Oneida Site Plan

Prepared for:

PacifiCorp
Portland, Oregon

Prepared by:

Cirrus Ecological Solutions, LC
Logan, Utah

September 8, 2008

Table of Contents

List of Tables ii
List of Figures ii
1. Introduction 1
1.1 Purpose and Context 1
1.2 Planning area 4
1.3 Desired Future Conditions 5
1.4 Organization of this plan 5
2. Site Description 8
2.1 Site Overview 8
2.2 LMP Category Designations 11
2.2.1 Conservation Land 13
2.2.2 Project Operations Land 13
2.2.3 Developed Recreation Areas 13
2.2.4 Agricultural Lease Areas 14
2.2.5 Land Management Category Summary 14
2.3 Current Parcel Conditions 15
2.3.1 Cottonwood Creek Parcel 15
2.3.2 Oneida Plant Parcel 15
2.3.3 Westside Parcel 19
2.3.4 Eastside Parcel 21
2.3.5 Redpoint Parcel 21
2.3.6 Mink Creek Parcel 24
2.4 Environmental Conflicts 27
3. Implementation Plan 31
3.1 Cottonwood Creek parcel 31
3.1.1 Public Access 31
3.1.2 Vegetation Management 31
3.1.3 Wetland and Riparian Habitat Management 32
3.2 Oneida Plant Parcel 32
3.2.1 Public Access 32
3.2.2 Vegetation Management 32
3.2.3 Wetland and Riparian Habitat Management 32
3.3 Westside Parcel 33
3.3.1 Public Access 33
3.3.2 Vegetation Management 33
3.3.3 Wetland and Riparian Habitat Management 33
3.3.4 Agricultural Uses 33
3.4 Eastside Parcel 35
3.4.1 Public Access 35
3.4.2 Vegetation Management 35
3.4.3 Wetland and Riparian Habitat Management 35
3.4.4 Agricultural Uses 35
3.5 Redpoint Parcel 35
3.5.1 Public Access 35
3.5.2 Vegetation Management 36
3.5.3 Wetland and Riparian Habitat Management 36
3.5.4 Agricultural Uses 36
3.6 Mink Creek Parcel 37

3.6.1 Public Access 37
3.6.2 Vegetation Management 37
3.6.3 Wetland and Riparian Habitat Management 37
3.7 Area-Wide Management 37
3.7.1 Road Maintenance 38
3.7.2 Recreation Management 38
3.7.3 Road and Recreation Monitoring 39
3.8 Implementation Schedule 41
4. Monitoring 49
4.1 Compliance Monitoring 49
4.1.1 General Compliance 49
4.1.2 Forage Utilization 50
4.2 Performance Tracking 51
5. Appendices 53
Appendix A: Land Management plan land use standards A-1
Appendix B: Noxious Weeds and Non-native plant List B-1
Appendix C: forage utilization monitoring information C-1
Appendix D: compliance monitoring form D-1
Appendix E: performance tracking form E-1
Appendix F: Reference Photograph Guidance F-1
Appendix G: Motorized Vehicle Road Designation G-1

LIST OF TABLES

Table 1. Desired Future Conditions. 7
Table 2. Parcel acreages by land management category. 14
Table 3. Environmental conflicts. 27
Table 4. Implementation Schedule for the Oneida Site Plan. 41
Table 5. Levels of forage utilization. 51

LIST OF FIGURES

Figure 1. Oneida Development planning area 6
Figure 2. Oneida Project Road. 9
Figure 3. LMP land use caegories. 12
Figure 4. Cottonwood Creek Parcel. 16
Figure 5. Oneida Plant Parcel 17
Figure 6. Westside Parcel 20
Figure 7. Eastside Parcel. 22
Figure 8. Redpoint Parcel 23
Figure 9. Mink Creek Parcel. 25
Figure 10. Potential campground site 40

1. INTRODUCTION

PacifiCorp Energy, a MidAmerican Energy Holdings Company (PacifiCorp), and the Federal Regulatory Energy Commission (FERC) recently completed the relicensing process for the Bear River Hydroelectric Project (Project), FERC Project No. 20. Among the conditions of the new license was development of a land management plan for PacifiCorp-owned land within the FERC Project boundary. This Plan was to address various concerns associated with natural resources, safety, recreation, and agricultural activities identified through the relicensing process. In response to this requirement, the *Land Management and Shoreline Buffer Plan* (LMP), covering all PacifiCorp-owned land in the planning area, was prepared in consultation with the stakeholder group, the Environmental Coordination Committee (ECC). The LMP called for the development of detailed site plans for specific, PacifiCorp-owned parcels. This *Oneida Site Plan* (Plan) covers PacifiCorp-owned property at the Oneida Project.

PacifiCorp uses an Environmental Management System (EMS) based on the ISO 14001 standard to provide a continual cycle of planning, implementing, reviewing and improving our work to meet business goals and regulatory requirements. This Plan is designed to fit within the EMS system to provide clear guidance for land management in concert with environmental regulations and other commitments. In addition, like our EMS program, this Plan integrates environmental considerations into routine operations; this is "how we work."

The ECC brought a multidisciplinary perspective and knowledge base to bear on review of site-specific resource issues and constraints affecting each of the parcels in the planning area (Section 2.3) and on development of management actions to address resource conflicts. The parcel-specific management plans outlined in Section 3 of this Plan were developed combining Project-wide direction (Section 1.1) with PacifiCorp/contractor and ECC expertise to identify specific, practical, management actions.

1.1 PURPOSE AND CONTEXT

PacifiCorp own and operates the Project. Located on the Bear River in southeastern Idaho, the Project consists of three hydroelectric developments, Soda, Grace, and Oneida. The FERC relicensed the three developments as a single project on December 22, 2003. The Parties approved a Settlement Agreement (Agreement) during the relicensing process. The Agreement was the outcome of negotiations between PacifiCorp and 16 stakeholder participants who represented various regulatory and land management agencies and interest groups, which were subsequently brought together to form the ECC in compliance with Article 402 of the new FERC License (License). Site plans are prepared in response to relicensing-process requirements for detailed plans establishing environmentally sound management of PacifiCorp owned land within the FERC Project boundary.

The Agreement and License include a number of protection, mitigation, and enhancement (PM&E) measures designed to address the effects of Project operations and maintenance on natural resource, cultural and historic resources, safety, recreation, and agricultural activities on land occupied by the Soda, Grace, Cove, and Oneida projects. Most of these measures were incorporated as articles into the new License with little or no modification. Specific measures relevant to the site planning process are discussed in detail below.

As stipulated in the Agreement and the License (Article 424), PacifiCorp prepared the 2004 LMP for its land within the FERC Project boundary (including additional land added per Article 427). The LMP also fulfills many requirements included in Article 425 that call for development of a Shoreline Buffer Zone Plan.

License Article 425 also calls for revision of existing grazing and agricultural leases, and site plans are to provide: (1) assessments of the current agricultural and grazing practices; and (2) recommendations for management that will later be reflected in the updated lease agreement. The updated lease agreements are to include the following stipulations:

- Lessees will report grazing use levels to PacifiCorp monthly.
- Lessees will maintain all fences, gates, water ditches, irrigation systems, and other improvements in workable condition.
- Lessees will not use trucks, tractors, or other large vehicles off of designated roads or conduct supplemental feeding operations, except when conditions warrant it.
- Lessees will not sub-lease PacifiCorp property.

In addition, updated leases will establish an appropriate, pasture-specific grazing system(s) that specify grazing duration (turn-on and turn-off dates) and the maximum number of animal units (AUs) permitted in the lease area. They will also establish annual forage utilization and range condition monitoring systems.

PacifiCorp also prepared a *Recreation and Traffic Safety Plan* (RTSP) required by the Agreement and License (Articles 416 and 417, including additional land added per Article 427), which addresses operation and maintenance of recreation facilities and implementation of traffic safety measures.

License Article 416 stipulated the following RTSP measures specific to Oneida Project recreation sites: (1) provide an annual reimbursement to the BLM for the management and maintenance of Maple Grove and Redpoint campgrounds, (2) provide funding to the BLM to upgrade and improve facilities at the Maple Grove and Redpoint campgrounds; and (3) make improvements to the put-in and take-out access points on the Oneida reach. As the Maple Grove and Redpoint campgrounds are all or in part on BLM administered land and are operated and maintained by the BLM, they are not considered part of the planning area addressed in this Plan. The boating put-in is on PacifiCorp land and the take-out is on BLM land adjacent to PacifiCorp land. Since PacifiCorp is responsible for development and maintenance of these sites, both are considered part of the planning area.

The RTSP also identified specific improvements to the Oneida Project Road, most required by Article 417, that are discussed in detail in Section 3.7.1.

In addition to license-specific stipulations, PacifiCorp has an established recreation-related monitoring program for the Project, which is a component of the EMS. PacifiCorp documents the status and effectiveness of its recreation management actions via reports. The EMS requires PacifiCorp to address each nonconformance issue related to public use, recreation safety, road maintenance, and environmental impacts at 5-year intervals in consultation with the ECC and the FERC. Recreational use monitoring is also required over the term of the new license by FERC,

per Form 80 reporting requirements. Potential dispersed recreation and public use impacts will be monitored as a component of the LMP. These recreational monitoring requirements are not necessarily parcel-specific, but rather span the complete planning area. As such, recreational monitoring compliance and implementation are tracked area-wide under this Plan. These monitoring requirements are discussed in detail in Section 3.7.2 and 3.8.

Some management requirements included in License Articles 416 and 417 and the RTSP (see RTSP p.9 and Table 4.2-2) are not directly linked to the environmental conflicts identified and addressed by this Plan. These generally involve management of the Oneida Project Road and monitoring of recreational use of the planning area. To insure that the monitoring called for under this Plan is comprehensive, these requirements are included in the compliance monitoring and performance tracking forms attached to this Plan (see Appendices C and D, respectively).

In terms of recreation management on BLM land within the FERC Project boundary at Oneida, the RTSP states that PacifiCorp will coordinate with the BLM to implement the *Pocatello Planning Area Resource Management Plan/Environmental Impact Statement* (RMP/EIS). The RMP/EIS is currently being prepared, and it suggests designation of the Oneida Narrows Canyon as a BLM Special Recreation Management Area (SRMA). Special management areas are BLM administrative units established to provide specific recreational activity and opportunities on a sustained yield basis. Following designation of the Oneida Narrows SRMA, the BLM will develop a plan specifically addressing its management. Due to the expansion of the FERC Project boundary to include more BLM land as a result of the relicensing process (Article 427), the BLM has indicated that they will insure consistency between the SRMA plan and this Plan.

Overall, PacifiCorp and the BLM agree that site-specific recreation-related management actions and measures should complement the RTSP and the BLM's plans, especially in regard to off-highway vehicle (OHV) use, overnight camping, river access sites, dispersed recreation management, and agricultural policies, actions and measures on FERC Project land within the planning area.

The LMP describes the requirement for site plans, stating (p. 69): "Using the LMP's guidelines, land management classifications, and specific management actions, PacifiCorp will consult with the ECC to prioritize, develop, and implement site plans at each of the Project developments, or portions thereof. It is expected that PacifiCorp will develop the site plans within 5 years after the LMP is approved by the ECC and the FERC. These site plans will document site-specific actions needed to help meet ECC goals, including:

- Identifying agricultural lease boundaries.

- Depicting locations of public use areas (where to focus dispersed recreation use), livestock and security fences, and watering access sites.

- Assessing grazing and crop management (stocking rate, standards for determining forage utilization, etc.).

- Identifying specific sites in need of restoration and defining methods for restoration, including grading, seeding and/or planting, as well as preventative measures necessary to maximize site protection (e.g., control of recreation and agriculture use). Criteria for restoration needs are developed through consultation with the ECC and are based on size

of impacted site, impacts on water quality and fish and wildlife habitat, and extent of deviation from Desired Future Conditions.

- Reviewing allowed uses in different areas.
- Providing cost estimates for each action.
- Prioritizing management actions and site plan preparation sequence.

Since release of the LMP, PacifiCorp has reconsidered the utility of providing cost estimates for management actions in site plans. This Plan does not include such estimates, and financial considerations are managed by PacifiCorp as this Plan is implemented.

The guidance summarized above from the Agreement, License, LMP, and RTSP provides a framework for site-specific planning. The Parties recognize that on-site constraints and opportunities require some flexibility in implementing this guidance within a given site plan.

1.2 PLANNING AREA

The Oneida Project is located in Franklin County, Idaho, approximately 20 miles north of the Utah border near the town of Preston, Idaho. The 22 miles of river separating the Cove Powerhouse and Oneida Reservoir are not included in the FERC Project boundary. The Oneida Development Project planning area (Figure 1) includes the following six parcels of PacifiCorp-owned land. To make this Plan more comprehensive and to facilitate effective implementation, PacifiCorp land included in these parcels that is outside the FERC Project boundary was included in the planning area. Note also that the FERC Project boundary includes BLM land that is not part of the planning area.

1. The Cottonwood Creek Parcel is the northern-most parcel within the FERC Project boundary, lying at the extreme northern end of the reservoir. It includes only about 7 acres (of a total of 103 acres) that are above the normal water line; thus, there are relatively few management issues associated with this parcel.

2. The Oneida Plant Parcel is approximately 209 acres, located below the reservoir on either side of the river. Two acres are under water and not addressed further in this Plan. This parcel contains all project operations located within the planning area.

3. The Westside Parcel is approximately 144 acres, located on the west side of the river, downstream from and abutting the Oneida Plant Parcel. Much of this parcel has historically been leased for agriculture.

4. The Eastside Parcel is approximately 168 acres, located adjacent to the Westside parcel on the east side of the river. Much of this parcel has historically been leased for agriculture.

5. The Redpoint Parcel is approximately 160 acres, located on the east side of the river, downstream from and abutting the Eastside Parcel. Much of this parcel has historically been leased for agriculture. A small portion of the Redpoint Campground is located on PacifiCorp land on this parcel. The remainder is on adjacent BLM land.

6. The Mink Creek Parcel is approximately 336 acres, located at the entrance of the Oneida Narrows approximately 5.5 miles downriver from Oneida dam. Nearly the entire parcel is outside the FERC Project boundary. Much of this parcel has historically been leased for grazing.

1.3 DESIRED FUTURE CONDITIONS

The LMP stipulates that site plans identify Desired Future Conditions for land in their planning area. The LMP also categorizes land management issues under four headings, Public Access, Vegetation Management, Wetland and Riparian Habitat Management, and Agricultural Uses. Desired Future Conditions associated with these land management issues and specific to the Oneida planning area were developed based on the land use standards outlined in the LMP for each issue (see Appendix A in this document), ECC input, and on-site review by PacifiCorp and contractor personnel. These Desired Future Conditions are detailed in Table 1.

1.4 ORGANIZATION OF THIS PLAN

Section 2, Site Description, follows this Introduction and provides an overview of the Oneida planning area. Section 2 then describes the land management categories established by the LMP for the planning area. The section goes on to describe the current condition of natural resources and their uses on the six planning-area parcels. The section concludes with a summary of parcel-specific environmental conflicts. These conflicts are organized according to the four broad issues identified by the LMP (Section 1.3): Public Access, Vegetation Management, Wetland and Riparian Habitat Management, and Agricultural Uses.

Section 3, Implementation Plan, describes how this Plan will rectify the parcel-specific environmental conflicts identified in Section 2. These management actions track the Project-level management direction described above (Section 1.1) as well as additional management recommendations identified through this planning process. Like the conflicts they address, these management actions are organized under the headings of Public Access, Vegetation Management, Wetland and Riparian Habitat Management, and Agricultural Uses. Section 3 concludes with a schedule for implementation of the corrective actions required to achieve Desired Future Conditions (Section 1.3) on each of the six parcels.

Section 4 of this Plan describes two aspects of monitoring. The first component, compliance monitoring (Section 4.1), determines whether planned management actions actually take place and sets the stage for appropriate revisions to the implementation plan and/or schedule. The second component, performance tracking (Section 4.2), documents whether management actions, once implemented, result in adequate progress toward Desired Future Conditions. If this is not the case, the action plans are adjusted accordingly (see LMP Section 2.4).

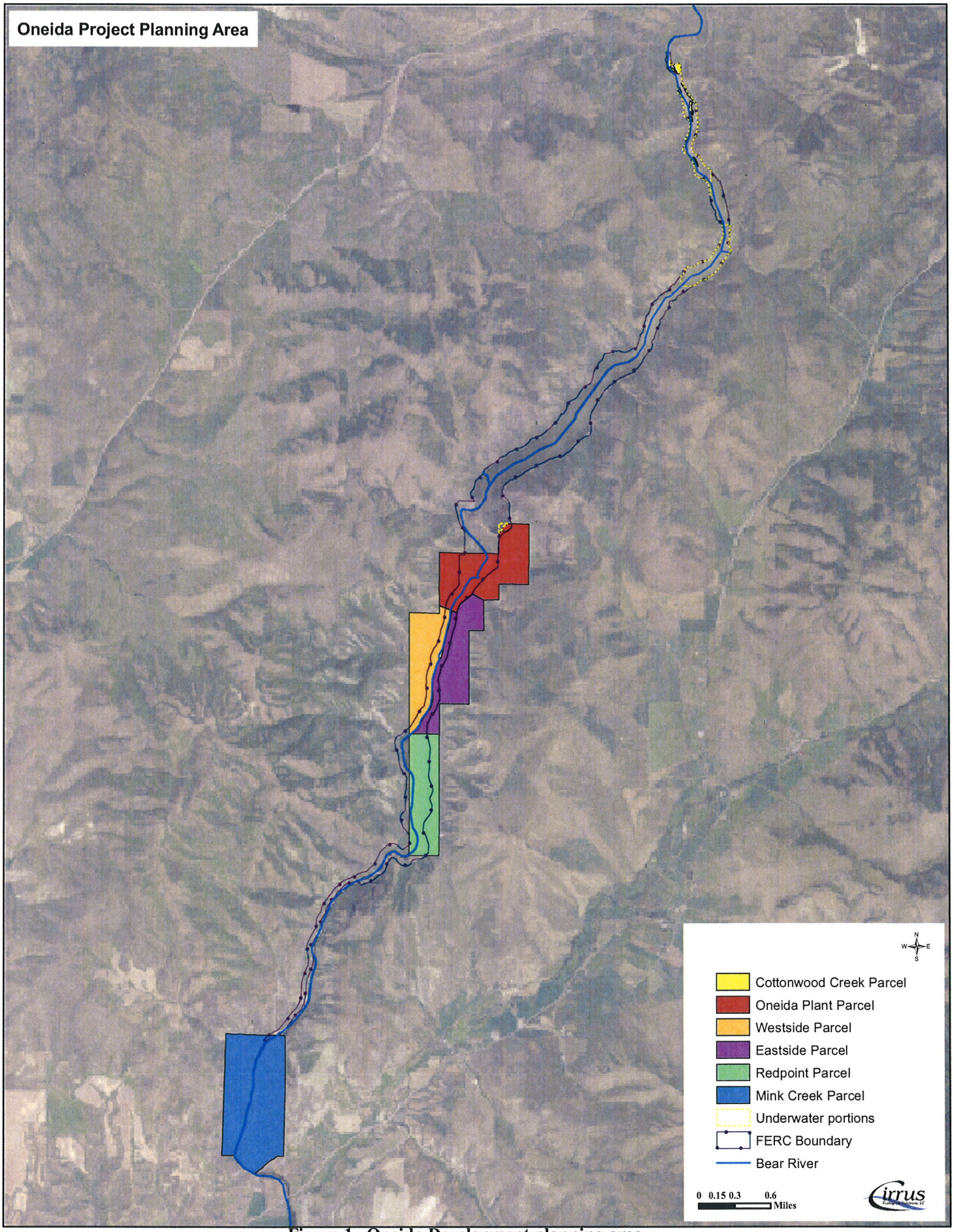


Figure 1. Oneida Development planning area.

Table 1. Desired Future Conditions.	
Issue	**Desired Future Condition**
Public Access	Viable recreational uses are maintained and/or improved. Disturbed land is improved to restore healthy vegetation communities. Road maintenance activities are appropriate to reduce sidecast to riparian areas and wetlands and to minimize the spread of noxious weeds. Roadways are maintained to allow for adequate public access. Public signage is visible and appropriate to the location. Boundaries correctly reflect current ownership and land use. Adequate fencing and gates exist to limit disturbance. Dispersed camping is eliminated; overnight use occurs only in designated campgrounds. A third campground location, accessible to RVs, is developed by the BLM in the Oneida Project planning area in accordance with PacifiCorp/BLM agreements. OHV use is prohibited except for street-legal OHVs on designated road.
Vegetation Management	Native and other desired plant communities, including sagebrush steppe habitats, are maintained and managed appropriately. The extent of undesirable or weedy vegetation is reduced and treatments are undertaken as necessary.
Wetland and Riparian Habitat Management	Wetland and riparian resources, spring complexes, and the river shoreline are buffered and protected. Riparian impacts associated with ongoing dispersed camping are eliminated. Riparian zones, wetlands, and aquatic resources are healthy and show improved functioning. Livestock watering sources are appropriately placed and maintained.
Agricultural Uses	Activities on leased land are consistent with the objectives of the Agreement, the LMP, and other applicable resource management plans. Livestock grazing is managed appropriately by season, intensity, animal-units (AU) and duration. Grazing lease boundaries, pasture boundaries within leases, and conservation areas are delineated and fenced as appropriate. Lessees are actively engaged in meeting management objectives.

2. SITE DESCRIPTION

This section begins with an overview of the Oneida Project area, then a brief discussion of the land management categories established by the LMP, which provide guidance considered in the parcel-specific portions of this Plan. A description of current conditions on each of the six parcels follows, and the section concludes with a summary of the environmental issues and conflicts evident on each parcel.

2.1 SITE OVERVIEW

The Oneida Project is located in Franklin County, Idaho, approximately 13 miles northeast of the city of Preston. Historically, the area was settled gradually following the Lewis and Clark Expedition in the early 1800s. The discovery of gold in the mid-1800s further stimulated population growth, and hydroelectric power was developed along the Bear River – including the Oneida Project in 1915 – to support the demands of the mining industry and the growing population. Currently, the area's economy is largely agriculture-based and is supported by beef, dairy, potato, grain and hay farming as well as manufacturing and phosphate mining. Fishing, camping, tubing, canoeing, and kayaking are common recreational activities on the Bear River and throughout the Oneida Project area.

PacifiCorp owns about 1,120 acres in the Oneida Project area, 342 of which are within the FERC Project boundary. As noted above (Section 1.2), the planning area includes an additional 778 acres of PacifiCorp land outside the FERC boundary to make this Plan more comprehensive, to facilitate its effective implementation, and to improve land stewardship overall. Of the 1,120-acre total, 98 acres are located under Oneida Reservoir. Land under water is not technically "managed," so the effective planning area is 1,022 acres.

There are currently two developed BLM campgrounds in the planning area, Redpoint and Maple Grove. Maple Grove Campground is entirely on BLM land. It includes 12 sites, each with the capacity to hold up to two vehicles and no more than 20 people. Redpoint Campground is mostly on BLM but also includes PacifiCorp land. It has 9 sites with a maximum capacity of two vehicles at each site and up to 20 people. Both campgrounds operate at or near capacity throughout the summer season.

The Oneida Project Road (Figure 2) and the Maple Grove Road are the primary access routes for the planning area. The Oneida Project Road intersects Highway 36 approximately 8 miles from its terminus at Maple Grove Campground. Franklin County paves and maintains the first mile of the Oneida Project Road. PacifiCorp has historically maintained the remaining 7 miles, grading it and graveling some portions. Beyond the Oneida Plant, PacifiCorp keeps the road segment from the Oneida Day Use Area to the Maple Grove Campground in a condition suitable for passenger car use from mid-May through mid-September.

Access from the north to the Maple Grove Campground and points south is via Maple Grove Road, an approximately 5-mile-long county (from Highway 34 to the Maple Grove Hot Springs) and private (from the hot springs to Maple Grove Campground) gravel and dirt road off of Highway 34. Franklin County and private landowners seasonally maintain most of this road. However, the portion of Maple Grove Road from the hot springs to Maple Grove Campground is not regularly maintained.

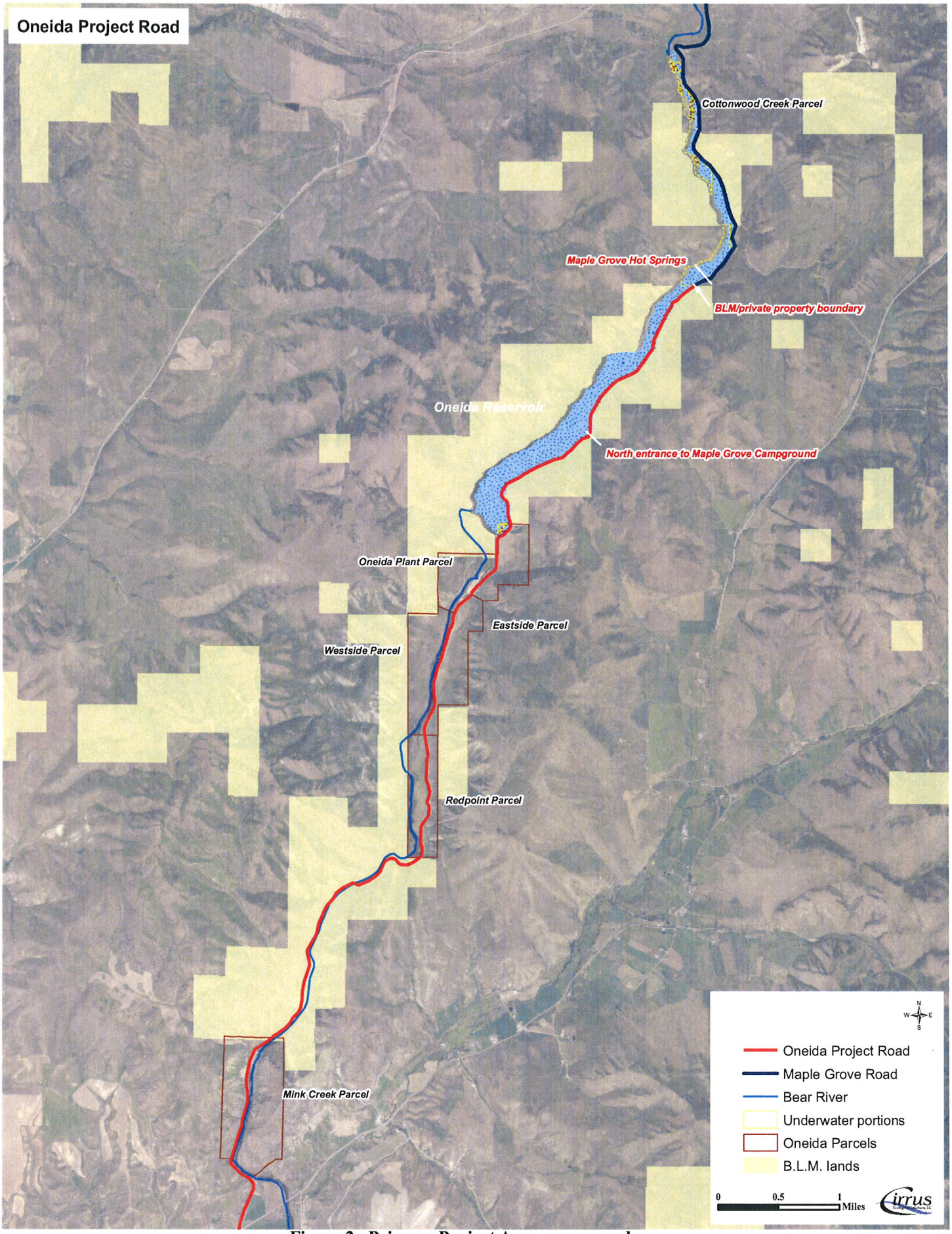


Figure 2. Primary Project Area access roads.

The Bear River runs along much of the length of both roads. Most of the riparian area within the planning area occurs along these roads. There are numerous undesignated riverside day-use and dispersed camping sites along the roads and in the riparian areas.

There are about 17 dispersed campsites along the river above Redpoint Campground. Impacts associated with dispersed recreation at these sites include soil compaction and erosion, reduced riparian values, litter, trampled vegetation, tree cutting, and vandalism. Unregulated OHV trails access PacifiCorp-owned land from the east and the west.

Maple Grove Hot Springs is a privately-owned, commercial recreation area located near the north end of Oneida Reservoir on Maple Grove Road. It is the only private land within the Oneida Project area that is not owned by PacifiCorp. Its close proximity to the FERC Project boundary and the PacifiCorp-owned land adds importance to the issue of accurate delineation of property boundaries.

Portions of three PacifiCorp parcels (Westside, Eastside, and Redpoint parcels) comprise the single agricultural lease within the Oneida Project planning area, totaling 340 acres. Prior to 2004 when the lease changed hands, this land produced crops and/or livestock for at least the last 30 years.

The current lessee uses the Eastside and Redpoint parcels for alfalfa production and does not use the Westside Parcel. The current lease agreement does not authorize cattle grazing. The lease agreement has not yet been revised to comply with the FERC Relicensing Agreement, Article 425. Other (non-agricultural) uses of this land were explored as part of this site-plan development process.

PacifiCorp-owned land comprising the development supports sagebrush steppe, box elder woodland, and juniper/maple woodland on the hillsides and cropland/pasture, cottonwood woodland, and riparian shrubland on the floodplain terraces. The steep, narrow canyon limits the riparian habitat to a narrow zone along the Bear River. Overall there are approximately 48 acres of wetland and riparian habitat within the FERC Project boundary in the planning area. Weeds are scattered throughout the riparian area and can be locally abundant. A list of noxious weeds and other, non-native plant species observed in the planning area is attached (Appendix B). The following, parcel-specific discussions provide additional detail on vegetation communities and weeds.

These diverse planning area habitats support a range of wildlife, including upland game birds, deer and elk, small mammals, waterfowl, neotropical migrant birds, reptiles, amphibians, raptors, and fish. Since their occurrence is habitat specific rather than parcel specific, an area-wide account of wildlife presence is provided here, and the following parcel-specific sections do not address wildlife.

The planning area's croplands and upland habitats are used by an array of upland game birds including ring-necked pheasants, gray partridge, sharp-tailed grouse, ruffed grouse, and wild turkey. These areas also provide important year-round and wintering habitat for mule deer particularly in the pastures, the hillsides, and the grassy bottomland. The planning area intersects an important mule deer migratory route.

Other mammals, including mice, voles, and wood rats, are found in the grassy lowlands. Cottontail rabbits, jackrabbits, and the Uinta ground squirrel, porcupines, the rock squirrel, yellow-bellied marmots, striped skunks, and badgers are present in the upland areas and the

hillsides. Hoary bats as well as western pipestrelle and fringed myotis bats, among other bat species, occur in this area. In addition, the planning area supports some reptiles, including garter snakes, gopher snakes, Great Basin rattlesnakes, leopard frogs, woodhouse toads, and boreal chorus frogs.

The wetland and riparian area along the Bear River is important to neotropical migrant bird species and provides suitable habitat for beavers, minks, muskrats, river otters, and bobcats. Moose are also known to frequent these areas. Canada geese and waterfowl species such as red-breasted merganser, common goldeneye, and mallard winter in and around the Oneida Reservoir.

In the recent past, a pair of northern goshawks (state-listed as sensitive) nested in the Oneida Narrows section of the canyon, in the vicinity of the Mink Creek Parcel. The area also provides suitable habitat for ferruginous hawks.

No Federally listed plant or animal species are known to occur in the development area except on an occasional basis. The Fish and Wildlife Service has identified the reservoir as wintering habitat for trumpeter swan, and two adult and one juvenile eagle have been observed near the dam during a 1997 winter survey. An additional five bald eagles were documented along the Bear River, approximately 3 miles north of the reservoir during the winter. In general, however, the reservoir is frozen during the winter months and provides little over-wintering habitat for bald eagles. Suitable roosting trees are also sparse in the area, limiting suitable bald eagle nesting habitat. No eagle nesting has been documented.

The parcel-specific descriptions below (Section 2.3) provide more detailed information on the resource uses, the vegetation and habitat types, and management and environmental conflicts for each of the six parcels.

2.2 LMP CATEGORY DESIGNATIONS

The relationship between the LMP and site plans is summarized in Section 1.1 of this document. As part of the LMP process, natural conditions as well as current and anticipated land uses were considered in the development of four land management categories that define the general allowable activities and future land management actions on PacifiCorp-owned land. The categories provide a general framework for the management of PacifiCorp-owned land within and adjacent to the FERC Project boundary. The standards established to guide management in the specific categories in the LMP are found in Appendix A of this Plan. It should be noted that the LMP did not categorize all PacifiCorp-owned land, and some land remained uncategorized at each Project development. As part of the site planning process, categorization of all lands in the Oneida planning area was completed.

The land management categories and the associated management guidance provided by the LMP were an important source of input considered in the site planning process. Based on observed on-site conditions and the expertise of the planners, site plans may diverge to a minor degree from specific points of LMP guidance. The boundaries of land management categories may also be adjusted on the basis of on-site review. Figure 3 indicates the land management categories assigned to the six planning area parcels.

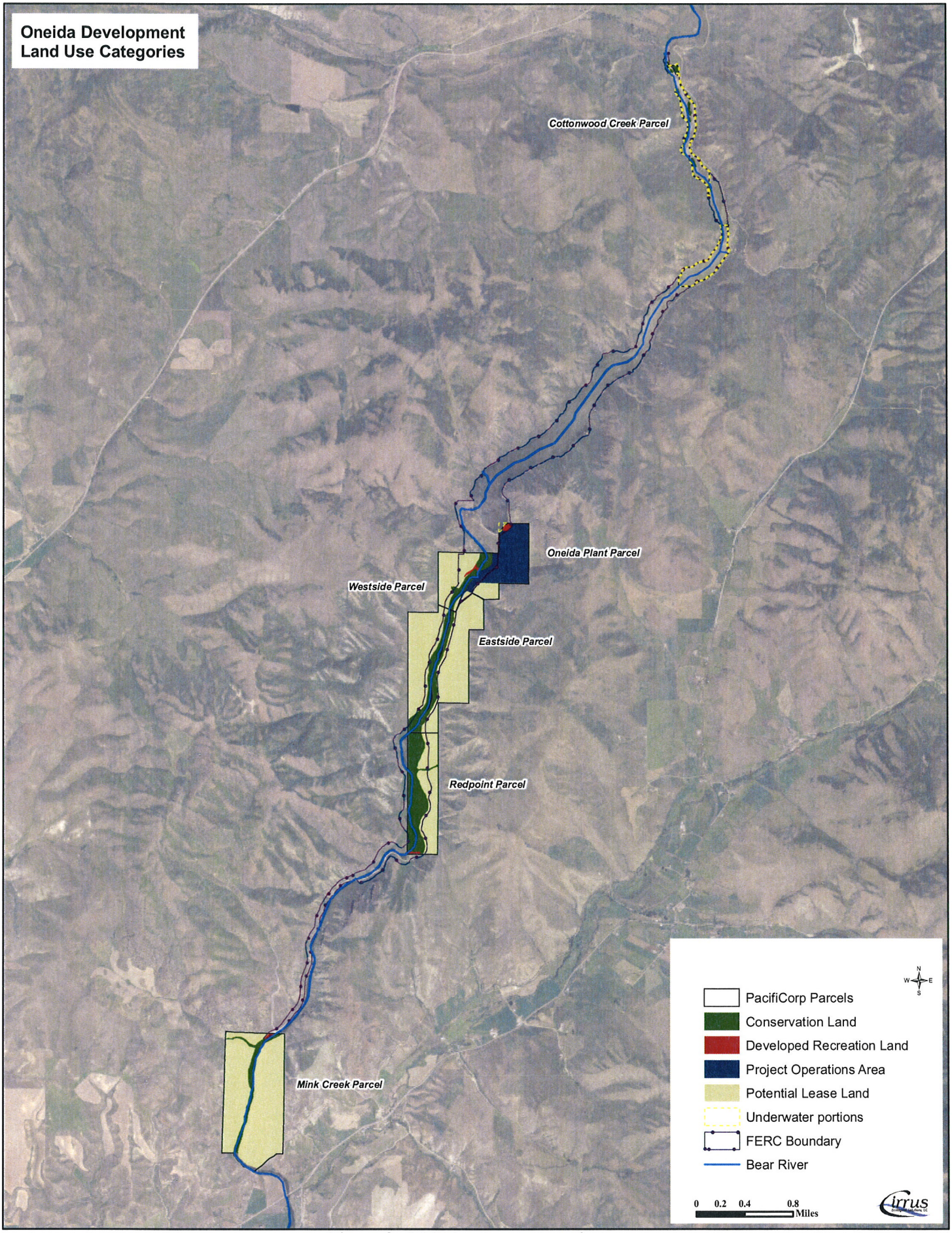


Figure 3. LMP land use categories.

2.2.1 CONSERVATION LAND

The Conservation Land management category fulfills the "shoreline buffer" requirements of the License and to protect other ecologically sensitive areas, particularly riparian zones, islands, and wetlands. Project land in this category will be managed to retain and preserve a character of undeveloped, natural, open space and to conserve and protect fish, wildlife, scenic, historic, archaeological, and cultural values. Motorized vehicle use is prohibited off designated roads. Dispersed camping is prohibited. Pedestrian trails are present and utilized by recreationists, particularly anglers in this planning area.

The Conservation Land classification includes buffers around the Bear River and wetland riparian areas that adjoin the river. Delineation of Conservation Land (i.e., refinement of the delineations included in the LMP) was based on a number of factors including: license requirements for riparian buffers, U.S. Army Corps of Engineers (COE) wetland criteria, and on-site assessment of sensitive habitats and potential impacts by PacifiCorp and contract biologists in 2005 and 2006. Buffer zone widths around protected areas vary depending on topography, land use, and other site-specific conditions.

Conservation Land occurs on all of the parcels in the Oneida planning area, totaling 188 acres. Current conditions of this land vary due to a combination of Project-related effects, livestock grazing, recreational use, and other land uses.

2.2.2 PROJECT OPERATIONS LAND

The Project Operations land management category applies to acreage within the Project boundary that is primarily used for electrical power generation, transmission, flow lines, maintenance yards, administrative offices, storage areas, and other associated Project-related facilities. Land with the potential for such uses in the future is also included.

Project Operations areas are generally closed to public use for safety and security concerns, and this land management category allows PacifiCorp to control the use of and access to protect public health and safety and to provide for Project security.

Public access to Project facilities is prohibited. No overnight camping is permitted in these areas, and travel with motorized vehicles is limited to designated roads. In the planning area, all Project Operations land is in the Oneida Plant Parcel, totaling 11 acres. Public access is prohibited at the Oneida dam, the bypassed reach, powerhouse, and the "old camp" as well. Agricultural use is generally not permitted on Project Operations land.

2.2.3 DEVELOPED RECREATION AREAS

The Developed Recreation land management classification applies to PacifiCorp land with established developed recreation facilities. Recreational use is encouraged but regulated to protect the full range of resource values and minimize environmental degradation. The LMP recognizes that some level of resource damage is inherent with concentrated recreational use. Motorized use is restricted to designated roads. Agricultural use is not permitted within developed recreation sites. Activities in this land management classification include launching boats, camping, fishing, picnicking, swimming, hiking, bicycling, and wildlife observation.

The Mink Creek, Redpoint, Eastside, and the Oneida Plant parcels contain Developed Recreation land, totaling about 6 acres. These consist of designated recreation sites including the Oneida Narrows put-in and take-out, Redpoint and Maple Grove campgrounds, and the Oneida Day Use Area.

2.2.4 AGRICULTURAL LEASE AREAS

Areas not included in the Conservation, Project Operations, or Developed Recreation land management categories are available for consideration as potential agricultural leases (renewal of current leases or new leases). The primary uses of Agricultural Lease Areas are livestock grazing and farming. These areas are also available for dispersed recreation uses such as hiking, hunting, and fishing, but no overnight use is permitted. Vehicle access is restricted to designated roads except as permitted for lessee-operated farm implements used to conduct agricultural activities.

Current agricultural leased areas on PacifiCorp-owned land within the planning area include the Eastside, Westside, and Redpoint parcels. No permitted grazing occurs within the site. In the recent past, grazing occurred on the Redpoint and Mink Creek parcels. In total, Agricultural Lease Areas comprise approximately 817 acres.

2.2.5 LAND MANAGEMENT CATEGORY SUMMARY

The following table indicates the acreage of each land management category within each planning area parcel, both inside and outside the FERC Project boundary.

Table 2. Parcel acreages by land management category.

Parcel Name	Conservation Land	Project Operations Land	Developed Recreation Areas	Agricultural Lease Areas	Total
Cottonwood Creek[1]	7	-	-	-	7
Oneida Plant[2]	24	11	4	168	207
Westside	29	-	-	115	144
Eastside	24	-		144	168
Redpoint	78	-	1	81	160
Mink Creek	26	-	1	309	336
Total	188	11	6	817	1,022

[1]This parcel totals 103 acres, but only 7 acres are above the normal waterline and subject to land management actions.

[2]An additional 2 acres of this parcel totals lie below the normal waterline and are not subject to land management actions.

2.3 CURRENT PARCEL CONDITIONS

2.3.1 COTTONWOOD CREEK PARCEL

The Cottonwood Creek Parcel is the northernmost parcel within the Oneida Project (Figure 4). It includes only 7 acres that lie above the normal waterline of the reservoir, including a roughly 2-acre upland site and scattered islands and fragments of shoreline in and around the reservoir. The remaining 96 acres of the parcel are under water. The small above-water acreage of this parcel reduces the number of potential environmental conflicts substantially. BLM land borders this portion to the west and private land along the east and north boundary. PacifiCorp property boundaries are not clearly defined by fences or signs. Cattle from adjacent BLM and private land trespass graze occasionally on the portion of the parcel that is above the water line, but little vegetation alteration is apparent.

Vegetation on this low-lying parcel is influenced by the high water table associated with the river and reservoir. Wetland vegetation dominates this area and includes sedges, rushes, bulrushes, cattails, reed canary grass, and willows. Weeds and weedy species include teasel and thistle. Weed control efforts are currently restricted to the roadside.

2.3.2 ONEIDA PLANT PARCEL

This parcel contains a mixture of highly-restricted areas and some public recreation access sites including the Oneida powerhouse, the Oneida dam, the "old camp" (the site of an abandoned residential area west of the powerhouse), a pedestrian bridge, a closed motor vehicle bridge, the lower portion of the bypassed reach, the Oneida penstock, and the Oneida Narrows put-in (Figure 5). In total, the parcel comprises 209 acres, 2 of which are under water. Most of the bypassed reach (more than half its length) lies on land administered by the BLM; the remainder is on PacifiCorp land.

There are various fences and signs defining restricted use areas around the Oneida operations site. However, a public day use area located on the west side of the river adjacent to the powerhouse tailrace is a popular fishing and picnicking site. Outside of the fenced powerhouse area, the river riparian and wetland habitats are impacted by generally high use.

The public can access the west side of the river by way of a pedestrian bridge, and use is restricted to a day use area referred to as the "lawn area." Use restrictions and property ownership are clearly signed here. The lawn area extends south to the closed vehicle bridge that crosses the Bear River. The vehicle bridge is currently gated, restricting motor vehicle access to the west side. PacifiCorp has placed a "Sportsman Access" sign on the lawn area. It is a popular fishing and picnicking site. There is no evidence of overnight camping use at this site.

A short fenceline, located north of the pedestrian bridge, has been placed to prevent access to the bypassed reach below the dam, and a "No Hunting or Fishing" sign has been placed at the fence. However, these do not prevent the public from occasionally accessing the area.

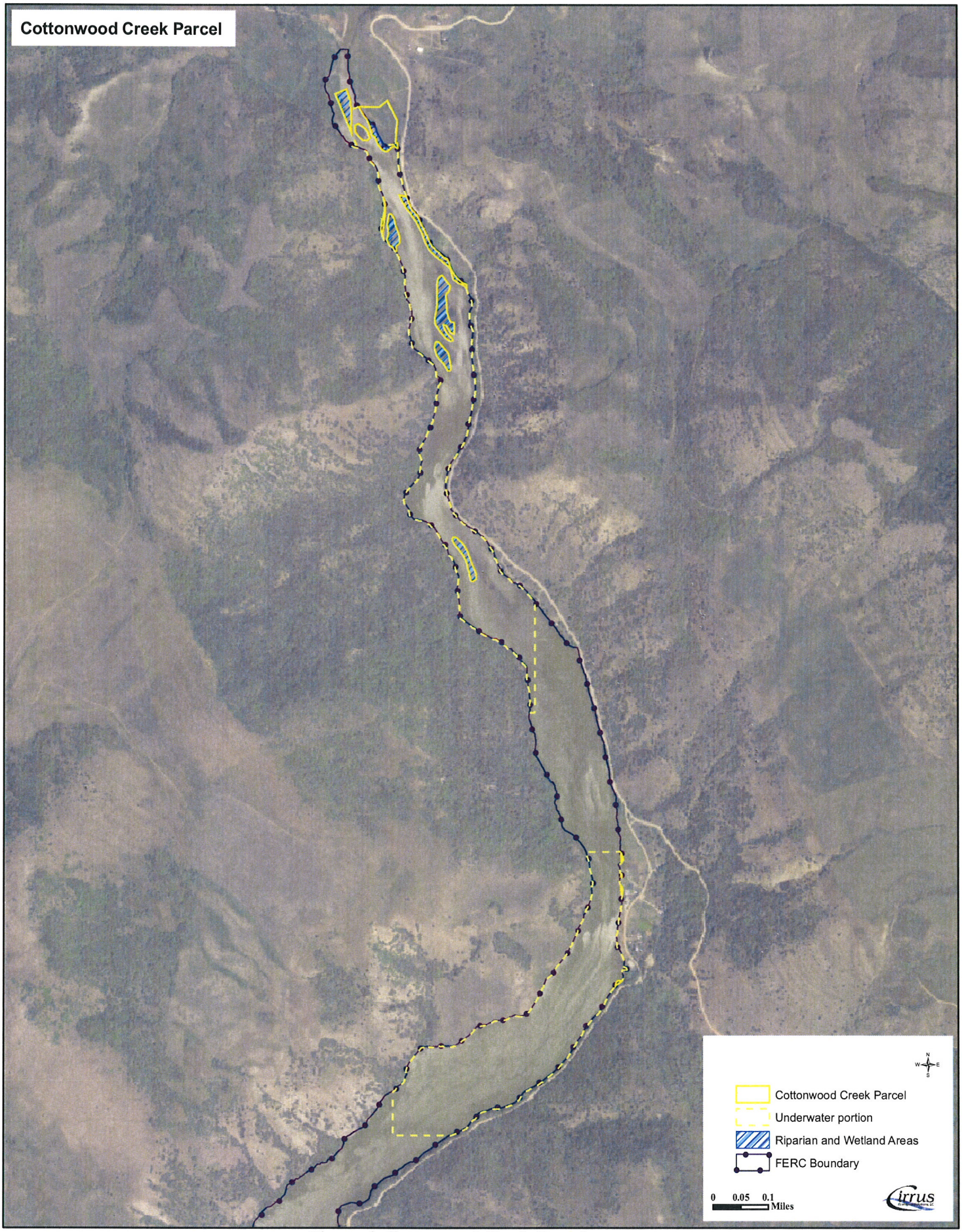


Figure 4. Cottonwood Creek Parcel.

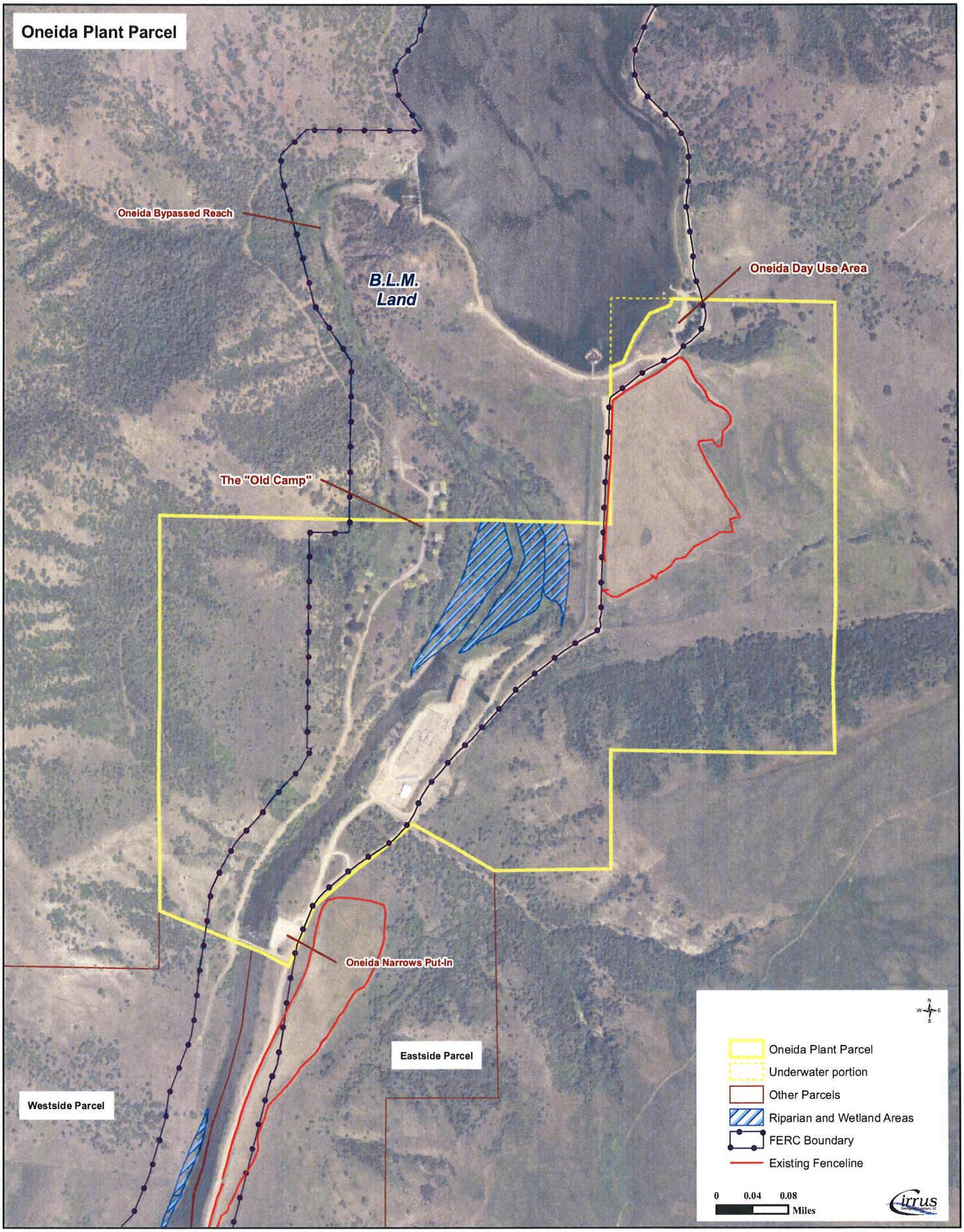


Figure 5. Oneida Plant Parcel.

The "old camp" is located across the river from the Oneida powerhouse, west of the pedestrian bridge. This area is elevated well above the river and includes several abandoned houses, outbuildings, a barn, and a paved roadbed. It was the site of PacifiCorp employee housing but was abandoned over time as employees chose to live in adjacent communities. No fence or signs are present to restrict the public from accessing the "old camp." Structures comprising the "old camp" are considered to be of historical significance.

Herbaceous species growing around the "old camp" site include smooth brome, orchard grass, wheatgrass, and bentgrass. Weeds and weedy species include burdock, houndstongue, bull thistle, prickly lettuce, annual weedy mustard, gumweed, field bindweed, and teasel.

The bypassed reach is a restricted area, though fencing and/or signage is not adequate to prevent access in some locations. It is located on the Bear River below the concrete dam, extending approximately 0.5 mile to the powerhouse tailrace area. Due to safety concerns about the potential for sudden spills into the bypassed reach, which is located in a steep-walled canyon, the PacifiCorp-owned portion is closed to public access. Access to the BLM portion is unregulated.

A fenceline along the west bank is currently in disrepair and incomplete. The fence does not prevent the public from accessing the area from adjacent property. An OHV trail on adjacent BLM land also provides access to the bypassed reach.

Reed canary grass grows within the bypassed channel. Other grasses include smooth brome and orchard grass. On the west side of the channel along the road several weeds and weedy species are present, including poison hemlock, houndstongue, gumweed, and sweet clover. Recent weed control efforts were not focused on this area and thus have not controlled weeds along the bypassed reach.

The Oneida Day Use Area is located on the reservoir at the east end of Oneida Dam, just off the Oneida Project Road. It is owned and operated by PacifiCorp. The site consists of a boat ramp, floating dock, 10 picnic sites, a composting double-vault toilet building, and parking for approximately 20 vehicles. The composting toilet has never functioned properly. Signs are present to demarcate the recreation area and define use regulations, although these regulations are neither current nor complete.

The Oneida Narrows put-in is located downstream from the Oneida Dam along the Oneida Project Road. It was developed as a condition of the Project License. This new recreation site consists of a hand-launch boat ramp and a gravel parking area for approximately 10 vehicles. The site is fenced, and overnight use is prohibited. PacifiCorp owns and is responsible for ongoing maintenance of the site. The put-in does not have a portable toilet, and litter/debris in the parking area is a problem at times.

The eastern boundary of the parcel is adjacent to BLM land and is not completely fenced. As a result, cattle occasionally trespass graze in the parcel's eastern upland and forested areas and in the area of the spring that provided culinary water to the "old camp."

The vegetation on the hillside and in the draws along the west side of the parcel is characterized as a juniper/maple woodland. Some species present in the understory include smooth brome, sagewort, Kentucky bluegrass, Oregon grape, needle grass, alfalfa, gumweed, bulbous bluegrass, sagebrush, rabbitbrush., dandelion, timothy, cheatgrass, snowberry, bluebunch wheatgrass, wyethia, arrowleaf balsamroot, yarrow, bitterbrush, and scarlet gilia.

Weeds and weedy species present on the parcel include bull thistle, burdock, teasel, houndstongue, poison hemlock, and sweet clover. Weed control treatments have been limited to the Oneida powerhouse area and thus have largely been ineffective.

2.3.3 WESTSIDE PARCEL

The Westside Parcel is 144 acres and lies on the west side of the river, extending from the southern boundary of the Oneida Dam to the northern boundary of the Redpoint Parcel (Figure 6). The parcel can be accessed from the Oneida Project Road by way of a gated vehicle bridge located south of the Oneida Narrows put-in. The bridge is restricted to PacifiCorp vehicle use only, but public foot traffic is allowed. From the west end of the bridge, service roads lead north to the "old camp" and south onto the Westside Parcel. Older two-track roads and OHV trails leading down the hillside from the west to the river indicate that the parcel has been accessed from adjacent private and BLM land.

Several fencelines exist on the parcel but do not accurately delineate current property ownership. The eastern boundary is demarcated by the river. A partial barbed-wire fence runs north-south along the river for approximately 0.5 miles. It does not run the length of the parcel and protects only a portion of the riparian zone. This fence segment includes a watering point for cattle on the river bank. The parcel's west side lies adjacent to BLM land. A partial fence exists along this border but is in disrepair. Several interior fences subdivide the parcel.

Of the 144 total acres, 115 acres of the Westside Parcel are held in an agricultural lease that includes portions of the Westside, Eastside, and Redpoint parcels. Prior to 2004 when the lease changed hands, grazing and/or crop production occurred on all of the leased land for at least the last 30 years. Pastures on the Westside Parcel were seeded with non-native pastures grasses at some point, and these species currently dominate the flat bottomlands and gentle slopes above. Leased land on this parcel was not cultivated. Under the current lease agreement, cattle grazing is not authorized, and the pastures of the Westside Parcel are not being used. The current lease agreement must be revised to comply with the FERC Relicensing Agreement, Article 425 as part of this site planning process.

There is evidence of past trespass cattle accessing the Westside Parcel from adjacent private and BLM land. Current distribution of trespass cattle is uneven, and there appears to be little utilization occurring in the feral, bottomland pastures. Evidence suggests that the cattle tend to congregate in the shade of the riparian trees on the lower end of this parcel, where trampling and soil compaction are evident. Compared to other areas along the river, past livestock use was heavier in this portion of the parcel.

The parcel consists of flat or gently sloping valley bottoms and steeper side hills. Habitat in the upstream portion of the parcel consists of sagebrush steppe and juniper/maple woodland on the hillsides. Slender and tall wheatgrass, sagebrush, sagewort, annual brome, yarrow, ryegrass, bulbous bluegrass, and bentgrass characterize the Westside Parcel's bottomland. Maple and juniper trees occur along the edges of the field. The riparian area includes a narrow fringe of reed canary grass and scattered patches of cattail along the edge of the river.

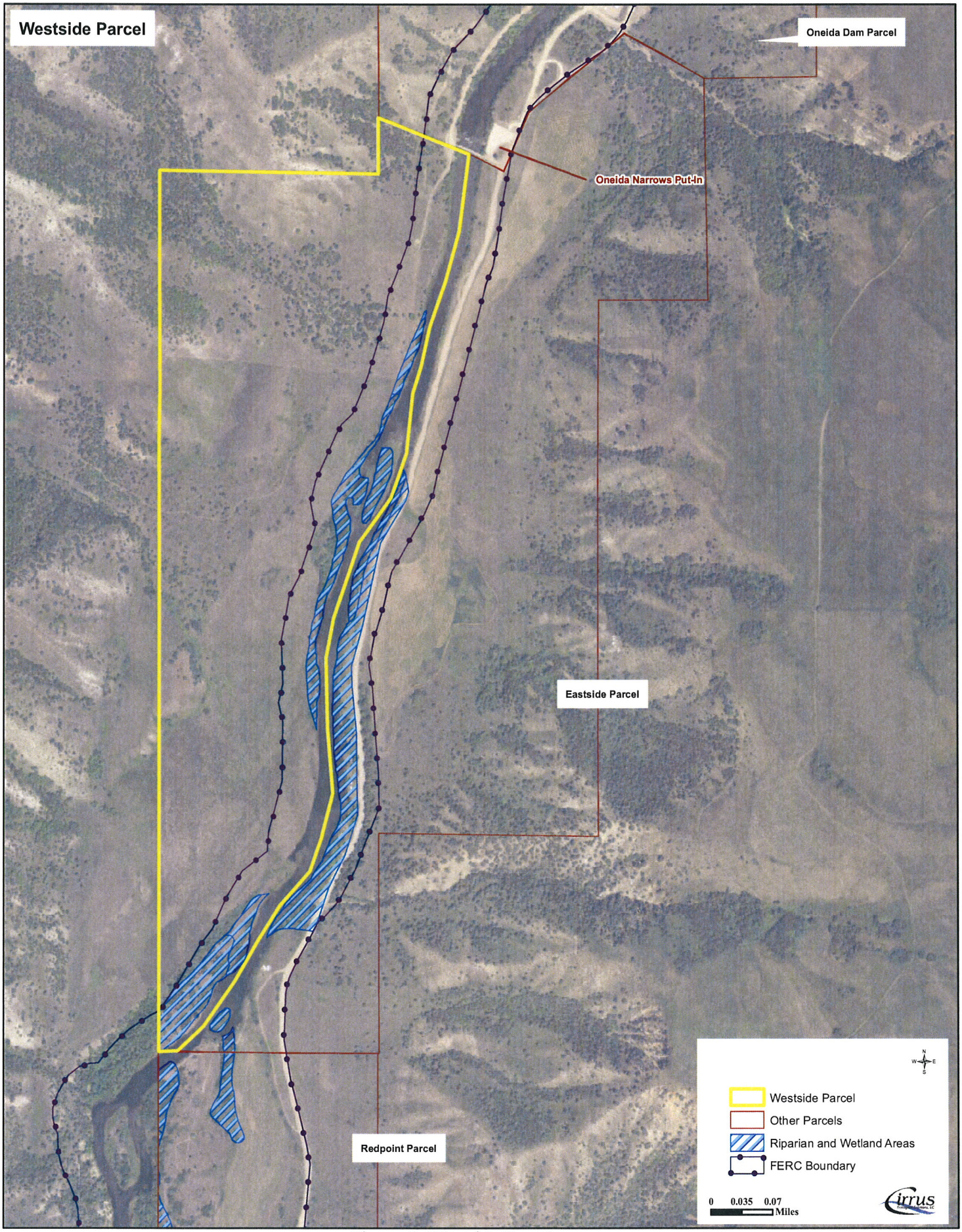


Figure 6. Westside Parcel.

A more expanded riparian forest occurs on old river terraces. This riparian forest includes some deep rooted riparian species including coyote willow, river birch, cottonwood, box elder, Wood's rose, chokecherry, skunk brush, and dogwood. The understory is characterized by primarily upland species, including, smooth brome, wheatgrasses, watercress, nettle, Kentucky bluegrass, sagewort, and golden rod.

Weeds occur throughout the valley bottom and can be locally abundant. They include burdock, houndstongue, bull thistle, musk thistle, poison hemlock, western salsify, prickle lettuce, annual pepperweed, teasel, grindelia, cheatgrass, and mullen. No weed control has occurred on the parcel in the recent past.

2.3.4 EASTSIDE PARCEL

The Eastside Parcel is located on east side of the river, abutting the Oneida Plant Parcel on the north, the Westside Parcel on the west, and the Redpoint Parcel on the (Figure 7). It is approximately 168 acres. The Oneida Project Road runs the length of the parcel, just inside its western boundary. A couple of ungated dirt roads branch off the main road to access the cultivated fields and areas above the parcel boundary to the east. PacifiCorp boundaries are not clearly defined by fencelines or by signs.

As noted above, this parcel includes land that has been leased for agricultural use for more than 30 years. The original permittee farmed about 144 acres of the parcel as well as grazing cattle. The current permittee has continued to harvest alfalfa on the non-irrigated fields since 2004, but cattle grazing has not been authorized since that time. As a result of alfalfa cultivation and past grazing practices, the native vegetative communities have been altered. The current lease agreement must be revised to comply with the FERC Relicensing Agreement, Article 425 as part of the site planning process.

Native vegetation on the steep hillsides of the parcel's eastern half has remained relatively intact. The vegetation in the draws is characterized as a juniper/maple woodland, which becomes scattered patches on the hillside. Herbaceous and shrubby species characterizing this area include Kentucky bluegrass, bluebunch wheatgrass, bitterbrush, sagewort, arrowleaf balsamroot, golden rod, flax, annual brome, dogbane, bentgrass, Oregon grape, snowberry, snakeweed, and wildrye.

The parcel's western boundary adjoins the river. Vegetation along the river bank is similar to that described above for the Westside Parcel's riparian fringe, but the riverine forest on the east side is more sparse than on the west side. Evidence of recreational use (e.g., dispersed camping and off-road vehicle use) is visible on the river bank in the form of turnouts, possibly 17 sites total with multiple fire rings, trampled riparian vegetation, and some bank erosion.

Weeds and weedy species occurring on the parcel include bull thistle and Canada thistle. Weed control has consisted solely of roadside spraying in recent years.

2.3.5 REDPOINT PARCEL

The Redpoint Parcel adjoins the Eastside Parcel on the north, extending south to the Redpoint Campground (Figure 8). The river meanders along the parcel's western boundary, leaving most of the parcel on the east side with some west-bank riparian points extending into it. It is approximately 160 acres.

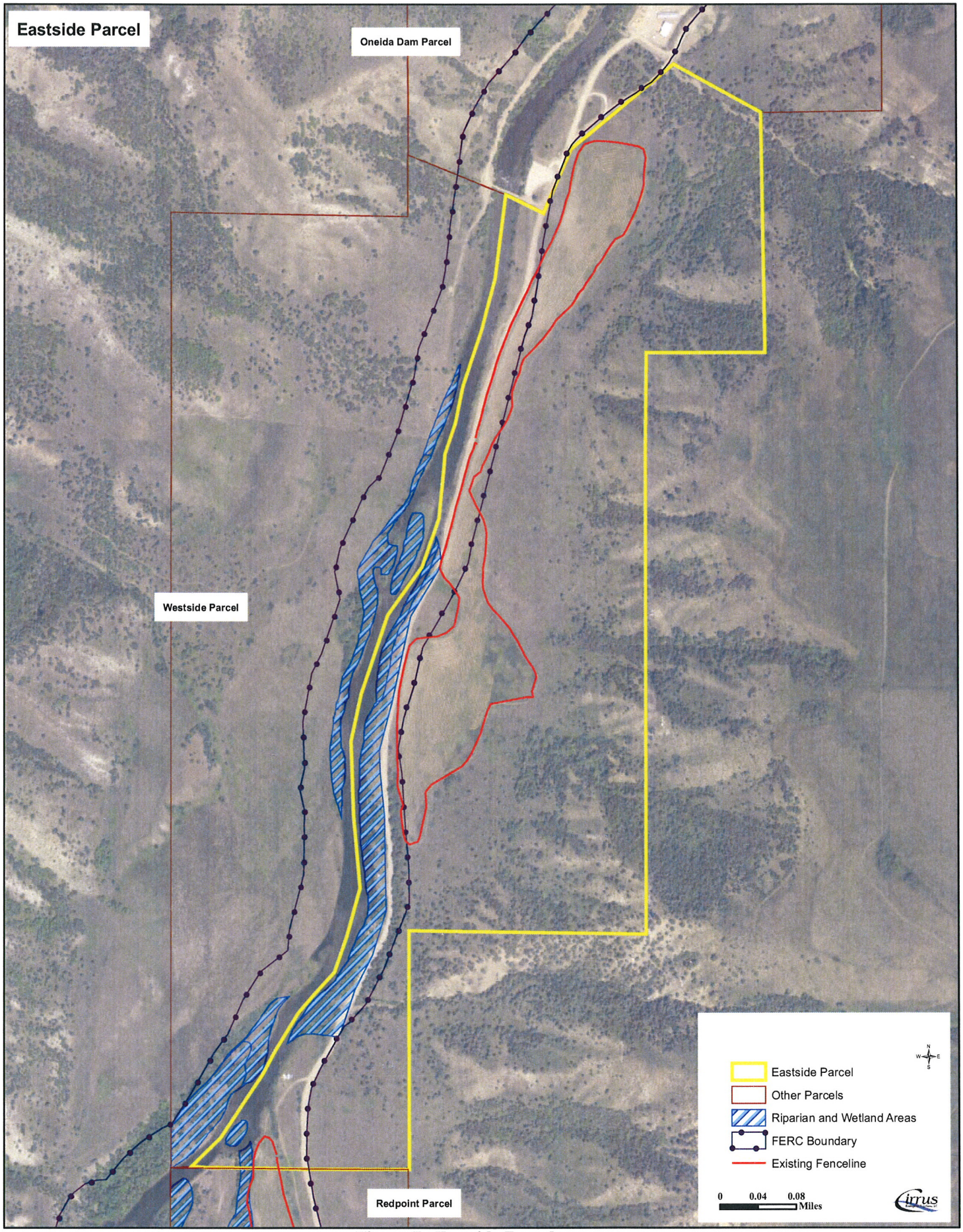


Figure 7. Eastside Parcel.

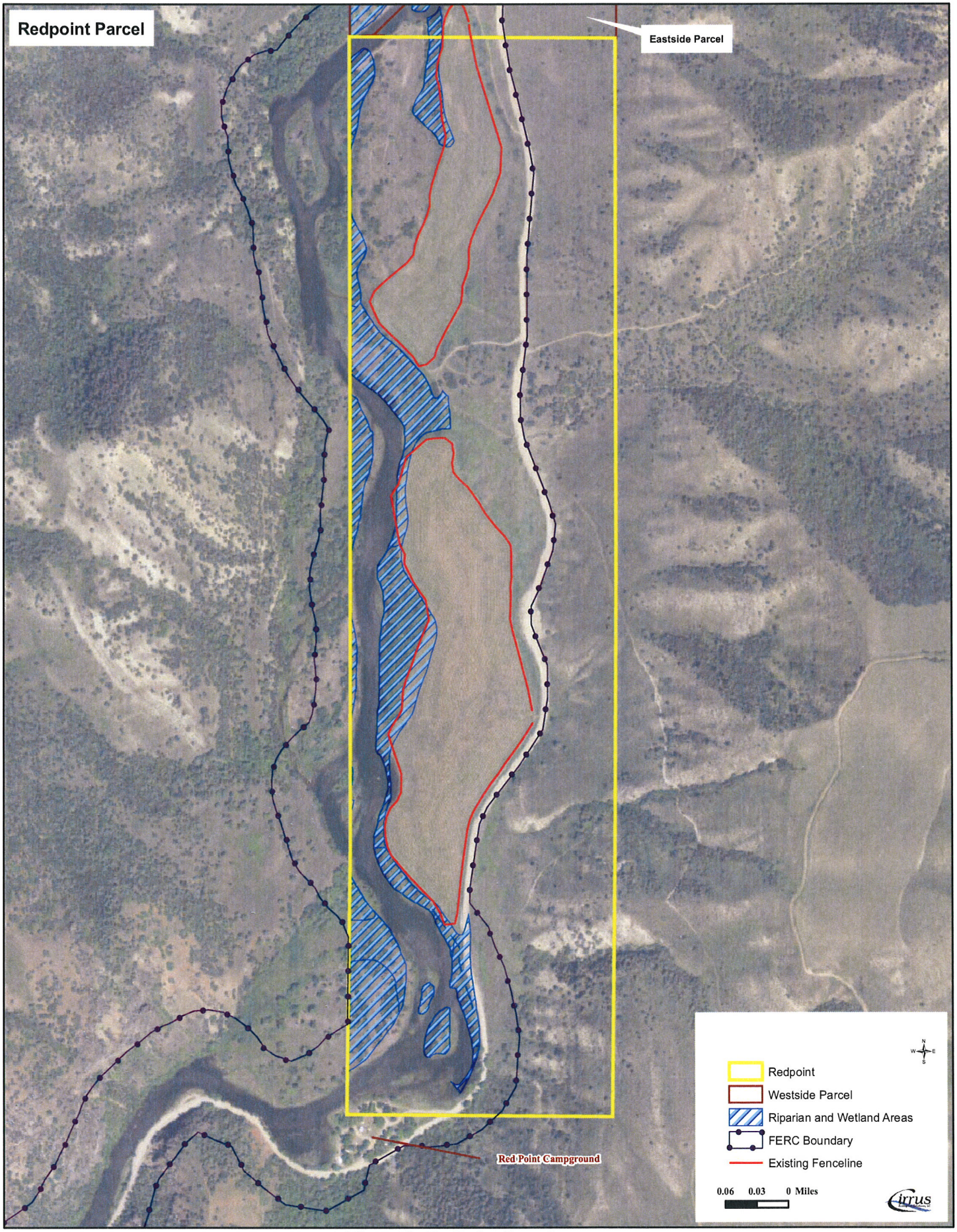


Figure 8. Redpoint Parcel.

The Oneida Project Road bisects the parcel. A fence parallels the road's west side shoulder and several ungated dirt roads provide access to the fields and river on the west side of the road and the steep hillside on the east. Neither the river nor the western boundary is fenced. There is at least one known dispersed campsite near the river, and evidence of damage to the riparian zone (e.g., fire rings, trampled vegetation, vehicle tracks off the road, and some bank erosion) is evident. The eastern boundary is also not fenced. There are no signs indicating property ownership on the parcel.

As noted above, the Redpoint Parcel includes part of the agricultural lease that also involves parts of the Eastside and Westside parcels. About 120 acres of this parcel were dryland farmed for about 30 years under the original permit, and cattle grazed the parcel as well. Under the current lease, in place since 2004, alfalfa is cultivated on most of the 81 acres. Livestock grazing is not currently authorized. As a result of cultivation and past grazing, the native vegetative communities have been altered. Some cattle from adjacent BLM land graze in trespass on the parcel. Some vegetation impacts and soil compaction in the riverine forest is attributable to permitted and trespass grazing. The lease agreement must be revised to comply with the FERC Relicensing Agreement, Article 425, as part of the site planning process.

Redpoint Campground is located at the southern end of the parcel, approximately 2 miles downstream from Oneida Dam, between the Oneida Project Road and the Bear River. The campground is managed by the BLM and is one of two campgrounds specifically designated for overnight use in the planning area. A small portion of the campground lies on PacifiCorp land, and the majority lies on BLM land. The site consists of 9 primitive campsites, several picnic tables, a vault toilet building, and some day use parking. There is no fee associated with use of the site. The maximum capacity for each overnight campsite is two vehicles and 20 people. Like Maple Grove Campground, there is seldom an open camping site available during the summer season.

The campground is located under large trees. The river riparian habitat at the campground is highly impacted by human use. However, reed canary grass wetlands found at the Redpoint Campground are not particularly impacted by recreationists.

Several noxious weeds and weedy species occur in the campground, including burdock, Canada thistle, houndstongue, and teasel. Other known weed species that occur in the parcel include whitetop, dyer's woad, thistle, and poison hemlock. Previous treatments have been limited to roadside and campground spraying.

2.3.6 MINK CREEK PARCEL

The Mink Creek Parcel is the southernmost block of land in the Oneida Project and is located off of Highway 36 about 5.5 miles south of Oneida Dam (Figure 9). It is bisected by the river and the Oneida Project Road. The parcel is approximately 336 acres.

A number of signs have been placed at the southern entrance to the parcel on the Oneida Project Road. The signs demarcate current use and access restrictions in the FERC Project area. One large sign signifies the entrance to the Oneida Project. It also provides a public safety notice.

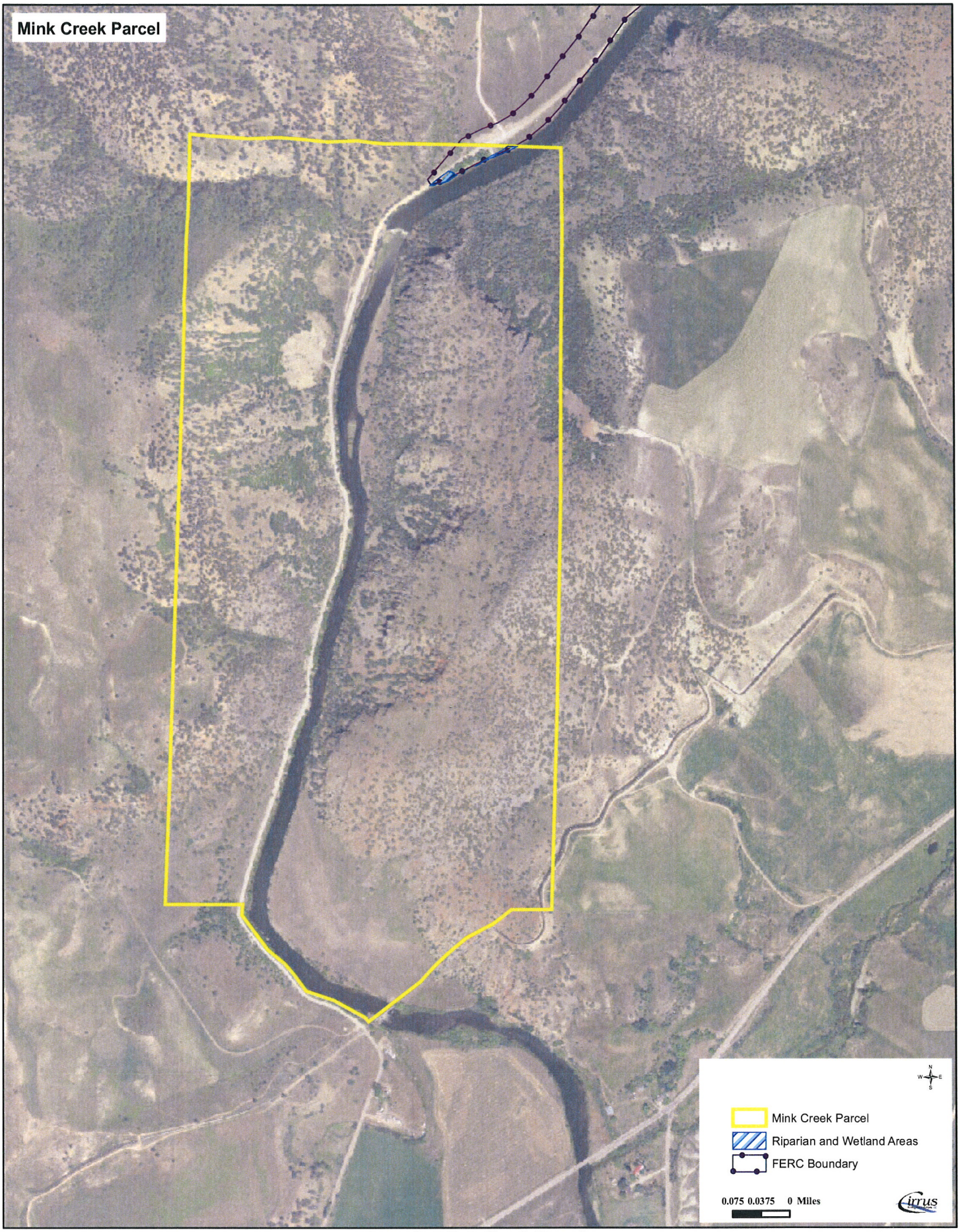


Figure 9. Mink Creek Parcel.

A water pipeline or "siphon" runs east and west along the parcel's southern boundary. It transports water from Mink Creek located east of the parcel for the Twin Lake Irrigation Canal Company. The siphon is owned, operated, and maintained by the irrigation company. The canal at the top of the siphon has overflowed in the past, most recently during spring runoff in 2005, spilling water down the cliffs and steep slopes just outside the parcel's southeast corner.

In past years, the parcel was leased for grazing, and trespass grazing continues to be an issue. The parcel's ownership is not demarcated and boundary fencing is incomplete. Cattle can access the parcel from various BLM and privately-held land on all sides of the parcel. An interior fence exists between the Oneida Project Road and river below the siphon pipeline, and an east-west cross fence marks the northern boundary where the river and road leave the parcel.

The Oneida Project Road follows the river through the parcel. The area along the road is a popular spot for fishing, picnicking, and other day use activities. A cliff area extends along a portion of the road's west side. Rock climbing occurs at three known locations along the cliff wall. There are no developed vehicle pull-outs located in the parcel, so visitors typically park along the road next to the river. PacifiCorp has placed small signs along the river to advise the public of safety hazards including potential slide areas.

The Oneida Narrows take-out is located on BLM land adjacent to the parcel's northern boundary. PacifiCorp is required to maintain the take-out, as outlined in the RTSP, at high standards for public access (see Section 1.1). To date, the take-out is primitive and lacks many of the amenities provided at similar recreational sites (e.g. Black Canyon take-out) including little or no signage.

An east-west fenceline currently separates the BLM land from the Mink Creek Parcel. It extends to the east approximately 10 to 15 feet into the Bear River. Although a cattle guard at the Oneida Project Road impedes cattle access, cattle have been observed going around this end of the fenceline and onto the parcel.

There are also several dispersed campsites located in and south of a gravel pit that is located on the west side of the road and across from the river. These are large campsites for multiple vehicles. Each campsite has a fire ring and the vegetation has been impacted from heavy use. The gravel pit area is also used by OHV riders.

The parcel's northern boundary borders BLM land. A section of fence and a cattle guard delineate a portion of this boundary. The fence crosses the Oneida Project Road and runs approximately 10 feet into the river. A new Project recreation site on BLM land, the Oneida take-out, is located just north of the fenceline along the Oneida Project Road. The site consists of a hand-launch boat ramp, a portable restroom, and parking for approximately 10 vehicles alongside the road. In accordance with the RTSP (Section 1.3.4), PacifiCorp is responsible for operation and maintenance of the take-out. Thus it is included in the planning area and this Plan.

Cattle can currently access the parcel from the adjoining BLM land by going around the end of the fence that extends into the river. Cattle from the BLM land east of the parcel can also access the parcel's eastern half. Vegetation on the parcel has been impacted as a result, particularly riparian vegetation on the east side of the river.

The steep, narrow canyon limits the riparian habitat to a narrow zone along the river. The riparian fringe along the edge of the river supports reed canary grass and some sedge. In addition, there is a riparian shrub community along some segments dominated by river birch with some red osier dogwood, Wood's rose, hawthorn, and coyote willow. There is evidence of livestock grazing,

including trampled terraces, in these areas. Reed canary grass is generally considered resilient to grazing. It is a thick sod-forming plant that stabilizes river banks, but it is invasive and displaces other native species. The herbaceous component of primarily upland species includes bentgrass, smooth brome, orchard grass, Kentucky bluegrass, and dandelion.

There are some localized weed issues within the parcel. Noxious weeds and weedy species that occur on the parcel include Canada thistle, bull thistle, burdock, musk thistle, houndstongue, sweetclover, gumweed, and teasel. PacifiCorp has contracted weed control operations for at least the last 4 years, and herbicide applications have been concentrated along roads and around project operations facilities as an annual spring treatment.

2.4 ENVIRONMENTAL CONFLICTS

The summaries of current, on-site conditions provided above indicate a number of inconsistencies with License articles, guidelines of the LMP and RTSP, and Desired Future Conditions on each of the planning area parcels. Table 3 summarizes conflicts for each parcel grouped according to the issue categories established in the LMP (see Section 1.3).

Table 3. Environmental conflicts.

Cottonwood Creek Parcel	Conflicts
Public Access	• Delineation of property boundary above the water line is incomplete. • Cattle from neighboring property graze in trespass.
Vegetation Management	• Weed management issues are evident on the above-water portions of the parcel.
Wetland and Riparian Habitat Management	• Riparian zone and wetland areas are not protected from trespass grazing impacts.
Agricultural Uses	No agricultural uses are authorized on the parcel.

Oneida Plant Parcel	Conflicts
Public Access	• The property boundary is not clearly defined. • Signage at the Oneida Narrows put-in, Day Use Area, and the "lawn area" is incomplete. • The composting toilet at the Day Use Area is inadequate. • There is no portable toilet at the Oneida Narrows put-in. • Trespass access occurs to the bypassed reach and the concrete dam. • Trespass cattle currently have access to portions of the parcel, particularly the bypassed reach and the "old camp" spring. • OHVs currently access the parcel from adjacent BLM land.
Vegetation Management	• Weed management issues are evident throughout the parcel.
Wetland and Riparian Habitat Management	• Trespass grazing occurs in and along the bypassed reach riparian zone, as well as around the "old camp" spring.
Agricultural Uses	No agricultural uses are authorized on the parcel.
Westside Parcel	**Conflicts**
Public Access	• The property boundary is not clearly defined. • Cattle from neighboring property graze in trespass. • OHVs currently access the parcel from adjacent land.

Westside Parcel (cont'd)	Conflicts
Vegetation Management	• Vegetation communities have been altered by seeding pasture grasses and by cattle grazing. • OHV use from adjoining property is impacting vegetation and causing soil erosion. • Weed management issues are evident throughout the parcel.
Wetland and Riparian Habitat Management	• Riparian and wetland zones are not protected from trespass or lease grazing.
Agricultural Uses	• Agricultural Lease Agreement must be revised.
Eastside Parcel	**Conflicts**
Public Access	• The property boundary is not clearly defined. • No developed campground is available in the parcel. • Uncontrolled dispersed camping occurs at multiple locations within the parcel. • Motorized vehicles operate off of the Oneida Project Road. • Cattle from neighboring property graze in trespass.
Vegetation Management	• Weed management issues are evident throughout the parcel. • Vegetation communities have been altered by cultivation, cattle grazing, and recreation.
Wetland and Riparian Habitat Management	• Riparian zone is not protected from grazing and recreational impacts. • Motorized vehicle access damages riparian areas.
Agricultural Uses	• Agricultural Lease Agreement must be revised.

Redpoint Parcel	Conflicts
Public Access	• The property boundary is not clearly defined. • Redpoint Campground is frequently full during the summer season. • Uncontrolled parking and dispersed camping occur at numerous locations along the road and adjacent riparian areas. • Motorized vehicles operate off of the Oneida Project Road. • Ungated roads provide motorized access to western portion of the parcel. • Cattle from neighboring land graze in trespass.
Vegetation Management	• Weeds and other undesirable plants occur on the parcel. • Vegetation communities have been altered due in part to cattle grazing, cultivation, and recreation.
Wetland and Riparian Habitat Management	• Riparian habitat is not protected from grazing and recreational impacts. • Riparian zone and riverbanks have been eroded by dispersed recreational use and vehicle access in places and show signs of instability.
Agricultural Uses	• Agricultural Lease Agreement must be revised.
Mink Creek Parcel	**Conflicts**
Public Access	• The property boundary is not clearly defined. • Cattle from neighboring property graze in trespass. • Signage and facilities at the Oneida Narrows take-out are incomplete. • Appropriate signage is needed at the southern entry to the Project. • Uncontrolled dispersed camping occurs at several locations within the parcel. • OHVs operate off of the Oneida Project Road.

Mink Creek Parcel (cont'd)	Conflicts
Vegetation Management	• Localized weed issues are evident within the parcel. • OHV use is impacting vegetation and causing soil erosion. • The south end of parcel has been overgrazed, most recently by trespass cattle.
Wetland and Riparian Habitat Management	• Riparian and wetland habitat are not protected from grazing and recreational impacts. • Riparian areas on the east side of the river have been impacted by trespass cattle grazing, resulting in riverbank erosion terracing.
Agricultural Uses	No agricultural uses are authorized on the parcel.

3. IMPLEMENTATION PLAN

Management recommendations for the six PacifiCorp-owned parcels are intended to rectify the conflicts identified in Section 2.4. Management actions will track the higher level management direction described in the Section 1.1 as well as additional management recommendations identified through this planning process. The following provides an overview of the corrective actions to be taken for each parcel.

3.1 COTTONWOOD CREEK PARCEL

3.1.1 PUBLIC ACCESS

PacifiCorp will demarcate their property above the reservoir water line using appropriate methods. Fencing of the western, eastern, and northern boundaries will be completed or improved to prevent trespass grazing.

3.1.2 VEGETATION MANAGEMENT

Roadside weed spraying and properly timed backpack herbicide applications will be completed on the above-water portions of the parcel and in localized interior areas to control current weed infestations and prevent further infestations. Other weed control measures including biological or mechanical treatments may be considered if deemed appropriate.

3.1.3 WETLAND AND RIPARIAN HABITAT MANAGEMENT

Completing the boundary fence will prevent trespass grazing and protect the riparian and wetland areas as well as the shoreline zone. No further fencing or management action is necessary.

3.2 ONEIDA PLANT PARCEL

3.2.1 PUBLIC ACCESS

Although parts of the western edge of the parcel are steep and rocky, cattle graze there in trespass. Existing fencing does not coincide with property boundaries in most cases. PacifiCorp will demarcate their property using appropriate methods. Accurate boundary fencing will prevent trespass grazing and allow regulation of public access.

The existing pedestrian bridge and signage will be maintained as the primary public access to the "lawn area" on the western side of the river. Signage will be improved at points west of the river including demarcation of ownership and "No Trespassing" signage to discourage public use of the bypassed reach.

Additional signage will be posted and facilities will be provided at the Oneida Narrows put-in and the Day Use Area including the following: (1) a recreational rules sign; (2) a "Part 8" sign; (3) a "Stop" sign; (4) a "No Fires" sign; (5) a "Speed Limit 10 mph" sign; and (6) signage reminding visitors to carry out their own garbage (pack in, pack out, etc.). In addition, a portable toilet will be placed at the put-in, and the composting toilet at the Day Use Area will be replaced with a portable toilet. Debris will be removed from the recreation sites. The parking areas will be maintained to provide high-quality access, including annual maintenance and grading. The boat put-in and the ramp at the Day Use Area will be maintained annually. The recreation sites will be inspected periodically (every 5 years, per LMP and RTSP) for signs of environmental damage, and appropriate steps will be taken if damage is detected. PacifiCorp will coordinate with the BLM to control access to the bypassed reach in the interest of public safety.

3.2.2 VEGETATION MANAGEMENT

Weed control measures are currently undertaken around the Oneida Plant. Additional herbicide applications or other mechanical or biological controls will be implemented where appropriate. In addition, treatments along road sides and in localized interior areas are needed to control current weed infestations and to prevent further infestations.

3.2.3 WETLAND AND RIPARIAN HABITAT MANAGEMENT

Completing the boundary fence will prevent trespass grazing, protecting the riparian zone and wetlands. No further fencing or management action is necessary.

3.3 WESTSIDE PARCEL

3.3.1 PUBLIC ACCESS

PacifiCorp will demarcate their property using appropriate methods. Completion of the boundary fencing will prevent trespass grazing and OHV access. Property ownership and "No Motorized Vehicle Access" signage will be posted at points where OHVs access the parcel from adjacent land.

3.3.2 VEGETATION MANAGEMENT

The parcel is included in an agricultural lease agreement that includes the Eastside and Redpoint parcels. This agreement was renewed for 5 years in 2004, but no agricultural use has occurred on this parcel since the renewal. As a result, decadent seeded pasture grasses dominate the parcel's lowland pasture area.

For purposes of vegetation management, the agricultural use options described below in Section 3.3.4 will be considered on the Westside Parcel. If no appropriate agricultural use is identified and employed during the remaining lease term, the pasture area will be rehabilitated to a native upland habitat type when the lease ends in 2011.

Current weed infestations will be treated with a combination of chemical, biological, and mechanical treatments, where appropriate, to minimize the spread of weeds. These treatments may include backpack herbicide applications, grazing, prescribed fire, and/or revegetation.

Fencing the western boundary will restrict OHV access and trespass grazing, thereby preventing further impacts on vegetation and limiting soil erosion.

3.3.3 WETLAND AND RIPARIAN HABITAT MANAGEMENT

Fencing the parcel's western boundary will restrict neighboring cattle from accessing the riparian and wetland areas. If grazing were to occur (see Section3.3.4), the river fenceline would be completed to prevent cattle from impacting the riverine system.

3.3.4 AGRICULTURAL USES

The current 5-year agricultural lease has been in effect since 2004 although no agricultural use of the Westside Parcel has occurred since its renewal. PacifiCorp has determined that several options including grazing and hay or native seed farming may be appropriate uses. If a balanced economically and ecologically viable scheme is not developed and proposed by the time the current lease expires, the lease will not be renewed. The Westside Parcel will be revegetated with native upland grasses and shrubs.

Grazing is currently not permitted on the parcel but will be considered if adequate infrastructure (e.g. fencing and water sources) is in place to protect the river and to prevent overgrazing. The lessee will be permitted to utilize either portable corrals/enclosures or a multi-pasture rotational system.

The number of animals permitted and the season of use would be determined based on the type of operation proposed. A multi-pasture grazing rotation would improve the condition and

productivity of the decadent seeded pastures on this parcel. Any new grazing management plan will include the following elements:

- Adaptive management will be employed to monitor grazing and make adjustments as necessary.

- Grazing will continue until moderate utilization (31 – 60 percent; see Section 4.1.2) of the key forage species on a given pasture has occurred. Key forage species on each pasture and their average ungrazed height are identified in Appendix C.

- The number of animal units grazed will be allowed to vary on an annual basis depending on available forage. An animal unit consists of one cow and her calf or the equivalent for other livestock types.

- Grazing will be monitored throughout the grazing season by the lessee, with spot checks by PacifiCorp. PacifiCorp will train the lessee on forage utilization monitoring method described in Appendix C. Following an initial pre-grazing forage height assessment, the lessee will submit monthly utilization reports to PacifiCorp. Once the utilization limit has been met on all pastures, livestock will be removed from the parcel. Additional grazing will be allowed as long as sufficient plant matter is left to insure the health of forage species and protect the soil in the fall. Sufficient plant matter will be defined as the amount that would be left following moderate utilization of key forage species after the initial grazing (see Section 4.1.1).

- The parcel will also be monitored in the longer term by PacifiCorp for signs of increases in undesirable species and increases in weed infestations (see Section 4.2).

The only permanent water source currently available to cattle is located at approximately the midpoint of the parcel boundary where a livestock access point to the river is provided. No other natural water exists on the parcel. Completion of the river fence would be required if grazing continued. So, livestock would require off-river water sources or trucked water.

If portable pens were utilized to graze livestock, the pens would be rotated periodically, reducing the potential for overgrazing. All perimeter and internal fences would be maintained on an annual basis and during the grazing season.

In place of grazing, the lessee has other potentially viable options including farming hay or native seed. PacifiCorp has agreed to permit either of these farming practices if the farming management is consistent with the LMP standards (Section 2.2.4) and minimizes environmental impacts.

If no acceptable agricultural plan for this parcel is finalized before the end of the lease term, PacifiCorp will not renew the lease and the parcel will be revegetated to a native upland habitat type.

3.4 EASTSIDE PARCEL

3.4.1 PUBLIC ACCESS

PacifiCorp will demarcate their property using the appropriate methods. Fencing the eastern boundary will prevent trespass grazing and OHV access and to protect vegetation.

3.4.2 VEGETATION MANAGEMENT

The existing dispersed campsites will be closed and reclaimed where necessary. Weed spraying along the roadsides, biannual backpack herbicide applications and, if determined to be feasible, other biological or mechanical will be implemented to control weeds. This combination of well-timed treatments will help to reduce existing weed infestations and prevent new ones.

3.4.3 WETLAND AND RIPARIAN HABITAT MANAGEMENT

Completing the eastern boundary fence will prevent trespass grazing, protecting the riparian and wetland areas. Closure of dispersed campsites will also reduce concentrated, motorized use of sensitive riparian areas and limit expansion of dispersed use (see Section 3.7.2).

If grazing occurs on the parcel, the western border will require complete fencing to prevent livestock access to the river's riparian and wetland areas.

3.4.4 AGRICULTURAL USES

The Eastside Parcel is part of the only agricultural lease agreement in the planning area, which also includes the Westside and Redpoint parcels. As described in Section 3.3.4, the lessee must develop an economically viable and ecologically sound agricultural use plan that is compatible with PacifiCorp's environmental management objectives if the lease is to be extended beyond its current term. Options include farming hay or native seed or grazing livestock. If grazing were to occur, it would be necessary to implement a multi-pasture rotational grazing system. The river's riparian area would be fenced and on or off-river water developments would be required for livestock. The same stipulations (e.g. forage utilization standards, monitoring, etc.) for grazing on the Westside Parcel (see Section 3.3.4) would hold for the Eastside Parcel.

If no agricultural plan is developed within the current lease term, PacifiCorp will not renew the agricultural lease agreement, and the parcel will be revegetated with native upland habitat types.

3.5 REDPOINT PARCEL

3.5.1 PUBLIC ACCESS

PacifiCorp will use the appropriate methods to demarcate their property. Completing existing fencelines, particularly along the Oneida Project Road, will prevent dispersed camping and OHV access. Roadside parking for day use will be maintained.

Fencing the parcel's eastern border will also prevent trespass grazing. Gating or barricading the ungated dirt access roads leading from the Oneida Project Road to the river will prevent vehicle access to the river.

Off-highway vehicles in Franklin County must be street legal, according to county vehicle ordinances. PacifiCorp will request that Franklin County include PacifiCorp property under this vehicle ordinance, and to enforce OHV restrictions.

As noted in Section 3.4.1, closure and rehabilitation of existing dispersed campsites will prevent expansion of the sites and further environmental degradation. An effective public outreach campaign will be mounted to insure effective implementation of site closures.

3.5.2 VEGETATION MANAGEMENT

Any existing dispersed campsites will be closed with an appropriate barrier (e.g. fencing, gates, rocks, etc.). The fire rings along the Oneida Project Road and in the riparian forest will be removed, and the areas reclaimed where necessary.

A combination of weed treatments that include roadside weed spraying, biannual backpack herbicide applications, and, if determined to be feasible, other biological or mechanical will be implemented to reduce existing weed infestations and to promote propagation of native vegetation.

3.5.3 WETLAND AND RIPARIAN HABITAT MANAGEMENT

Completing the boundary fence will prevent trespass grazing and protect the riparian zone and wetlands from trampling. Gating, placing barriers (e.g. rocks), or posting "No Motorized Vehicle Access" signs at the undesignated roads will prevent public access to the forested riparian area along the river. Closure of dispersed campsites will reduce concentrated, motorized use of sensitive riparian areas and limit expansion of dispersed use (see Section 3.7.2).

If grazing is permitted on the parcel, fencing the river will buffer the riparian area and will prevent livestock trampling in the riparian and wetland vegetation and will protect the riverbanks.

3.5.4 AGRICULTURAL USES

As part of the agricultural lease agreement comprising the Westside and Eastside parcels, the Redpoint Parcel will be included in any use plan that is developed. The options include any described in Section 3.3.4 including grazing. If grazing is deemed an appropriate and viable use, a multi-pasture rotational grazing system will be implemented. Complete fencing will prevent cattle access to the river riparian and wetland areas. All grazing management stipulations will apply to grazing on the Eastside Parcel including utilization, monitoring, and reporting requirements (see Section 3.3.4).

3.6 MINK CREEK PARCEL

3.6.1 PUBLIC ACCESS

PacifiCorp will demarcate their property using appropriate methods. Fencing the eastern boundary will prevent trespass cattle grazing, thus protecting the relatively intact riparian area.

Demarcating property ownership and placing barriers (e.g., rocks) at appropriate vehicle pull-outs located along the Oneida Project Road will prevent further riverbank destabilization. Existing dispersed campsites will be closed and signed to prevent future overnight use (see Section 3.7.2). Fencing OHV access points or placing other types of barriers (e.g., gates or rocks) at these locations will reduce resource damage.

Additional signage will be posted and facilities will be provided at the Oneida Narrows take-out including: (1) a recreational rules sign; (2) a "Part 8" sign; (3) a "No Fires" sign; (4) signage reminding visitors to carry out their own garbage (pack in, pack out, etc.); and (5) a portable toilet. Litter/debris will be removed from the recreation sites. The parking area will be maintained to provide high-quality access, including annual maintenance and grading, and the boat ramp will be graveled as appropriate. The recreation site will be inspected periodically for signs of environmental damage, and appropriate steps will be taken if damage is detected.

With the cooperation of Franklin County, enforcement of the OHV ordinance will reduce impacts on vegetation, prevent further soil erosion, and preclude vehicle access to areas off of the Oneida Project Road.

A single sign will be installed at the southern entrance in place of the multiple disjointed signs currently located at the entrance. The sign will include use restrictions and recreational rules for the Oneida planning area.

3.6.2 VEGETATION MANAGEMENT

Dispersed campsites will be closed and reclaimed where necessary throughout the parcel, and fire rings will be removed. Undesignated OHV routes will be closed using appropriate barriers and posted to stop ongoing damage to soils and vegetation.

Weed spraying along the roadside and biannual backpack herbicide applications will reduce widespread weed infestations and promote propagation of native vegetation. Biological and mechanical controls including fire may be utilized in the future for weed control.

3.6.3 WETLAND AND RIPARIAN HABITAT MANAGEMENT

Completing the boundary fence will prevent trespass grazing, protecting the riparian zone and wetlands. Fencing and placing barriers, where appropriate, will reduce OHV access to the river riparian areas. No further fencing or management action is necessary.

3.7 AREA-WIDE MANAGEMENT

As described in Section 1.1, some road maintenance and recreation management requirements stem from the relicensing process and are not directly parcel-specific conflicts identified in this

Plan. Monitoring maintenance and improvements of the Oneida Project Road and management of recreational use are broader area-wide compliance issues. Implementation of these requirements is discussed below.

3.7.1 ROAD MAINTENANCE

Due to historical Project use of the road, PacifiCorp is the primary entity responsible for ongoing, maintenance of the Oneida Project Road (Appendix G). Maintenance activities include surface blading, dust abatement, snow removal, culvert clearing, etc. Blading and snow removal have occasionally pushed sidecast material into the riparian fringes along the road. To address this issue, PacifiCorp will provide training for the road maintenance operators to limit the affects of grading on these sensitive areas.

In addition to routine maintenance, Article 417 of the Agreement and the RTSP stipulate that PacifiCorp complete a number of improvements to the road, including the following:

- Maintenance of traffic signs along the Oneida Project Road.

- Construction of one turn-around loop at or near the Day Use Area to improve safety and maneuverability for vehicles along the Oneida Project Road. PacifiCorp will provide a sign to indicate campsite availability at the Maple Grove Campground located just north of the Oneida Narrows put-in site where there is appropriate room for vehicle turn-around.

- Provide annual funding to the local governmental law enforcement agency for enforcement from May 1 through October 1 along the Oneida Project Road.

- Implementation of dust abatement measures along the Oneida Project Road adjacent to and up to 100 feet on either side of the Maple Grove and Redpoint Campgrounds from Memorial Day to Labor Day.

The RTSP also calls for specific improvements to Segment E of the road, from the Oneida Day Use Area to Maple Grove Campground to improve traffic safety (see Section 1.1). These include corner improvements, new pullouts, and erosion control measures, as funding allows. PacifiCorp will consult with the BLM to prioritize potential road improvements in Segment E. These improvements will then be carried out by the BLM with funding provided by PacifiCorp.

To address uncontrolled OHV access, PacifiCorp will ask that Franklin County enforce the county's vehicle ordinances on PacifiCorp property and on the Oneida Project Road requiring that these vehicles be "street-legal." Improving enforcement of OHV restrictions and designating the Oneida Project Road as the only motorized vehicle route will limit OHV use in the planning area.

3.7.2 RECREATION MANAGEMENT

The relicensing process and this site planning effort identified three planning-area-wide recreation management issues:

- The capacity of the existing Maple Grove and Redpoint campgrounds may not be sufficient to meet demand.

- During the relicensing process, PacifiCorp agreed to consider allowing the BLM to develop and maintain a third RV accessible campground on PacifiCorp land to meet assumed demand.

- Existing and expanding dispersed campsites are a management concern for PacifiCorp (per the LMP and RTSP).

PacifiCorp will coordinate closely with the county to communicate to the public the issues associated with dispersed camping and the rationale for proposed management actions.

In the short term, existing dispersed campsites will be closed, as required by the LMP and the RTSP. Barriers will allow sufficient room for roadside day-use parking. In addition to site closure, signs and barriers (e.g. rocks or fencing) will be placed at the sites to prevent future motorized access and continued site degradation.

As noted in the RTSP, PacifiCorp has latitude to allow the BLM to construct new facilities where appropriate to help meet the many existing and future recreation needs during the new license term. However, this must be weighed against the area's ecological capacity to sustain further expansion. If developing a third campground by BLM is deemed appropriate, planning for and implementation of this new recreational opportunity will require PacifiCorp outreach and stakeholder support.

The current assessment of possible sites for a new campground, including the block of riverine forest on the Redpoint Parcel and the two cultivated fields on the Eastside Parcel, was based on four criteria:

- Adequately accommodating an RV accessible campground (e.g., size, topography, and access).

- Minimizing adverse environmental impacts of such a facility.

- Providing access to other recreational amenities in the planning area (e.g., the reservoir, the Day Use Area, and the boating put-in and take-out).

- Reducing adverse impacts on other recreationists, particularly boaters and fishermen.

Based on these criteria, the northernmost fallow field on the Eastside Parcel, located across from the Oneida Narrows put-in on the east side of the Oneida Project Road is the most logical and environmentally-sound site for a third developed campground (Figure 10).

3.7.3 Road and Recreation Monitoring

Implementation of management actions including monitoring road maintenance as described in Section 3.7.1 and other monitoring will be documented in the annual report. Nonconformance issues related to public use, recreational safety, and road maintenance will be reviewed by PacifiCorp's Environmental Management System Team and the ECC.

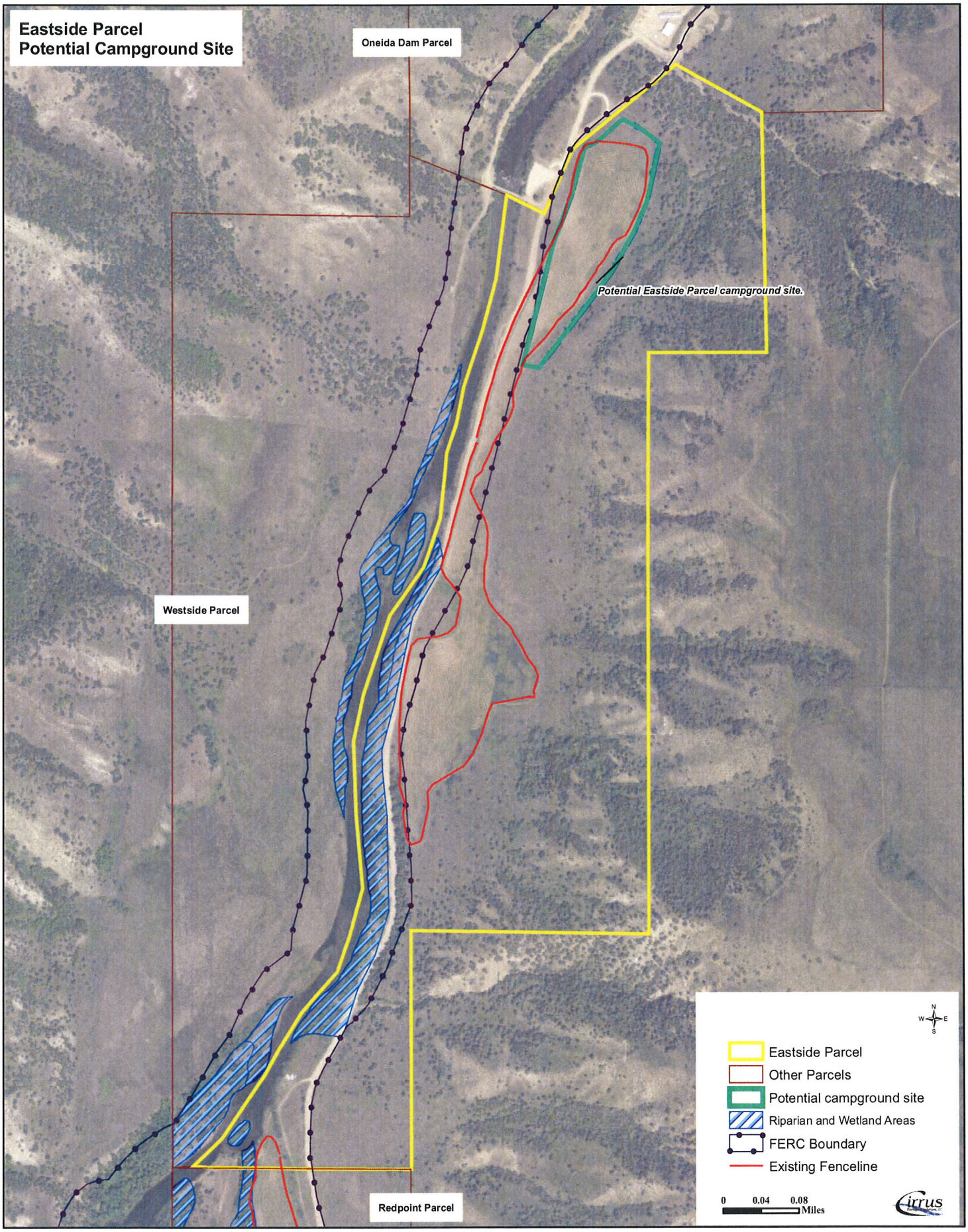


Figure 10. Potential campground site.

Monitoring of recreation use levels is also required over the term of the new license by FERC, per Form 80 reporting requirements. Every 6 years, PacifiCorp will complete and file a FERC Form 80, summarizing use levels in the Oneida Project area. The FERC Form 80 will be submitted to the ECC for review and filed with FERC accounting the progress made toward implementation of the RTSP and/or any changes to the RTSP program.

3.8 IMPLEMENTATION SCHEDULE

The following table outlines the management actions to be undertaken on each parcel (as discussed in Sections 3.1 – 3.6) and notes the anticipated implementation date and the schedule for post-implementation monitoring. Monitoring efforts are described in detail in Section 4.

Table 4. Implementation Schedule for the Oneida Site Plan.

COTTONWOOD CREEK PARCEL	**Corrective Action**	**Timeframe**	**Post-Implementation Monitoring Schedule**	**Completed?**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	Annual inspection.	
	• Insure fence and fence post condition on all boundaries.	Spring 2008	Annual inspection.	Ongoing
Vegetation Management	• Revise the weed control contract to include backpack spraying and other appropriate techniques on the above-water portions of the parcel. (Note: this action would affect all parcels.)	Spring 2006	Revise as needed; monitor seasonally.	Ongoing
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas above the waterline are protected, no other action is required.	Spring 2008	Annual inspection.	Ongoing
Agricultural Uses	Not Applicable.			

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.				
ONEIDA PLANT PARCEL	**Corrective Action**	**Timeframe**	**Post-Implementation Monitoring Schedule**	**Completed?**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	Annual inspection.	
	• Insure fence and fence post condition on all boundaries. • Complete the signage and facilities at the Day Use Area and the Oneida Narrows put-in with: (1) recreational rules signs; (2) "Part 8" signs; (3) a "Stop" sign; (4) "No Fires" signs; (5) "Speed Limit 10 mph" signs; (6) "Pack It In, Pack It Out" signs; (7) a portable toilet at the put-in; and (8) a replacement for the composting toilet at the Day Use Area. • Post "No Trespassing" and ownership signs on the westside near the pedestrian bridge and "lawn area" to prevent public access to the bypassed reach and "old camp' areas.	Spring 2008	Annual inspection.	Ongoing
	• Maintain the parking areas according to RTSP standards (p. 29).	Ongoing	Annual inspection. Biweekly removal of debris.	Ongoing
	• Maintain boat access at Oneida Narrows put-in and the Day Use Area (RTSP, p. 29).	Ongoing	Monthly (in season) inspection of boat launches for debris. Biannually (pre- and post-season) inspection. of boat launch and removal of debris.	Ongoing
	• Coordinate with the BLM to control public access to the bypassed reach.	Fall 2006		
Vegetation Management	• Undertake appropriate weed control measures along the riparian zone and the Oneida Project Road as well as in localized, internal areas.	Spring 2007	See the Performance Tracking form.	Ongoing
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	Annual inspection.	Ongoing
Agricultural Uses	Not Applicable.			

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.

WESTSIDE PARCEL	Corrective Action	Timeframe	Post-Implementation Monitoring Schedule	Completed?
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	Annual inspection.	
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access.	Spring 2008	Annual inspection.	Ongoing
Vegetation Management	• Revegetate the lowlands with native upland vegetation if agricultural use is discontinued.	Fall 2011	Annual inspection.	
	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	See the Performance Tracking form.	Ongoing
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	Annual inspection.	Ongoing
Agricultural Uses	• Establish an agricultural use or alternative reclamation plan for the parcel.	Spring 2011	Update as needed.	Ongoing
	Implement the following measures, if applicable:			
	• Conduct annual pre-grazing forage height assessment:	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Ongoing
	• Train lessee on forage utilization monitoring.	Spring 2007 (or prior to initiating grazing)	Update as needed.	Ongoing
	• Obtain lessee forage utilization monitoring reports as required by the lease agreement.	Monthly	See the Performance Tracking form.	Ongoing
	• Complete interior and riparian zone fences to allow a multi-pasture grazing system within the parcel.	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Ongoing

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.				
WESTSIDE PARCEL (cont'd)	**Corrective Action**	**Timeframe**	**Post-Implementation Monitoring Schedule**	**Completed?**
Agricultural Uses (cont'd)	• Develop and inspect water sources at appropriate locations or water trucking plan.	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Monthly

EASTSIDE PARCEL	**Corrective Action**	**Timeframe**	**Post-Implementation Monitoring Schedule**	**Completed?**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	Annual inspection.	
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access.	Spring 2008	Annual inspection.	Ongoing
	• Close dispersed campsites using rocks or fences.	Spring 2007	Annual inspection.	Ongoing
	• Remove existing fire rings at undesignated campsites.	Spring 2007	Annual inspection.	Ongoing
Vegetation Management	• Rehabilitate dispersed campsites, where necessary.	Fall 2007	Annual inspection.	Ongoing
	• Revegetate the pastures with native upland vegetation if agricultural use is discontinued.	Fall 2011		
	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	See the Performance Tracking form.	Ongoing
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	Annual inspection.	Ongoing
Agricultural Uses	• Establish an agricultural use or alternative reclamation plan for the parcel.	Spring 2011	Update as needed.	Ongoing

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.

EASTSIDE PARCEL (cont'd)	Corrective Action	Timeframe	Post-Implementation Monitoring Schedule	Completed?
Agricultural Uses (cont'd)	Implement the following measures, if applicable:			
	• Conduct annual pre-grazing forage height assessment:	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Ongoing
	• Train lessee on forage utilization monitoring.	Spring 2007 (or prior to initiating grazing)	Update as needed.	Ongoing
	• Obtain lessee forage utilization monitoring reports as required by the lease agreement.	Monthly	See the Performance Tracking form.	Ongoing
	• Complete interior and riparian zone fences to allow a multi-pasture grazing system within the parcel.	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Ongoing
	• Develop and inspect water sources at appropriate locations or water trucking plan.	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Monthly

REDPOINT PARCEL	Corrective Action	Timeframe	Post-Implementation Monitoring Schedule	Completed?
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	Annual inspection.	
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access.	Spring 2008	Annual inspection.	Ongoing
	• Close dispersed campsites using rocks or fences.	Spring 2007	Annual inspection.	Ongoing
	• Remove existing fire rings at undesignated campsites.	Spring 2007	Annual inspection.	Ongoing

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.

REDPOINT PARCEL (cont'd)	Corrective Action	Timeframe	Post-Implementation Monitoring Schedule	Completed?
Vegetation Management	• Rehabilitate dispersed campsites where necessary.	Spring 2007	Annual inspection.	Ongoing
	• Revegetate with native upland vegetation if agricultural use is discontinued.	Fall 2011	Annual inspection.	Ongoing
	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	See the Performance Tracking form.	Ongoing
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	Annual inspection.	Ongoing
Agricultural Uses	• Establish an agricultural use or alternative reclamation plan for the parcel.	Spring 2011	Update as needed.	Ongoing
	Implement the following measures, if applicable:			
	• Conduct annual pre-grazing forage height assessment:	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Ongoing
	• Train lessee on forage utilization monitoring.	Spring 2007 (or prior to initiating grazing)	Update as needed.	Ongoing
	• Obtain lessee forage utilization monitoring reports as required by the lease agreement.	Monthly	See the Performance Tracking form.	Ongoing
	• Complete interior and riparian zone fences to allow a multi-pasture grazing system within the parcel.	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Ongoing
	• Develop and inspect water sources at appropriate locations or water trucking plan.	Spring 2007 (or prior to initiating grazing)	Annual inspection.	Monthly

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.

MINK CREEK PARCEL	Corrective Action	Timeframe	Post-Implementation Monitoring Schedule	Completed?
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	Annual inspection.	Ongoing
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access. • Extend northern fenceline further into the river to prevent trespass grazing. • Complete the signage and facilities at the Oneida Narrows take-out with: (1) a recreational rules sign; (2) a "Part 8" sign; (3) a "No Fires" sign; (4) a "Pack It In, Pack It Out" sign; and (5) a portable toilet.	Spring 2008	Annual inspection.	Ongoing
	• Install one sign at the planning area's south entrance that includes: (1) recreational rules; (2) "Part 8"; (3) a "No Fires" sign; (4) a "Speed Limit 10 mph"; and, (5) "Pack It In, Pack It Out" requirement.	Fall 2006	Annual inspection.	Ongoing
	• Maintain the parking area according to RTSP standards (p. 29).	Ongoing	Annual inspection. Biweekly removal of debris.	Ongoing
	• Maintain boat access (RTSP, p. 29).	Ongoing	Monthly (in season) inspection. of boat launches for debris. Biannually (pre- and post-season) inspection. of boat launch and removal of debris.	Ongoing
	• Close dispersed campsites.	Fall 2006	Annual inspection.	Ongoing
	• Remove existing fire rings at undesignated campsites.	Spring 2007	Annual inspection.	Ongoing
Vegetation Management	• Rehabilitate dispersed campsites where necessary.	Fall 2007	Annual inspection.	Ongoing
	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	Annual inspection.	Ongoing

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.				
MINK CREEK PARCEL (cont'd)	**Corrective Action**	**Timeframe**	**Post-Implementation Monitoring Schedule**	**Completed?**
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	Annual inspection.	Ongoing
Agricultural Uses	Not Applicable.			

AREA-WIDE MANAGEMENT	**Corrective Action**	**Timeframe**	**Post-Implementation Monitoring Schedule**	**Completed?**
Road Maintenance	• Conduct regular maintenance on the Oneida Project Road including surface blading, dust abatement, snow removal, minor structure replacement, brush removal, culvert cleaning, and hazard tree removal.	Annual or more frequently as needed.	Monthly inspection.	Ongoing
	• Maintain traffic signs along the Oneida Project Road.	Annual	Annual inspection.	Ongoing
	• Construct a turn-around loop at or near the Day Use Area to improve safety and maneuverability for vehicles along the Oneida Project Road. Provide a sign just north of the Oneida Narrows put-in to indicate campsite availability at Maple Grove Campground.	Fall 2007	Annual inspection.	Ongoing
	• Fund law enforcement patrols along the Oneida Project Road May 1 through October 1.	Annual	Annual inspection.	Ongoing
	• Request that Franklin County cooperate to enforce the OHV ordinance on PacifiCorp land.	Winter 2006		Ongoing
	• Implement dust abatement measures along the Oneida Project Road adjacent on and up to 100 feet on either side of the Maple Grove and Redpoint campgrounds from Memorial Day to Labor Day.	Memorial Day through Labor Day	Annual inspection.	Ongoing
	• Train PacifiCorp operators on appropriate road maintenance procedures.	Annual	Complete as needed.	Ongoing

Table 4. (cont'd) Implementation Schedule for the Oneida Site Plan.

AREA-WIDE MANAGEMENT (cont'd)	Corrective Action	Timeframe	Post-Implementation Monitoring Schedule	Completed?
Road Maintenance (cont'd)	• Provide BLM funding to complete improvements on Segment E of the Oneida Project Road including: (1) corner improvements; (2) new pullouts; and (3) erosion control measures.	Fall 2006	Annual inspection.	Ongoing
	• Coordinate with the BLM and other public agencies to designate the Oneida Project Road as the only motor vehicle route in the planning area.	Winter 2006		Ongoing
Recreation Management	• Inspect the planning area and document public use, recreational safety, road maintenance, and environmental impacts for PacifiCorp EMS.	2011	5-year interval.	Ongoing
	• Complete FERC Form 80 to assess recreational use levels.	2012	6-year interval.	Ongoing

4. MONITORING

Monitoring the implementation, maintenance, and performance of management programs at each Project development is a central component of the LMP. Accordingly, monitoring is a key element of this Plan, and a structured plan for monitoring is outlined below. The plan includes two types of monitoring, compliance monitoring and performance tracking. The former addresses implementation and maintenance of the management actions specified in this Plan. The latter focuses on achieving the on-the-ground objectives (i.e., Desired Future Conditions; Section 1.3) of the management actions. As stipulated in the LMP, monitoring results will be included in annual reports to the FERC. Preparation of these annual reports will: (1) help PacifiCorp determine whether this Plan should be adapted to observed, changing conditions over time, and (2) help prioritize management actions each year.

4.1 COMPLIANCE MONITORING

4.1.1 GENERAL COMPLIANCE

Compliance monitoring provides a mechanism to track implementation of the Plan. This aspect of monitoring is relatively straightforward. It consists of annual review of the year's progress in implementing the management or corrective actions comprised by the Plan, in accordance with the schedule described in Section 3.8. A compliance tracking form for each parcel is provided in Appendix D. The forms list the management actions and the timing of each, followed by a

"yes/no" response blank and a "comment" blank. If a management action remains incomplete, the comment will specify the reason(s). This information will subsequently be considered by PacifiCorp, the ECC, and/or the FERC, as appropriate, providing a basis for revision of the Plan and/or implementation and monitoring schedules. Compliance monitoring will generally be completed by PacifiCorp personnel or contractors with the exception of forage utilization, as discussed below, where lessees also provide some monitoring input. For many management actions included in the Implementation Plan (e.g., installation of signage and sanitary facilities), monitoring for compliance may be all that is required; performance tracking may not be relevant or necessary.

4.1.2 FORAGE UTILIZATION

Forage utilization is defined as the proportion of current year's total aboveground plant production that is consumed or trampled by grazing animals. It is based on key forage plant species rather than the entire plant community. It is a management tool rather than a management objective. While it is not an indicator of range condition and trend, it can be a useful variable to consider when interpreting condition and trend information. Various approaches have been developed to assess forage utilization, ranging from very basic ocular assessments of residual forage to complex methodologies involving clipping and weighing of forage plots. Selection of an appropriate approach is based primarily on the need being addressed and the resources available.

If grazing is approved of as an agricultural use under the current agricultural lease agreement, this Plan provides guidance for establishing forage utilization thresholds that will dictate when livestock are moved from one pasture to another within a parcel or removed from the parcel altogether (see Sections 3.3.4, 3.4.4, and 3.5.4). Pasture shifts are part of day-to-day management and is the responsibility of the grazing lessee. Therefore the lessee is charged with monitoring of utilization, subject to spot checks by PacifiCorp or contract personnel.

The approach to monitoring forage utilization selected for this application is relatively simple, based on ocular assessment of the amount of forage vegetation removed, but its accuracy depends to a large degree on the observer's familiarity with the site. These factors make it well suited to this purpose. The method was described in a paper titled "Can I Monitor My Rangeland Effectively and Quickly," by Jeff Mosely, Associate Professor and Extension Range Management Specialist, Montana State University (undated).

The method calls for identification of the key forage species in a given pasture then ongoing assessment of the amount of material removed from these species by grazing or trampling, in terms of both the percentage of individual plants that are grazed and the percentage of material removed from grazed plants. This assessment is based on the five-level classification of forage utilization described in Table 5.

Following identification of the key forage species for each pasture in the grazing lease, the average ungrazed height of each species is estimated based on the classifications shown in Table 5. This estimate is provided as an aid to assessing percent utilization, recognizing that (1) forage plant biomass is not linearly related to plant height, and (2) average plant height can vary substantially from season to season. This key species information will be recorded on forms provided in Appendix C and monthly utilization reports will be required from the lessee.

Table 5. Levels of forage utilization.		
Use Class	**Average Utilization of Individual Plants**	**Description**
None	0%	No plants grazed.
Light	1-30%	Less than half of the plants receive 70% use, most plants ungrazed (0% use). Only the best forage plants grazed.
Moderate	31-60%	Most plants receive 70% use, a few plants at 10-30% use, and a few plants ungrazed (0% use).
Heavy	61-80%	Almost all plants receive 70% use or more, and very few, if any, ungrazed (0% use).
Severe	>81%	All plants grazed. Almost all plants receive 90% use.

Estimation of utilization of individual plants is based on ocular assessment of grazed plants, so season-long observation of the pasture increases accuracy. The Mosley paper provides illustrations of various levels of utilization under uniform grazing (all of the plant grazed to a uniform level) and uneven grazing (only part of the plant grazed). These illustrations are included in Appendix C.

The planning area's grazing lessee will be trained in this method, including field practice. Efforts will involve the PacifiCorp or contract personnel who are responsible for spot checking utilization in the planning area in the lessee training. This will help insure consistent assessments.

The lessee will assess forage utilization through the grazing season. Utilization records per se will not be maintained by the lessee, but dates of pasture shifts, as well as the dates livestock are turned out onto the parcel and taken off, will be recorded. PacifiCorp or contract personnel will spot check utilization levels in the field repeatedly during the grazing season, and the results will be recorded on the compliance monitoring form discussed above (Section 4.1.1).

4.2 PERFORMANCE TRACKING

Performance tracking provides a means of assessing whether management actions, once implemented as documented by compliance monitoring, are achieving the goals and objectives of this Plan. Performance tracking assists Project personnel in assessing progress toward desired conditions for a given resource (Section 1.3), compliance with License requirements and LMP/RTSP guidance (Section 1.1), and revising the parcel-specific implementation plans employing an adaptive approach to managing the planning area parcels.

Given the diversity of environmental conflicts discussed in Section 2.3 and summarized in Section 2.4, and the number of associated Desired Future Conditions, guidelines, and standards included in the LMP and RTSP, a huge number of performance monitoring methodologies could potentially be developed. These could span significant ranges in terms of scope, objectivity, technical sophistication, cost, and time demand. The appropriate methodology for this application is broad in scope (i.e., is applicable to a number of environmental conflicts), objective, and relatively low in technical sophistication, cost, and time demand. Otherwise, performance tracking would be impractical and would not be effectively implemented. Based on these criteria, performance tracking will comprise the following steps:

- An initial site assessment of each parcel, completed in the first year of plan implementation, specifically focusing on the environmental conflicts identified through this planning exercise. A tracking form specific to each parcel, listing the applicable desired future conditions and potential non-compliance issues summarized in Table 3, has been developed and is included in Appendix E. PacifiCorp or contract personnel will complete the initial site assessments.

- Photo points will be established as part of the initial assessment. The reference photographs, where appropriate, will effectively aid in tracking progress toward achieving one or more of the desired future conditions. The tracking form in Appendix E indicates where photo plots are established. They will be located using a GPS and marked on the ground to allow replication. Guidance on the reference photograph methodology is provided in Appendix F.

- All or most of the information needed to complete the assessment forms was recorded in the course of this site planning exercise. This information will be transferred to the appropriate forms. On-site work during the first year of implementation will consist primarily of review of the completed forms, establishment of the photo points, and taking the initial round of photos.

- The site assessments, including photographs, will be repeated periodically. The 5-year interval indicated by LMP for monitoring wetlands and riparian areas in the Conservation Lands management category will serve as the framework unless PacifiCorp or the ECC request a shorter interval for a given conflict, parcel, or site.

- This Plan, supported by the initial round of tracking forms and reference photos, will constitute the reporting of the initial site assessment. The results of subsequent assessments, each 5 years unless this schedule is altered, will be documented in the annual monitoring report submitted to the ECC and the FERC, at the 5-year intervals. These reports will summarize progress toward conflict resolution, identify any conflicts or sites where Plan management actions are not achieving adequate progress, and suggest revisions to pertinent management actions. The implementation schedule and tracking forms will be modified accordingly, establishing a new baseline for subsequent performance tracking.

This methodology is consistent with an adaptive management strategy upon which this Plan, the LMP, and the RTSP are based. It is also practical, cost effective, and appropriate to the task at hand. The combination of tracking form data and repeated reference photographs allows for achieving the desired future conditions with effective tracking of key issues such as weed control,

condition and trend of vegetation on grazing leases, ecological health of wetlands and riparian areas, and condition of developed recreational sites.

5. APPENDICES

A. Land Management Plan Land Use Standards
B. Noxious Plant List
C. Forage Utilization Monitoring Information
D. Compliance Monitoring Form
E. Performance Tracking Form
F. Reference Photograph Guidance

APPENDIX A: LAND MANAGEMENT PLAN LAND USE STANDARDS

Table A.1. Specific Land Use Standards for Lands in the PROJECT OPERATIONS Land Management Classification.

Issue	Land Use Standards
Public Access	• Public access is prohibited by way of security fencing and/or signage. These areas will be managed in a manner that is consistent with the public health and safety, and Project security needs (Public Safety Plan). • No overnight camping is permitted on PacifiCorp land. • Motorized vehicles are permitted only on existing roads. Project personnel may occasionally need to access off-road areas to conduct O&M activities (e.g., hydro operations, reclamation measures, weed control, seeding, monitoring, etc.). • PacifiCorp will coordinate with local law enforcement agencies on trespass enforcement.
Vegetation Management	• "Clearance" zones will be maintained around all electrical generation equipment (transformers, switchyards, powerhouse, etc.) • Noxious weeds will be controlled annually. Pesticide application will conform to Federal and state regulations and product labels. PacifiCorp will protect against surface or groundwater contamination.
Wetland and Riparian Habitat Management	• Retention of riparian and wetland habitat is encouraged but not required due to need for maintaining safe Project operations. • Vegetation along river shorelines will be retained in a natural state to the extent possible.
Agricultural Uses	• Regular agricultural use is not permitted. Fencing will be maintained to exclude livestock if an agricultural lease is located adjacent to Project facilities. • In some cases, PacifiCorp may allow short-term controlled livestock grazing within selected areas to achieve desired vegetation conditions.

Table A.2. Specific Land Use Standards for Lands in the DEVELOPED RECREATION LAND Management Classification.	
Issue	**Land Use Standards**
Public Access	• Developed Recreation areas are open to public access. Use of established structures (picnic tables, boat ramps, campfire rings, etc.) will be encouraged. • Signage will be used to prohibit campfires, vegetation removal, and site hardening beyond the boundaries of the recreation site. Managed trails are allowed to extend beyond the recreation site. • Motorized vehicle use is restricted to established roads. • PacifiCorp will coordinate with local law enforcement agencies on visitor management and enforcement issues at developed recreation sites.
Vegetation Management	• Vegetation within the sites will be maintained for aesthetics and public safety, including hazard tree removal. • In areas where active public recreation does not occur, native vegetation will be retained to the extent possible. • Noxious weeds will be controlled annually. PacifiCorp will protect against surface and groundwater contamination. • Developed recreation sites and the adjacent lands will be monitored annually for environmental damage (e.g. erosion, vegetation removal, etc.). • Significantly damaged sites will be restored via stabilization and/or revegetation using approved native or non-invasive non-native plant species.
Wetland and Riparian Habitat Management	• Retention of riparian and wetland habitat is encouraged but is not required. Vegetation along river shorelines will be maintained to the extent possible. • Recreation structures that are too close to the shoreline will be relocated to other locations within the site if possible.
Agricultural Uses	• Agricultural use is not permitted. • Fencing will be maintained to exclude livestock if an agricultural lease is adjacent to Developed Recreation land management classification.

Table A.3. Specific Land Use Standards for Lands in the CONSERVATION Land Management Classification.	
Issue	**Land Use Standards**
Public Access	• Motorized vehicle use is prohibited off existing roads. • Dispersed camping is prohibited. Any newly discovered campsites will be removed and appropriate measures taken to correct damage and prevent future use. • Pedestrian and equestrian trails are allowed and may be hardened if needed. • In areas where a Conservation land management classification occurs adjacent to developed or dispersed recreation areas, signage will be installed at the boundary prohibiting fire rings, vegetation removal, and site hardening within the Conservation land management classification.
Vegetation Management	• Vegetation management will be limited to restoration of damaged sites. • Restoration projects will utilize approved native or non-invasive non-native plant species. • Mechanical, biological, and appropriate chemical methods will be emphasized for control of noxious weeds to minimize impacts to water quality. • Roads within or immediately adjacent to Conservation land management classifications will be maintained in a manner that is consistent with maintaining wetland and riparian vegetation.
Wetland and Riparian Habitat Management	• Springs and wetlands within the Conservation land management classifications that are currently used for agricultural purposes (through diversions and ditches) will continue to be utilized for irrigation, but will be managed to maintain or improve water quality. • PacifiCorp will monitor wetlands and riparian areas within Conservation land management classifications at least once every 5 years to determine if additional protection measures or vegetation management actions are necessary.
Agricultural Uses	• Grazing and farming are generally not permitted in Conservation land management classifications. The only exception is that controlled, short-term grazing may be considered as a management tool to achieve desired vegetation conditions. Grazing would only occur in Conservation land management classification within the FERC Project boundary after consultation with the ECC. Such grazing would adhere to standardized criteria (Natural Resources Conservation Service [NRCS] and other accepted sources) and monitoring. • Fencing will be maintained to exclude livestock where necessary. • Watering access points along the river may only be installed if off-river water sources (using existing irrigation diversions) cannot be used in adjacent lease areas.

Table A.3. (cont'd) Specific Land Use Standards for Lands in the CONSERVATION Land Management Classification.	
Issue	**Land Use Standards**
Agricultural Uses (cont'd)	• Existing agricultural irrigation systems that emanate within or cross Conservation land management classifications can continue to function under existing water rights. Diversion of water will only be conducted during the growing season. Future easement requests will require Best Management Practices (BMPs) by irrigation system owners. • PacifiCorp will explore options for terminating water diversions that are no longer necessary for agricultural purposes. If terminated, water will be returned to the Bear River via natural drainage ways (restored if necessary).

Table A.4. Specific Land Use Standards for Lands in the POTENTIAL AGRICULTURAL LEASE AREAS Land Management Classification.	
Issue	**Land Use Standards**
Public Access	• Motorized vehicle use is restricted to designated roads except as permitted for lessee-operated farm implements used to conduct agricultural activities. • Dispersed camping is prohibited. Non-motorized recreation use, such as hunting, hiking, fishing, etc., is permitted. • Improvements that enhance dispersed recreation use (other than camping), such as foot trails, signs, trash receptacles, portable toilets, and gravel parking areas, are permitted to minimize environmental damage. • PacifiCorp will periodically update methods used to manage public access if monitoring indicates ongoing impacts.
Vegetation Management	• Noxious weeds will be controlled annually. • Vegetation management will be limited to restoration of damaged sites. • Restoration projects will utilize native plant species, where possible or practical.
Wetland and Riparian Habitat Management	• Ditches within agricultural lease areas that are currently used for agricultural purposes will continue to be utilized for irrigation, but will be managed to maintain good water quality and to reduce impacts to nearby wetlands. • PacifiCorp will monitor wetland and riparian areas within agricultural lease areas to determine if additional protection measures or vegetation management actions are necessary.

Table A.4. (cont'd) Specific Land Use Standards for Lands in the POTENTIAL AGRICULTURAL LEASE AREAS Land Management Classification.	
Issue	**Land Use Standards**
Agricultural Uses	• Grazing and farming leases will utilize updated lease conditions that specify the maintenance of fencing, noxious weed control, protection of adjacent conservation buffers, and adherence to all environmental regulations. • Appropriate stocking rates will be determined for each agricultural lease area and will dictate appropriate animal-units (AU) to meet forage-animal balance and work toward "Desired Future Conditions." • Subleasing of leased land will not be permitted. • Off-river watering sources will be maintained within the lease area, where possible, utilizing water from existing diversion, ditches, and pipes. A minimum of 12 gallons per day per head is required (Idaho Department of Water Resources [IDWR] Water Law Handbook).

APPENDIX B: NOXIOUS WEEDS AND NON-NATIVE PLANT LIST

Species listed as noxious weeds by the State of Idaho include the following:

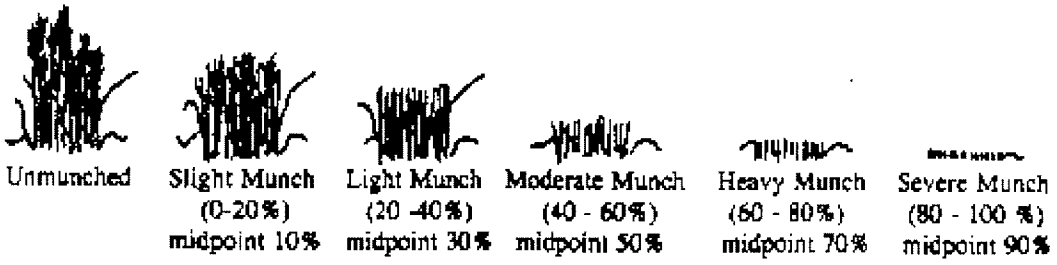
- Canada thistle *(Cirsium arvense)*
- Dyer's woad *(Isatis tinctoria)*
- Field bindweed *(Convolvulus arvensis)*
- Hoary Cress *(Cardaria draba)*
- Musk thistle *(Carduus nutans)*
- Perennial pepperweed (*Lepidium latifolium*)
- Poison hemlock (*Conium maculatum*)
- Scotch thistle (*Onopordum acanthium L.*)

Other weed or non-native species occurring in the planning area include:

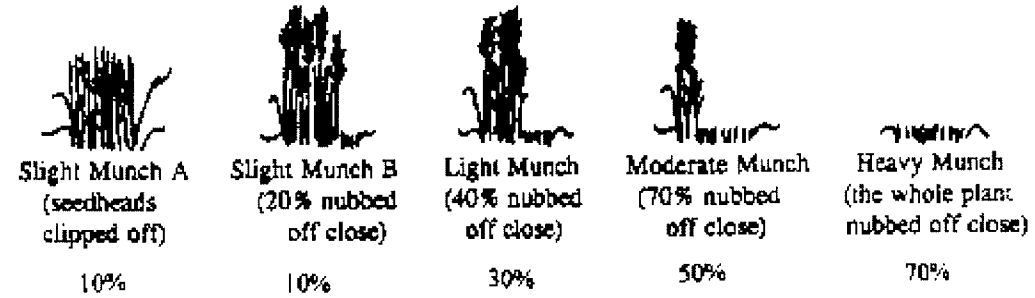
- Alfalfa *(Medicago sativa)*
- Bentgrass *(Agrostis spp.)*
- Bull thistle *(Cirsium vulgare)*
- Canada goldenrod *(Solidago canadensis)*
- Cheatgrass *(Bromus tectorum)*
- Common burdock *(Arctium minus)*
- Common flax *(Linum perenne)*
- Common mullein *(Verbascum thapus)*
- Common sagewort *(Artimesia campestris)*
- Common teasel *(Dipsacus sylvestris)*
- Curlycup gumweed *(Grindelia squarrosa)*
- Dandelion *(Taraxacum officinale)*
- Dogbane *(Apocynum spp.)*
- Houndstongue *(Cynoglossum officinale)*
- Kentucky bluegrass (*Poa pratensis)*
- Mustard *(Brassicaceae)*; various species of weedy mustards
- Orchardgrass *(Dactylis glomerata)*
- Prickly lettuce *(Lactuca serriola)*
- Snakeweed *(Gutierrezia sarothrae)*
- Stinging nettle *(Urtica dioica)*
- sweetclover *(Melilotus spp.)*
- Timothy grass (*Phleum pratense)*
- Western salsify *(Tragopogon dubius)*

APPENDIX C: FORAGE UTILIZATION MONITORING INFORMATION

Guide for "even" utilization:



Guide for "uneven" utilization:



Figures taken from McKinney. 1997. Rangelands. 19:4-7.

Forage Utilization Monitoring Forms

Inspection Date:

Westside Parcel

_____ Pasture			
Forage Species	**Average Ungrazed Height**	**Average Utilization & Use Classification (ref. Table 2 in J. Mosely paper)**	**Notes (other species present and other important factors):**

Eastside Parcel

_____ Pasture			
Forage Species	**Average Ungrazed Height**	**Average Utilization & Use Classification (ref. Table 2 in J. Mosely paper)**	**Notes (other species present and other important factors):**

Redpoint Parcel

_____ Pasture			
Forage Species	**Average Ungrazed Height**	**Average Utilization & Use Classification (ref. Table 2 in J. Mosely paper)**	**Notes (other species present and other important factors):**

APPENDIX D: COMPLIANCE MONITORING FORM

Cottonwood Creek Parcel Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Insure fence and fence post condition on all boundaries.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
Vegetation Management	• Revise the weed control contract to include backpack spraying and other appropriate techniques on the above-water portions of the parcel. (Note: this action would affect all parcels.)	Spring 2006	**YES / NO**	
		Revise as needed; monitor seasonally.	**YES / NO**	
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas above the waterline are protected, no other action is required.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	

Cottonwood Creek Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Agricultural Uses	Not Applicable.			

Oneida Plant Parcel Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Insure fence and fence post condition on all boundaries. • Complete the signage and facilities at the Day Use Area and the Oneida Narrows put-in with: (1) recreational rules signs; (2) "Part 8" signs; (3) a "Stop" sign; (4) "No Fires" signs; (5) "Speed Limit 10 mph" signs; (6) "Pack It In, Pack It Out" signs; (7) a portable toilet at the put-in; and (9) a replacement for the composting toilet at the Day Use Area., • Post "No Trespassing" and ownership signs on the westside near the pedestrian bridge and "lawn area" to prevent public access to the bypassed reach and "old camp' areas.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Maintain the parking areas according to RTSP standards (p. 29).	Ongoing	**YES / NO**	
		Annual inspection/ Biweekly removal of debris.	**YES / NO**	

Oneida Plant Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access (cont'd)	• Maintain boat access at Oneida Narrows put-in and the Day Use Area (RTSP, p. 29).	Ongoing	**YES / NO**	
		Monthly (in season) inspection of boat launches for debris/ Biannually (pre- and post-season) inspection of boat launch and removal of debris.	**YES / NO**	
	• Coordinate with the BLM to control public access to the bypassed reach.	Fall 2006	**YES / NO**	
Vegetation Management	• Undertake appropriate weed control measures along the riparian zone and the Oneida Project Road as well as in localized, internal areas.	Spring 2007	**YES / NO**	
		See the Performance Tracking form.	**YES / NO**	
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	

Oneida Plant Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Agricultural Uses	Not Applicable.			

Westside Parcel Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
Vegetation Management	• Revegetate the lowlands with native upland vegetation if agricultural use is discontinued.	Fall 2011	**YES / NO**	
		Annual inspection.	**YES / NO**	

Westside Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Vegetation Management (cont'd)	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	**YES / NO**	
		See Performance Tracking form.	**YES / NO**	
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
Agricultural Uses	• Establish an agricultural use or alternative reclamation plan for the parcel.	Spring 2011	**YES / NO**	
	Implement the following measures, if applicable:			
	• Conduct annual pre-grazing forage height assessment:	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		Annual inspection.	**YES / NO**	

Westside Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Agricultural Uses (cont'd)	• Train lessee on forage utilization monitoring.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		As needed.	**YES / NO**	
	• Obtain lessee forage utilization monitoring reports as required by the lease agreement.	Monthly	**YES / NO**	
		See the Performance Tracking form.	**YES / NO**	
	• Complete interior and riparian zone fences to allow a multi-pasture grazing system within the parcel.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Develop and inspect water sources at appropriate locations or water trucking plan.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	

Westside Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Agricultural Uses (cont'd)		Annual inspection.	**YES / NO**	

Eastside Parcel Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Close dispersed campsites using rocks or fences.	Spring 2007	**YES / NO**	
		Annual inspection	**YES / NO**	

Eastside Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access (cont'd)	• Remove existing fire rings at undesignated campsites.	Spring 2007	**YES / NO**	
		Annual inspection	**YES / NO**	
Vegetation Management	• Rehabilitate dispersed campsites, where necessary.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Revegetate the pastures with native upland vegetation if agricultural use is discontinued.	Fall 2011	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	**YES / NO**	
		Biannual Rx/Monitoring	**YES / NO**	
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	

Eastside Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Agricultural Uses	• Establish an agricultural use or alternative reclamation plan for the parcel.	Spring 2011	**YES / NO**	
	Implement the following measures, if applicable:			
	• Conduct annual pre-grazing forage height assessment:	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Train lessee on forage utilization monitoring.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		As needed.	**YES / NO**	
	• Obtain lessee forage utilization monitoring reports as required by the lease agreement.	Monthly	**YES / NO**	
		See the Performance Tracking form.	**YES / NO**	

Eastside Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Agricultural Uses (cont'd)	• Complete interior and riparian zone fences to allow a multi-pasture grazing system within the parcel.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Develop and inspect water sources at appropriate locations or water trucking plan.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		Annual inspection.	**YES / NO**	

Redpoint Parcel Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	

Redpoint Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access (cont'd)	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Close dispersed campsites using rocks or fences.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Remove existing fire rings at undesignated campsites.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
Vegetation Management	• Rehabilitate dispersed campsites where necessary.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Revegetate with native upland vegetation if agricultural use is discontinued.	Fall 2011	**YES / NO**	
		Annual inspection.	**YES / NO**	

Redpoint Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Vegetation Management (cont'd)	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	**YES / NO**	
		See the Performance Tracking form.	**YES / NO**	
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
Agricultural Uses	• Establish an agricultural use or alternative reclamation plan for the parcel.	Spring 2011	**YES / NO**	
	Implement the following measures, if applicable:			
	• Conduct annual pre-grazing forage height assessment:	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		Annual inspection.	**YES / NO**	

Redpoint Parcel Compliance Monitoring (cont'd)
Date: **Technician:**

Issue	Corrective Action	Timeframe	Completed?	Comments
Agricultural Uses (cont'd)	• Train lessee on forage utilization monitoring.	Spring 2007 (or prior to initiating grazing)	**YES / NO**	
		As needed.	**YES / NO**	
	• Obtain lessee forage utilization monitoring reports as required by the lease agreement.	Monthly	**YES / NO**	
		See the Performance Tracking form.	**YES / NO**	
	• Complete interior and riparian zone fences to allow a multi-pasture grazing system within the parcel (for grazing or cultivation practices).	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Develop and inspect water at appropriate locations or water trucking plan.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	

Mink Creek Parcel Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access	• Use appropriate methods to determine and demarcate PacifiCorp owned lands.	Fall 2007	**YES / NO**	
	• Insure fence and fence post condition on all boundaries to prevent trespass grazing and OHV access. • Extend northern fenceline further into the river to prevent trespass grazing. • Complete the signage and facilities at the Oneida Narrows take-out with: (1) a recreational rules sign; (2) a "Part 8" sign; (3) a "No Fires" sign; (4) a "Pack It In, Pack It Out" sign; and (5) a portable toilet.	Spring 2008	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Install one sign at the planning area's south entrance that includes: (1) recreational rules; (2) "Part 8"; (3) "No Fires"; (4) a "Speed Limit 10 mph"; and, (5) "Pack It In, Pack It Out" requirement.	Fall 2006	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Maintain the parking area according to RTSP standards (p. 29).	Ongoing	**YES / NO**	
		Annual inspection/ Biweekly removal of debris.	**YES / NO**	

Mink Creek Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Public Access (cont'd)	• Maintain boat access (RTSP, p. 29).	Ongoing	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Close dispersed campsites.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Remove existing fire rings at undesignated campsites.	Spring 2007	**YES / NO**	
		Annual inspection.	**YES / NO**	
	• Rehabilitate dispersed campsites where necessary.	Spring 2007	**YES / NO**	
		Biannual or Annual Rx/Monitoring	**YES / NO**	

Mink Creek Parcel Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Vegetation Management (cont'd)	• Undertake appropriate weed control measures along the riparian zone and in localized, internal areas.	Spring 2007	**YES / NO**	
		Biannual or Annual Rx/Monitoring	**YES / NO**	
Wetland and Riparian Habitat Management	• As long as the riparian zone and wetland areas are protected, no other action is required.	Spring 2008	**YES / NO**	
		Annual inspection	**YES / NO**	
Agricultural Uses	Not Applicable.			

Area-Wide Compliance Monitoring **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Road Maintenance	• Conduct regular maintenance on the Oneida Project Road including surface blading, dust abatement, snow removal, minor structure replacement, brush removal, culvert cleaning, and hazard tree removal.	Annual or more frequently as needed.	**YES / NO**	
	• Maintain traffic signs along the Oneida Project Road.	Annual	**YES / NO**	
	• Construct a turn-around loop at or near the Day Use Area to improve safety and maneuverability for vehicles along the Oneida Project Road. Provide a sign to indicate campsite availability at the Maple Grove Campground just north of at the Day Use Area.	Fall 2007	**YES / NO**	
	• Fund law enforcement patrols along the Oneida Project Road May 1 through October 1.	Annual	**YES / NO**	
	• Request that Franklin County cooperate to enforce the OHV ordinance on PacifiCorp land.	Winter 2006	**YES / NO**	
	• Implement dust abatement measures along the Oneida Project Road adjacent on and up to 100 feet on either side of the Maple Grove and Redpoint campgrounds from Memorial Day to Labor Day.	Memorial Day through Labor Day	**YES / NO**	

Area-Wide Compliance Monitoring (cont'd) **Date:** **Technician:**				
Issue	**Corrective Action**	**Timeframe**	**Completed?**	**Comments**
Road Maintenance (cont'd)	• Train PacifiCorp operators on appropriate road maintenance procedures.	Annual	**YES / NO**	
	• Provide BLM funding to complete improvements on Segment E of the Oneida Project Road including: (1) corner improvements; (2) new pullouts; and (3) erosion control measures.	Fall 2006	**YES / NO**	
	• Coordinate with the BLM and other public agencies to designate the Oneida Project Road as the only motor vehicle route in the planning area.	Winter 2006	**YES / NO**	
Recreation Maintenance	• Inspect the planning area and document public use, recreational safety, road maintenance, and environmental impacts for PacifiCorp EMS.	2011	**YES / NO**	
		5-year intervals.	**YES / NO**	
	• Complete FERC Form 80 to assess recreational use levels.	2012	**YES / NO**	
		6-year intervals.	**YES / NO**	

APPENDIX E: PERFORMANCE TRACKING FORM

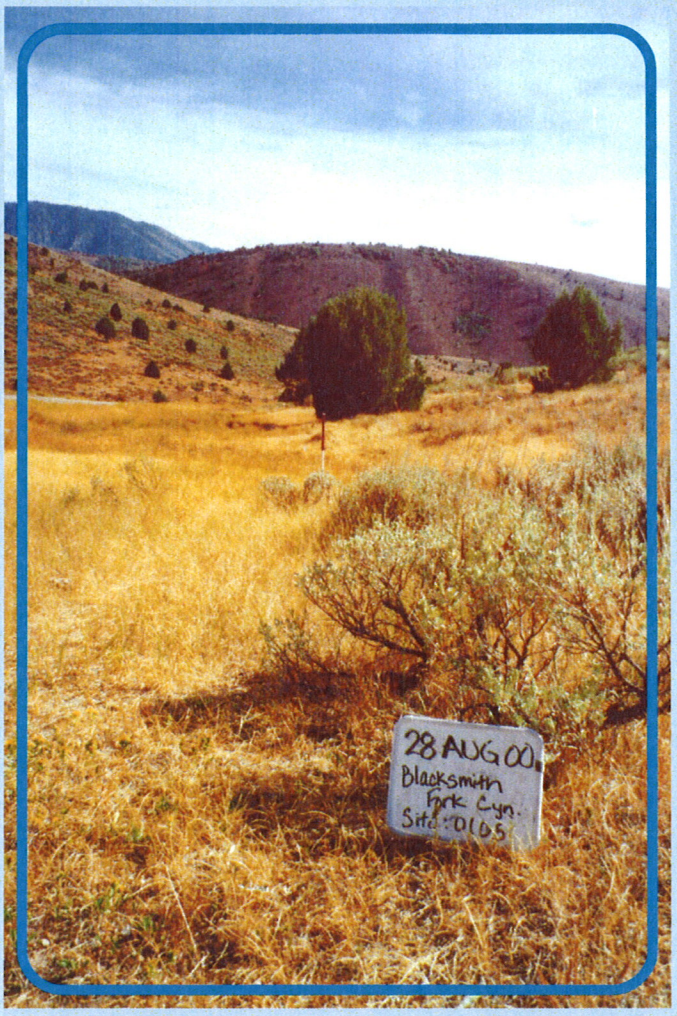
Oneida Plant Performance Tracking **Date:** **Technician:** **Initial Performance Tracking:** ☐ **Check if DFCs have been reviewed.**					
Issue	**Desired Future Condition**	**Performance Tracking**	**GPS/ Photo Pt.**	**YES/NO**	**Comments**
Public Access	PA1 - Viable recreational uses are maintained and/or improved. (also PA2, PA5, PA6, PA7, VM1, WR1, and WR3.)	Are desired recreation activities occurring without discernable adverse environmental impacts*? • *Are recreation opportunities, rules, and boating and fishing access evident?* • *Has litter/debris been removed?* • *Is the portable toilet maintained?* **Applicable to the Oneida Narrows put-in, the Day Use Area, and the Take-Out and the "lawn area".*	**OP1** *(located at Oneida Narrows put-in)*	**YES** **NO**	
			OP2 *(located at Day Use Area)*	**YES** **NO**	
			OP3 *(located at "lawn area"*	**YES** **NO**	
			OP4 *(located at "Oneida take-out"*	**YES** **NO**	

Eastside Parcel Performance Tracking **Date:** **Technician:** **Initial Performance Tracking:** ☐ **Check if DFCs have been reviewed.**					
Issue	**Desired Future Condition**	**Performance Tracking**	**GPS/ Photo Pt.**	**YES/NO**	**Comments**
Public Access	PA2 - Disturbed lands are improved to restore healthy vegetated communities. (also PA5, PA6, PA7, PA8, PA9, PA10, VM1, VM3, WR1, WR2, and WR3.)	Is there noticeable improvement in riparian habitat since fire ring rehabilitation and sign placement? • *Have firerings been removed and rehabilitated?* • *Is trampled vegetation in the area recovering?*	**EP1**	**YES** **NO**	
			EP2	**YES** **NO**	
Wetland and Riparian Habitat Management	WR2 - Riparian impacts associated with ongoing dispersed camping on PacifiCorp-owned land are eliminated. (also PA2, PA5, PA6, PA7, VM1, VM2, and WR1.)	Are riparian species, especially shrub and woody species, increasing along the shoreline?	**EP3**	**YES** **NO**	
			EP4	**YES** **NO**	

Redpoint Parcel Performance Tracking **Date:** **Technician:** **Initial Performance Tracking: 05/29/2006** ☐ **Check if DFCs have been reviewed.**					
Issue	**Desired Future Condition**	**Performance Tracking**	**GPS/ Photo Pt.**	**YES/NO**	**Comments**
Public Access	PA2 - Disturbed lands are improved to restore healthy vegetated communities. (also PA5, PA6, PA7, PA8, PA9, PA10, VM1, VM3, WR1, WR2, and WR3.)	Is there noticeable improvement in riparian habitat since fire ring rehabilitation and sign and gate placement? • *Have firerings been removed and rehabilitated?* • *Is trampled vegetation in the area recovering?*	**RP1**	**YES** **NO**	
			RP2	**YES** **NO**	
Wetland and Riparian Habitat Management	WR1 - Wetland and riparian resources and river shoreline are buffered and protected. (also PA2, PA5, PA6, PA7, VM1, VM2, and WR2.)	Are riparian species, especially shrub and woody species, increasing along the shoreline?	**RP3**	**YES** **NO**	
			RP4	**YES** **NO**	

APPENDIX F: REFERENCE PHOTOGRAPH GUIDANCE

Repeat Photography Monitoring Made Easy



G. Allen Rasmussen and Kathy Voth

Utah State University Extension

United States Environmental Protection Agency

March 2001 NR504

Photo Monitoring Made Easy

How often have you said or heard, "This area looks so much better than it was back...." The problem occurs when other people are not sure they can believe what they hear. They may still see problems and wonder to themselves how truly interested managers are in solving them. In addition, for those who have not been around to see improvements, the slow rate at which nature changes can make it seem that managers are doing nothing.

So what can you do? You've heard it for years - MONITOR! Rather than making your life more difficult, good monitoring can actually simplify it. Since most of us remember only the very best and very worst, our memories often fail us when it comes to gradual changes over longer periods of time. With the data collected and stored, you no longer have to rely on your memory. Your data are also more useful than your memory in describing what you saw, and is more readily accessible to interested public or managers who may follow you. Your data can provide you with concrete proof of successes and help you identify management strategies that did or did not work. Aldo Leopold once said "If you learn to read the land, I have no fear what you will do to the land." Your monitoring data can demonstrate how you read the land, reducing others' fear of what you might do.

Professional land managers have used monitoring as the basis for making decisions as varied as livestock movement to wildlife harvest rates and for determinations of water quality and ecosystem health. The Society for Range Management has defined monitoring as the orderly collection, analysis and interpretation of data to evaluate progress toward stated goals (1989). The amount of time and expertise this implies scares many people away. However, it is really not that complicated. At the most basic level monitoring is defined as "to watch, observe or check on for a specific purpose" (Webster 1983). All you are required to do is to look, to pay attention to what is happening and to record your observations in some way.

There are many monitoring techniques. Here we will discuss one of the simplest, cheapest and quickest methods -- Repeat Photography. By following the easy steps outlined here, you will collect data and record your interpretations over time to provide proof of change and management efforts. We will cover how to correctly take a photo, how to file it to ensure you can find it and know what it means, and how to record observations and interpretations of the monitoring site.

Step 1: Get the Equipment



Equipment Needed.

Your equipment must include:

1) Camera
2) Film
3) Photo Board
4) Reference pole
5) Evaluation forms
6) Notebook

Camera: There are numerous cameras on the market and any will work. The instamatic cameras are easy to use and very cheap in the short run. If you use a more advanced 35-mm camera, most now have an option to put the date right on the picture. The same is true for the newer digital cameras. If you have a computer system, digital photos may prove to be the least expensive over time.

Film: Use color print film. Typically 100 or 200 speed film works best in outdoor, sunny settings.

Photo Board: Placing as much information in the picture as possible eases record keeping in the future. Your photo board will appear in every picture you take so that you can be sure the photo includes the date and location of the monitoring site. Your photo board can be an inexpensive white board, or a clipboard with a plastic sheet, or even just a sheet of blank paper. All will allow you to write the appropriate information, take the picture and then move on to the next site.

Reference Pole: Your reference pole gives a sense of scale in your photograph. It allows you and others to see changes in the vegetation height and structure over time. Your reference pole should be 1 meter long. A piece of PVC pipe works well. Paint the bottom half red. Duct tape wrapped in the middle makes a good dividing line. The two colors are an important part of making it easy to estimate vegetation height. Some people also attach a stake to the bottom of the pole so it is easier to stick into the ground.

Evaluation Forms: This form is the place you will put your printed photo and your evaluations of the site from your visit. A form with printed questions or observation requests can jog your memory to ensure you collect the same information every time.

Notebook: With one place to store your photos and your evaluation sheets, you'll have quicker access to your information in the future. Using a notebook also makes it easier to carry photos from the past year into the field with you so you can be sure you're repeating photos at the same locations every time. A three ring binder works well. We suggest attaching your photos to your evaluation sheets (see the last page for an example).

Step 2: Choose a Location

Your photo monitoring will be most useful if you select "Key Areas" to monitor. A key area is representative of the area you are managing and acts as an indicator of changes that may be taking place. The greater the variety in your terrain, the larger the number of key areas you will need to properly represent the area being monitored. Keep these guidelines in mind when selecting your photo monitoring location:

1. Choose a spot you will have time to visit and monitor.

   Pick areas that are high priority for your operation and add others over time.

2. Be sure that the area is representative of a larger area.

   Choosing areas where livestock congregate (watering points or fence lines) or where livestock never graze will give you important comparisons. However, these areas may not adequately represent the larger area and how your management affects it over time.

3. Select enough key areas to adequately represent the area you manage.

   An advantage of having more than one key area is that it ensures small local events, such as fires or floods, do not misrepresent conditions in the larger area.

4. Comparison photo stations in grazed and ungrazed areas can help you evaluate the effects of grazing.

   Be sure that the sites are similar in soils, topography and precipitation.

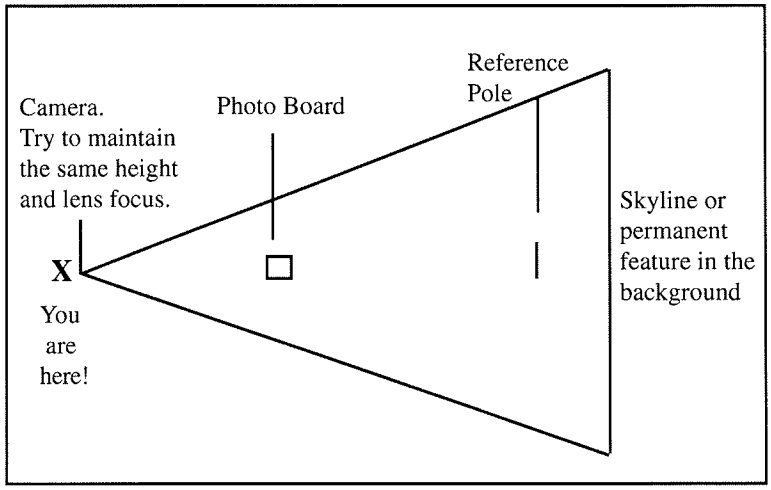
If you would like more information on how to pick key areas, see Bureau of Land Management, 1996, Sampling Vegetation Attributes, Interagency Technical Reference BLM/RS/ST-96/002.

Step 3: Take the Picture

The type of camera, film and lens are not as important as how you take the picture. Every picture you take should include the following, in order of importance:

1) Landmark
2) Photo Board
3) Reference Pole

Figures 1 - 3 show examples of monitoring photographs that range from useful to not useful.



Setting up the Picture

Landmark: A distinctive, permanent landmark is critical if you or others after you are going to find the photo point in the future. Repeating your photo at the same site on an ongoing basis allows you to use the photo to analyze and demonstrate what your management has done. By going to the same point every year, you also cannot be accused of simply picking points to your advantage.

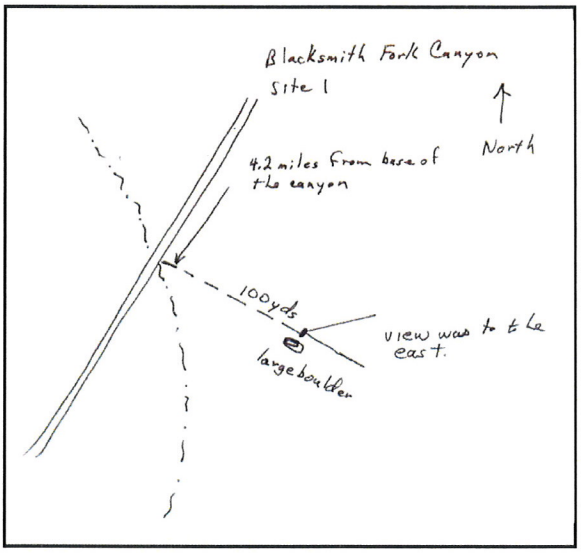
As you look through your camera's viewfinder check to be sure the frame includes a skyline. It can be particularly difficult to include a skyline when you are photographing a riparian area. Are there rock outcrops, mountain slopes, or other geologic features that will remain the same over long periods of time? Adjust your site until you are sure that your photo will include a landmark that you can find again and again. This will also help others to know they are looking at the same site.

Photo Board: After writing the date and the location of the monitoring site on your photo board, place it in the foreground of your picture. Check through your viewfinder again. Is the board legible? Be sure the sun's glare will not prevent you from reading the information on the board once the photo has been printed. With the photo board visible, check to see that your landmarks are also still in the frame.

Reference Pole: To make it easier to interpret the picture in the future, the reference pole should be placed the same distance from the point of origin every time. Because your photo board is in the photo's foreground, it can easily be used as the point of origin. Fifty feet from the point of origin is most commonly used to locate the reference pole. In many areas, such as a riparian area, willows can fill in over time making the pole difficult to see, so it might have to be moved forward over time. If the pole is moved, be sure to note this as part of your site observations.

With the reference pole in place, look through your viewfinder one more time. If you can see your landmark, the words on your photo board and the reference pole you're ready to shoot.

Step 4: Record Your Site Evaluation



Site Map Example

Take out your evaluation forms and write down your interpretation. It does not need to be a long academic write up; just a few words about what you see happening.

For example:

"Sagebrush seedlings are starting to show. I should start thinking about reburning this area in the next 5 years or so!"

"Grasses are becoming more dominant. I will try to adjust season of use to an early part of year to get the sedges back."

"Sagebrush has increased and grass cover is declining. I am seeing lots of bare ground and worry about future erosion."

To help you remember each location, include a map to the site on your first evaluation form. See the last page for an example of an evaluation form you can use. In some cases you might want to install a post or pin at the site to help you be sure you take the photo from the same point each time.

Step 5: Store the Picture and Data

The finishing steps include getting your photos developed and placing them in your notebook along with the evaluation sheets. This is the simplest method, though some people actually use computer systems to store data and photos. Please don't use the storage method used by most folks in a hurry, the standard "it's in the cab of my truck somewhere" filing system shown here.



Typical filing system used by many managers

Step 6: Repeat the Process

Once you've set up your key areas and have taken your first photos and recorded your observations and evaluations, don't stop. Do this every year. Take photos at about the same time of year. After all, what can you really tell about a site if one photo was taken in the spring and the next year's was taken in the fall? Try to use the same camera lens, film type and shutter speed each time.

General Recommendations

To make the most of your repeat photography monitoring, be sure it includes the following:

1. A good photo with:
    - Skyline or permanent features for easy relocation
    - Reference pole placed the same distance from the origin point
    - Photo board with date and location written on it

2. Written notes concerning the use and events on the site.

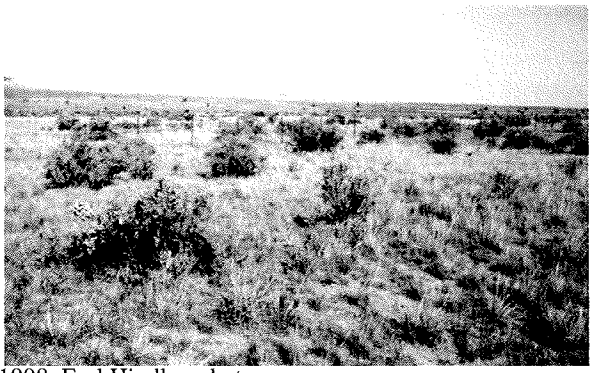
3. Your interpretation of the management effects on the site.

4. A storage system for your photos and notes.

5. Repetition of the process over time.



Dry Valley 1940, Bureau of Land Management photo



1998, Earl Hindley photo

Use of Historic Photos

Old family albums, historic records at the courthouse, and even the library are additional sources for photos you can use to tell a story about your the management of your area. Look for old photos that have some identifiable feature, maybe from a family picnic, or a round-up. By finding that location today, and putting yourself in the same location as the original photographer, you can take a picture that will show conditions today. The examples shown here are from "A Photographic History of Vegetation and stream Channel Changes in San Juan County, Utah" by Hindley, Bowns et al.

Figure 1. Four examples of photographs that have everything needed for monitoring changes. They each have the date, location, a reference pole, and some type of permanent feature that can be recognized. Note how the background skyline makes it easier to find these sites in the future.





Figure 2. These photographs are less useful. All have the date, location and reference pole which make them very useful for monitoring. However, because there is no permanent feature or a distinguishable skyline, it will be difficult, or impossible to relocate them.



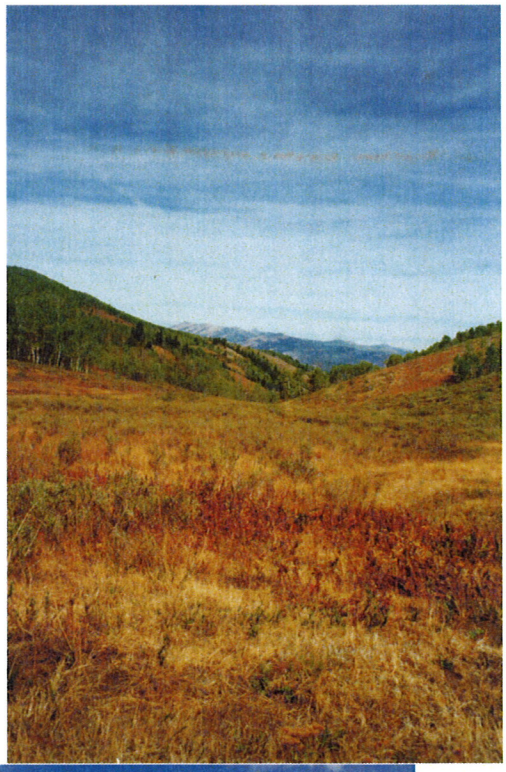
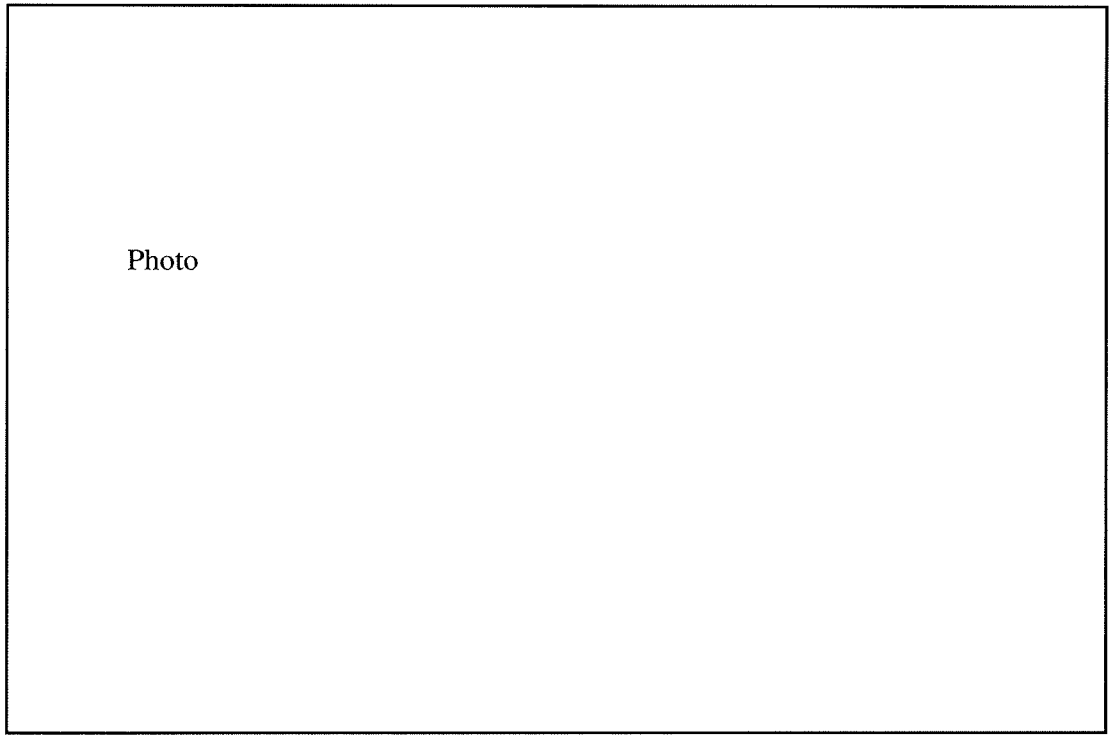






Figure 3. These photographs are the least useful for monitoring. They are nice landscape pictures but do not contain the date, location or a reference pole. These are very difficult to use for monitoring, and then only by the person who took the original photo. To make them more usable, they should be attached to a sheet with the date and location. A map of how to find the site would be valuable as well.

Evaluation Sheet



Date:

Location:

Map to the site ___

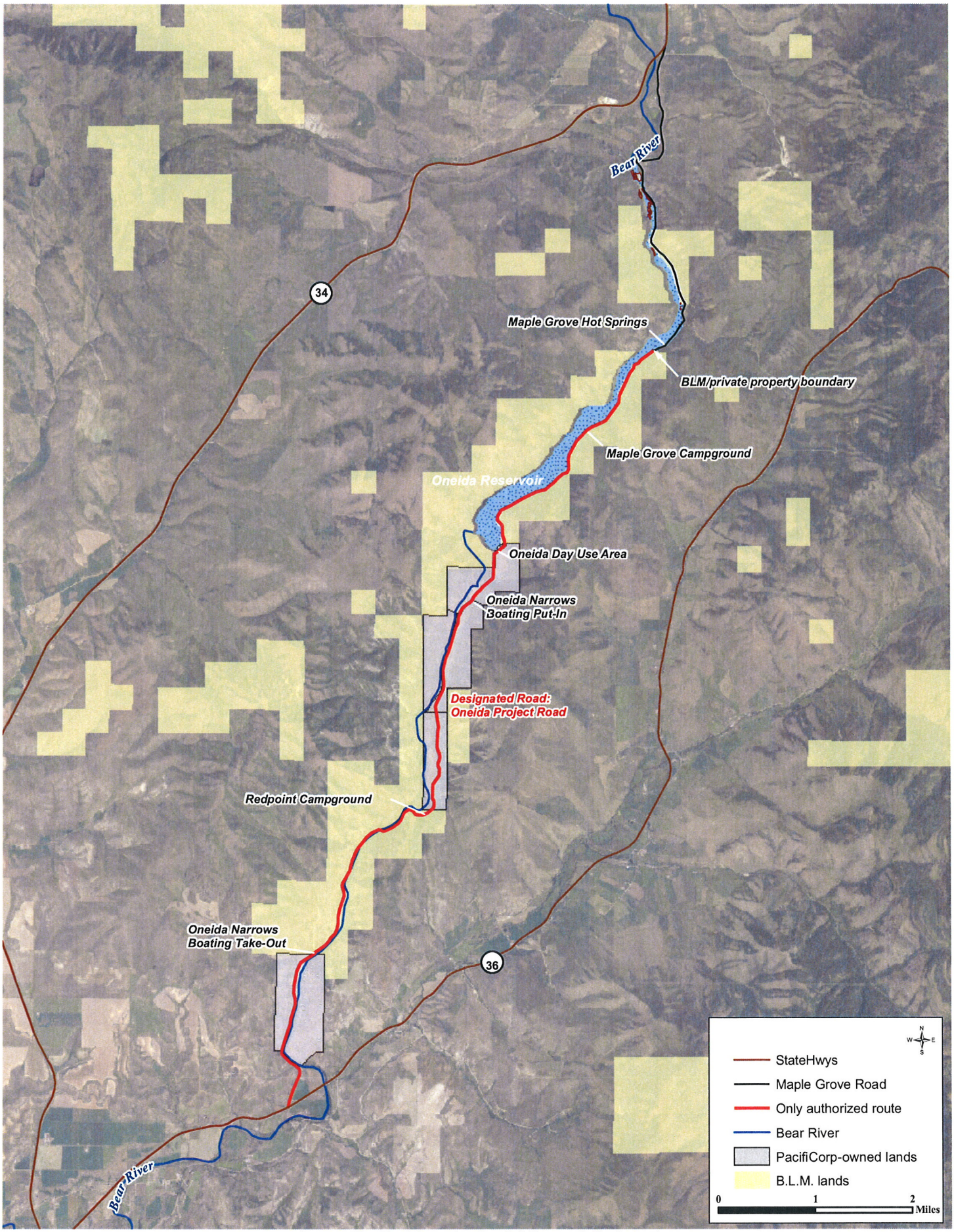
What happened in last year? (grazing, type of animal, wildlife, burn, management action etc.)

What are management impacts since the previous photo?

Utah State University Extension is an affirmative action/equal employment opportunity employer and educational organization. We offer our programs to persons regardless of race, color, national origin, sex, religion, age or disability.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert L. Gilliland, Vice-President and Director, Cooperative Extension Service, Utah State University, Logan, Utah.

APPENDIX G: MOTORIZED VEHICLE ROAD DESIGNATION



Appendix G. Motorized vehicle road designation.