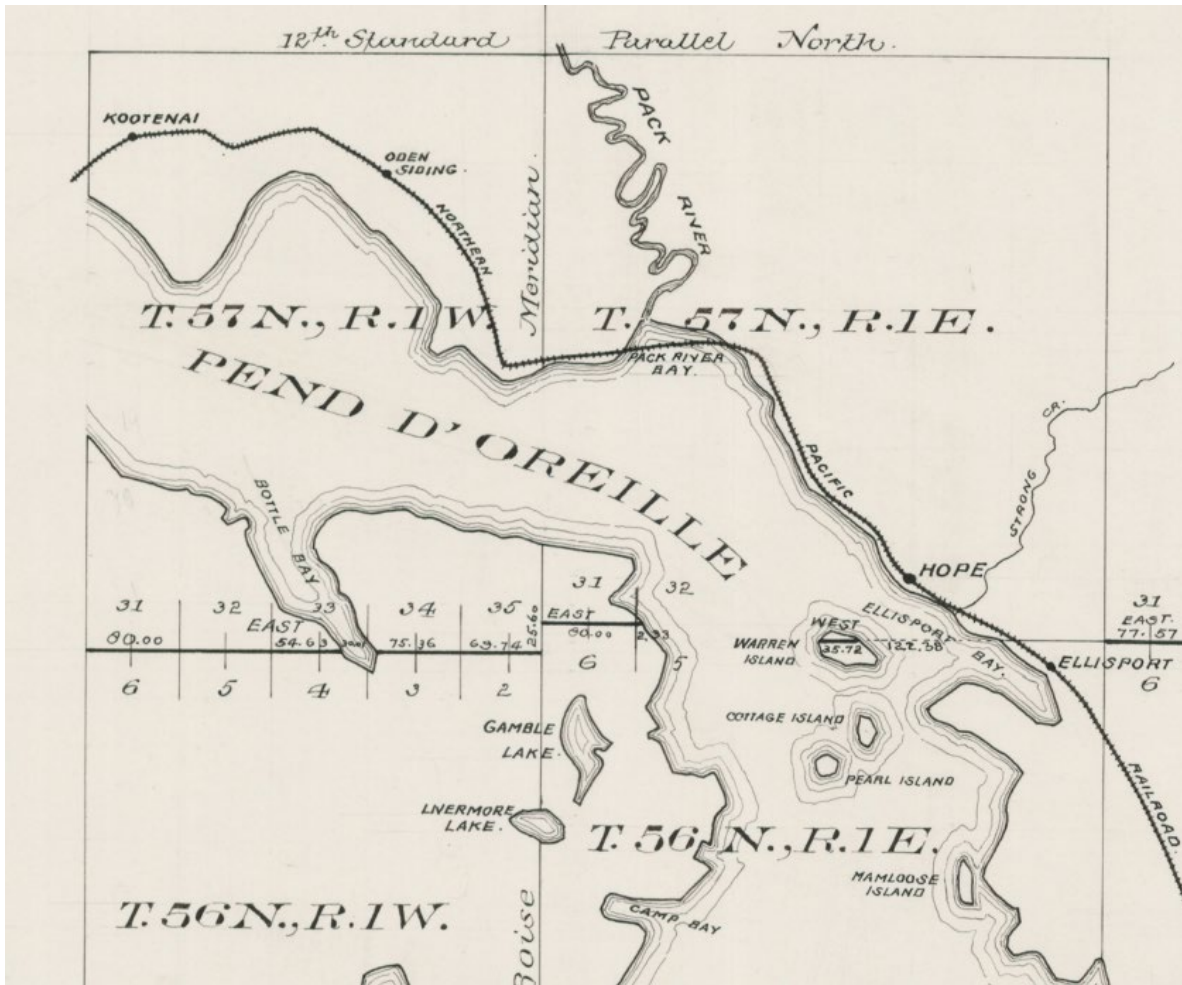


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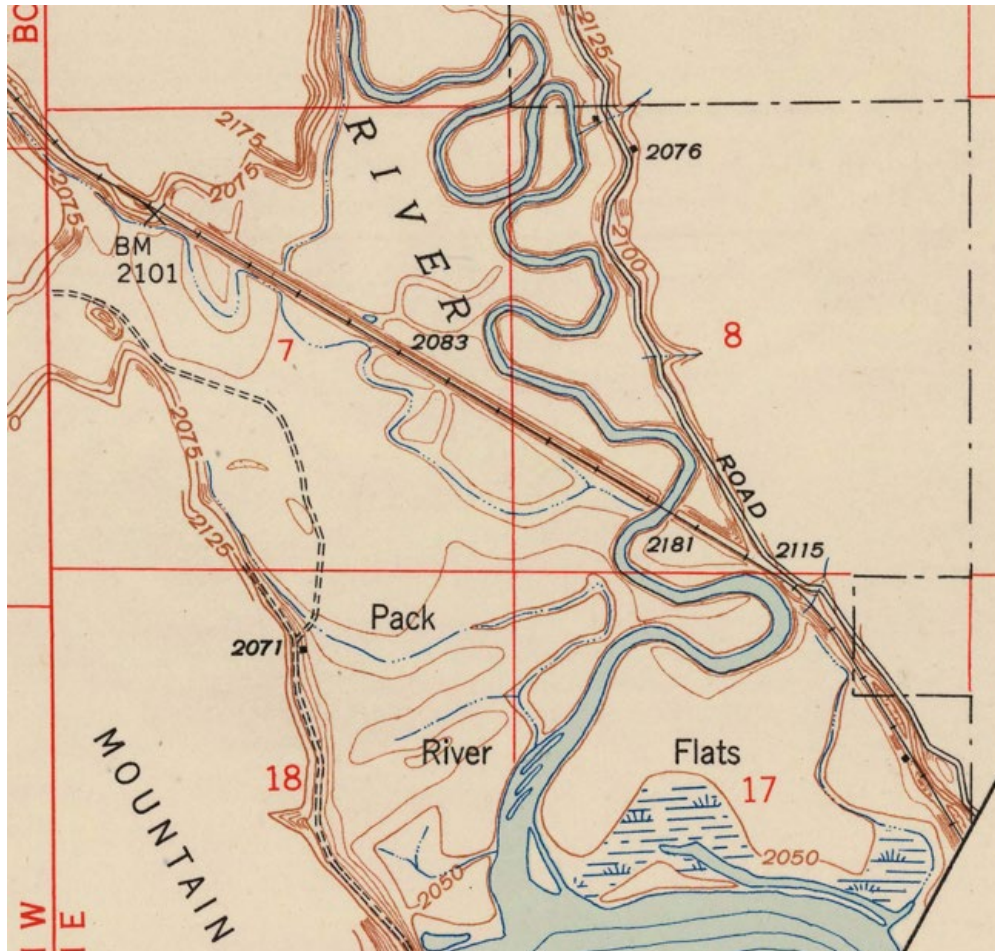


Figure 8. 1927 topographic map of project area with the NPRR tracks bisecting the Pack River Flats.



Figure 9. "The Pack River Flats and delta showing the natural hay meadows prior to the construction of Albeni Falls Dam." Used with the permission of the BCHS and consistent with the fair use doctrine of the US Copy Right (cf 37CFR201.2 (a) (3)).



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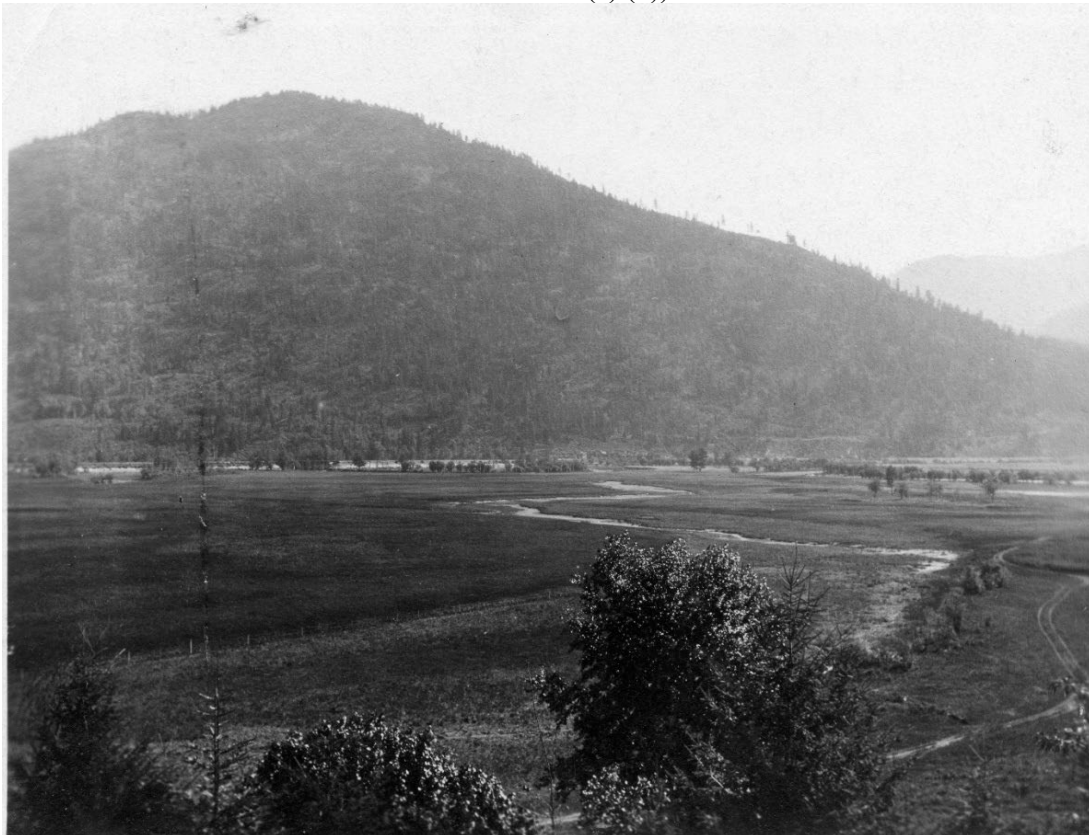


Figure 11. "Taken from Ashley Orchards showing Mineral Hill." Used with the permission of the BCHS and consistent with the fair use doctrine of the US Copy Right (cf 37CFR201.2 (a) (3))

Previous Cultural Resources Studies

Cultural Resource Inventories

During a previous phase of the Pack River restoration project (completed in 2024), a record search was conducted through the State in 2022 (prior to the implementation of ICRIS). Thirty-nine Archaeological Survey of Idaho Reports were accessioned through the Idaho State Preservation Office (ID SHPO Record Search #23032, Figure 12). These resource inventories were conducted during various projects and years that overlap with the Township/Range/Sections of the APE. After this 2022 search, cultural resources work by KTI was completed for another phase of Pack River habitat restoration which included a survey and documentation of 18 archaeological sites (ICRIS Project No. 2022-374, Maroney 2023). The reports detail literature reviews, pedestrian surveys, testing, and evaluations. These inventories do not comprehensively cover the APE, they provide context within the Pack River Delta and inform our expectations of resource type, abundance, and geographic associations.

The surveys fell into several themes, those for various agencies (Bureau of Land Management, Idaho Panhandle Forest Service, Idaho Transportation Department), private land and development projects (Hidden Golf Course), and with the largest contribution for the U.S. Army Corps of Engineers (USACE) projects for Albeni Falls Dam and Lake Pend Oreille (USACE). These reports for USACE are directly related to this project on the Pack River Delta and provide important history and context. The most relevant and formative study of this portion of the watershed for the archaeological record is Miss (2005). It forms the baseline for many of this study's expectations and I have adopted her descriptive nomenclature for the sake of comparative continuity.

North of the project, beyond the railroad trestle, two sites were evaluated by Miss (2005): 10BR727 and 10BR729. These sites are similar to those recorded in the APE, characterized by FCR scatters and concentrations. Site 10BR727 was recorded in 1988 as a low-density fire cracked rock (FCR) scatter and later tested in 1999. Eleven shovel/auger probes were excavated between 201 and 250 cm below surface, for a total excavated volume of 1.21 m³. A single artifact was recovered (an argillite flake), and no other cultural items or features were observed. "The site does not appear to be eligible to be NRHP [National Register of Historic Places] eligibility due to the low density of artifacts and lack of associated occupational deposits" (Miss 2022:254). The lack of artifact returns per unit volume and lack of associated dateable organics limits the analytical potential of this site under current analytical schemas. Individually it may lack a robust expression of significance but may be a supporting element of cultural landscape. Additional information beyond what has already been recorded is unlikely to be present at the site. Site 10BR729 was also recorded in 1988 and described as a "500 ft (north/south) by 50 ft (east/west) strip of low to moderate density FMR⁵ concentration observed on the exposed old river levee" (Miss 2005:256). Thirty-nine shovel/auger probes, two test units, five surface collection units, and five feature test unit were excavated for a total volume of 5.24 m³. Thirty-nine FMR concentrations were identified. Forty-five prehistoric lithic artifacts were recovered from the surface and excavation combined, including flaked stone and ground/battered stone. The presence of a large side-notched projectile point suggests occupation in the early part of the Middle Prehistoric Period (5,000 to 2,000 years B.P.). "The site appears eligible to the NRHP

⁵ Miss 2002 recorded sites defined by FMR (fire-modified rock), this report uses FCR (fire-cracked rock).

under Criterion D. The number of FMR features, the diversity of tools representing a variety of activities, and the presence of possible tephra, and intra-site spatial patterning can contribute to studies of regional and local chronology, technology, subsistence, seasonality, and intra-site activity areas” (Miss 2005:262). Information on these two sites has not been reconciled with the Albeni Falls Dam and Lake Pend Oreille Historic Properties Management Plan [HPMP] (2008). The sites were evaluated and recommendations to eligibility were made, but these sites were not included within the “evaluated properties” in the HPMP nor reflected in ICRIS.

Archaeological Sites

There are over 50 archaeological sites within a one-mile radius of the project APE, five of those are located within the bounds of the APE (Table 1). The sites are recorded as point data in ICRIS, and the bounds are difficult to interpret on the photocopied maps. The entirety of the Pack River Flats was surveyed through Miss’s efforts, where 40 new sites were found south of the bridge highway- many included prehistoric FCR (referred to as fire modified rock or FMR), fragments of glass, ceramic, and metal (Miss 1988:28). These newly recorded sites were classified into kinds (historic and prehistoric) and types (agriculture, railroad, settlement, unknown, habitation, location, and processing). Miss made connections between the historic sites to the construction of the Northern Pacific Railroad (NPRR) as well as agricultural use (haymaking operations) as evidenced through 1935 aerial photographs.

Table 1. Table of sites within project APE (after Miss 1988:30).

Site	Type	Area (m ²)	FMR density	Feature Qty.
10BR120	Habitation	15000	1	3
10BR665	Location	2250	1	3
10BR667	Processing	400	1	3
10BR673	Habitation	12500	1	3
10BR674	Processing	600	2	2

Most sites in this area were recorded in 1988 by Northwest Archaeological Associates and were then reported to USACE. To better understand how sites were recorded, staff read through reports that described the criteria used to define sites. For example, Miss and Hudson (1986) wrote that “concentrations appear to represent features ranging from hearths with diameters of a meter or less to FMR pavements, possibly earth ovens, with dimensions of several meters” (1986:26). Thus, hearths are smaller and defined as up to a meter, while earth ovens are defined as larger than a meter. “Three site types have been defined on the basis of content, habitation, processing, and location” (Miss 1988:50). These three different site types were further defined as the following:

“It appears the Pack River sites are more likely to be related to processing. This conclusion is reached by using counts of additional artifacts found at habitation sites as a rough measure of artifact density. The assumption is that more kinds of artifacts will be found at residential sites where a variety of different tools took place. Processing sites and locations are expected to show relatively low artifact diversity reflecting specialized or limited activities, and possibly shorter lengths of site use” (Miss 1988:32).

As part of this survey, sites were inspected for erosion and environmental impacts. All the sites within Lake Pend Oreille have been impacted by reservoir impoundments. “Often this impact is responsible for their detection removing vegetation and exposing lagging cultural

deposits onto the beaches. The water level of the reservoir has fluctuated seasonally for more than 30 years and will continue to do so eroding the sites to a greater or lesser degree depending on elevation, deposits, and topographic configuration” (Miss 1986:40, 47). Specific to the sites in the Pack River Delta APE, Miss wrote that the railroad itself has somewhat acted as a protective shield for the sites as the water is calmer. “Sheet erosion is the greatest factor affecting site distribution. Water to the south of the RR grade is contiguous with the lake and is more energetic, subject to wind and currents. The grade, with a single narrow passage for the main river channel, acts as a protective embankment for area north of the grade, water behind is placid” (Miss 1988:32).

Two sites within the northern half Pack River Delta (or Flats) were evaluated through efforts on behalf of the U.S. Army Corps of Engineers – 10BR727 and 10BR729 (Miss 2005:250-262). A single artifact was recovered from 10BR727, where excavation ranged between 200 and 250 centimeters below surface (cmbs), with pebbles noted in the upper 40cm, sandy sediments encountered at about 30cmbs, and sand increased with depth. 10BR729, just south and adjacent to 10BR727, yielded higher numbers and a variety of artifact types. While no samples from either of these sites for collected for chronology, a large side-notched projectile point suggests the early part of the Middle Prehistoric Period (5,000 to 2,000 BP) (Miss 2005:261). Additionally, five sites were sampled and evaluated in a similar location on the northern half for a habitat restoration project designed by Idaho Department of Fish and Wildlife and Ducks Unlimited, Inc. – 10BR725, 10BR2606, 10BR2608, 10BR2609, and 10BR2613 (Maroney 2023). Charcoal samples were collected from two STs within 10BR725 and 10BR2609, and both returned “modern” (Direct AMS 2023).

An important aspect in site documentation is consistency in FCR description, and this report will emulate Miss’s work to continue the groupings of low, moderate, and dense FCR definitions (low $<20/m^2$, moderate $20-40/m^2$, and high $>40/m^2$) (Miss 1988, 1995). Our intention is that this will aid in understanding the relationship of sites if we continue to document this aspect.

The project is located within the boundaries of archaeological district 10BR1192, the East Pend Oreille Lake Rock Art District, a resource Lyons nominated as eligible for the NRHP in 2005. “As an archaeological phenomenon the district has yielded the following insights: there is a glyph orthodoxy predominated by the bear paw form which is well understood through the ethnographic record; there is a style variation within the bear paw form that appears to reflect a temporal change that is neither randomly distributed nor idiosyncratic to one site; and there is a second symbolic tradition comprised of circles and arcs that is not yet explained by the ethnographic record.” The district, comprised of eight sites, was recommended as eligible to the NRHP “under Criterion D based upon its scientific value as an example of prehistoric art and under Criterion A and C for its association with living cultural practices and beliefs amongst the tribal communities of the Interior Pacific Northwest. The Pend Oreille Lake Rock Art District is the physical manifestation of a unique prehistoric and contemporary ideological and cosmological belief system. The eight sites that comprise the proposed District are related to a specific body of oral literature associated with the Lower and Upper Kalispel Bands. There are cognate oral traditions amongst neighboring Tribal communities (e.g., Coeur d’Alene, Spokane and Kootenai Tribes). The Lower Kalispel Band’s example is used to meet the purposes of this determination.”

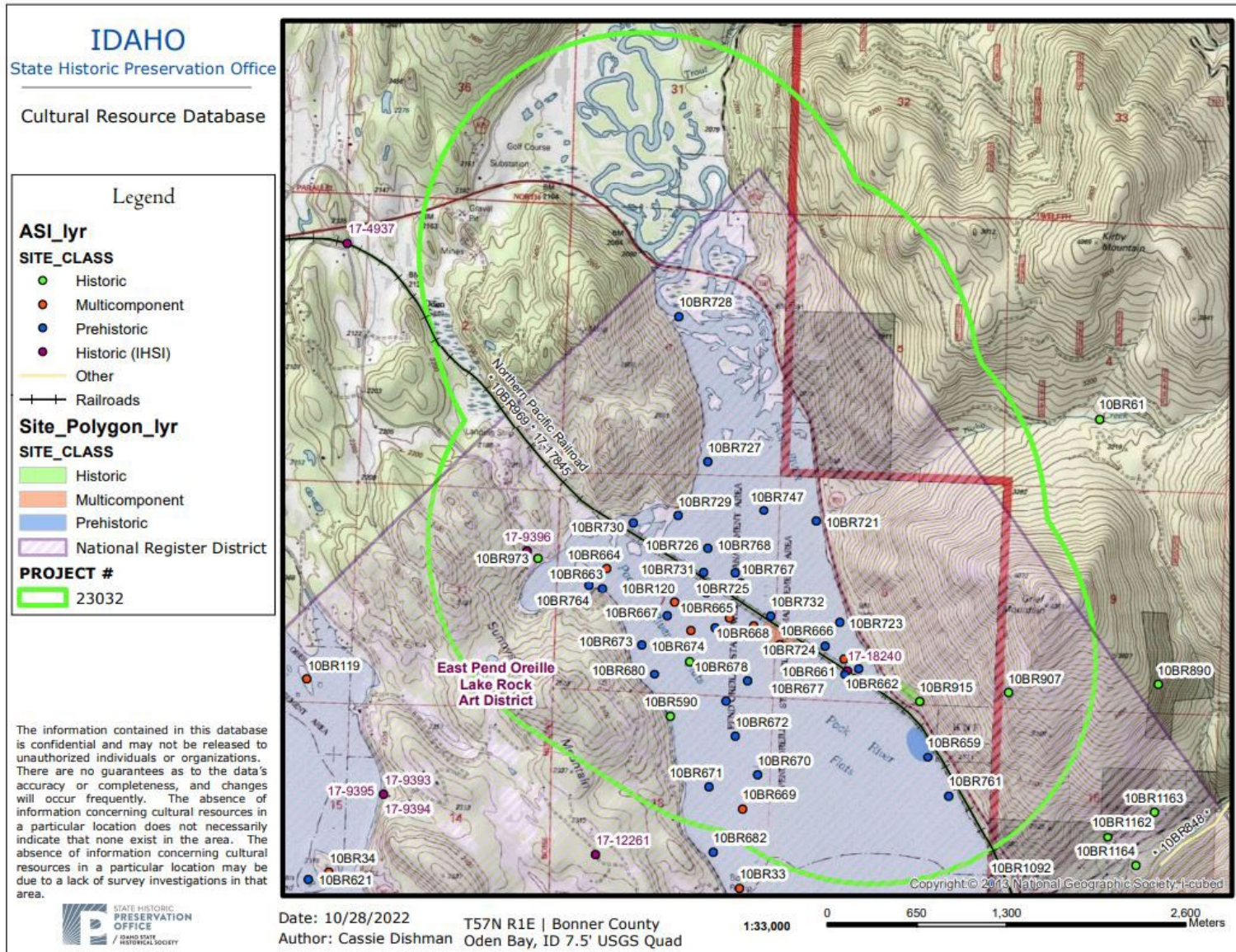


Figure 12. ID SHPO Record Search #23032.

Expected Cultural Resources

Objectives include a thorough examination of the APE, as the area has not been surveyed recently (i.e., Miss 1988). The purpose of examination is to relocate previously recorded archaeological sites (n=5), identify and record prehistoric and historic sites, determine their extent, and approximate age if feasible.

I hypothesize the presence of prehistoric and historic sites as they have been recorded in the vicinity and evidence of previous land use was recorded in the historic record. Prehistoric sites are usually identified by means of FCR, depressions, and any physical alterations to the natural environment (intertwined trees, mounds, rock features). Historic sites are usually identified by means of metals, such as nails from fencing, structural foundations, and other debris from homesteads (cans, bottles, etc.), or the nearby railroad.

I anticipate prehistoric features and artifacts to be in the APE due to sites being previously identified in the vicinity and elevation. I hypothesize that the delta served as a multi-purpose area, for hunting, fishing, processing, and encampment. I hypothesize FCR and other prehistoric artifacts will be observed throughout the area. I also anticipate encountering historic debris as related to the historic sites and historic activities (railroad or homesteading) which are known in the area. We hypothesize that historic components will be observed in terms of debris such as railroad stakes, tin cans, ceramics, and glass bottles. My goals simply were identification, description, and when feasible assign historical association of historic properties within the APE. Contingent upon the coincidence of project proximity, historic property integrity and significance, provide the lead federal agency a recommendation on foreseeable project effects and offer practical alternatives if necessary.

This study affirms and further refines the good work begun by Miss through modernization of descriptive attributes of previously recorded historic properties, an expansion of the inventory of the local archaeological record, a clarification of archaeological/historical site locations and extent, and further refinement of the watershed's archaeological record.

Field Methodology

The field methodology included on-site monitoring of the geotechnical pit excavations, a pedestrian survey of the APE, and shovel testing of surface fire cracked rock features.

Field monitoring of the geotechnical pit excavations included coordination with the project managers, archaeologists walked the path used by the Marsh Master excavator, surveyed the excavation, photographed the soils, and documented their observations. Prior to fieldwork, a project map was created in ArcGIS using the digital spatial components and designs provided by IDFG and DU, along with the location of known archaeological sites based on ICRIS. This map was then preloaded onto phones and tablets in an offline mobile mapping application, Avenza™. This application was useful in logistics, for avoidance of resources, and for documentation. Each geotechnical pit excavation location was described, mapped and photographed.

Pedestrian surveys consisted of transects walked in 10 to 20m intervals covering the entirety of the project area, primarily in north/south directions (Figure 13). The digital map included the previously recorded archaeological sites, and all observations were recorded on those layers to determine if a site had already been recorded, or if a temporary site number was necessary. Observations were described, mapped and photographed.

Shovel testing was completed adjacent to the surface features or concentrations of fire cracked rock to ascertain if there were intact materials (potential for radiocarbon dating, demonstrate subsurface component). The shovel tests were approximately 40cm wide by 50cm deep, the soil was removed and then visually assessed on the ground surface next to the hole. Walls of the hole was troweled to better see the profile and stratigraphy. If the test was negative for cultural material, it was backfilled. If the test was positive, a sample of the material was collected and then backfilled. Each sample was described, mapped and photographed.



Figure 13. Typical field conditions within APE.

Results

Geotechnical monitoring

On November 19th, 2024, the project team (IDFG, DU, and KTI) met on site for geotechnical excavations. IDFG brought a Marsh Masher, a low impact tracked vehicle for wetlands with an excavator attachment. DU brought a hand-held auger in cases where excavation needed to exceed the 4’ limit on the excavator extension. In addition, DU brought a drone to capture high-resolution imagery of the project area as well as a Trimble to record GPS locations of the work. Interactive maps on phones were used to follow the pre-determined path to reach each pre-determined geotechnical test pit location. The purpose of geotechnical testing was to define soil compositions at different locations to ascertain their contribution or constraint in habitat restoration design needs.

Mr. Pete Rust of IDFG operated the Marsh Master and excavation. Mr. Brian Heck of DU provided instructions for each test pit, a location and desired depth. Each test pit measured approximately 4’ long by 2’ wide by 4’ deep. Once the excavator had reached 4’ depth, the hand auger was used to reach a depth of about 6’ below surface. Mr. Heck documented the various soils encountered and made a catalogue that would be used to plot locations for fill material for the islands (medium versus coarse grain sands or silts). Soil samples were also collected for heavy metal analysis. A total of 16 pits were excavated, two of the pits were positive for charcoal (Table 2, Figures 14 through 19).

Table 2. Geotechnical pit excavation data.

Geotech ID	Northing	Easting	Observations	Notes
PRD24_GT001	5349918	545367.6	Negative	n/a
PRD24_GT002	5349898	545406.2	Negative	n/a
PRD24_GT003	5349892	545478.9	Negative	n/a
PRD24_GT004	5349920	545508.9	Negative	n/a
PRD24_GT005	5350010	545446.8	Negative	n/a
PRD24_GT006	5350027	545512.9	Negative	n/a
PRD24_GT007a	5350062	545465.1	Charcoal	Redirected, associated with site PRD24_005
PRD24_GT007b	5350053	545467.4	Negative	n/a
PRD24_GT008	5350106	545511.8	Negative	n/a
PRD24_GT009a	5350107	545400.4	Charcoal	Redirected, associated with site PRD24_003
PRD24_GT009b	5350115	545394.5	Negative	n/a
PRD24_GT010	5350182	545389.7	Negative	n/a
PRD24_GT011	5350183	545356.4	Negative	n/a
PRD24_GT012	5350154	545267.7	Negative	n/a
PRD24_GT013	5350106	545257.8	Negative	n/a
PRD24_GT014	5350097	545336.1	Negative	n/a



Figure 14. Excavation of GT004.



Figure 17. Silty clay upper layer in GT012.



Figure 15. Medium grain sands in GT006.



Figure 18. Excavation of GT013, water fill.

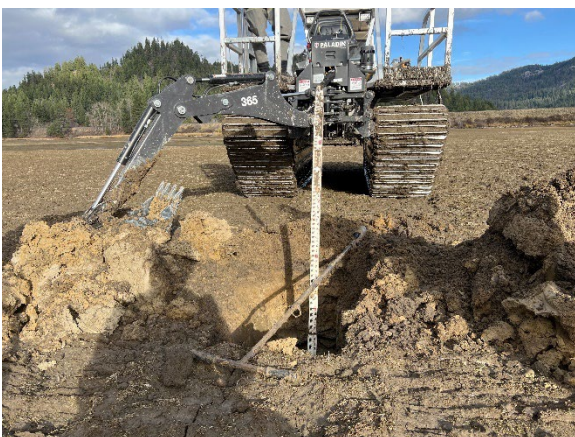


Figure 16. Excavation of GT010.



Figure 19. Medium grain sands in GT013.

Cultural Resources Inventory

The pedestrian survey of the APE was conducted by Mr. Kevin Lyons, Mr. Daniel Fuentes, and Mrs. Kendra Maroney throughout November and December 2024. The soils were hard and frozen, making survey much easier compared to the typical soft silts during warmer conditions. The survey was completed between meanders, meanders were crossed with the aid of chest-waders, some areas deeper and more treacherous than others (Figure 20). Some of the project areas were surveyed by following the river meanders, others were traversed with straight parallel transects using a compass to cover baren ground void of landmarks, typically north/south. Tighter transects, about 15 to 20m, the better to observe FCR features obscured and camouflaged at the same elevation and nearly the same color of the surrounding soils (Figures 20 through 31). All areas of the APE except for inundated meanders were surveyed. Attempts were made to relocate the five sites within the APE by reviewing site form descriptions, locations as plotted on maps in site records, and plotting site locations in GIS to view on the ground. Data was collected using the Avenza™ application and in a paper notebook. Written notes and electronic documentation were made difficult with the freezing conditions (complication with touch screens, batteries were quick to deplete, and writing was strenuous- some form of voice dictation for note taking and documentation will be considered in the future). Photographs were taken throughout the survey to document field conditions and sites with a meter stick for scale.

Results of the cultural resources pedestrian survey were positive. The previously recorded prehistoric sites were relocated (Table 3). Each is defined by varying degrees of FCR density⁶. The five sites have changed as compared to the original site forms (1974 and 1988) in terms of occupation area/site boundaries, FCR density descriptions and presence/absence of feature concentrations, and UTM coordinates. The dimensions recorded in this report reflect surface observations and are the minimum definition of boundaries – the sites have potential to be larger and/or deeper, or to not have any depth at all. Site data has been updated in the Idaho SHPO's ICRIS online database (Project No. 2024-1170), KTI has provided the updated information, and it will be reviewed by the Federal Agency (BPA) prior to final submission along with this report (Figure 32). An additional five prehistoric archaeological sites were recorded (Table 4). The sites are all characterized by surface FCR scatters and concentrations – though there is variability in the size or breadth of the concentration, the FCR density, and rock material and size. Of these 10 archaeological sites, subsurface testing was completed through the geotechnical excavations (GT, n=16) as part of the project itself, and through shovel testing (ST, n=52) (Tables 3 and 4).

⁶ FCR density in this report followed the FCR (or fire modified rock/FMR) density classifications defined by Miss (1988) and Miss (1995). A thin/low density is less than 20 pieces of FCR/m², a moderate density is between 20 and 40/m², and high density is more than 40/m².



Figure 20. Survey through wetted margin of meander, Lyons and Fuentes 11/18/2024.



Figure 23. PRD24_GT009 documentation and collection of charcoal sample, 11/19/2024.



Figure 21. Documentation of FCR feature after weather had warmed and created wet conditions, 10BR674, 11/18/2024.



Figure 24. Field conditions, 11/20/2024.



Figure 22. Example of recreational impact on site PRD24_002, like a boat being drug through soil during low flow, 11/19/2024.



Figure 25. Documentation of FCR feature imbedded in frozen soils, 10BR665.



Figure 26. PRD24_001, view to the north.



Figure 29. PRD24_004, view to the south.



Figure 27. PRD24_002, view to the south.



Figure 30. PRD24_005, view to the northwest.



Figure 28. PRD24_003, view to the south.



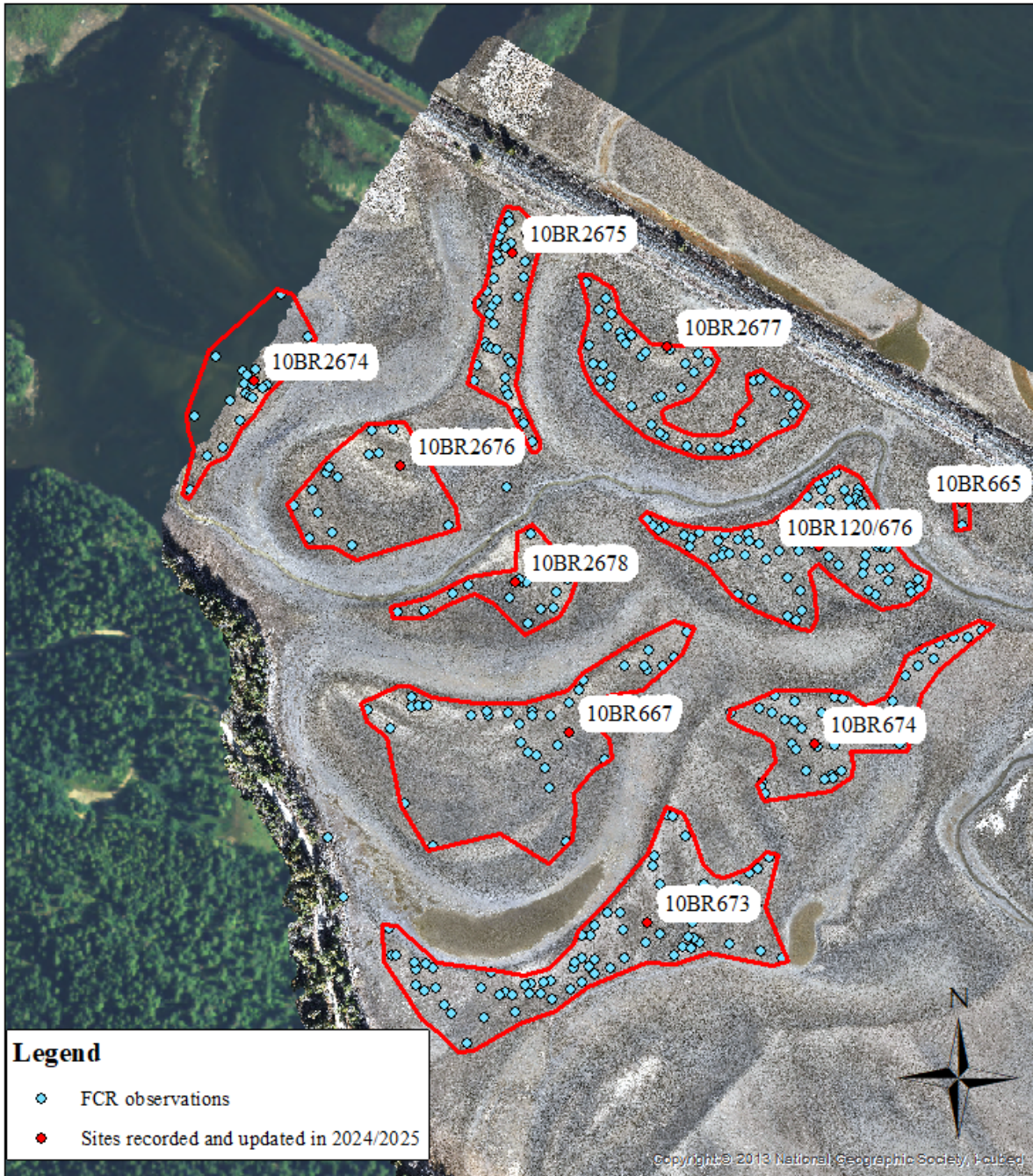
Figure 31. Project overview, view to the north.

Table 3. Previously recorded archaeological sites within APE (T57N R1E Section 7).

Site	Temp site ID	Easting	Northing	Elevation	Recorded	Dimensions	ST n=	GT n=
10BR120/676	PRD24 008	545723	5350081	2063'	1974, 1988	150m N/S x 270m E/W	0	0
10BR665	n/a	545881	5350107	2060'	1988	25m N/S x 5m E/W	0	0
10BR667	PRD24 006	545510	5349911	2063'	1988	160m N/S x 315m E/W	22	4
10BR673	PRD24 007	545533	5349707	2063'	1988	150m N/S x 370m E/W	0	0
10BR674	n/a	545773	5349940	2063'	1988	100m N/S x 265m E/W	0	0

Table 4. Additional sites recorded within APE during the 2024 field season (T57N R1E Section 7).

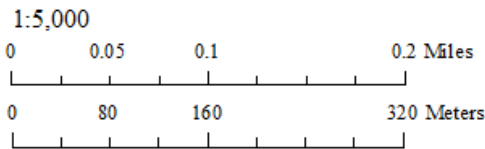
Site	Temp ID	Easting	Northing	Elevation	Dimensions	ST n=	GT n=	Samples
10BR2674	PRD24 001	545221	5350242	2063'	12m N/S x 17m E/W	0	0	0
10BR2675	PRD24 002	545462	5350360	2063'	230m N/S x 50m E/W	11	0	2
10BR2676	PRD24 003	545357	5350162	2063'	120m N/S x 160m E/W	6	7	1
10BR2677	PRD24 004	545606	5350273	2063'	230m NW/SE x 110m SW/NE	0	0	0
10BR2678	PRD24 005	545464	5350054	2063'	100m N/S x 175m E/W	13	5	3



Legend

- ◆ FCR observations
- ◆ Sites recorded and updated in 2024/2025

Coordinate System: NAD 1983 UTM Zone 11N
 Projection: Transverse Mercator
 Datum: North American 1983
 False Easting: 500,000.0000
 False Northing: 0.0000
 Central Meridian: -117.0000
 Scale Factor: 0.9996
 Latitude Of Origin: 0.0000
 Units: Meter



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 Section 7
 February 2025

Figure 32. FCR observations recorded during survey, 1:5000.

Shovel Testing

As compared to the recent work completed on the northern half of the Pack River Delta (Maroney 2023b), this half of the delta, south of the railroad, is sandier. North of the trestle heavy clay and silt were observed norm. This is consistent with Miss' soil descriptions in her evaluation of 10BR725 and 10BR729. The excavation of 16 geotechnical trenches for the purposes of soil analysis for the project itself was opportunistically used towards the cultural resources' information, those trenches provided data for areas without observed culturally enriched soils- and two instances where charcoal was observed and collected.

A total of 52 shovel tests were excavated with a round-nose shovel, at least 50cm wide and 50cm deep (Figures 33 - 35, Table 5). The surface was frozen, and breaking through that compact crust with a wider diameter was more successful than a typically narrow test. Shovel testing of surface deposits of FCR followed essentially a biopsy protocol. It is somewhat fascicle to point to a pile of cooking debris and affirm cultural/historical association and then argue (polemically) a restraint on public behaviors. It is quite another thing to ascertain if those surface deposits have physical integrity where in additional insights may be gleaned and thereby warrant public restraint. To do less is to shirk multiple resource management responsibilities. That biopsy approach consisted of the following: a single ST was used in areas with diffuse FCR, and multiple STs were used to investigate areas with moderate FCR or where it was logical to test on multiple sides of a potential feature.

Charcoal was identified in five STs (as well as the two GTs mentioned earlier in this report). All five samples were collected, but only three of the ST samples were submitted for radiocarbon dating (multiple samples were collected from what was deemed likely to be the same feature, and it would have been redundant to submit all samples) (Table 6).



Figure 33. Frozen soil, two shovel tests on either side of surface FCR. Positive for charcoal and collected (ST036 and ST039).



Figure 34. Frozen topsoil and compact sandy silt. Note FCR- all STs were placed adjacent to FCR.



Figure 35. Excavation of two STs on either side of FCR scatter.

Cultural Resources Monitoring and Inventory for the Pack River Delta Restoration Project, Bonner County, Idaho

Table 5. Shovel testing data (all STs excavated to 50cmbs, all characterized by sandy silt to sand).

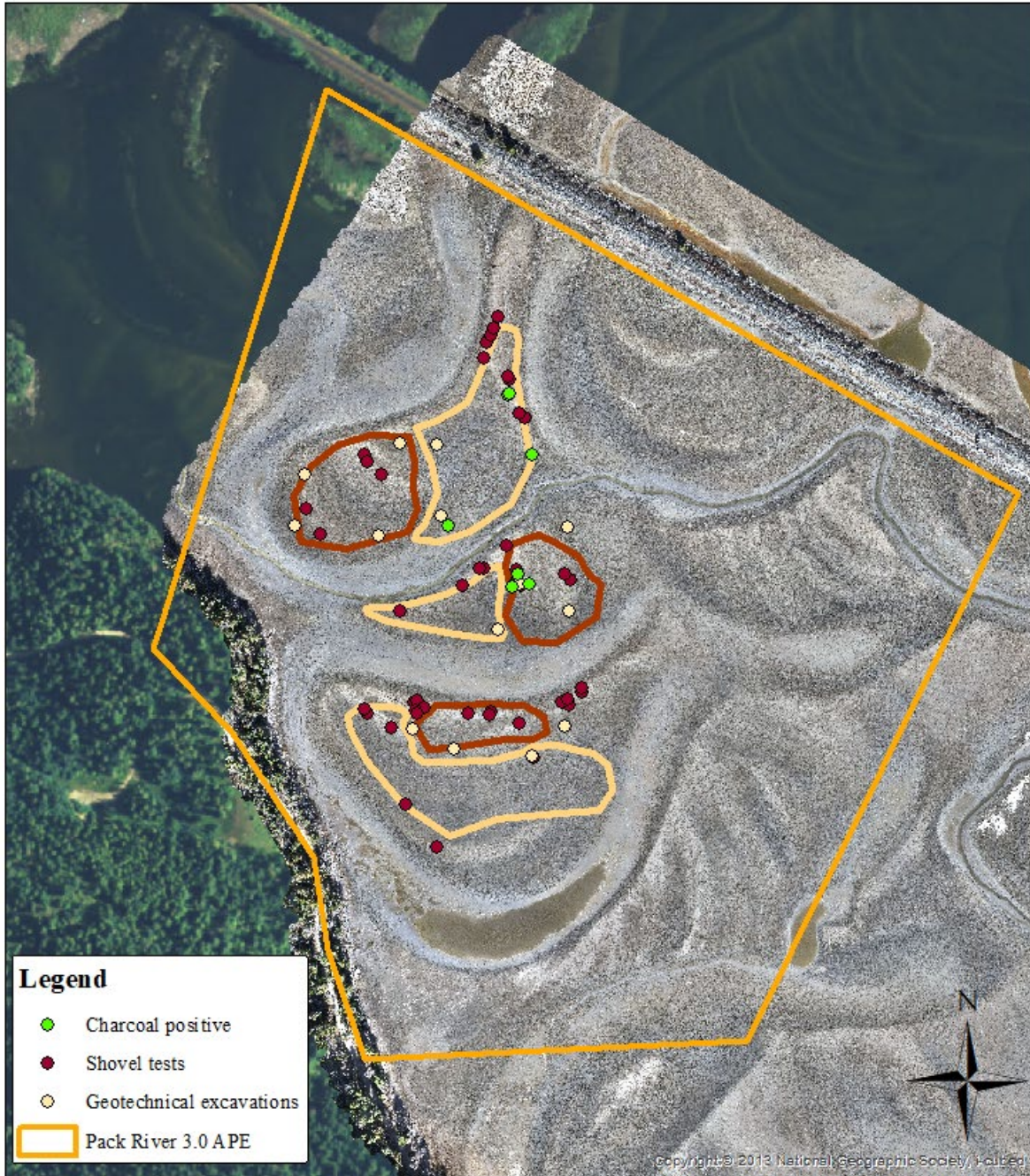
ID	Site	Northing	Easting	Recovery
ST01	10BR667	5349847	545361	None
ST02	10BR667	5349808	545391	None
ST03	10BR667	5349807	545390	None
ST04	10BR667	5349932	545325	None
ST05	10BR667	5349936	545323	None
ST06	10BR667	5349943	545369	None
ST07	10BR667	5349944	545371	None
ST08	10BR667	5349937	545379	None
ST09	10BR667	5349919	545348	None
ST10	10BR667	5349918	545348	None
ST11	10BR667	5349934	545370	None
ST12	10BR667	5349932	545372	None
ST13	10BR667	5349932	545419	None
ST14	10BR667	5349934	545440	None
ST15	10BR667	5349930	545440	None
ST16	10BR667	5349923	545467	None
ST17	10BR667	5349891	545480	None
ST18	10BR667	5349939	545513	None
ST19	10BR667	5349943	545507	None
ST20	10BR667	5349945	545512	None
ST21	10BR667	5349952	545526	None
ST22	10BR667	5349956	545525	None
ST23	10BR2678, PRD24_005	5350056	545514	None
ST24	10BR2678, PRD24_005	5350061	545510	None
ST25	10BR2678, PRD24_005	5350052	545476	None
ST26	10BR2678, PRD24_005	5350052	545476	None
ST27	10BR2678, PRD24_005	5350054	545465	None
ST28	10BR2678, PRD24_005	5350049	545460	PRD24_ST028 – charcoal at 10cmbs
ST29	10BR2678, PRD24_005	5350051	545469	None

Cultural Resources Monitoring and Inventory for the Pack River Delta Restoration Project, Bonner County, Idaho

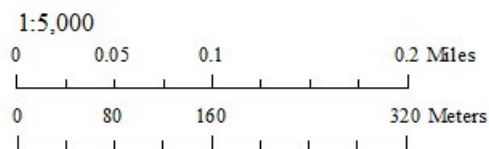
ID	Site	Northing	Easting	Recovery
ST30	10BR2678, PRD24_005	5350065	545465	None
ST31	10BR2678, PRD24_005	5350088	545455	None
ST32	10BR2678, PRD24_005	5350066	545433	None
ST33	10BR2678, PRD24_005	5350067	545429	None
ST34	10BR2678, PRD24_005	5350051	545414	None
ST35	10BR2678, PRD24_005	5350027	545356	None
ST36	10BR2675, PRD24_002	5350173	545478	PRD24_ST036 - charcoal at 30cmbs
ST37	10BR2675, PRD24_002	5350207	545472	None
ST38	10BR2675, PRD24_002	5350211	545467	None
ST39	10BR2675, PRD24_002	5350229	545457	PRD24_ST039 - charcoal at 10cmbs
ST40	10BR2675, PRD24_002	5350243	545458	None
ST41	10BR2675, PRD24_002	5350246	545456	None
ST42	10BR2675, PRD24_002	5350263	545433	None
ST43	10BR2675, PRD24_002	5350278	545437	None
ST44	10BR2675, PRD24_002	5350285	545440	None
ST45	10BR2675, PRD24_002	5350291	545443	None
ST46	10BR2675, PRD24_002	5350301	545447	None
ST47	10BR2676, PRD24_003	5350184	545356	None
ST48	10BR2676, PRD24_003	5350173	545323	None
ST49	10BR2676, PRD24_003	5350167	545326	None
ST50	10BR2676, PRD24_003	5350155	545338	None
ST51	10BR2676, PRD24_003	5350122	545269	None
ST52	10BR2676, PRD24_003	5350099	545282	None

Table 6. Charcoal positive samples and radiocarbon dating results.

Site	Sample	Test	Northing	Easting	Depth	ICA ID	Conventional age
10BR2678, PRD24_005	PRD24_ST028	ST028	5350049	545460.2	10cmbs	14C-9371	100 +/- 30 BP
10BR2675, PRD24_002	PRD24_ST036	ST036	5350173	545478.4	30cmbs	14C-9372	3650 +/- 30 BP
10BR2675, PRD24_002	PRD24_ST039	ST039	5350229	545456.8	10cmbs	14C-9373	3440 +/- 30 BP
10BR2678, PRD24_005	PRD24_GT007	GT007	5350062	545465.1	10cmbs	14C-9374	110 +/- 30 BP
10BR2676, PRD24_003	PRD24_GT009	GT009	5350107	545400.4	10cmbs	14C-9375	140 +/- 30 BP



Coordinate System: NAD 1983 UTM Zone 11N
Projection: Transverse Mercator
Datum: North American 1983
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False Northing: 0.0000
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Scale Factor: 0.9996
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Figure 36. Shovel tests, geotechnical excavations, and charcoal positive results, 1:5000.

Site documentation and recommendations

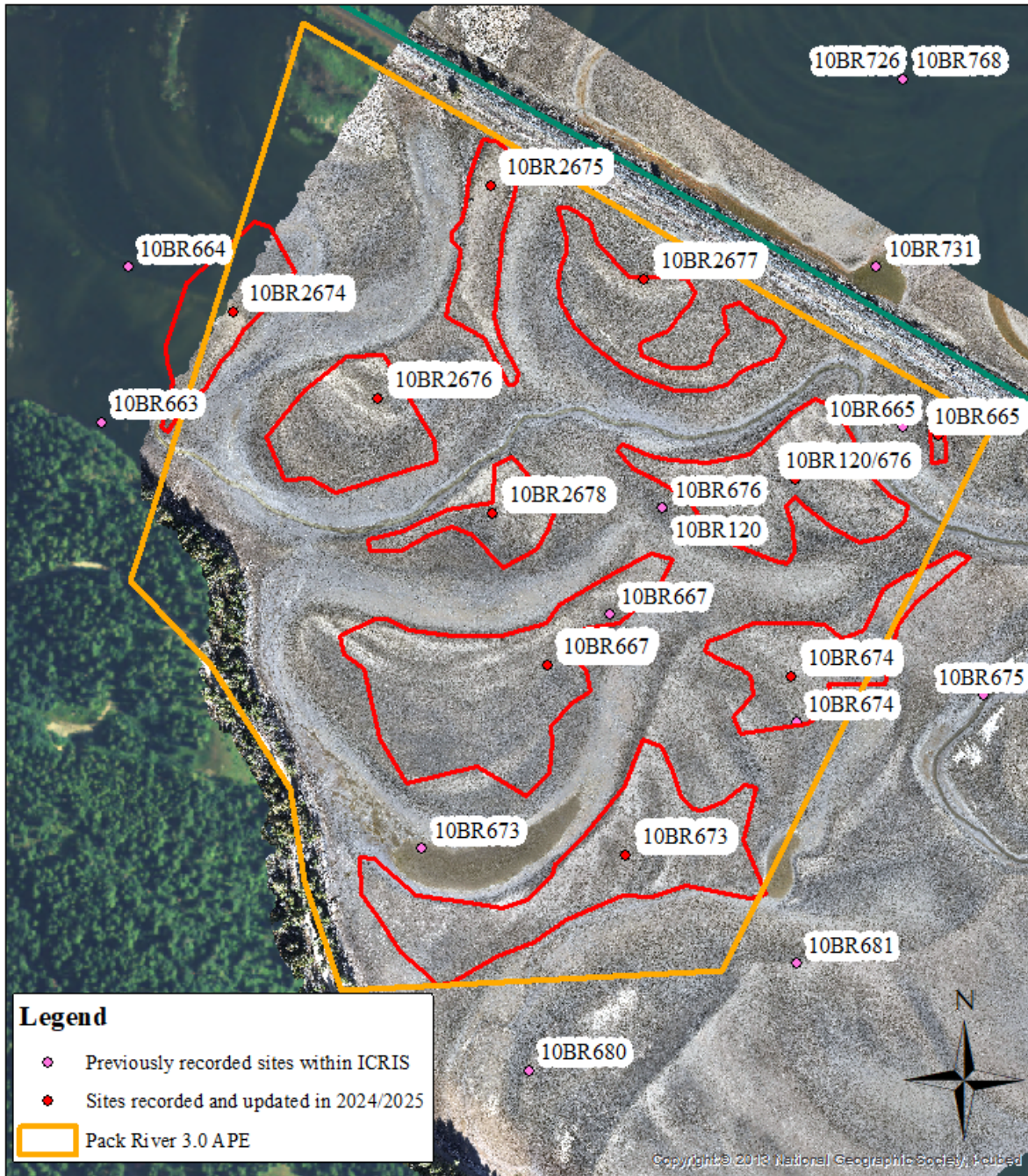
The sites recorded for this project are all characterized by fire cracked rock scatters (diffuse pieces of rock without an apparent surface structure or connection) and concentrations (low, moderate, and high-density clusters) of FCR that represent activity areas. Unlike prior field visits in 1974 and 1988, we did not observe lithic debitage on these landforms. Admittedly, field conditions during our visits were not conducive to maximum visibility of such fine grain objects. Nonetheless, their prior recordation nearby indicates some additional subsistence behaviors associated with these landforms (e.g., tool manufacture/tool maintenance). This coupled with FCR density patterning and grain size, it is suggestive of a repeated (ecologically-ecologically stable) revisiting of the delta for resource extraction, processing, and tool refurbishment.

The sites have been documented in ICRIS with recommendations to eligibility. We have also summarized the potential project impact to the sites, mitigation efforts (if within the proposed ground disturbance areas of fill and borrow), and given those mitigation efforts, the effects (Tables 7 and 8). The site boundaries have been documented to encompass those areas where FCR is present on the surface, and updated the boundaries which we believe best represent those sites previously recorded and in ICRIS as point data (Figure 37).

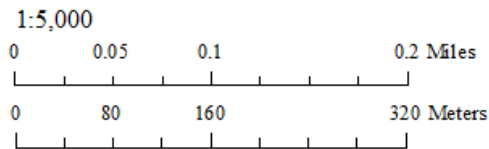
In addition to recommendations regarding eligibility and site documentation through ICRIS, I also advise that these sites not be considered for inclusion to the Archaeological District of 10BR1192. The District is characterized by rock art panels (10BR4, 10BR5, 10BR24, 10BR225, 10BR621, and 10BR933). The 10 sites within the project are not rock art panels and are set apart from this District by their defining attributes of FCR scatters and concentrations.

Table 7. NRHP recommendations and effect.

Site	NRHP Recommendation	Impact area	Mitigation	Effect
10BR120/676	Eligible	No	Avoidance	No effect
10BR665	Eligible	No	Avoidance	No effect
10BR667	Not eligible based on testing	Yes	None	Removed/buried (fill and borrow area)
10BR673	Eligible	No	Avoidance	No effect
10BR674	Eligible	No	Avoidance	No effect
10BR2674	Eligible	No	Avoidance	No effect
10BR2675	Eligible based on testing	No	Avoidance	No effect
10BR2676	Not eligible based on testing	Yes	None	Removed/buried (fill and borrow area)
10BR2677	Eligible	No	Avoidance	No effect
10BR2678	Not eligible based on testing	Yes	None	Removed/buried (fill and borrow area)



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Figure 37. Archaeological sites and updated site boundaries.

Table 8. Recommendations and effects for sites within APE.

Site	Testing	Justification	Recommendations	Effect
10BR120/676	None	While the site is within the APE, there are no ground disturbing activities proposed within the site, thus we determined that it was not necessary to sample. I recommend that this site be considered for future evaluation efforts through the FCRPS.	I recommend that this site continue to be considered eligible until otherwise demonstrated with future sampling.	The project designs will avoid this resource; thus, the project will have no effect on the resource.
10BR665	None	While the site is within the APE, there are no ground disturbing activities proposed within the site, thus we determined that it was not necessary to sample. I recommend that this site be considered for future evaluation efforts through the FCRPS.	I recommend this site to continue to be considered eligible until otherwise demonstrated with future sampling.	The project designs will avoid this resource; thus, the project will have no effect on the resource.
10BR667	Shovel tests (n=22), geotechnical excavations (n=4).	The ST locations were placed in close relation to FCR to examine a subsurface component of what appears to be a surface feature. The GT locations were random locations and determined by the contractor in attempts to locate sandy soil. The combination of these sampling methods demonstrates a good faith effort to examine and assess the data potential and integrity of this site. No intact deposits were identified.	I recommend that this site be considered not eligible .	If there is concurrence on the recommendation for “not eligible”, no further management will be required. This site will be impacted by borrow and fill activities.
10BR673	None	While the site is within the APE, there are no ground disturbing activities proposed within the site, thus we determined that it was not necessary to sample. I recommend that this site be considered for future evaluation efforts through the FCRPS.	I recommend this site to continue to be considered eligible until otherwise demonstrated with future sampling.	The project designs will avoid this resource; thus, the project will have no effect on the resource.
10BR674	None	While the site is within the APE, there are no ground disturbing activities proposed within the site, thus we determined that it was not necessary to sample. I recommend that this site be considered for future evaluation efforts through the FCRPS.	I recommend this site to continue to be considered eligible until otherwise demonstrated with future sampling.	The project designs will avoid this resource; thus, the project will have no effect on the resource.

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Site	Testing	Justification	Recommendations	Effect
10BR2674 (PRD24_001)	None	While the site is within the APE, there are no ground disturbing activities proposed within the site, thus we determined that it was not necessary to sample. I recommend that this site be considered for future evaluation efforts through the FCRPS.	I recommend this site to continue to be considered eligible until otherwise demonstrated with future sampling.	The project designs will avoid this resource; thus, the project will have no effect on the resource.
10BR2675 (PRD24_002)	Shovel tests (n=11), charcoal samples (n=2)	The ST locations were placed in close relation to FCR to examine a subsurface component of what appears to be a surface feature. Two samples were collected and submitted for radiocarbon dating and resulted in prehistoric dates (Calibrated ages of 1830 to 1670 BC and 2140 to 1930 BC, or 3440 and 3650 BP, ICA 14C-9372 and ICA 14C-9373). This sampling methodology demonstrates a good faith effort to examine and assess the data potential and integrity of this site. Two intact deposits of considerable antiquity associated with surface FCR were identified, and in our opinion have the potential to yield additional information.	I recommend that this site be considered eligible , avoidance options were discussed with the Project Manager, and designs were modified to avoid the resource.	If there is concurrence on the recommendation for “eligible”, and concurrence on the avoidance strategies, the project will have no effect on the resource.
10BR2676 (PRD24_003)	Shovel tests (n=6), geotechnical excavations (n=7), charcoal samples (n=1)	The ST locations were placed in close relation to FCR to examine a subsurface component of what appears to be a surface feature. The GT locations were random locations and determined by the contractor in attempts to locate sandy soil. One sample was collected and submitted for radiocarbon dating and resulted in a historic date (Calibrated age of 1790 to 1950 AD, PRD24_GT009). The FCR does not appear to be associated with an intact prehistoric component, and the sample returned a relatively recent date. The lack of intact cultural material based on the sampling supports my assertion that this site low potential to yield additional information.	I recommend that this site be considered not eligible .	If there is concurrence on the recommendation for “not eligible”, no further management will be required. This site will be impacted by borrow and fill activities.
10BR2677 (PRD24_004)	None	While the site is within the APE, there are no ground disturbing activities proposed within the	I recommend this site to continue to be considered	The project designs will avoid this resource; thus,

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Site	Testing	Justification	Recommendations	Effect
		site, thus we determined that it was not necessary to sample. I recommend that this site be considered for future evaluation efforts through the FCRPS.	eligible until otherwise demonstrated with future sampling.	the project will have no effect on the resource.
10BR2678 (PRD24_005)	Shovel tests (n=13), geotechnical excavations (n=5), charcoal samples (n=2)	The ST locations were placed in close relation to FCR to examine a subsurface component of what appears to be a surface feature. The GT locations were random locations and determined by the contractor in attempts to locate sandy soil. Three samples were collected, two were submitted for radiocarbon dating and resulted in historic dates (Calibrated ages of 1800-1940 AD, PRD24_ST028 and PRD24_GT007). The FCR does not appear to be associated with an intact prehistoric component, and the sample returned a relatively recent date. The lack of intact cultural material based on the sampling supports my assertion that this site low potential to yield additional information.	I recommend that this site be considered not eligible .	If there is concurrence on the recommendation for “not eligible”, no further management will be required. This site will be impacted by borrow and fill activities.

NRHP Eligibility Discussion

As part of the Section 106 process, the implementing regulations (36CFR800.4(c)) require federal agencies to evaluate historic significance of properties identified within the project APE (Table 9). Significance is considered present in properties that meet one (or more) of the following criteria, and that have sufficient integrity of location, design, setting, materials, workmanship, feeling, and association:

- Criterion A. A property is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B. A property is associated with the lives of persons significant in our past.
- Criterion C. A property embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D. A property yields, or may be likely to yield, information important in prehistory or history.

Table 9. Sites and reference to four criteria of eligibility and aspects of integrity.

Site	Criterion A	Criterion B	Criterion C	Criterion D	Integrity
10BR667	Not eligible	Not eligible	Not eligible	Not eligible	Absent
10BR2675	Possible	Not eligible	Not eligible	Eligible	Present
10BR2676	Not eligible	Not eligible	Not eligible	Not eligible	Absent
10BR2678	Not eligible	Not eligible	Not eligible	Not eligible	Present

The evaluation recommendation in this report follows closely with similar site evaluations within the watershed (Miss 2002; Miss et al. 2005).

Based on historic research and subsurface testing, I recommend that sites 10BR667, 10BR2676, and 10BR2678 be considered not eligible to the NRHP. The impaired integrity, lack of cultural contents, lack of stratified sediments, and sparse unstructured scatter of FCR indicate that those areas tested do not retain enough research potential for the sites to be eligible.

- The sites are not eligible under Criterion A as the sites lack the physical integrity to be associated with an event nor substantial historic reference to a significant event.
- The sites are not eligible under Criterion B as demonstrated through a review of the historical material and lack of information tied to a specific person significant in the past.
- The sites are not eligible under Criterion C as the presence of surface FCR and lack of integrity does not embody distinctive character.
- The sites are not eligible under Criterion D as they are not likely to yield information important in prehistory or history, no intact cultural deposits were identified through subsurface testing to support additional information discovery. Examination of the historic record through aerial photography from the 1930s as well as photos from the late 1800s indicate that this area was well used during this time as an agricultural landscape-farming and haying. Charcoal samples (10BR2676 and 10BR2678) were recovered and tested, resulting in dates the historic period (Conventional age 100+/-30BP / Calibrated age 1800-1930AD (69.3%) and Conventional age 110+/-30BP / Calibrated age 1790-

1940AD (68.6%)). The lack of material in the tested area indicates that there is not enough data potential to pursue additional studies.

- 10BR667, 10BR2676, and 10BR2678 do not have integrity or association – no intact, stratified sediments or artifacts were identified. The sites are annually impacted by lake operations resulting in deflation. The deflation of the sites impacts the ability to convey significance by altering aspects of setting, feeling, and location.

Based on historic research and subsurface testing, I recommend that site 10BR2675 be considered eligible to the NRHP. I recommend the site eligible due to the combination of integrity and its potential to contribute additional information to studies of local and regional prehistory.

- The site may be considered eligible under Criterion A as it is associated with the theme of ancestral use of Lake Pend Oreille, Pack River, shoreline environments, and the value of the Pack River flats or bay. This landscape is associated with the nearby rock art district, with the prehistoric and historic buffalo trail used between Montana and Washington.
 - The site may also be considered significant due its ethnographic reference and relative location near Pack River as the area used by the Kalispel for seasonal camps and fish weirs, and as a place to wait for the return of the buffalo hunters near the mouth of the Pack River. Later, the location continued to have value in the historic period with its position in a major canoe route, and as a prevalent location for European through-camps, and later as a place of train construction. (Bard 2014). The Sandpoint Archaeology Project, specifically Volume 3, summarizes a great deal of ethnographic and historic references to the Kalispel Tribe, with some specific to the mouth of the Pack River, such as the two following historic accounts which do contribute to the argument of eligibility under Criterion A, and that this area was significant:
 - Several homesteaders during the 1880s residing within the Pack River Delta documented their memories of encounters with Native Americans. Ethel Ashley wrote the following in her 1994 memoir:
 - “In 1888, the Indians came thru Sandpoint and Kootenai over a trail across the hills and into Pack River Valley just south of the Buttes,³⁷ then south on the meadow to the then “Hawkins Point” on Pend Oreille Lake near the mouth of Pack River and the old N.P.R.R. trestle. There they camped unpacking their ponies, then cutting poles for their teepees. They fished and prepared to go across the meadow to the “Indian Ford” on Pack River, on to Hope, up Hope Mountain for the huckleberries which they gathered and put into cedar bark baskets covered with leaves and hung on their pack saddles. [At] Hope and farms they sold the berries for 50 cents a generous gallon or 25 cents for half a gallon measured in the then lard pails.” (Ashley 1994: unpaginated)
 - Another reference to use at the Pack River Delta comes from the Sandpoint newspaper Pend D’Oreille Review on September 6th, 1912, which reported that “A number of Indians are camped at the mouth of the

river [Pack River]. They have come for their annual supply of huckleberries. There are Spokanes, Kalispells [sic] and Coeur d'Alenes in the camp.”

- The site is not eligible under Criterion B as demonstrated through a review of the historical material and lack of information tied to a specific person significant in the past.
- The site is not eligible under Criterion C as the current understanding of the site contents (FCR) and antiquity does not embody distinctive character.
- The site is recommended eligible under Criterion D as it possesses important information potential. At two locations within the bounds of 10BR2675, we have confirmed the presence of a mid-Holocene landform that Miss had inferred by projectile point seriation at nearby 10BR727. This newly recorded site, 10BR2675, adds to a broader context of similarly dated landforms within the watershed (Table 10). These results are similar to those reported at Carey Creek and Hornby Creek. While the list of data points in this report is not exhaustive, it is part of an on-going effort by Naomi Scher (Far Western) as she works to collect C14 data for the Pend Oreille Valley. There is research potential to explore more on these datasets collected by previous archaeological investigations and examine correlations between dates and landforms. Unfortunately, it goes beyond the scope of this project, but I hope to spark interest in those that read this report and want more. I acknowledge there is more than cultural causation for prehistoric fires on a landform. Yet, there is a spatial coincidence of FCR above the dated deposits and prior observations of contemporaneous technologies in near proximity. This combination allows for a credible inductive argument for site integrity persisting at 10BR2675 and its contribution to our understanding of mid-Holocene adaptation. Based on this data potential it is in the public good to conserve this opportunity for future use and understanding.
- 10BR2675 has integrity – intact stratified deposits of FCR and datable organics were identified. Unlike the other sites, 10BR2675 maintains integrity of location and setting. The site has not been affected by the degree of deflation as the others have, such that it is able to convey its historical significance. Clustering of the FCR within the site suggests some horizontal spatial integrity.

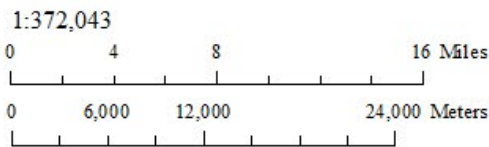
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Table 10. 10BR2675 within the context of similar and earlier sites with radiocarbon dating results.

Site	Sample	Conventional Age	Sigma	Location	Easting	Northing
10BR0014	Beta 217561	2260	40	Hornby Creek	527602	5344060
10BR0111	Beta 96957	2350	120	Carr Creek	525128	5344745
10BR0471	Beta 165230	2520	80	Carey Creek	511409	5332413
10BR0471	Beta 165231	3300	110	Carey Creek	511409	5332413
10BR2675	ICA 14C-9373	3440	30	Pack River Delta	545456	5350229
10BR2675	ICA 14C-9372	3650	30	Pack River Delta	545478	5350173
10BR0014	Beta 217562	3680	40	Hornby Creek	527602	5344060
10BR0014	Beta 168587	3990	150	Hornby Creek	527602	5344060
10BR0095	Beta 166017	4150	40	Priest River	510205	5334705
10BR0111	Beta 96956	4240	70	Carr Creek	525128	5344745
10BR0260	Beta 77628	4470	60	Bartoo Island	508772	5376449
10BR0091	Beta 470904	4540	30	Strong Island	502212	5335923
10BR1156	AA-20277	5930	100	Clark Fork	560280	5334280
10BR0095	Beta 165226	7080	40	Priest River	510205	5334705
10BR0956	Beta 165235	7340	40	Priest River	508648	5335602



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Figure 38. Map of sites referenced within Table 9.

Management Recommendations

The project is comprised of three activity areas. Each of these areas has overlap with archaeological sites. Our efforts in terms of pedestrian survey, shovel testing, and geotechnical excavations monitoring has resulted in site evaluation and site mitigation measures. The sites within the footprint of the proposed work areas in the middle and south (Fill/Borrow Areas 2 and 3) lack integrity and do not meet the criteria for the NRHP and are recommended as not eligible (Figure 39). The site within the original footprint of the most northern proposed work area (Fill/Borrow Area 1) has integrity and meets criteria A and D for the NRHP and is recommended as eligible. Through the process of several meetings and communication, we have shared our findings with the Project Manager, who decided to modify the designs to avoid the resource we recommend as eligible (10BR2675). The original location of Fill Area/Island 1 has been redesigned to avoid the overlap with 10BR2675 and redirected to the northern landform which is devoid of archaeological resources. Given these modifications, we recommend that the project proceed without an adverse effect determination.

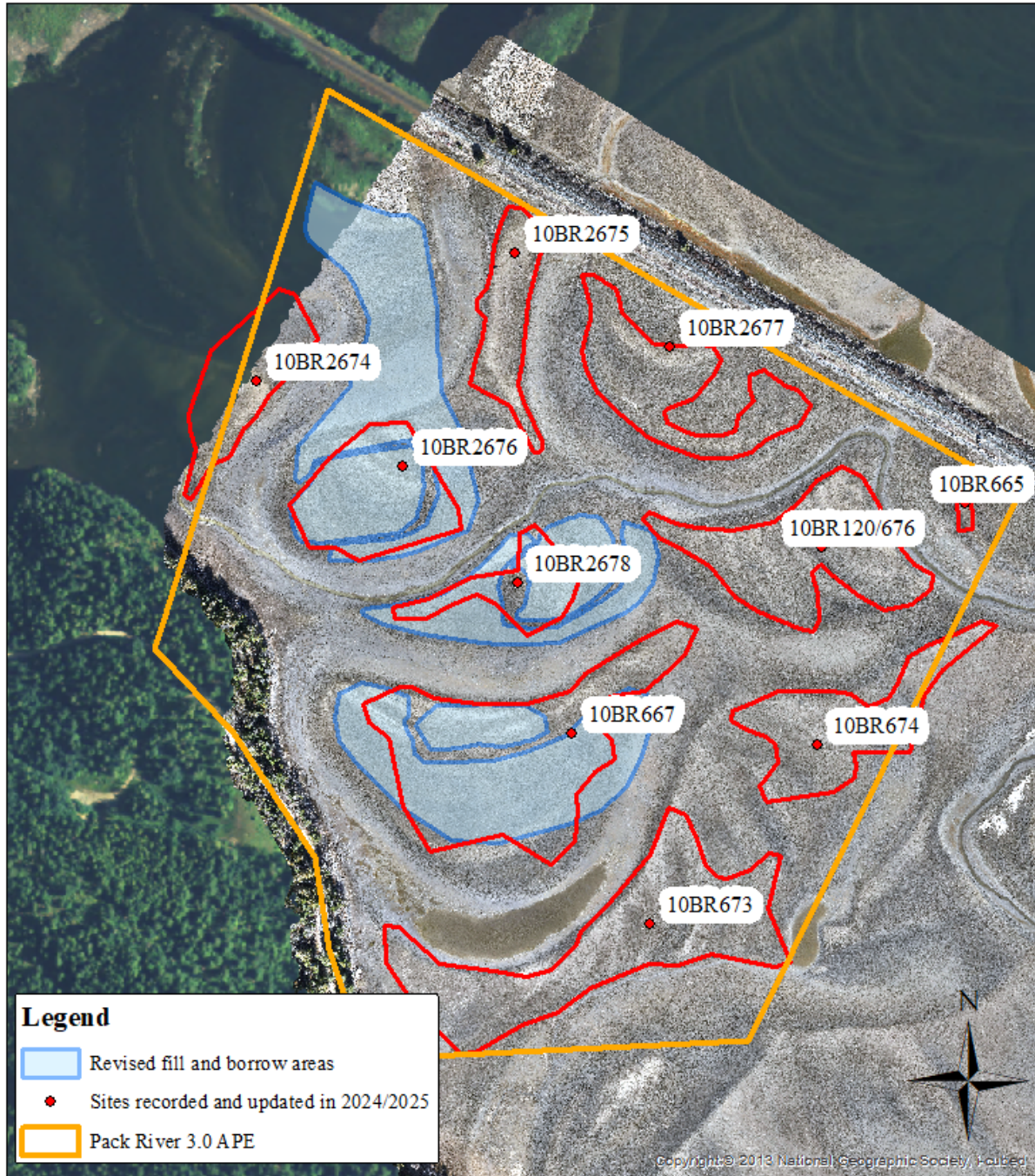
Borrow and Fill Area 1, as redesigned, overlaps with 10BR2676, which we recommend as not eligible to the NRHP.

Borrow and Fill Area 2 overlaps with 10BR2678, which we recommend as not eligible to the NRHP.

Borrow and Fill Area 3 overlaps with 10BR667, which we recommend as not eligible to the NRHP.

The original proposed APE included a larger area than what was anticipated to be used, and only the sites that had known impact and planned ground disturbance were evaluated (10BR667, 10BR2675, 10BR2676, and 10BR2678). The remaining sites within the APE remain unevaluated and in an eligible status until further testing is completed (10BR120/676, 10BR665, 10BR673, 10BR674, 10BR2674, and 10BR2677). The site records for these sites have been updated with the most current information which will be useful in future testing efforts. These sites will be avoided as part of the Pack River 3.0 project, and a detailed map of approved construction areas and avoidance areas will be provided to the awarded contractor.

The Project is planned for Fall 2025 implementation (October 2025 through April 2026). This report is being prepared and submitted on behalf of DU and IDFG to BPA in consultation with the Idaho State Historic Preservation Office. Once concurrence is reached, IDFG will share the findings and recommendations with the U.S. Army Corps of Engineers in their 404 Permit application.



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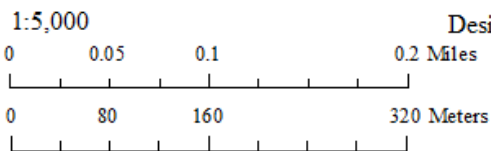


Figure 39. Revised designs to avoid 10BR2675.

Conclusions

This report has detailed the monitoring of geotechnical test excavations, pedestrian survey and surface examination of the APE, a total of 110 acres. Five archaeological sites were revisited, five new sites were recorded, four sites were examined through shovel test sampling, and recommendations have been made for further testing for the remaining six at a later date and unrelated to this project. Based on the archaeological testing, I recommend that 10BR2675 be considered eligible to the NRHP based on Criterion D and potential to yield additional information based on the identification of two subsurface intact prehistoric components.

The design of the project is such that no eligible resources will be adversely affected, the project has avoided the recommended eligible site, and we have recommended that the remaining sites within the footprint are not eligible, thus not an adverse effect.

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