

Findings (+ or -) negative
County: Baker
Township / Range / Section: 10S, 38E, sect. 25
USGS Quad: Blue Canyon
Project Type: Dam Expansion
Project Acres: Approx. 39
Acres Surveyed: Approx. 32
New Prehistoric: 0 Historic: 0 Isolate: 0
Archaeological Permit No. # NA
Field Notes location: K. Boula files
Curation Location: NA
Accession Number: NA

**ARCHAEOLOGICAL SURVEY OF THE
MASON DAM HYDROELECTRIC EXPANSION PROJECT
BAKER COUNTY, OREGON**

By

KATHRYN M. BOULA, MA, RPA

**Report prepared for
Baker County
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Kathryn M. Boula, Cultural & Natural Resources Consultant

60522 Bushnell Rd., La Grande, OR 97850 ■ 541.963.3930 ■ kboula@verizon.net

PROJECT OVERVIEW

Baker County, Oregon proposes to add two turbines to the existing hydroelectric facilities at Mason Dam (Project No. P-12058-0020), located on the North Powder River approximately 16 miles southwest of Baker City in T10S, R38E, sect.25 (Figure 1). Power will be transmitted through existing aboveground lines and a new buried transmission line in the Black Mountain Road right-of-way. The Area of Potential Effect (APE) is approximately 39 acres, which includes areas directly impacted through clearing, construction, and maintenance as well as 100 foot buffers around the powerhouse and tailrace facilities and substation, and 50 feet on either side of the underground line route.

Mason Dam and its associated facilities are located on the Baker District of the Wallowa-Whitman National Forest. Because federal lands are included in this project, Section 106 of the National Historic Preservation Act of 1966, as amended through 2000, is relevant:

“The law requires federal agencies to take into account the effects of their activities and programs on historic properties. When a federal agency funds, licenses, or permits an activity that may affect cultural resources, the agency must consult with the State Historic Preservation Office (SHPO) in cooperation with the ACHP in Washington, D.C. to comply with Section 106.”

Kathryn M. Boula, MA, RPA archaeologist, was contracted by Baker County to 1.) conduct background and archival research 2.) conduct a surface archaeological survey of the APE, and 3.) prepare and submit a report of findings.

PRE-FIELD REVIEW

Ethnographic Background

Before the arrival of Euro-Americans, the Blue Mountains of northeastern Oregon were an area of regular, overlapping use by the Cayuse, Umatilla Nez Perce and WallaWalla, peoples as well as lesser numbers of Northern Paiutes (Hunn and French 1998:379, Reid and Gallison 1993:13, Suphan 1974:25). Today, much of the Blue Mountains lie within the ceded areas of the Confederated Umatilla, Nez Perce and Confederated Warm Springs tribes. The southern Blues are generally perceived as a regional boundary between the southern Columbia Plateau and northern Great Basin cultures, although there is no rigid demarcation between the two (Jenkins and Connolly 1994:156). While many authors place the Elkhorn Mountains within Cayuse territory, McDonald (1985:27) speculated that Northern Paiutes were probably the primary occupants of the Dooley Mountain area, 12 miles southeast of the current project area. He cites ethnographic accounts from native informants that Northern Paiute bands occupied the upper Powder and Burnt River drainages (McDonald 1985:29). Various authors have suggested that Northern Paiutes were late-comers to the Blue Mountains, arriving little more than 500 years ago (Ray 1938, Young and Bettinger 1992:91).

Both Plateau and Great Basin groups moved throughout their homeland in response to seasonal availability of foods and other subsistence resources. With the advent of spring, groups converged on root grounds to gather and process this important subsistence resource. Salmon fishing was also a

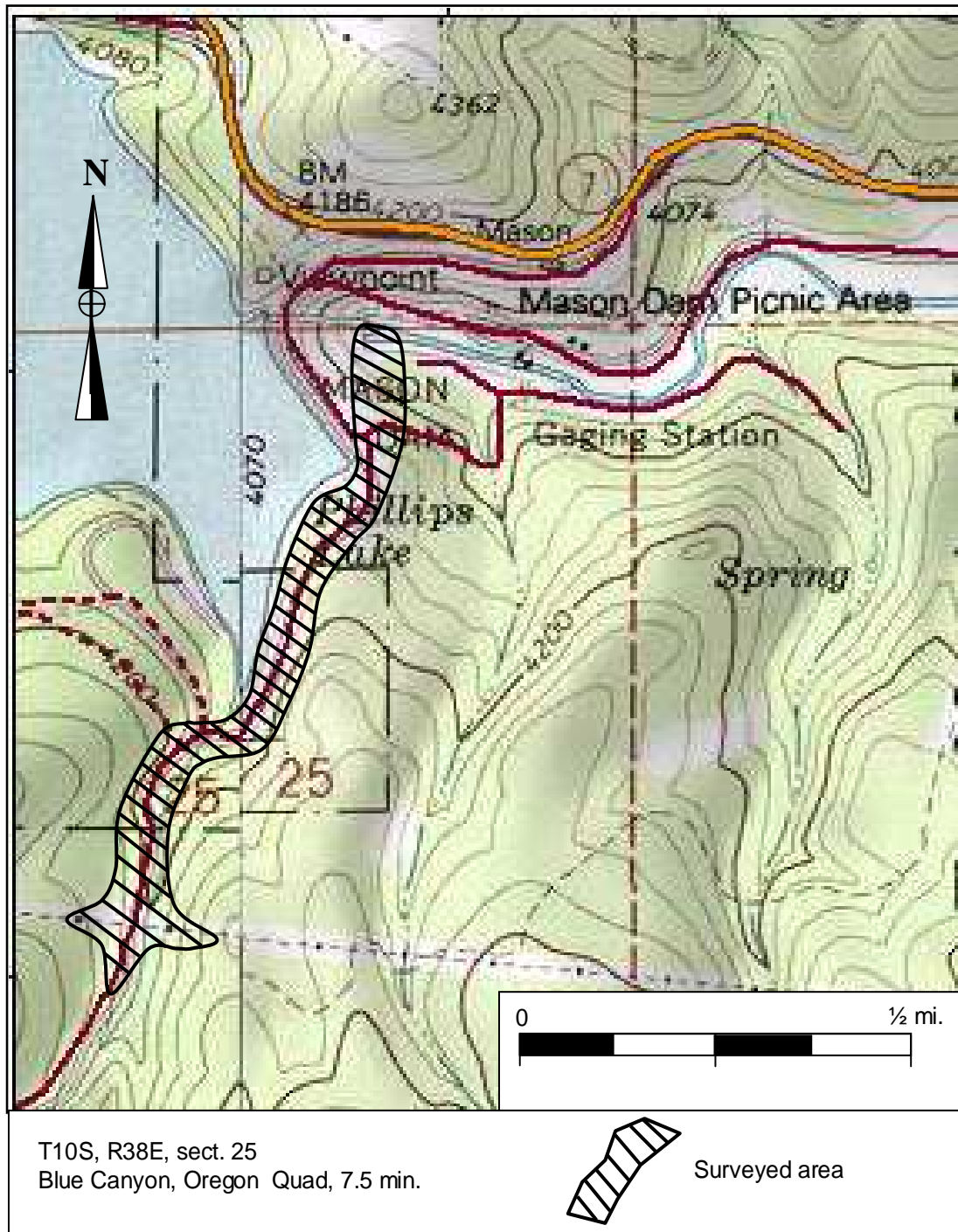


Figure 1. Mason Dam survey area.

communal effort. Upland summer camps provided logistical bases for the gathering and processing of game and waterfowl, berries, medicinal plants and other materials for transport back to winter settlements. Ethnographic accounts state that groups returned to their winter camps with the onset of cold and snow, although hunting parties might stay behind to take advantage of deer and elk whose ability to escape was hampered by deep snows (Stern 1998:396). While some authors contend that summer camps were occupied by small bands, perhaps of one or a few extended families (Oetting 1992:16), others cite evidence for large groups gathering for communal exploitation of upland resources (Zilverberg 1983:127, Jaehrig 1994:8). The Drift Fence site (35UN169), an 11 ha. site near Ukiah, Oregon (approximately 55 miles northwest of the project area) supports the notion of at least some large summer camps (Boula 2006). This is the largest known seasonal camp in northeastern Oregon, yielding more than 20,000 pieces of debitage, 100 identifiable projectile points, multiple *in-situ* hopper mortars and a variety of additional chipped stone and groundstone tools. Approximately 30 miles to the east of the Mason Dam project area, Oetting (1992b) documented a large multi-component habitation site on Big Creek (Twin Pines 35BA258). An activity surface (possibly a house floor) yielded a C14 date of 2,390 +/- 100 years B.P. Nearly 5,000 pieces of debitage, manos, metates, a hopper mortar and 1,600 bone fragments were recorded. Similarities between the Twin Pines and Drift Fence site assemblages indicate that similar activities were occurring at various locations across the Blue Mountains during the same time period.

Evidence for very ancient occupation of the upland forests and valleys of the Blue Mountains by native peoples comes from the Pilcher Creek (35UN147) Stockhoff (35UN52) sites. The Pilcher Creek site is located approximately 40 km. north of the project area. Stemmed Windust and lanceolate Cascade projectile points found between Glacier Peak and Mazama ash suggest the earliest occupation at Pilcher Creek between 8,000 and 11,000 years B.P. (before present) (Brauner 1985).

The Stockhoff quarry site, approximately 45 km. north of the project area, is located within a 1,600 ha. source of siliceous andesite. Based on point styles and corroborating radio-carbon dates, primary use at the site ranged from approximately 7,600 to 4,000 years B.P., although some use persisted into historic times (Womack 1977). The oldest artifacts (edge-ground cobbles, net weights and groundstone), recovered from lower excavation levels, suggested residential or at least temporary hunting occupations. Diagnostic artifacts included lanceolate and side-notched projectile points. Initial quarrying and production of early-stage biface blanks were the primary activities in later occupations (Womack 1977:55).

Two sites near the Stockhoff quarry, Marshmeadow (35UN95) to the south and Ladd Canyon (35UN 74) to the north, provide evidence for extensive seasonal use of mountain meadows for the collection of camas from as early as 7,000 years B.P. until the 1930s (McPherson et al. 1981).

Historic Background

Use of the Blue Mountains by Euro-Americans began in the early 1800s with infrequent incursions by fur trappers (Walker and Sprague 1998:142). In the early 1860s, however, the white population of the area exploded after gold was discovered by Henry Griffin in a gulch approximately seven miles southwest of present-day Baker City. Miners poured into the foothills. The first claims were established in Griffin Gulch in 1862 (McArthur and McArthur 2003; 37). The gold town of Auburn sprang up almost overnight right in the midst of the mining area. The 1864 General Land Office map for Township 10S, Range 39E shows Auburn with a grid of streets in the north half of section 16 (US Surveyor General 1864). Within six months of its founding, the town boasted a population of more than 5,000, with hundreds of cabins and tents; general stores, saloons, a sawmill, a jail and a school that served the town's 300 plus children (McArthur and McArthur 2003:37, bakercounty.net).

For a few years Auburn was the county seat for Baker County. But, as is typical of mining boom towns, Auburn prospered only until the mines began to play out. The county seat was moved to Baker City in 1868. White miners moved on to more lucrative diggings elsewhere, leaving Chinese immigrants to re-work abandoned claims (Potter 1976:66). The remains of “Chinese Walls”, hand-stacked as workers progressed along the placers, are found on nearby French Gulch and Union Creek and elsewhere in the local area (Britton 2005, Oman, n.d.). The post office held on, but finally closed in 1903 (McArthur and McArthur 2003:45). Eventually even the Chinese left, taking with them almost all trace of Auburn. Hydraulic mining left behind cobble tailings and altered stream courses in almost every draw.

Other nearby mining communities followed, including Granite, Greenhorn and Sumpter. Mining at Sumpter, approximately 10 miles west of the project area, continued into the mid-20th century. An immense dredge and hundreds of acres of tailings attest to the intensity of mining in the local area. Fire destroyed most of Sumpter in 1917; the present-day town is a shadow of its boomtown days (www.historicsumpter.com). The local economy now relies heavily on recreation, including historic tours at Sumpter Valley Dredge State Historic Heritage Area, and the Sumpter Valley Railroad, both National Historic Register sites. Abandoned mines, railroad grades and mining equipment; water flumes and ditches; and remains of miners’ cabins are found on public and private lands throughout the local area.

Building materials and firewood were immediate necessities for miners and settlers, and the virgin pine stands provided a seemingly endless supply of both. Commercial production and export of lumber followed. By 1890 the Oregon Lumber Company was operating a large sawmill in Baker City (Hudson et al. 1978:53). In 1897 the company built a narrow gauge railway to Sumpter. Additional lines were built to Whitney, Tipton, Austin, Bates and Prairie City. The line carried freight and livestock as well as timber. Portions of the line continued to operate into the 1930s. The ghost town of Whitney (approximately 14 miles to the west), with its several surviving structures, is managed as a historical site. Other evidence of early logging, including camps, old roads and bridges and sawing springboards, is widespread on National Forest lands near the project area.

Livestock production and attendant homesteading in northeastern Oregon followed on the heels of mining. Overgrazing and conflict between sheep and cattle producers were the primary impetus for incorporation of the Umatilla, Wallowa Whitman and Malheur National Forests. Historic stock driveways, camps, corrals and spring developments survive on all three.

Previous Archaeological Investigations in the Project Area

A search of the State Historic Preservation Office (SHPO) database revealed several prehistoric and historic sites in the vicinity of the proposed project. Archaeological work in the local area began in the 1940s with a one-day reconnaissance survey associated with the initiation construction of Mason Dam on the Powder River (Osborne 1948). Cole and Rice (1965) re-surveyed the area in 1964 prior to the closing of the dam in 1966. Several sites were recorded. A 1 x 10 m trench was excavated at site 35BA1. Seventy-five formed artifacts, 29 worked flakes and more than 3,000 pieces of debitage were recovered at the site. Two types of projectile points were recorded: a wide-stemmed form with corner notching and a concave base (n=4, all obsidian) and one small narrow-stemmed, corner-notched point of basalt. Testing at three other sites (35BA2, 35BA3 and 35BA4) produced nothing other than surface scatters and a few subsurface flakes.

Cultural resource personnel from the Wallowa-Whitman National Forest conducted surveys near Mason Dam in association with the Ragged-Marble (Powell 1981) and Blend Creek (Draper 1985) timber sales, Sheep Creek Burn Project (Wallowa Whitman National Forest 1983), Lake Creek Burn Project (Wallowa

Whitman National Forest 1983) and the Lake Creek timber sale (Stone 1991). Artifacts and sites located during these surveys are summarized in Table 1.

Table 1. Results of Forest Service Cultural Resources Surveys in the Vicinity of Mason Dam, Baker County, Oregon.

Resource Type	Number
Lithic Scatter	25
Lithic Isolate	38
Lithic procurement	1
Rock cairn (age unkwn.)	2
Historic Site-logging	3
Historic Site-mining	14
Historic site-structure	14
Historic site-railroad	8
Multi-component: Prehistoric/Historic	3
Ditch	4
Bridge	3
Woodpile/logs	2
Historic Baker City pipeline	1
Reservoir (Auburn)	1

Reid and Gallison (1993) conducted test excavations on six prehistoric/historic sites discovered during surveys associated with construction of recreational facilities on the Powder River just below Mason Dam. Two of the sites revealed substantial densities of lithic debitage, indicative of tool manufacture. Remains of bighorn sheep and bison were found at 35BA892. No features or living surfaces were identified during testing, but the authors suspected that features could be present at site 35BA890. Reid and Gallison concluded that the suite of sites in Boulder Canyon represented small, transient groups who passed through the area infrequently over the last 6000 years. Chemical sourcing analysis of tools used at the Powder River sites suggests that these people traveled extensively through the upper reaches of the Powder, North Fork John Day, Grande Ronde, Burnt and Silvies river drainages (Reid and Gallison 1993:91).

Prehistoric occupants of the area employed a variety of raw materials in production of lithic tools. Locally available cherts and basalts, fine-grained andesites from Stockhoff and smaller quarries, and obsidian were used. Obsidian is readily available at Dooley Mountain. The Dooley Mountain location, which includes Indian Creek, Ebell Creek, Bear Creek and Wolf Creek, comprises the major obsidian procurement area for much of eastern Oregon (McDonald 1985). Womack (1977:74) reported that obsidian artifacts found at Stockhoff Quarry came from Dooley Mountain sources. These specimens were found in association with Cascade phase projectile points, suggesting a long period of use of Dooley Mountain obsidian at the site. Further research at the Dooley Mountain quarries by McDonald (1985) revealed extensive obsidian workshops.

In sum, evidence collected to date suggests substantial, long-term use of the Powder River canyon by native peoples. As is typical of upland sites in the Blue Mountain, these sites appear to be associated with

tool manufacture and maintenance, and resource acquisition during spring, summer and fall (Ames et al. 1998:114).

Historic properties located during surveys include a segment of the old Baker City water pipeline, mining features and artifacts (waterwheel, ore bin, hand-stacked tailings, flumes, ditches, a mine mill site and the Auburn reservoir and associated ditches) and several wood structures. Some of the wood structures are indicative of homesteading, while others appear to be associated with mining. Traces of narrow gauge railroads are frequent along the Powder River. The 1882 GLO map or T10E, R38E shows what appear to be logging spurs running up draws in section 25 (US Surveyor General 1882). An engine on rails and a horizontal plank placed in a cut in the bole of a large tree further attest to historic logging activity in the vicinity.

PHYSICAL CHARACTERIZATION OF SURVEY AREA

The project area is located in the southeastern portion of the Blue Mountains Physiographic province (Franklin and Dyrness 1988:27) in northeastern Oregon, specifically near the southern end of the Elkhorn Range. Open, south-facing slopes dominated by drought-tolerant shrubs rise from the Powder River, transitioning through stands of western juniper (*Juniperus occidentalis*) and Ponderosa pine (*Pinus ponderosa*). Shady north-facing slopes support mixed conifer forests with well-developed understories. Subalpine mixed coniferous forests and true alpine conditions are found at the crest of Elkhorn Ridge (elevation 2,073 m). The Powder, Grande Ronde, North Fork John Day and Malheur River systems drain the range to the east, north, west and south, respectively.

The Elkhorn Range is part of the Bald Mountain batholith (Bishop 2003:65). Bishop explains that the gold discovered by miners in the 1860s formed during the Jurassic period, somewhere around 120 million years ago. Gold and other precious metals precipitated out of greenstones and fine-grained sedimentary rocks deformed by the force of granitic intrusions. Surface sediments in the project area are light brown and loamy-textured. Soils are shallow above coarse basalt bedrock with exposed boulders and outcrops.

Elevation in the Project area ranges from 3,800 to 4,200 feet. Aspect is generally north, with slopes varying from 5% to more than 25%. Vertical rock walls and large outcrops are present in the vicinity of the dam. Vegetation is dominated by a mixed conifer forest of ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), white fir (*Abies concolor*) and occasional tamarack (*Larix occidentalis*). Openings in the canopy support grasses, perennial forbs and sagebrush (*Artemisia tridentata*). Riparian vegetation including aspen (*Populus tremuloides*) and perennial forbs is present along a small creek that parallels Black Mountain Road and enters Phillips Lake from the south.

METHODS

Pedestrian survey took place on July 28, 2008. The survey consisted of meandering transects in forested areas and the transmission line corridor. Black Mountain Road is cut into the side-slopes of a deep draw, resulting in high cut banks on one side and steep natural slopes on the other. This topography results in a narrow and highly-disturbed right of way for much of the study area. Consequently, a single transect line was conducted along either side of the road for most of the area; the steep slopes above the creek just before it enters the lake were not surveyed. In areas of low relief, additional transects were added for



Figure 2. Mixed conifer forest with dense understory typical of survey area.



Figure 3. Powerline Corridor.

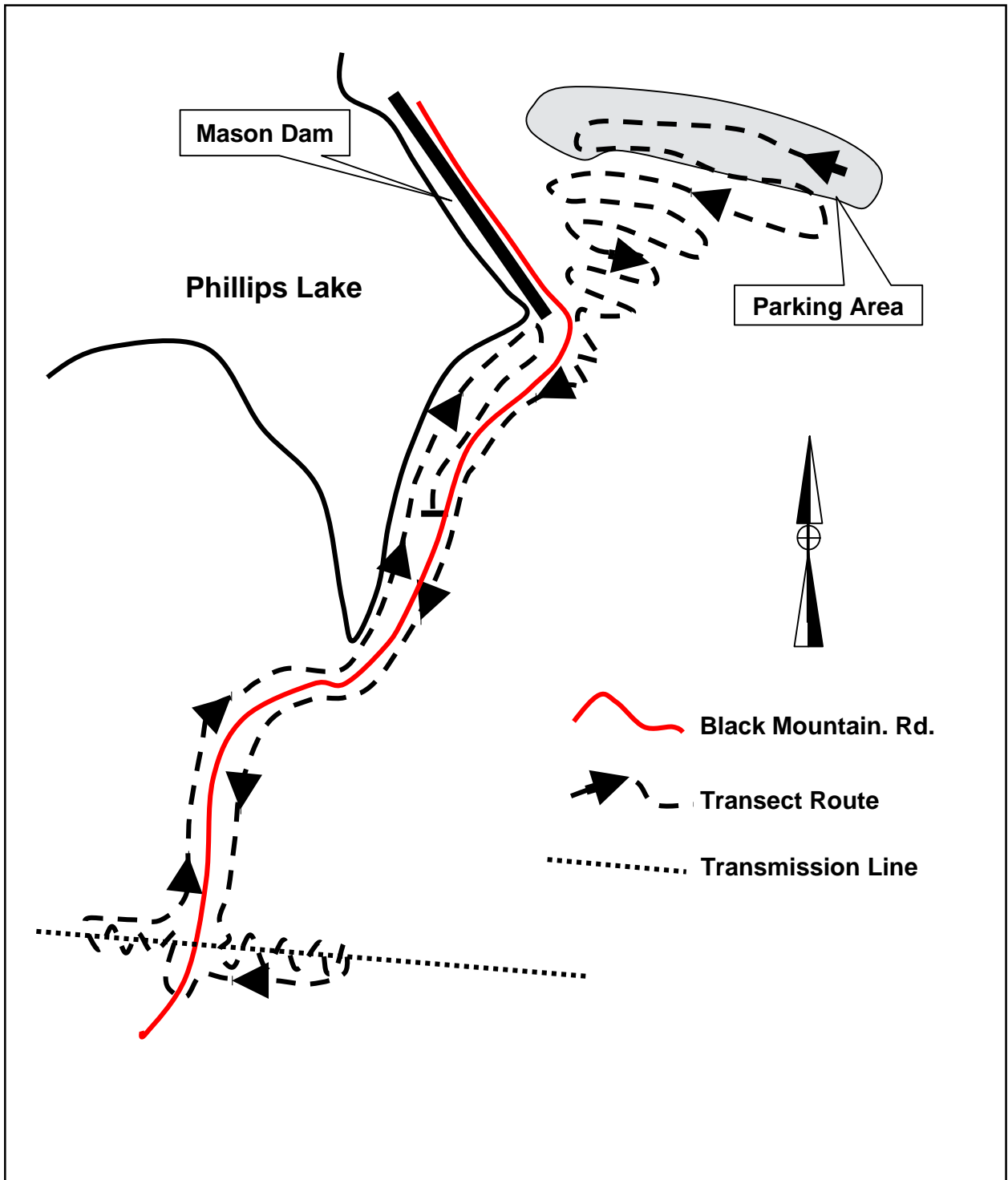


Figure 4. Survey Route.

better coverage. The dam face was also excluded from survey as it is composed completely of non-native coarse rock. Portions of the parking lot at the foot of the dam had been previously surveyed. A cursory meandering survey was conducted in the parking lot area. Surface visibility was 100% on the road, parking lot, and on rock outcrops, 0% in the heavy grass cover under the pine canopy (Figure 2) and along the stream that parallels the road at the southern end of the survey area and approximately 40% in the rocky power line corridor (Figure 3), where survey was conducted along a meandering transect line. Rodent burrows provided some substrate visibility in heavily-vegetated areas: rodent backdirt was carefully examined for artifacts. Nearby locations where isolates had previously been recorded were also visited. Transect lines are shown in Figure 4.

RESULTS AND CONCLUSIONS

No cultural resources of any kind were found during the survey, including previously-recorded isolates. Based on the field survey and literature review, no further archaeological review is deemed necessary in the area surveyed. Changes in facility locations could make additional survey necessary. **In the event that archaeological resources or human remains are inadvertently discovered during the course of project construction, all ground disturbing activities must cease and the Wallowa-Whitman Forest Archaeologist contacted immediately for further instruction.**

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