

**Placer County Water Agency
Middle Fork American River Project
(FERC No. 2079)**

FINAL

**CUL 1 – CULTURAL RESOURCES
TECHNICAL STUDY REPORT - 2007**



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1.0 INTRODUCTION

This report describes cultural resources studies conducted by the Placer County Water Agency (PCWA) in association with the CUL 1 – Cultural Resource Technical Study Plan (CUL 1 - TSP), which is included in Supporting Document (SD) H of the Pre-Application Document (PAD) for the Middle Fork American River Project (MFP or Project) (PCWA 2007b). Specifically, this report provides a detailed description of the methods and results of cultural resource studies completed in 2007 in relation to the overall scope of work described in the CUL 1 - TSP. In addition, this report summarizes cultural resources inventory work performed in 2005 and 2006 for reference. Detailed information regarding the 2005 and 2006 cultural inventory studies is available in the 2005 Cultural Resources Inventory Study Report (PCWA 2006) and 2006 Cultural Resources Inventory Study Report (PCWA 2007a), respectively.

2.0 STUDY OBJECTIVES

The objectives of the cultural resource studies described in the CUL 1 - TSP are:

- Develop information about the occurrence of cultural resources that could potentially be affected by Project operation and maintenance activities; and
- Determine the eligibility of cultural resources for listing in the National Register of Historic Places (NRHP).

Figure CUL 1-1 shows the CUL 1 - TSP study objectives and the study elements and activities that relate to each objective. It also shows how information developed through the cultural resources studies has been or will be documented. As indicated on Figure CUL 1-1, the study objectives will be met by completing the Cultural Resources Inventory Study and by conducting an Eligibility Assessment. Ultimately, the information developed as part of the CUL-1 TSP will be used to develop a plan designed to protect cultural resources that could potentially be affected by MFP operation and maintenance activities. The plan will focus on cultural resources that are eligible for or are listed on the National Register of Historic Places (NRHP).

3.0 STUDY IMPLEMENTATION

The Cultural Resources Inventory Study was initiated in 2005 as part of PCWA's early relicensing studies and includes two phases. Phase 1 was completed in 2005 and focused on retrieving, compiling and reviewing existing cultural resource information in the vicinity of the MFP. Phase 2, which began in 2006 and will continue through 2008, focuses on verifying the location and condition of known cultural resources, and identifying and recording previously unrecorded cultural resources in areas associated with the MFP. A draft report describing the 2008 Inventory Study results will be prepared and distributed for review and comment in September 2008.

The Eligibility Study will be conducted in 2008 and early 2009 after the Cultural Resources Inventory Study is complete. The results of the Eligibility Study will be documented in a draft report to be distributed for review and comment in March 2009.

Ultimately, all of the cultural resources study information will be documented in the Draft Application for New License, which will be filed with the Federal Energy Regulatory Commission (FERC or Commission) and distributed to the stakeholders in September 2010.

Study elements that have been completed and outstanding study elements are discussed further in the following subsections.

3.1 STUDY ELEMENTS COMPLETED

The following study elements have been completed:

- **Cultural Resources Inventory Study – Phase 1 - Summary of Existing Cultural Resources Information**

Phase 1 of the Cultural Resources Inventory Study was completed in 2005 and is documented in the 2005 Cultural Resources Inventory Study Report (PCWA 2006).

- **Cultural Resources Inventory Study – Phase 2 - Verification of Known Cultural Resources**

The verification of known cultural resources in the study area was initiated in 2006 and completed in 2007. Work completed in 2006 is briefly summarized in this report for reference and is documented in detail in the 2006 Cultural Resources Inventory Study Report (PCWA 2007a). Phase 2 work completed in 2007 is documented in this report.

- **Cultural Resources Inventory Study – Phase 2 - Identification of Unknown Cultural Resources**

Field surveys to identify and document unknown cultural resources in the study area were initiated in 2006 and will continue through 2008. As shown on Tables CUL 1-1, CUL 1-2, CUL 1-3, and CUL 1-4, the majority of the study area was surveyed in 2006 and 2007. Work completed in 2006 focused on conducting surveys around French Meadows and Hell Hole reservoirs. The 2006 study results are briefly summarized in this report for reference and are documented in detail in the 2006 Cultural Resources Inventory Study Report (PCWA 2007a). Phase 2 work completed in 2007 is documented in this report.

3.1.1 Variances from the CUL 1 - TSP

With one exception, the cultural resources study is proceeding as described in the CUL 1 - TSP. The exception is a schedule variance. The TSP indicated that the cultural resources inventory work would be completed in 2007. However, the inventory work and associated reporting will continue into 2008. As required, this schedule variance was identified in PCWA's 2007 Study Implementation Progress Report, which was filed with the FERC on January 22, 2008.

3.2 OUTSTANDING STUDY ELEMENTS

The outstanding study elements include completing Phase 2 of the Cultural Resources Inventory Study and conducting an Eligibility Assessment, as described in the following:

- **Complete Cultural Resources Inventory Study– Phase 2 – Identification of Unknown Cultural Resources**

As shown on Tables CUL 1-1, CUL 1-2, CUL 1-3 and CUL 1-4, a few locations in the study area have not yet been surveyed. These locations will be surveyed in 2008. Upon completion of these field surveys, the Cultural Resources Inventory Study will be complete and the first CUL 1 - TSP objective will have been met.

- **Conduct Eligibility Assessment**

PCWA is utilizing the results of the Cultural Resources Inventory Study to assess whether there are any cultural resources within the study area that are eligible or may be eligible to be included in the NRHP per Section 106 of the National Historic Preservation Act (NHPA). This assessment is being completed in consultation with the USDA-FS, Tribes and other stakeholders.

Based on consultation efforts to date, PCWA has identified a number of resources that should be evaluated for NHPA eligibility. Accordingly, PCWA is developing an Eligibility Evaluation Plan that identifies the specific resources to be evaluated and the evaluation process. The draft plan will be distributed to the USDA-FS, Tribes, and other stakeholders (excluding confidential information) in April 2008. Eligibility studies will begin in August 2008, after obtaining the appropriate permits.

3.2.1 Proposed Modifications to CUL 1 - TSP

There are no proposed modifications to the CUL 1 - TSP.

4.0 EXTENT OF STUDY AREA

The MFP is located in the Middle Fork American River Watershed (Watershed) within the boundaries of the Eldorado National Forest (ENF) and Tahoe National Forest (TNF). The locations of the primary Project facilities are shown on Map CUL 1-1, which also shows the Watershed boundary.

The study area includes all public and PCWA-owned lands within the existing FERC Project boundary and within a 200-foot area surrounding any Project facility or feature (Table CUL 1-1), Project recreation facility (Table CUL 1-2), or stakeholder-identified dispersed concentrated use area (Table CUL 1-3). In addition, the study area includes the land areas associated with potential Project betterments, including new facilities, roads and trails, staging, and disposal sites, as identified on Table CUL 1-4. With the exception of recreation facility water supply lines, the lands above subterranean features (i.e., Project tunnels) are not included in the study area. The recreation facility water lines were surveyed because they are relatively shallow, are exposed in some places, and may require periodic maintenance.

The specific locations of the Project facilities, Project recreation facilities, dispersed concentrated use areas, and the footprints associated with potential Project betterments are shown on Maps CUL 1-2, CUL 1-3 and CUL 1-4, each of which includes 5 sheets. These maps also show the location of the FERC Project boundary for reference.

Map CUL 1-2 shows the areas where cultural resources surveys were conducted in 2006 and 2007. Map CUL 1-3 shows the areas that have been surveyed by method, and also shows jurisdictional boundaries. To date, a total of 2,428.7 acres have been surveyed. Of this, 753 acres are public lands managed by the ENF and 1,148.7 acres are public lands managed by the TNF. The remaining 527 acres is private land and other public land, including land owned by PCWA.

5.0 STUDY APPROACH

Phase 1 of the Cultural Resources Inventory Study was initiated in 2005 and included a records search and literature review to identify previously known cultural resources located within or near the study area. The results of Phase 1 of the study, including bibliography listings of previous studies conducted within or near the study area, are available in the 2005 Cultural Resources Inventory Study Report (PCWA 2006).

Field surveys were conducted in 2006 and 2007 as part the Cultural Resources Inventory Study – Phase 2. The 2006 and 2007 field surveys focused on two activities: 1) verifying the location and condition of known cultural resources; and 2) identifying and recording previously unknown cultural resources. All areas surveyed to date are identified on Tables CUL 1-1, CUL 1-2, CUL 1-3 and CUL 1-4 and illustrated on Maps CUL 1-2, CUL 1-3 and CUL 1-4 (5 sheets each). The following describes the survey methods.

5.1 SURVEY METHODS

The study area was surveyed using either pedestrian surveys or visual reconnaissance, or a combination of both. The survey method used for each locality in the study area is identified on Tables CUL 1-1, CUL 1-2, CUL 1-3 and CUL 1-4 and also depicted on Map CUL 1-3 (5 sheets). The type of survey method used varied depending upon a number of conditions, including type of facility, topography, and access conditions.

Existing site records were updated when field surveys yielded new, previously unreported information. As required, new cultural resources found during the surveys were documented on California Department of Recreation (DPR) cultural resource forms (DPR 523 forms).

5.1.1 Pedestrian Surveys

Pedestrian surveys were conducted in all locations that were safely accessible. Pedestrian surveys were conducted in accordance with the methods outlined in the following guidance document: Framework for Archaeological Research and Management (FARM), National Forests of the North Central Sierra Nevada (Jackson et

al. 1994). This document describes a variety of pedestrian survey methods, three of which have been used to conduct the MFP cultural resources surveys: complete, general, and wide general. These methods generally differ based on transect spacing, as follows:

- Complete: Transect spacing is less than 20 meters.
- General: Transect spacing is between 20 and 40 meters in the ENF and 20 and 50 meters in the TNF.
- Wide General: Distance between transects is wide but still falls within the transect spacing defined under “general”.

Pedestrian surveys conducted during 2006 were performed using “complete” or “general” methods. During 2007, “complete” pedestrian surveys were performed in all locations that were safely accessible, with one exception. The exception is the Long Canyon Crossing Sediment Disposal Area, which was surveyed using transect spacing characterized as “wide general”. This area will be resurveyed in 2008 using complete pedestrian survey methods.

Complete pedestrian surveys were conducted by walking over the area to be examined in evenly-spaced transects while examining the ground surface for objects that might show evidence of archaeological or historic sites. Transects were spaced between 10 and 20 meters, depending upon ground visibility, landforms, and vegetation density. Areas along roadways were typically surveyed using 15 to 20 meter transects due to uneven surfaces and the presence of dense vegetation. Recreation areas, which are typically relatively flat and clear of dense vegetation were generally surveyed in 10-15 meter transects. In cases where wider transects were used, all rock outcrops and open patches of soil were examined for evidence of cultural resources. Relatively small survey areas, for example the areas surrounding South Fork Long Canyon Diversion Dam and the Middle Fork American River Gage below Oxbow Powerhouse, were not divided into transects. In these cases, field crews walked the entire area side-by-side scanning the ground for evidence of cultural resources. General pedestrian surveys were conducted similarly, except transect spacing was wider than that used for complete pedestrian surveys.

During the surveys, ground visibility was frequently poor due to a combination of thick vegetation, fallen and decaying trees, gravel from decomposing granite, and forest duff. Throughout the study area, the soils had often been disturbed by facility construction, logging, cattle grazing and herding, or recreation activities.

Areas surveyed using either complete, general, or wide general methods in 2006 and 2007 are shown on Map CUL 1-3. To date, within the ENF, 179.1 acres have been surveyed using complete pedestrian survey methods, 213.1 acres have been surveyed using general pedestrian survey methods, and 27.6 acres have been surveyed using wide general survey methods. Within the TNF, 397.6 acres have been surveyed using complete pedestrian survey methods, and 510.6 acres have been surveyed using general pedestrian survey methods.

5.1.2 Visual Reconnaissance

Visual reconnaissance was used in some study locations that could not be safely examined by pedestrian survey. In these cases, the area was surveyed by scanning the landscape with binoculars to search for evidence of cultural resources. This method was used to survey a total of 240.5 acres in the TNF and 333.2 acres in the ENF.

This method was primarily used to examine the steep areas surrounding the Project reservoirs and the steep canyon walls near French Meadows Dam. In addition, it was used along some of the access roads (especially on the upslope side of the road) where pedestrian surveys could not be performed due to steep slopes or sheer rock walls. Where possible, these areas were examined by visually scanning the ground for 200-foot either side of the road. It should be noted that the probability of finding cultural resources in areas with very steep slopes is low.

5.1.3 Resource Documentation

Information regarding new resources discovered through field surveys was recorded on standardized 523 forms produced by the DPR, Office of Historic Preservation. These forms are used throughout California to record cultural resources and are required by the Information Centers of the California Historic Resources Information System and most state and federal agencies operating within California. The DPR 523 forms for the resources described in this report are included in Confidential Appendix B.

In some cases, field investigations revealed new information about previously recorded cultural resources. In these cases, updated DPR 523 forms were produced. The updated forms are also included in Confidential Appendix B.

When a resource was encountered in the field, it was assigned a field designation (PL number), and documented using that number. In the cases of previously known and recorded resources, the PL number was replaced with the appropriate identifying number designated during previous studies after the field session was complete. Otherwise, the PL numbers were used to identify specific sites until the USDA-FS assigned new numbers. Table CUL 1-6 shows the relationship between the fields designated PL numbers and the USDA-FS numbers.

6.0 STUDY RESULTS

6.1 VERIFICATION OF LOCATION AND CONDITION OF KNOWN CULTURAL RESOURCES

6.1.1 2006 Study Results

During the 2006 field work, four previously known resources were examined. These sites are listed on Table CUL 1-5 and are briefly described below, organized by National Forest.

Resources Located in the Eldorado National Forest

FS 05-03-55-201. This resource is a bedrock milling station and flake scatter located near the southeast end of Hell Hole Reservoir, in the ENF. The site was re-recorded in 2006, and an updated DPR 523 form was included in that report. The DPR 523 form, which includes a new map showing land jurisdictions, is included in Confidential Appendix B of this report, for reference. The location of this site is shown on Map CUL 1-4 (Sheet 2 of 5), which is included in Confidential Appendix A.

Resources Located in the Tahoe National Forest

FS-05-17-54-06. This archaeological site is recorded as being comprised of a flake scatter and bedrock milling feature. It is located in the TNF outside of a campground near French Meadows Reservoir, but was not relocated during field surveys in 2006. As the site was not relocated, the site record was not updated. The unchanged archaeological record is included in Appendix B for reference.

FS 05-17-54-228. This site was originally recorded as present in the TNF and consisting of bedrock mortars. However, in 2006 it was determined to be a natural feature and not a cultural resource. The DPR 523 form was updated accordingly as included in Appendix B for reference.

FS 05-17-54-476. This resource is an historic mining ditch located near French Meadows Reservoir referred to as the "Ralston Ditch". In the study area, the ditch crosses the TNF and is identified as FS 05-17-54-476. Outside the study area, segments of the ditch extend into the ENF, and across private land (Anon. 1991; McLemore 1983). Where it crosses the ENF it is identified as FS 05-03-53-67. The ditch was inspected by field crews in 2006 and more thoroughly in 2007. This resource is described further in Section 6.1.2 below based on 2007 field surveys.

6.1.2 2007 Study Results

During the 2007 field work, 14 previously recorded resources were relocated and examined. These resources are listed on Table CUL 1-5 and the locations of these resources are shown on Map CUL 1-4 (5 sheets) in Confidential Appendix A. In addition, archaeologists searched for three isolated finds that were not formally recorded but documented as being in the study area (1218, 1219 and 1120). These three isolated finds could not be relocated and are therefore not shown on the map. The 14 previously known resources present in the study area and examined in 2007 are described in the following. The discussion is organized by National Forest.

Resources Located in the Eldorado National Forest

FS-05-03-53-04. This archaeological site lies near Eleven Pines Road. The site has a prehistoric habitation component with three bedrock mortar features, and a historic mining component. Previous site record forms describe concentrations of flaked stone

and modified bone but neither was visible during the 2007 surveys. The historic component of the site is known to extend well beyond the FERC Project boundary.

The record for this site was updated to reflect changes noted in the surface distribution of materials and is included in Confidential Appendix B.

FS-05-03-53-64. This archaeological site is recorded as a bedrock mortar feature and associated flake scatter northwest of Hell Hole Reservoir. A number of campfires have been built on the site and have damaged the bedrock. Three of the mortar cups originally recorded on the bedrock surface are no longer present due to erosion. The flake scatter is no longer visible.

The record for this site was updated to reflect changes noted in the bedrock mortar feature and is included in Confidential Appendix B.

FS-05-03-53-65. This resource is located near Hell Hole reservoir. It consists of bedrock mortars and cups, petroglyphs and dense lithic scatter. New information about this site is currently being developed as part of a separate study being conducted outside of relicensing for the USDA-FS. A DPR 523 form, which was recently updated as part of that study, is included in Appendix B for reference.

Resources Located in the Tahoe National Forest

FS-05-17-54-116. This archaeological site is comprised of a large but sparse lithic scatter and bedrock mortars in a campground near French Meadows Reservoir. Much of the archaeological material from the surface is no longer present. A bedrock mortar feature previously recorded could not be relocated, and field observations indicate that it may have been a natural feature mistaken for a bedrock mortar. The site boundaries were expanded as a result of information gathered during field work. The new site boundaries engulf the previously recorded site FS-05-17-54-370.

The record for site FS-05-17-54-116 was updated to reflect changes noted in the surface distribution of materials and the site previously recorded as Site FS-05-17-54-370. The updated DPR 523 form is included in Confidential Appendix B.

FS-05-17-54-214. This historic archaeological site is the remains of the Gates Cabin and associated domestic debris. It appears this location was a base for ranch workers tending animals sent to pasture in the French Meadows area. Discarded food cans, beer cans, motor oil cans, and metal from construction materials are all present on the site surface, as are the degrading remains of a cabin constructed of corrugated metal.

The record for this site was updated to reflect changes noted in the surface distribution of materials and the deterioration of architectural features. The updated DPR 523 form is included in Confidential Appendix B.

FS-05-17-54-370. This is a sparse basalt flake scatter. During field surveys it was clear that there is no break between the boundaries of this site and FS-05-17-54-116

described above. Accordingly, this site is considered part of FS-05-17-54-116. The record was updated to reflect the fact that site FS-05-17-54-370 has been subsumed into FS-05-17-54-116 and is included in Confidential Appendix B. Note that this site was previously assessed to facilitate management needs for rehabilitation of the campground and determined not eligible for listing in the NRHP (Shapiro and Jackson 1994). The California Office of Historic Preservation concurred with this determination, and documentation is on file with the TNF.

FS-05-17-54-400. This archaeological site is located west of French Meadows Dam and is recorded as a site with two mortars on one boulder and an associated midden and lithic flake scatter. As of July 2007, only one mortar remains on the boulder and neither the flake scatter nor midden could be found.

The record for this site was updated to reflect changes noted in the surface distribution of materials and to the bedrock mortar feature. The updated DPR 523 form is included in Confidential Appendix B.

FS-05-17-54-445. This resource was previously recorded as the “Lambert Ditch”, a mining ditch running roughly parallel to and downslope of the Ralston Ditch (FS-05-17-54-476). These two ditches were constructed in the 1870’s to transport water from the Middle Fork American River east of French Meadows Reservoir either to the Ralston Ridge, 16 miles to the southwest (PAR Environmental Services 2003: 9), or to Pennsylvania Flat, 21 miles to the southeast (Starn 2004). This trench is alternately named the “Ralston Ditch” and the “Red Star Ditch” on different records.

In the study area, the ditch crosses private land and land managed by the TNF, where it is identified as FS 05-17-54-445. Outside the study area, segments of the ditch extend into the ENF, where it is referred to as FS 05-03-53-237. As shown on Map CUL 1-4 (Sheet 1 of 5), in the study area this ditch traverses both private land and land managed by the TNF.

The DPR 523 form for this resource was updated to include better location information than that contained in the previous records. The updated form is included in Confidential Appendix B.

FS-05-14-54-466. This is a historic mining site that includes a mining ditch, two adits, a foot trail, two metal tanks (possibly related to recent cattle grazing), and rock and soil piles. The record for this resource was not updated because no new information was collected during the survey. The unchanged USDA primary record is included in Appendix B for reference.

FS-05-17-54-467. This archaeological site is recorded as a house pit and is located north of the Middle Fork Interbay. The feature described as a house pit at FS-05-17-54-467 is ambiguous and may not be a cultural feature. No other types of cultural materials (i.e., flaked stone, ground stone, midden soil, etc.) were found in this location. The DPR form was updated to reflect the ambiguous nature of this site.

FS-05-17-54-468. This is recorded as a bedrock mortar and is located north of the Middle Fork Interbay. Field investigation in 2007 found only what appeared to be a natural depression on a boulder. No other types of cultural materials (i.e., flaked stone, ground stone, midden soil, etc.) were found at this location. The DPR form for this site was updated accordingly and is included in this Appendix B of this report.

FS-05-17-54-476. This resource is the remains of the Ralston Ditch. The “sister” of the Lambert Ditch, the Ralston Ditch was constructed by a combination of earth excavation and stone wall construction in the 1870’s to serve as a water conduit from the Middle Fork American River and possibly Coyote Springs to Ralston Ridge, 16 miles to the Southwest. The ditch was used until 1911 and still survives in segments ranging in length from tens of feet to several miles (PAR Environmental Services 2003: 9). The ditch was relocated and mapped by Forest Service personnel, and its location was further inspected by field crews in both 2006 and 2007.

The record for this resource was updated to reflect the newly recorded resource boundaries and is included in Confidential Appendix B. Outside the study area, this resource continues on ENF land under the designation FS-05-03-53-67, and onto private land (Anon. 1991; McLemore 1983).

P-31-1252. The resource recorded as P-31-1252 falls within the study area near the Oxbow Powerhouse, but it is a bedrock milling feature on a boulder that has clearly been moved well out of context by the river, and therefore does not represent an intact archaeological site. As the resource lacks integrity, it is not eligible for the NRHP, though it may still be considered a resource of interest by the USDA-FS.

The unchanged USDA primary record is included in Appendix B for reference. The record for this site was not updated because this does not represent an intact archaeological resource, and the object remains exactly as described in the original record (Ashkar and Gueyger 2001).

True “Sites” 1218, 1219, 1120. These three isolates were documented by True et al (1978) but were never formally recorded on DPR 523 forms. Site 1218 is an isolated piece of blue bottle glass and Site 1219 is described as a concrete pad, apparently for mounting equipment. True et al.’s report does not include a description of site 1120. None of these isolates could be relocated during the field surveys. As none of these had been formally recorded, and none were encountered during surveys, DPR 523 forms were not generated.

6.2 IDENTIFICATION AND RECORDATION OF PREVIOUSLY UNKNOWN CULTURAL RESOURCES

6.2.1 2006 Study Results

During the 2006 field surveys, one new archaeological resource (originally identified as PL-01, now identified as FS-05-03-55-681) and two isolated cultural resources (ISO-01 and ISO-02) were found. These three resources are identified on Table CUL 1-6 and their locations are shown on confidential Map CUL 1-4 (Sheet 2 of 5). As indicated,

these sites are concentrated near the upper end of Hell Hole Reservoir. New DPR 523 forms were prepared for these three resources and were included in the 2006 Cultural Resources Inventory Report (PCWA 2007a). These DPR forms, which include new maps showing land jurisdictions, are included in Confidential Appendix B of this report for reference. Each of these sites is briefly described in the following, organized by land jurisdiction.

Resources Located in the Eldorado National Forest

FS-05-03-55-681. This site was described in the 2006 report as PL-01, and the reader is referred to that document for a full description. The site is comprised of a sparse basalt lithic scatter and a historic tobacco tin. The site is located south of Hell Hole Reservoir, on the eastern end of the reservoir.

ISO-01. This isolated artifact is a basalt core discovered during the 2006 surveys. It was found on a bench of land overlooking Hell Hole Reservoir's northeastern shore.

Resources Located on Private Property

ISO-02. This isolated artifact is a crude basalt uniface discovered during the 2006 surveys. It was found east of Hell Hole Reservoir, within the FERC Project boundary, on land owned by PCWA.

6.2.2 2007 Study Results

During the 2007 field surveys, 14 previously unidentified resources were found and documented. These resources are listed in Table CUL 1-6 and their locations are shown on Map CUL 1-4 (5 sheets) in Confidential Appendix A. Note that some of the resources described below have been previously reported but not formally recorded and as such are reported here as "new" resources. DPR 523 forms were prepared for all of the "new" resources identified in 2007 and are included in Confidential Appendix B.

Resources identified in 2007 include prehistoric archaeological sites and isolates, and historic mining resources such as mining ditches and the remains of structures, as described in the following. The discussion is organized by land jurisdiction.

Resources Located in the Eldorado National Forest

FS-05-03-53-371. This site consists of a dirt road and the southwest footings of two bridges, located on the south shore of the Rubicon River near Ralston Afterbay. The northeast footings for these bridges have been destroyed. The south side of the river could not be reached, and therefore the full length and extent of the road could not be determined. This resource will be further examined in 2008 by boat.

This resource was also reported by PAR Environmental Resources (2003: 11-12), who identified it as MFAR-ISO-1 and described it as a railroad gauge. However, it was never formally recorded and no Forest Service number or trinomial was assigned.

FS-05-03-53-372. This site is the remains of a mining camp or small town on the west bank of the Middle Fork American River near the Oxbow Powerhouse. It was previously described by Rackerby (1965: 21) as Site H-25, but never formally recorded and no trinomial or Forest Service number has been assigned to this site. The site is on a sand bar at a relatively low elevation, and has been damaged along its northeast side by the river during high-water episodes. However, three excavated pits, six tailings piles, and two stone structure foundations remain intact. Historic garbage is spread thinly across the surface of the site, and is commingled with recent trash. None of the historic trash discovered during field work is time diagnostic.

FS-05-03-53-373. This site is a road along the south side of the Ralston Afterbay near the current water surface. The southeast terminus of the road is at the water's edge, indicating that the road had probably been built at some point prior to the construction of the hydroelectric facilities, though its exact age is currently unknown. Given the road's orientation and proximity to FS-05-03-53-371, it is likely that the use of this road was associated with the use of the bridges that had been located nearby. Prior to the construction of the Ralston Afterbay Dam, the road would likely have been somewhat higher above the water level. At this point, approximately 70 feet of the road still exists, giving way to erosion at the southeast edge, and to sheer mountain walls at the northwest end. The road could not be adequately documented due to a lack of access to the south side of the reservoir but will be surveyed in 2008 by boat.

FS-05-03-53-374. This site is a section of a placer mining ditch near a campground. The ditch was constructed entirely by excavation, and no stone walls or other similar structures are found along its length. It runs roughly parallel to a road, terminating where it turns to the west and intersects with the road. The southern end of the ditch is badly eroded and vanishes after approximately 240 feet.

FS-05-03-53-375. This site is a shallow bedrock mortar on a granite outcrop located south of road 14N09A. No associated artifacts were found nearby, but forest duff and snow on the ground precluded close inspection of the ground surface. This area will be further examined in 2008.

ISO-03. This isolated artifact is a basalt flake, either a third-stage reduction or possibly a biface-thinning flake. It was found at a site located just north of the Hell Hole OHV Trail (14N09A), west of the Hell Hole Vista.

Resources Located in the Tahoe National Forest

FS-05-17-54-478. This resource is a mining ditch near the Ralston Picnic Area. The recorded segment of the ditch runs for approximately 500 feet through the study area, and was constructed through a combination of excavation and stone wall construction. The ditch is eroded, but still clearly visible and identifiable. This ditch may be Site H-1 reported by Rackerby (1965:21) but never formally recorded. A road cut described by Rackerby is not present and the ditch is significantly closer to the current level of the river than is reported by Rackerby. It is possible that Rackerby found a different section

of the ditch to the north of the section reported here or reported an altogether different resource located in the general area.

FS-05-17-54-479. This resource is a road along the slope beneath the Middle Fork Interbay Access Road. The northern portion of the road appears to have been recently logged or used for access to cattle grazing areas. The southern portion of the road has been badly eroded, and contains several trees, some over six meters in height. Due to the state of degradation of the southern portion of the road, it is difficult to determine whether the larger trees are in or simply next to the roadway. It is therefore likely, though not certain, that the road is over 50 years old.

FS-05-17-54-480. FS-05-17-54-480 is a section of a mining ditch near one of the campgrounds near French Meadows. It runs for approximately 100 feet roughly parallel to the Middle Fork American River and was constructed entirely by excavating soil from the center of the ditch and piling it into berms on either side of the ditch.

FS-05-17-54-481. FS-05-17-54-481 is a berm constructed to divert a stream running near one of the campgrounds near French Meadows. The berm runs roughly north-south for approximately 500 feet with the southern terminus at the bank of the Middle Fork American River. At its southern terminus the berm is approximately 11 feet wide, ten feet tall on the eastern side (facing the diverted stream) and four feet tall on the western side.

ISO-04. This isolated artifact is a dark grey basalt decortication flake. It was found near one of the campgrounds near French Meadows, within a layer of rocks that appear to have been deposited by the river, and therefore may be out of context and may not indicate the presence of further archaeological materials.

ISO-05. This isolate is a mining adit located on the east side of the Middle Fork Interbay Access Road, approximately ½ mile south of the intersection with FR 96. The adit sits within the road cut, and the front of the adit has collapsed.

PL-02. This site is a segment of a mining ditch located west of the French Meadows Dam. This segment is approximately 0.3 miles long, and may be a previously unrecorded portion of FS-05-17-54-476. Further research will be performed in 2008 to determine if this resource should be subsumed into FS-05-17-54-476.

Resources Located on Private Land

The following previously unidentified site is located on private land.

PL-03. This site is the remains of a historic mining settlement located on private land along the northeast side of the Middle Fork American River near the Middle Fork American River Gage below Oxbow Powerhouse. The site consists of several mine tailings piles, several discreet historic trash dumps, and a complex of stone walls that includes a two-chamber structure (possibly a stamp mill). Diagnostic trash at this site (including cone-top beer cans, amethyst glass, and a car fender) are all consistent with

use during the late 19th through mid-20th centuries. However, it is possible that many features of this site date to much earlier periods in time given the following factors: (1) mining settlements had a tendency to creep upslope as the river bar and surrounding area was destroyed (Angel 1882:186-197, 214-225; Lardner and Brock 1924:173-179); (2) some mines operated in the area from the 1840's through the 1950's (Gudde 1975) and; (3) the time-sensitive trash may only indicate the period after which individual facilities had fallen out of use and were then used as dumping grounds.

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TABLES

Table CUL 1-1. Project Facilities Surveyed in 2006 and 2007.

Project Facility	Year Surveyed	Survey Method
Dams, Reservoirs, and Diversion Pools		
Large Dams		
French Meadows Dam and Outlet Works	2007	Mixed Complete Pedestrian Survey and Visual Reconnaissance
Hell Hole Dam and Outlet Works	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
Medium Dams		
Middle Fork Interbay Dam	2007	Visual Reconnaissance
Ralston Afterbay Dam	2007	Visual Reconnaissance
Small Dams		
Duncan Creek Diversion Dam	2007	Complete Pedestrian Survey
North Fork Long Canyon Diversion Dam	2007	Complete Pedestrian Survey
South Fork Long Canyon Diversion Dam	2007	Complete Pedestrian Survey
Large Reservoirs		
French Meadows Reservoir	2006	Mixed Complete and General Pedestrian Survey. A few locations will need to be surveyed in 2008.
Hell Hole Reservoir	2006	Mixed Complete and General Pedestrian Survey and Visual Reconnaissance
Medium Reservoirs		
Middle Fork Interbay	2007	Visual Reconnaissance
Ralston Afterbay	2007	Visual Reconnaissance To be surveyed by boat in 2008
Small Diversion Pools		
Duncan Creek Diversion Pool	2007	Complete Pedestrian Survey
North Fork Long Canyon Diversion Pool	2007	Complete Pedestrian Survey
South Fork Long Canyon Diversion Pool	2007	Complete Pedestrian Survey
Water Conveyance Systems		
Tunnels		
Duncan Creek - Middle Fork Tunnel		Not Surveyed - subsurface feature
French Meadows - Hell Hole Tunnel		Not Surveyed - subsurface feature
Hell Hole - Middle Fork Tunnel		Not Surveyed - subsurface feature
Middle Fork - Ralston Tunnel		Not Surveyed - subsurface feature
Ralston - Oxbow Tunnel		Not Surveyed - subsurface feature

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Water Conveyance Systems (continued)		
Diversion Pipes and Drop Inlets		
North Fork Long Canyon Diversion Pipe and Drop Inlet		To be Surveyed in 2008
South Fork Long Canyon Diversion Pipe and Drop Inlet	2007	Complete Pedestrian Survey
Surge Shafts and Adits		
Brushy Canyon Adit	2007	Complete Pedestrian Survey
Hell Hole - Middle Fork Tunnel Surge Shaft and Tank	2007	Complete Pedestrian Survey
Middle Fork - Ralston Tunnel Surge Shaft and Tank	2007	Visual Reconnaissance
Removable Sections and Portals		
Duncan Creek - Middle Fork Tunnel Portal	2006	General Pedestrian Survey
French Meadows - Hell Hole Tunnel Removable Section	2007	Complete Pedestrian Survey
Hell Hole - Middle Fork Tunnel Removable Section	2007	Complete Pedestrian Survey
Middle Fork - Ralston Tunnel Removable Section	2007	Visual Reconnaissance
North Fork Long Canyon Crossing Removable Section	2007	Complete Pedestrian Survey
Intakes and Gatehouses		
Duncan Creek - Middle Fork Tunnel Intake	2007	Complete Pedestrian Survey
French Meadows - Hell Hole Tunnel Gatehouse	2006	General Pedestrian Survey
French Meadows - Hell Hole Tunnel Intake	2006	Submerged - not surveyed
Hell Hole - Middle Fork Tunnel Gatehouse	2006	Visual Reconnaissance
Hell Hole - Middle Fork Tunnel Intake	2006	Submerged - not surveyed.
Middle Fork - Ralston Tunnel Intake and Gatehouse	2007	Visual Reconnaissance
Ralston - Oxbow Tunnel Intake	2007	Visual Reconnaissance
Penstocks and Valve Houses		
French Meadows Powerhouse Penstock and Butterfly Valve House	2007	Complete Pedestrian Survey
Middle Fork Powerhouse Penstock and Butterfly Valve House	2007	Complete Pedestrian Survey
Ralston Powerhouse Penstock and Butterfly Valve House	2007	Visual Reconnaissance
Powerhouses, Switchyards, and Substations		
French Meadows Powerhouse and Switchyard	2007	Visual Reconnaissance
Hell Hole Powerhouse	2006	General Pedestrian Survey
Middle Fork Powerhouse and Upper and Lower Switchyards	2007	Visual Reconnaissance
Ralston Powerhouse and Switchyard	2007	Complete Pedestrian Survey
Oxbow Powerhouse and Switchyard	2007	Visual Reconnaissance
Hell Hole Substation	2006	Visual Reconnaissance

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Gaging Stations and Weirs		
Stream Gages and Weirs		
Duncan Creek Gage and Weir above Diversion Dam (USGS Gage and Weir No. 11427700)	2007	Complete Pedestrian Survey
Duncan Creek Gage and Weir below Diversion Dam (USGS Gage and Weir No. 11427750)	2007	Complete Pedestrian Survey
Middle Fork American River Gage and Weir below French Meadows Dam (USGS Gage and Weir No. 11427500)	2007	Complete Pedestrian Survey
Middle Fork American River Gage at Interbay Dam (USGS Gage No. 11427770)	2007	Visual Reconnaissance
Middle Fork American River Gage above Middle Fork Powerhouse (USGS Gage No. 11427760)	2007	Visual Reconnaissance
Middle Fork American River Gage below Oxbow Powerhouse (USGS Gage No. 11433300)	2007	Complete Pedestrian Survey
North Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433085)	2007	Complete Pedestrian Survey
South Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433065)	2007	Complete Pedestrian Survey
Rubicon River Gage and Weir below Hell Hole Dam (USGS Gage and Weir No. 11428800)	2006	General Pedestrian Survey
Diversion Gages		
North Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433080)	2007	Complete Pedestrian Survey
South Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433060)	2007	Complete Pedestrian Survey
Reservoir Gages		
French Meadows Reservoir Gage (USGS Gage No. 11427400)	2006	Submerged - not surveyed
French Meadows Reservoir Staff Gage	2006	General Pedestrian Survey
Hell Hole Reservoir Gage (USGS Gage No. 11428700)	2006	Submerged - not surveyed
Hell Hole Reservoir Staff Gage	2006	Visual Reconnaissance
Middle Fork Interbay Reservoir Gage	2007	Visual Reconnaissance
Ralston Afterbay Reservoir Gage	2007	Visual Reconnaissance

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Gaging Stations and Weirs (continued)		
Powerhouse Gages		
French Meadows Powerhouse Gage (USGS Gage No. 11427200)	2006	Visual Reconnaissance
Middle Fork Powerhouse Gage (USGS Gage No. 11428600)	2007	Visual Reconnaissance
Oxbow Powerhouse Gage (USGS Gage No. 11433212)	2007	Visual Reconnaissance
Ralston Powerhouse Gage (USGS Gage No. 11427765)	2007	Complete Pedestrian Survey
Leakage Weirs		
French Meadows Dam Leakage Weirs Nos. 1 -- 6	2007	Complete Pedestrian Survey
Hell Hole Dam Leakage Weir	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
Project Communication Lines and Powerlines		
French Meadows Area		
French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	2006/2007	Mixed Complete and General Pedestrian Survey and Visual Reconnaissance
French Meadows Dam Generator Building to French Meadows Dam Spillway Gates Powerline	2006/2007	Mixed General Pedestrian Survey and Visual Reconnaissance
Hell Hole Area		
French Meadows Powerhouse to French Meadows Powerhouse Penstock and Butterfly Valve House Communication Line/Powerline	2006/2007	Mixed Complete Pedestrian Survey and Visual Reconnaissance
French Meadows Powerhouse and Switchyard to Hell Hole - Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator's Cottages, and Hell Hole Powerhouse Communication Line/Powerline	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
Dormitory and Cottages Water Supply Tank Powerline	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
Hell Hole Powerhouse to Rubicon River Gage and Weir below Hell Hole Dam Communication Line/Powerline	2006	Mixed General Pedestrian Survey
Middle Fork Interbay Area		
Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	2007	Visual Reconnaissance
Middle Fork Powerhouse Butterfly Valve House to Radio Repeater near Hell Hole - Middle Fork Tunnel Surge Tank (underground) Communication Line/Powerline	2007	Visual Reconnaissance
Middle Fork Powerhouse to Middle Fork - Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	2007	Visual Reconnaissance

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Project Communication Lines and Powerlines (continued)		
Middle Fork Interbay Area (continued)		
Middle Fork Powerhouse to Middle Fork American River Gage above Middle Fork Powerhouse Communication Line/Powerline	2007	Visual Reconnaissance
Ralston - Oxbow Area		
Ralston - Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	2007	Visual Reconnaissance, portions will be re-examined in 2008
Ralston Powerhouse to Ralston Powerhouse Butterfly Valve House Communication Line/Powerline	2007	Visual Reconnaissance
Ralston Afterbay Dam Generator Building to Ralston - Oxbow Tunnel Intake Communication Line/Powerline	2007	Visual Reconnaissance
Oxbow Powerhouse to Ralston Afterbay Dam Generator Building Communication Line/Powerline	2007	Mixed Complete Pedestrian Survey and Visual Reconnaissance
Photovoltaic Poles and Powerlines		
Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam	2007	Complete Pedestrian Survey
Photovoltaic Pole and Powerline at Duncan Creek Gage below Diversion Dam	2007	Complete Pedestrian Survey
Photovoltaic Pole and Powerline at Middle Fork American River Gage below French Meadows Dam	2007	Complete Pedestrian Survey
Photovoltaic Pole and Powerline at Middle Fork American River Gage above Middle Fork Powerhouse	2007	Visual Reconnaissance
Photovoltaic Pole and Powerline at North Fork Long Canyon Gage at Diversion Dam	2007	Complete Pedestrian Survey
Photovoltaic Pole and Powerline at South Fork Long Canyon Gage at Diversion Dam	2007	Complete Pedestrian Survey
Photovoltaic Pole at Middle Fork American River Gage below Oxbow Powerhouse	2007	Complete Pedestrian Survey
Microwave Reflectors and Radio Towers		
Passive Microwave Reflector Station above Middle Fork Interbay	2007	Complete Pedestrian Survey
Radio Communications Tower near French Meadows - Hell Hole Tunnel Gatehouse	2007	General Pedestrian Survey
Radio Communications Tower and Repeater near Hell Hole - Middle Fork Tunnel Surge Shaft and Tank	2007	Complete Pedestrian Survey

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Microwave Reflectors and Radio Towers (continued)		
Passive Microwave Reflector Station above Ralston Afterbay	2007	Complete Pedestrian Survey
Disposal Sites		
Duncan Diversion Dam Sediment Disposal Area	2007	Complete Pedestrian Survey
North Fork Long Canyon Crossing Sediment Disposal Area		Wide General Pedestrian Survey - to be re-surveyed in 2008
Middle Fork Interbay Sediment Disposal Area	2007	Complete Pedestrian Survey
Ralston Ridge Sediment Disposal Area	2007	Complete Pedestrian Survey
Indian Bar Sediment Disposal Area	2007	Complete Pedestrian Survey
Ancillary Facilities		
French Meadows Dam Generator Building	2007	General Pedestrian Survey
French Meadows Dam Staging Area	2007	Complete Pedestrian Survey
Dormitory Facility	2006	General Pedestrian Survey
Dormitory and Cottages Water Supply Tank	2006	General Pedestrian Survey
Hell Hole Staging Areas	2006	General Pedestrian Survey
Operator Cottages and Shop	2006	General Pedestrian Survey
Ralston Afterbay Dam Generator Building	2007	Visual Reconnaissance
Storage Building at Middle Fork - Ralston Tunnel Surge Shaft and Tank	2007	Visual Reconnaissance
Wabena Meadows Snow Course		To be surveyed in 2008
Miranda Cabin Snow Course		To be surveyed in 2008
Diamond Crossing Snow Course		To be surveyed in 2008
Talbot Camp Snow Course		To be surveyed in 2008
Project Fences		
Slope Fences		
French Meadows Powerhouse Penstock Rock Fence	2006	Visual Reconnaissance
French Meadows Powerhouse Slope Fence	2006	Visual Reconnaissance
Long Canyon Crossing Slope Fence	2007	Visual Reconnaissance
Middle Fork Powerhouse Upper Switchyard Slope Fence	2007	Visual Reconnaissance
Middle Fork Interbay Dam Slope Fence	2007	Visual Reconnaissance
Oxbow Powerhouse Slope Fence	2007	Visual Reconnaissance
Ralston Powerhouse Penstock and Butterfly Valve House Slope Fences	2007	Visual Reconnaissance
Ralston Powerhouse Slope Fence	2007	Visual Reconnaissance

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Project Fences (continued)		
Public Safety Fences		
Dormitory Facility Barrier Fence	2006	General Pedestrian Survey
Hell Hole Dam General Parking Area Barrier Fence	2006	General Pedestrian Survey
North Fork Long Canyon Crossing Removable Section Barrier Fence	2007	Complete Pedestrian Survey
Project Roads and Access Points		
Duncan Creek Area		
Duncan Creek Diversion Intake Road and Diversion Pool Access Point	2007	Complete Pedestrian Survey. A portion will have to be surveyed in 2008.
Duncan Creek Diversion Dam Road	2007	Complete Pedestrian Survey
Duncan Creek Diversion Pool Road and Access Point	2007	Complete Pedestrian Survey
French Meadows Area		
Duncan Creek - Middle Fork Tunnel Portal Road and Spillway Access Point	2006	General and Complete Pedestrian Survey and Visual Reconnaissance
French Meadows - Hell Hole Tunnel Gatehouse Road	2006	General Pedestrian Survey
French Meadows Dam Outlet Works and Leakage Weirs Road	2007	Complete Pedestrian Survey
French Meadows Dam Staging Area Road	2007	Complete Pedestrian Survey
Middle Fork American River Gage and Weir below French Meadows Dam Road	2007	Complete Pedestrian Survey
Hell Hole Area		
Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	2006	Visual Reconnaissance.
Rubicon River Gage and Weir below Hell Hole Dam Road	2006	General Pedestrian Survey
Hell Hole Dam Leakage Weir Road	2006	General Pedestrian Survey
Hell Hole Dam Spillway Northern Access Point	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
French Meadows - Hell Hole Tunnel Portal Road	2006	Mixed General and Complete Pedestrian Survey and Visual Reconnaissance
French Meadows Powerhouse Road	2006	Mixed Complete Pedestrian Survey and Visual Reconnaissance
Hell Hole - Middle Fork Tunnel Gatehouse Road	2006	Visual Reconnaissance

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Project Roads and Access Points (continued)		
Hell Hole Area(continued)		
Dormitory Facility Road	2006	General Pedestrian Survey
Hell Hole Dam Spillway Discharge Channel Road		To be surveyed in 2008
Long Canyon Area		
North Fork Long Canyon Diversion North Road	2007	Complete Pedestrian Survey
North Fork Long Canyon Diversion South Road		To be surveyed in 2008
North Fork Long Canyon Diversion Drop Inlet Road		To be surveyed in 2008
South Fork Long Canyon Diversion and Drop Inlet Road	2007	Complete Pedestrian Survey
North Fork Long Canyon Crossing Removable Section North Road and Parking Area	2007	Complete Pedestrian Survey
North Fork Long Canyon Crossing Removable Section South Road	2007	Complete Pedestrian Survey
Middle Fork Interbay Area		
Middle Fork Powerhouse Butterfly Valve House Road	2007	Complete Pedestrian Survey and Visual Reconnaissance
Middle Fork Powerhouse Penstock and Butterfly Valve House Road	2007	Visual Reconnaissance
Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	2007	Mixed Complete Pedestrian Survey and Visual Reconnaissance
Middle Fork Powerhouse Upper Switchyard Road	2007	Visual Reconnaissance
Ralston-Oxbow Area		
Brushy Canyon Adit Road	2007	Complete Pedestrian Survey
Oxbow Powerhouse Road	2007	Complete Pedestrian Survey
Ralston Powerhouse Butterfly Valve House Road	2007	Visual Reconnaissance
Ralston - Oxbow Tunnel Intake Road	2007	Visual Reconnaissance
Ralston Afterbay Road and Boat Ramp	2007	Visual Reconnaissance
Ralston Afterbay Dam Road and Afterbay Access Point	2007	Complete Pedestrian Survey
Ralston Afterbay Sediment Removal Access Point	2007	Complete Pedestrian Survey
Duncan Creek Area		
Duncan Creek Diversion Dam North Trail	2007	Complete Pedestrian Survey
Duncan Creek Diversion Dam South Trail	2007	Complete Pedestrian Survey
Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam Trail	2007	Complete Pedestrian Survey
Duncan Creek Gage and Weir above Diversion Trail	2007	Complete Pedestrian Survey
Duncan Creek Gage and Weir below Diversion Trail	2007	Complete Pedestrian Survey

Table CUL 1-1. Project Facilities Surveyed during 2006 and 2007 (continued).

Project Facility	Year Surveyed	Survey Method
Project Roads and Access Points (continued)		
French Meadows Area		
Middle Fork American River Gage and Weir below French Meadows Dam Trail	2007	Complete Pedestrian Survey
Middle Fork Interbay Area		
Middle Fork American River Gage above Middle Fork Powerhouse Trail	2007	Visual Reconnaissance
Passive Microwave Reflector Station above Middle Fork Interbay Trail	2007	Complete Pedestrian Survey
Ralston Afterbay Area		
Passive Microwave Reflector Station above Ralston Afterbay Trail	2007	Visual Reconnaissance
Middle Fork American River Gage below Oxbow Powerhouse Trail	2007	Complete Pedestrian Survey

Table CUL 1-2. Project Recreation Facilities and Associated Features Surveyed in 2006 and 2007.

Project Recreation Facility or Feature	Date Surveyed	Survey Method
French Meadows Area		
Ahart Campground	2007	Complete Pedestrian Survey
Coyote Group Campground	2006	Complete Pedestrian Survey
Poppy Campground	2006	General Pedestrian Survey
French Meadows Campground	2006	General Pedestrian Survey
Gates Group Campground	2007	Complete Pedestrian Survey
Lewis Campground	2006	General Pedestrian Survey
French Meadows Picnic Area	2006	General Pedestrian Survey
McGuire Picnic Area	2006	General Pedestrian Survey
French Meadows Boat Ramp	2006	General Pedestrian Survey
McGuire Boat Ramp	2006	General Pedestrian Survey
Hell Hole Area		
Big Meadows Campground	2007	Complete pedestrian survey and archaeological testing performed as part of campground rehabilitation project.
Hell Hole Campground	2007	Complete Pedestrian Survey
Upper Hell Hole Campground	2006	General Pedestrian Survey
Hell Hole Vista	2007	Complete Pedestrian Survey
Hell Hole General Parking Area	2006	Mixed General and Complete Pedestrian Survey
Hell Hole Boat Ramp Parking Area	2006	General Pedestrian Survey
Hell Hole Boat Ramp	2006	Visual Reconnaissance
Ralston Afterbay Area		
Ralston Picnic Area	2007	Complete Pedestrian Survey
Ralston Picnic Area Cartop Boat Ramp	2007	Complete Pedestrian Survey
Indian Bar Rafting Access and General Parking	2007	Complete Pedestrian Survey
Long Canyon Area		
Middle Meadows Group Campground	2007	Complete Pedestrian Survey
Project Recreation Facility Water Supplies and Associated Maintenance Trails		
Dolly Creek Water Supply	2007	Complete Pedestrian Survey
French Meadows Campground Water Supply and Trail	2006/2007	To be surveyed in 2008
Big Meadows Campground Water Supply and Trail	2007	Complete pedestrian survey east of campground, area west of campground to be surveyed in 2008
Middle Meadows Group Campground Water Supply and Trail		To be surveyed in 2008.

Table CUL 1-3. Dispersed Concentrated Use Areas Surveyed in 2006 and 2007.

Dispersed Concentrated Use Area	Year Surveyed	Survey Method
French Meadows Reservoir Area		
Area near French Meadows-Hell Hole Tunnel Gatehouse	2006	General Pedestrian Survey
Area immediately downstream of French Meadows Dam (both sides of river)	2007	Mixed Complete Pedestrian Survey and Visual Reconnaissance
Area located immediately northwest of French Meadows Dam	2007	Mixed Visual Reconnaissance and Complete Pedestrian Survey
Area near bridge over the Middle Fork American River, upstream French Meadows Reservoir	2006/2007	To be surveyed in 2008.
Duncan Creek Diversion Dam Area		
Area on north side of Duncan Creek Diversion Dam	2007	Complete Pedestrian Survey
Area near Duncan Creek Gage and Weir, upstream of Duncan Creek Diversion Dam	2007	Complete Pedestrian Survey
Area near new bridge crossing Duncan Canyon on the road to the Grizzly, etc.	2007	To be surveyed in 2008.
Hell Hole Reservoir Area		
Area on west side of Hell Hole Reservoir, between dam and Hell Hole Boat Ramp	2006	Mixed Visual Reconnaissance and General Pedestrian Survey
Grey Horse Area	2006	General Pedestrian Survey
Long Canyon Area		
Area surrounding South Fork Long Canyon Diversion Dam	2007	Complete Pedestrian Survey
Areas along South Fork Long Canyon Creek, downstream of South Fork Long Canyon Diversion Dam		To be surveyed in 2008
Middle Fork Interbay Area		
Shoreline area surrounding Middle Fork Interbay	2007	Visual Reconnaissance
Ralston Afterbay Area		
Ralston Afterbay Sediment Disposal Area	2007	Complete Pedestrian Survey
Shoreline area surrounding Ralston Afterbay	2007	Visual Reconnaissance
Area along Middle Fork American River, between Ralston Picnic Area and the new gage	2007	Complete Pedestrian Survey
Area at confluence of North Fork of the Middle Fork American River and Middle Fork American River	2007	To be surveyed in 2008
Indian Bar, Willow Bar, and Junction Bar Areas	2007	Complete Pedestrian Survey, except Junction Bar west of PL-06, to be surveyed in 2008

Table CUL 1-4. Project Facilities and Temporary Construction Areas Associated with MFP Proposed Betterments Surveyed during 2006 and 2007.

Proposed Facility	Year Surveyed	Survey Method
Hell Hole Reservoir Seasonal Storage Increase		
Hell Hole Dam		
Modified Facilities		
Hell Hole Dam Spillway Crest Gates	2006	Visual Reconnaissance
Hell Hole Dam Parapet Walls	2006	Visual Reconnaissance
New Facilities		
Hell Hole Dam Spillway Crest Gates Control Building	2006	Visual Reconnaissance
Hell Hole Dam Spillway Crest Gates Control Building Powerline	2006	General Pedestrian Survey and Visual Reconnaissance
Temporary Construction and Staging Areas		
Hell Hole Dam Spillway Crest Gates Construction Road	2006	Visual Reconnaissance
Hell Hole Dam Spillway Crest Gates Construction Work Area	2006	Visual Reconnaissance
Hell Hole Dam Spillway Crest Gates and Control Building Construction Staging Area	2006	Visual Reconnaissance
Hell Hole Dam Parapet Wall Construction Staging and Work Area	2006	Visual Reconnaissance
Hell Hole Dam Spillway Crest Gates Control Building Construction Work Area	2006	Visual Reconnaissance
Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Work Area	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	2006	Mixed General Pedestrian Survey and Visual Reconnaissance
Hell Hole-Middle Fork Tunnel Gatehouse		
Modified Facilities		
Hell Hole - Middle Fork Tunnel Gatehouse Parapet Wall	2006	Visual Reconnaissance
Temporary Construction and Staging Areas		
Hell Hole-Middle Fork Tunnel Gatehouse Parapet Wall Construction Staging and Work Area	2006	Visual Reconnaissance
French Meadows Powerhouse		
Modified Facilities		
French Meadows Powerhouse Parapet Wall	2006	Visual Reconnaissance.
Temporary Construction and Staging Areas		
French Meadows Powerhouse Parapet Wall Construction Staging and Work Area	2006	Visual Reconnaissance.

Table CUL 1-4. Project Facilities and Temporary Construction Areas Associated with MFP Proposed Betterments Surveyed during 2006 and 2007 (continued).

Proposed Facility	Year Surveyed	Survey Method
Hell Hole Reservoir Seasonal Storage Increase (continued)		
South Fork Long Canyon Diversion		
Modified Facilities		
South Fork Long Canyon Diversion Dam Crest Gates	2007	Complete Pedestrian Survey
New Facilities		
South Fork Long Canyon Diversion Dam Crest Gates Generator Building	2007	Complete Pedestrian Survey
Temporary Construction and Staging Areas		
South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	2007	Complete Pedestrian Survey
French Meadows Powerhouse Capacity Upgrade		
French Meadows Reservoir		
Modified Facilities		
French Meadows - Hell Hole Tunnel Intake Trash Rack		Not surveyed - area submerged
Temporary Construction and Staging Areas		
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Staging Area	2006	General Pedestrian Survey where not submerged
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Work Area	2006	General Pedestrian Survey where not submerged
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Road	2006	General Pedestrian Survey where not submerged
French Meadows Powerhouse		
Modified Facilities		
French Meadows Powerhouse Switchyard	2007	Visual Reconnaissance
New Facilities		
French Meadows Powerhouse	2007	Visual Reconnaissance
French Meadows Powerhouse Penstock	2007	Visual Reconnaissance
French Meadows - Hell Hole Tunnel Surge Shaft/Tank	2007	To be Surveyed in 2008
French Meadows - Hell Hole Tunnel Surge Pipeline	2007	To be surveyed in 2008
French Meadows - Hell Hole Tunnel Surge Shaft or Pipeline Road	2007	Complete Pedestrian Survey. A Portion to be Surveyed in 2008

Table CUL 1-4. Project Facilities and Temporary Construction Areas Associated with MFP Proposed Betterments Surveyed during 2006 and 2007 (continued).

Proposed Facility	Year Surveyed	Survey Method
French Meadows Powerhouse Capacity Upgrade (continued)		
Temporary Construction and Staging Areas		
French Meadows Powerhouse/Switchyard Construction Work Area	2006	Visual Reconnaissance.
French Meadows Powerhouse/Switchyard Construction Staging Area	2006	Visual Reconnaissance.
French Meadows Powerhouse Penstock Construction Work Area	2007	Visual Reconnaissance
French Meadows Powerhouse Penstock Construction Staging Areas	2007	Visual Reconnaissance
French Meadows - Hell Hole Tunnel Surge Shaft/Tank or Pipeline Construction Staging Areas	2007	To be Surveyed in 2008
French Meadows - Hell Hole Tunnel Surge Shaft/Tank Construction Work Area	2007	To be Surveyed in 2008
French Meadows - Hell Hole Tunnel Surge Pipeline Construction Work Area		To be Surveyed in 2008
French Meadows - Hell Hole Tunnel Surge Shaft or Pipeline Road Construction Staging and Work Area		To be Surveyed in 2008
Non-Project Facilities Modified During Construction		
Forest Road 14N09A	2007	Complete Pedestrian Survey
Forest Road 14N09A Construction Staging and Work Area	2007	Complete Pedestrian Survey
Middle Fork Powerhouse		
Modified Facilities		
Middle Fork Powerhouse Upper and Lower Switchyard	2007	Visual Reconnaissance
Ralston Powerhouse Capacity Upgrade		
Ralston Powerhouse		
Modified Facilities		
Ralston Powerhouse	2007	Complete Pedestrian Survey
Temporary Construction and Staging Areas		
Ralston Powerhouse Construction Staging Area	2007	Complete Pedestrian Survey

Table CUL 1-5. Summary of Previously Known Cultural Resources Examined in 2006 and 2007.

Identifier	Type	Description	Year Surveyed	DPR 523 Form or other Record in Appendix B
Eldorado National Forest				
FS-05-03-53-04	Historic and Prehistoric	Bedrock Mortars, Mining Ditch, and historic trash scatter	2007	Yes – updated DPR 523 Form
FS-05-03-53-64	Prehistoric	Bedrock Mortars, Flake Scatter	2007	Yes – updated DPR 523 Form
FS-05-03-53-65	Prehistoric	13 BRMs 39 cups, 3 slicks) petroglyphs, dense lithic scatter. Also referred to as CA PLA 1863	2007, as part of a separate study	Yes – updated DPR 523 form produced as part of a separate study
FS-05-03-55-201	Prehistoric	Bedrock milling features with pestles	2006	Yes – updated DPR 523 Form
Tahoe National Forest				
FS-05-17-54-06	Prehistoric	Bedrock milling station and flake scatter. Not relocated during 2006 field work.	2006	Yes – original archaeological record
FS-05-17-54-116	Prehistoric	Bedrock Mortars and Flake Scatter. Site boundaries expanded to include FS-05-17-54-370.	2007	Yes – updated DPR 523 Form
FS-05-17-54-214	Historic	Remains of a structure and domestic debris	2007	Yes – updated DPR 523 Form
FS-05-17-54-228	None	Natural depressions in rock originally mistaken for bedrock mortars	2006	Yes – updated DPR 523 Form
FS-05-17-54-370	Prehistoric	Flake scatter, subsumed into FS-05-17-54-116	2007	Yes – updated DPR 523 Form
FS-05-17-54-400	Prehistoric	Bedrock mortar	2007	Yes – updated DPR 523 Form
FS-05-17-54-445	Historic	Mining ditch. (Lambert Ditch). Also crosses land managed by the ENF where it is identified as FS-05-03-53-237.	2007	Yes – updated DPR 523 Form
FS-05-17-54-466	Historic	Mining site	2007	Yes – USDA Primary Record
FS-05-17-54-467	Prehistoric	Possible house pit. Ambiguous and may not be an archaeological feature.	2007	Yes – updated DPR 523 Form
FS-05-17-54-468	Prehistoric	Previously identified as a bedrock mortar. Determined to be a natural feature.	2007	Yes – updated DPR 523 Form

Table CUL 1-5. Summary of Previously Known Cultural Resources Examined in 2006 and 2007 (continued).

Identifier	Type	Description	Year Surveyed	DPR 523 Form in Appendix B
Tahoe National Forest (continued)				
FS-05-17-54-476	Historic	Mining ditch. (Ralston Ditch). Also crosses land managed by the ENF where it is identified as FS-05-03-53-67.	2006/2007	Yes – updated DPR 523 Form
P-31-1252	Prehistoric	Bedrock mortar in boulder. Not considered an archaeological site because it is out of context.	2007	Yes – USDA Primary Record
True Sites 1218, 1219, 1120	Historic	Previously reported by True et al (1978) but not formerly recorded. Could not be relocated during field surveys.	2007	No – no record available

Table CUL 1-6. Summary of Previously Unknown Cultural Resources Identified in 2006 and 2007.

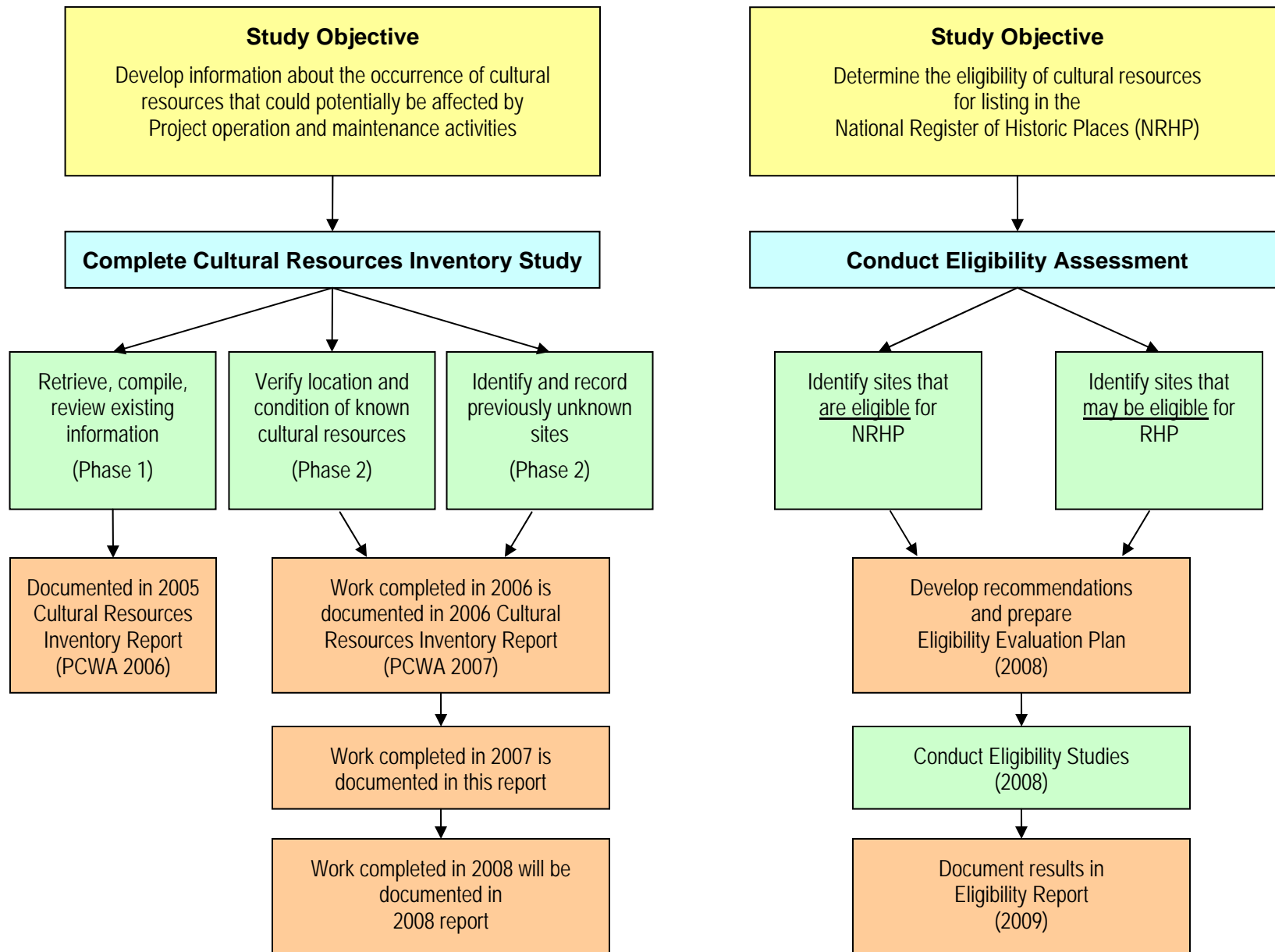
Forest Service Number	Field Identifier	Type	Description	Year Surveyed	New DPR 523 Form in Appendix B
Eldorado National Forest					
FS-05-03-53-371	PL-04	Historic	Dirt road and bridge footings. Previously reported by PAR Environmental as site MFAR-ISO-1 but not formerly recorded.	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-03-53-372	PL-06	Historic	Mining settlement - Rackerby's site H-25 but never formerly recorded.	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-03-53-373	PL-08	Historic	Road	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-03-53-374	PL-10	Historic	Mining ditch	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-03-53-375	PL-11	Prehistoric	Bedrock Mortar	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-03-55-681	PL-01	Prehistoric and Historic	Sparse lithic scatter and a tobacco tin	2006	Yes - in 2006 Cultural Resources Inventory Study Report. Updated form/map provided in this report.
N/A	ISO-01	Prehistoric	Basalt core	2006	Yes - in 2006 Cultural Resources Inventory Study Report. Updated form/map provided in this report.
N/A	ISO-03	Prehistoric	Basalt Flake	2007	Yes - in 2007 Cultural Resources Inventory Study Report.

Table CUL 1-6. Summary of Previously Unknown Cultural Resources Identified in 2006 and 2007 (continued).

Forest Service Number	Field Identifier	Type	Description	Year Surveyed	New Site Record
Tahoe National Forest					
FS-05-17-54-478	PL-05	Historic	Mining ditch - Possibly Rackerby's site H-1 but never formerly recorded.	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-17-54-479	PL-07	Historic	Road	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-17-54-480	PL-12	Historic	Mining ditch	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
FS-05-17-54-481	PL-13	Historic	Stream diversion berm	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
N/A	ISO-04	Prehistoric	Basalt Flake	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
N/A	ISO-05	Historic	Mining Adit	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
N/A	PL-02	Historic	Short mining ditch segment	2007	Yes - in 2007 Cultural Resources Inventory Study Report.
Private					
None	ISO-02	Prehistoric	Isolated artifact - basalt uniface	2006	Yes - in 2006 Cultural Resources Inventory Study Report. Updated form/map provided in this report.
None	PL-03	Historic	Mining site - consists of tailings piles, several trash scatters, and building foundations.	2007	Yes - in 2007 Cultural Resources Inventory Study Report.

FIGURE

Figure CUL 1-1. CUL 1 – Cultural Resources Study Objectives and Related Study Elements and Reports.



MAPS

Placeholder for

APPENDIX A

Resource Location Maps - Map CUL 1-4 (includes 5 sheets)

Cultural Resources Identified in 2006 and 2007

Privileged Information

Appendix A has been removed from this document because it contains the location(s) of sensitive cultural resources and is considered "privileged" information. Privileged cultural resources information is located in Volume 5 which may not be made available to the public pursuant to the Federal Energy Regulatory Commission's (FERC's) regulations contained in 36 CFR 800.11(c)(1). This information is not maintained in FERC's Public Reference Room or on the Commission's electronic library except as an indexed item.

Placeholder for

APPENDIX B

Department of Parks and Recreation (DPR) Forms and other Records

Privileged Information

Appendix B has been removed from this document because it contains the location(s) of sensitive cultural resources and is considered "privileged" information. Privileged cultural resources information is located in Volume 5 which may not be made available to the public pursuant to the Federal Energy Regulatory Commission's (FERC's) regulations contained in 36 CFR 800.11(c)(1). This information is not maintained in FERC's Public Reference Room or on the Commission's electronic library except as an indexed item.