

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

FINAL

**TERR 3 – NOXIOUS WEED
TECHNICAL STUDY REPORT – 2008**



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1.0 INTRODUCTION

This report describes surveys conducted by the Placer County Water Agency (PCWA) for the Middle Fork American River Project (MFP or Project) in accordance with the TERR 3 – Noxious Weeds Technical Study Plan (TERR 3 – TSP). The TERR 3 – TSP was included in Supporting Document (SD) H of the Pre-Application Document (PAD) (PCWA 2007). Specifically, this report provides a detailed description of the methods and results of noxious weed studies completed in 2006–2008.

For the purposes of this report, the term “noxious weed” refers to both noxious weeds and non-native invasive species. Noxious weed is a term used by government agencies for non-native invasive plants that have been defined as pests by law or regulation (California Department of Food and Agriculture (CDFA 2007)). The California Invasive Plant Council (Cal-IPC) defines non-native plants as those species introduced to California after European contact and as a direct or indirect result of human activity. Invasive non-native plants are plants that: (1) are not native to, yet can spread into, wildland ecosystems; and (2) displace native species, hybridize with native species, alter biological communities, or alter ecosystem processes (Cal-IPC 2006).

2.0 STUDY OBJECTIVES

The objectives of the noxious weed studies described in the TERR 3 – TSP are:

- Document noxious weed populations at existing Project facilities and features, recreation facilities, and dispersed concentrated use areas.
- Document noxious weed populations at potential Project betterments, including new facilities, roads, and trails; staging areas and disposal sites; as well as, new inundation areas.

Figure TERR 3-1 shows the TERR 3 – TSP study objectives and the study elements associated with each objective. It also shows where information developed is documented.

3.0 STUDY IMPLEMENTATION

Study elements described in the TERR 3 – TSP were initiated in 2006 and were completed in 2008. In 2006, existing data on noxious weeds in the study area were compiled and field surveys were completed at the quantitative geomorphic and riparian studies sites in the bypass and peaking reaches. In 2008, field surveys for noxious weeds were conducted at Project facilities and features, recreational facilities, dispersed concentrated use areas and potential Project betterments. Study elements that have been completed are discussed further below.

3.1 STUDY ELEMENTS COMPLETED

3.1.1 Developed Preliminary Information on Noxious Weeds in the Study Area

- Identified and mapped known occurrences of noxious weeds in the watershed based on agency consultation and a review of existing information.
- Developed a list of target noxious weed species in the Eldorado and Tahoe National Forests (ENF and TNF) to be included in the TERR 3 noxious weed surveys.
- Finalized the list of target noxious weeds species based on agency consultation.

3.1.2 Conducted Noxious Weed Surveys

- Conducted field surveys for noxious weeds in the study area at existing Project facilities and features, Project recreation facilities, and dispersed concentrated use areas.
- Conducted field surveys for noxious weeds in the study area around potential Project betterments.

3.1.3 Developed Final Information on Noxious Weeds in the Study Area

- Developed tables and Geographic Information System (GIS) maps documenting the location and extent of noxious weeds at existing Project facilities and features, Project recreation facilities, and dispersed concentrated use areas.
- Developed tables and GIS maps documenting the location and extent of noxious weeds at potential Project betterments.

3.2 VARIANCES FROM THE TERR 3 – TSP

All studies were conducted in accordance with the TERR 3 – TSP with the following voluntary enhancement completed by PCWA. The study area required in the TERR 3 – TSP included only existing Project facilities and features, Project recreation facilities, dispersed concentrated use areas, and potential Project betterments. However, noxious weed surveys were also conducted at quantitative geomorphic and riparian sampling sites (Table TERR 3-1) in conjunction with field surveys conducted for the TERR 2 – Special-Status Plants TSP.

3.3 OUTSTANDING STUDY ELEMENTS

There are no outstanding study elements. However, pursuant to the TERR 3 – TSP, if additional Project facilities and features, recreation facilities, or dispersed concentrated use areas are identified in the future, then these areas will be surveyed consistent with the TERR 3 – TSP.

3.4 PROPOSED MODIFICATIONS TO THE TERR 3 – TSP

There are no proposed modifications to the TERR 3 – TSP.

4.0 EXTENT OF STUDY AREA

As outlined in the TERR 3 – TSP, the study area for the documentation of noxious weeds included the following buffer areas around Project facilities and features, recreational facilities, dispersed concentrated use areas and potential Project betterments:

Study Area	Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas Identified by Stakeholders
10 feet	<ul style="list-style-type: none"> ▪ on either side of trails
20 feet	<ul style="list-style-type: none"> ▪ around the perimeter of the large reservoirs, medium reservoirs, and diversion pools ▪ outside the perimeter fence of powerhouses, switchyards, and substations ▪ around ancillary support facilities and Project fences
30 feet	<ul style="list-style-type: none"> ▪ on either side of penstocks, valve houses, and removable sections ▪ around gaging stations and weirs ▪ on either side of communication lines, powerlines, photovoltaic poles and lines, and roads and access points
60 feet	<ul style="list-style-type: none"> ▪ around intakes, gatehouses, surge tanks, adits, portals, microwave reflectors, radio towers, sediment disposal areas, and drop inlets
100 feet	<ul style="list-style-type: none"> ▪ around Project recreation facilities and dispersed concentrated use areas
Study Area	Potential Project Betterments
100 feet	<ul style="list-style-type: none"> ▪ around new facilities, roads, and trails; staging areas, disposal sites; and new inundation areas

Refer to Tables TERR 3-2 through TERR 3-5 for a list of Project facilities and features, Project recreation facilities, dispersed concentrated use areas, and potential Project betterments included in the study area for documentation of noxious weeds. Map TERR 3-1 graphically displays the extent of the study area. However, if a noxious weed population was identified on the perimeter of the study area, then the study area will be expanded to document the full extent of the population.

The study area was expanded by PCWA to include noxious weed surveys at the quantitative geomorphic and riparian studies sites in the bypass and peaking reaches. The noxious weed surveys were completed in conjunction with special status plants surveys conducted at these study sites as required by the TERR 2 - TSP. Refer to Table TERR 3-1 and Map TERR 3-1 for the location of geomorphic and riparian sampling sites in bypass and peaking reaches.

5.0 STUDY APPROACH

This section describes the study approach used to document noxious weeds in the study area.

5.1 DEVELOP PRELIMINARY INFORMATION ON NOXIOUS WEEDS IN THE STUDY AREA

Existing information on noxious weeds in the Middle Fork American River (MFAR) watershed was obtained and reviewed for the development of the PAD. Data for the PAD was obtained from the Placer County Agricultural Commission and U.S. Department of Agriculture – Forest Service (USDA-FS) – ENF and TNF. Other sources reviewed included Cal-IPC's *California Invasive Plant Inventory* (Cal-IPC 2006) and CDFA's *Noxious Weed Pest Ratings* (California Department of Food and Agriculture (CDFA 2007). These sources were reviewed to create a list of noxious weeds of concern in the MFAR watershed, the location of any previously documented noxious weed populations, and the Cal-IPC and CDFA priority ratings. Cal-IPC rates noxious weed species according to the severity of their impact on ecosystems:

- High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
- Moderate: These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- Limited: These species are invasive but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

CDFA rates noxious weeds species as A-, B-, or C-rated, depending on the State's eradication or treatment priority:

- A-rated pests: Weeds of known economic significance, subject to action by CDFA including eradication, quarantine, containment, rejection of shipments, or other holding action at the state-county level. Quarantine interceptions are to be rejected or treated at any point in the state.
- B-rated pests: Weeds subject to action by CDFA only when found in a nursery, and otherwise subject to eradication, containment, control, or other holding action at the discretion of the local county agricultural commissioner.

- C-rated pests: Not subject to State action except to provide for general pest cleanliness in nurseries; reject by CDFA only when found in a cropseed for planting or at the discretion of the commissioner, action to retard spread outside of nurseries at the discretion of the county agricultural commissioner.

Tables and maps providing information on noxious weeds in the MFAR were provided in SD F of the PAD (PCWA 2007). PAD Table 7-2, Noxious Weeds Known or Potentially Occurring in the Middle Fork American River Watershed, was reviewed, refined, and approved by the Terrestrial Technical Working Group (TWG) on March 3, 2008 for inclusion in this report. The approved table represents the list of target noxious weed species for the TERR 3 surveys.

Since the issuance of the PAD, the ENF developed a priority rating system for noxious weeds known to occur or potentially occurring on their forest lands. Under the ENF system, noxious weeds are assigned a priority (low, moderate, or high) based on each species' potential ecological impact (Durham, pers. comm., 2009). No noxious weed priority ratings specific to the TNF were available at the time this report was published.

5.2 CONDUCT NOXIOUS WEEDS SURVEYS

Noxious weed surveys were conducted at existing Project facilities and features, Project recreation facilities, dispersed concentrated use areas, and potential Project betterments from June 20–27 and July 23–August 1, 2008. Additional noxious weed data were collected at quantitative geomorphic and riparian sampling sites at the bypass and peaking reaches between August 9 and October 17, 2006.

This section provides a description of the survey methods implemented and data analysis conducted for the TERR 3 noxious weed surveys, including a description of additional data analyses implemented for the Hell Hole Reservoir Seasonal Storage Increase Betterment.

5.2.1 Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas

Noxious weed surveys were conducted consistent with Section 2083 of the *Forest Service Manual, Information and Reporting Guidelines for Noxious Weeds* (USDA-FS 1995). Two teams of two botanists searched for and recorded the occurrence of target noxious weed species in the study area using various systematic field techniques (e.g., zig-zag patterns, random meandering, and linear transects) as appropriate. Surveys were conducted only in accessible areas.

For each noxious weed population identified, the following data were recorded on datasheets developed for the TERR 3 surveys:

- Species;
- Date;
- General location;

- Geographic Positioning System (GPS) location coordinates;
- Population size (i.e., area in square feet and acres); and
- Infestation level: low (<5% cover); moderate (6–25% cover); and high (>25% cover).

Data obtained from field surveys on the location and extent of noxious weed populations were processed and developed into maps. GIS layers showing the location of noxious weeds, existing Project facilities and features, Project recreation facilities, and dispersed concentrated use areas were overlaid on full color orthophotographs of the study area. Because the study area often contained more than one (and as many as 16) noxious weed species in a single location, overlapping noxious weed populations were grouped together into inclusive polygons for mapping purposes. Data tables were developed providing the following information for the individual noxious weed species in each polygon: map identification number; noxious weed species; GPS coordinates; population size (i.e., square feet and acres); and infestation level (i.e., low, moderate, or high). Additional maps were also developed showing the location of ENF-rated moderate and high priority noxious weed species in the study area within the ENF.

Tables and graphics were developed to provide information on the location of noxious weeds and to illustrate general patterns of noxious weed distribution in the study area. This includes tables relating noxious weed occurrence (polygons) to specific Project facilities and features, Project recreation facilities, and dispersed concentrated use areas and a summary table showing each noxious weed species and its distribution and level of infestation within six major geographical areas within the study area (i.e., Ralston-Oxbow Area, Middle Fork Interbay Area, Duncan Creek Area, Hell Hole Area, French Meadows Area, and snow course facilities). Line graphs were developed showing the distribution of each noxious weed species across the elevation range of the study area from approximately 1,000 feet to 6,000 feet mean sea level (msl).

Finally, additional analyses were conducted to provide information on the location of noxious weeds occurring at various elevations along the shoreline of Hell Hole Reservoir. First, GIS shapefiles of each noxious weed polygon were overlain on contour maps of the bed and shoreline of Hell Hole Reservoir. Contour maps of the lower (westernmost) portion of the reservoir were created using an interpolation of USGS 7.5 minute quadrangle contours. Contour maps of the upper (easternmost) portion of the reservoir were developed from topographic measurements collected by Air Maps USA in fall 2007 using aerial photogrammetric mapping techniques supported by ground control surveys. The size (i.e., area in square feet and acres) of each noxious weed polygon (or portion thereof) was then calculated in relation to contour lines representing various reservoir elevations associated with the existing Project. A schematic showing elevations around Hell Hole Reservoir associated within study area for the existing Project is provided below as Figure TERR 3-2.

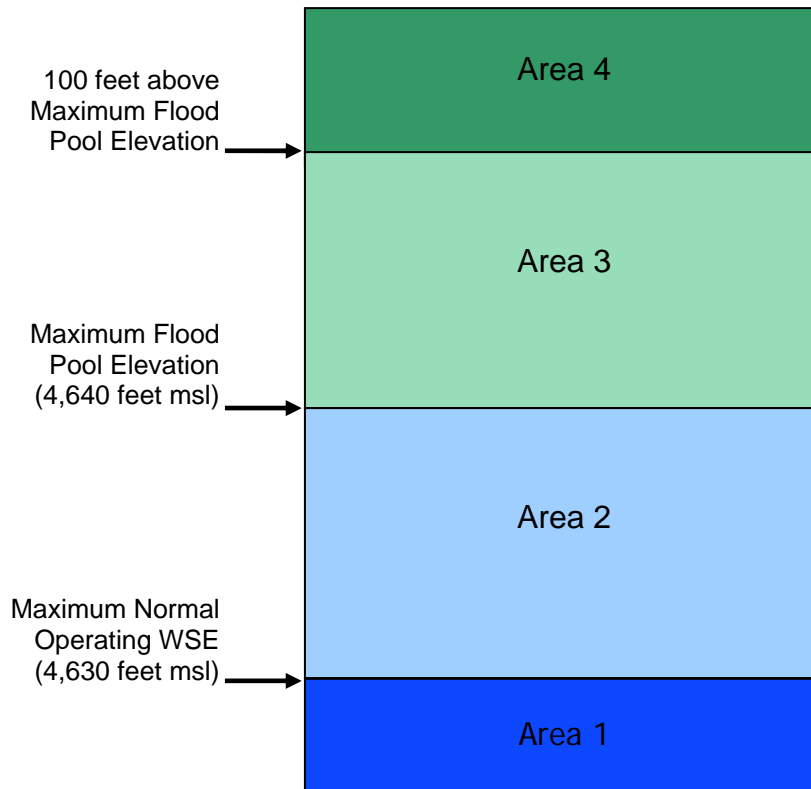


Figure TERR 3-2. Study Area around Hell Hole Reservoir for the Existing Project.

Under the existing Project, the Hell Hole Dam Spillway is an uncontrolled channel. The elevation of the spillway crest and the maximum normal operating water surface elevation (WSE) of Hell Hole Reservoir is 4,630 feet mean sea level (msl) and the maximum flood pool elevation is 4,640 feet msl. Calculations of the size of each noxious weed polygon located at different reservoir elevations under the existing Project are grouped as follows:

- **Area 1** includes noxious weed polygons (or portions of polygons) occurring at or below the current maximum normal operating WSE (4,630 feet msl).
- **Area 2** includes noxious weed polygons (or portions of polygons) occurring from the current maximum normal operating WSE (4,630 feet msl) to the maximum flood pool elevation (4,640 feet msl).
- **Area 3** includes noxious weed polygons (or portions of polygons) occurring from the maximum flood pool elevation (4,640 feet msl) to the upper limit of the study area (i.e., 100 feet above the maximum flood pool elevation).
- **Area 4** includes those portions of the noxious weed polygons intersecting Areas 1, 2, and/or 3 that extend beyond Area 3.

5.2.2 Potential Project Betterments

PCWA is evaluating three potential Project betterments including:

- Hell Hole Reservoir Seasonal Storage Increase,
- French Meadows Powerhouse Capacity Upgrade, and
- Ralston Powerhouse Capacity Upgrade.

Refer to Appendix A for a brief description of these potential Project betterments. A detailed description of each potential Project betterment is provided in SD C of the PAD.

Noxious weed survey methods for the potential Project betterments were the same as those described for surveys at existing Project facilities and features, Project recreation facilities, and dispersed concentrated used areas (Section 5.2.1). Provided below is a description of additional analyses conducted specifically for the Hell Hole Reservoir Seasonal Storage Increase Betterment.

Hell Hole Reservoir Seasonal Storage Increase Betterment

Additional analyses were conducted to provide information on the location and number of noxious weed polygons within the study area for the Hell Hole Reservoir Seasonal Storage Increase Betterment. Under the proposed betterment, PCWA would install 6- to 10-foot inflatable gates at the Hell Hole Dam Spillway to increase the seasonal storage capacity of the reservoir. The area (in square feet and acres) of each noxious weed polygon was calculated in relation to contour lines representing various reservoir elevations that could be affected (i.e., seasonally inundated) by installation of 6- or 10-foot spillway gates. A schematic showing reservoir elevations associated with installation of 6- or 10-foot spillway gates at Hell Hole Dam is provided below as Figure TERR 3-3.

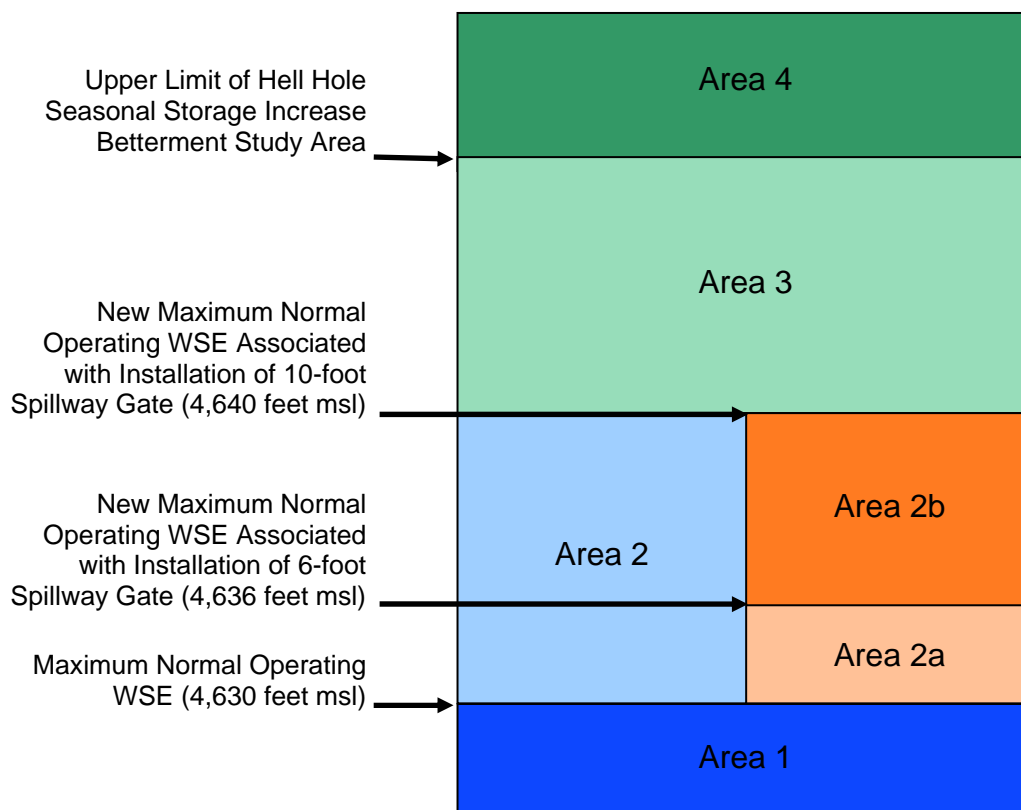


Figure TERR 3-3. Study Area for Hell Hole Reservoir Associated with the Hell Hole Reservoir Seasonal Storage Increase Betterment.

Calculations of the area of each polygon associated with the Hell Hole Reservoir Seasonal Storage Increase Betterment are grouped as follows:

- **Area 2a** includes noxious weed polygons (or portions of polygons) occurring from the current maximum normal operating WSE of 4,630 feet to the potential new maximum normal operating WSE of 4,636 associated with the installation of a 6-foot spillway gate.
- **Area 2b** includes noxious weed polygons (or portions of polygons) occurring from 4,636 feet msl to the potential new maximum normal operating WSE of 4,640 associated with the installation of a 10-foot spillway gate. The total reservoir area affected by installation of a 10-foot spillway gate includes both Areas 2a and 2b.

5.2.3 Quantitative Geomorphic and Riparian Sampling Sites

A team of botanists also conducted noxious weed surveys at 25 quantitative geomorphic and riparian sampling sites in conjunction with TERR 2 special-status plant surveys. Noxious weed survey methods for the quantitative geomorphic and riparian sampling sites were the same as those described for surveys at existing Project

facilities and features, Project recreation facilities, and dispersed concentrated used areas (Section 5.2.1).

6.0 STUDY RESULTS

The following presents results of the noxious weeds studies conducted in 2006–2008 in accordance with the TERR 3 – TSP.

6.1 DEVELOP PRELIMINARY INFORMATION ON NOXIOUS WEEDS IN THE STUDY AREA

Fifty-seven noxious weed species were identified as known or potentially occurring in the vicinity of the MFP based on a literature review and consultation with the Terrestrial TWG. Of these 57 species, 24 noxious weed species were previously recorded in the vicinity of the MFP, and 33 noxious weed species were identified as potentially occurring in the vicinity of the MFP. These 57 noxious weed species were determined by the TWG to be the target species for the TERR 3 noxious weed surveys. The list of target noxious weed species is provided in Appendix B. Known occurrence of noxious weeds in the vicinity of the MFP based on a review of existing information was presented in Table 7-2 of the PAD.

6.2 CONDUCT NOXIOUS WEED SURVEYS

A total of 27 noxious weed species were detected in the study area during the TERR 3 noxious weed surveys (Table TERR 3-6). This includes five noxious weed species that had not previously been recorded in the vicinity of the MFP:

- Italian thistle (*Carduus pycnocephalus*);
- Malta starthistle (tocalote) (*Centaurea melitensis*);
- Canada thistle (*Cirsium arvense*);
- White sweet clover (*Melilotus albus*); and
- Spreading hedgeparsley (*Torilis arvensis*).

Appendix C provides representative photographs of noxious weed species in the study area. Table TERR 3-7 provides a list of each noxious weed species identified at existing Project facilities and features, Project recreation facilities, dispersed concentrated use areas, and potential Project betterments during the TERR 3 surveys and their distribution across six major geographic areas (Ralston-Oxbow Area, Middle Fork Interbay Area, Long Canyon Area, Duncan Creek Area, Hell Hole Area, and French Meadows Area, and snow courses). In general, noxious weeds were common throughout the study area, particularly at facilities and features associated with the MFP's four largest impoundments, Ralston Afterbay, Middle Fork Interbay, Hell Hole Reservoir, and French Meadows Reservoir. The most abundant noxious weed species observed in the study area were:

- Woolly mullein (*Verbascum thapsus*) – 72 populations occupying approximately 319 acres;
- Cheatgrass (*Bromus tectorum*) – 101 populations occupying approximately 280 acres; and
- Rat-tail fescue (*Vulpia myuros*) – 77 populations occupying approximately 225 acres.

Other noxious weed species occurred as smaller populations or single individuals intermixed with the more widespread species.

Figure TERR 3-4 illustrates the distribution of each noxious weed species across the elevation range of the study area, including quantitative geomorphic and riparian study sites. Most of the noxious weed species are shown as occurring from about 1,000 feet to 5,000 feet msl. However, several species were more limited in their distribution. These include creeping bent grass (*Agrostis stolonifera*), which was only identified in the study area above 3,000 feet msl; and Italian thistle (*Carduus pycnocephalus*) and Malta starthistle (tocalote) (*Centaurea melitensis*), which were only identified below 3,000 feet msl. Two species were identified at only a single location in the study area. These are tree-of-heaven (*Ailanthus altissima*) at approximately 2,500 feet msl and black locust (*Robinia pseudoacacia*) at approximately 1,000 feet msl. Sheep sorrel (*Rumex acetosella*) had the broadest distribution, occurring from approximately 1,000 feet msl to above 6,000 feet msl.

Specific results of the TERR 3 noxious weed surveys at existing Project facilities and features, Project recreation facilities, and dispersed concentrated use areas; potential Project betterments; and quantitative geomorphic and riparian sampling sites are provided below.

6.2.1 Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas

A total of 25 noxious weed species were detected during noxious weed surveys conducted at existing Project facilities and features, Project recreation facilities, dispersed concentrated use areas. Specifically, 24 species were identified at existing Project facilities and features; 18 species were identified at Project recreation facilities; and 23 species were identified at dispersed concentrated use areas. Maps TERR 3-2a through TERR 3-2e provide the location of each noxious weed polygon and map identification numbers. Maps TERR 3-3 and TERR 3-4 provide additional information on the location of ENF-rated moderate and high priority noxious weeds species within the ENF. Only one map is included for the moderate priority species (Map TERR 3-3), which occur only in the vicinity of Ralston Afterbay. Tables TERR 3-8a, 3-8b, and 3-8c provide a list of noxious weed species in the study area at existing Project facilities and features, Project recreation facilities, and dispersed concentrated use areas. Refer to Appendix D for complete data on each noxious weed polygon depicted on the maps, and associated noxious weed populations.

Table TERR 3-9 provides an analysis of noxious weed polygons that are located at different reservoir elevations around Hell Hole Reservoir under the existing Project:

- **Area 1** (which includes noxious weed polygons occurring at or below the current maximum normal operating WSE of 4,630 feet msl) includes portions of 19 noxious weed polygons occupying approximately 53 acres.
- **Area 2** (which includes noxious weed polygons occurring from the maximum normal operating WSE to the maximum flood pool elevation at 4,640 feet msl) includes portions of 35 noxious weed polygons occupying approximately 21 acres.
- **Area 3** (which includes noxious weed polygons occurring from the maximum flood pool elevation to the upper limit of the study area) includes portions of 38 noxious weed polygons occupying approximately 77 acres.
- **Area 4** (which includes those portions of the noxious weed polygons intersecting Areas 1, 2, and/or 3 that extend beyond Area 3) includes portions of 27 polygons occupying approximately 25 acres.

6.2.2 Potential Project Betterments

Nineteen noxious weed species were detected during noxious weed surveys conducted at potential Project betterments. Maps TERR 3-5a through TERR 3-5e provide the location of each noxious weed polygon and polygon identification numbers. Maps TERR 3-6 and TERR 3-7 provide additional information on the location of ENF-rated moderate and high priority noxious weeds species within the ENF. Only one map is included for the moderate priority species (Map TERR 3-6), which occur only in the vicinity of Ralston Afterbay. ENF high-priority noxious weed species associated with potential project betterments were also consolidated into a single map (Map TERR 3-7). Tables TERR 3-10a, 3-10b, and 3-10c provide a list of all noxious weed populations in the study area for potential Project betterments. Refer to Appendix E for detailed information on each noxious weed polygon depicted on the maps, and associated noxious weed populations.

Table TERR 3-11 provides an analysis of noxious weed polygons at different reservoir elevations associated with the installation of a 6-foot or 10-foot spillway gate as part of the Hell Hole Reservoir Seasonal Storage Increase Betterment:

- **Area 2a** (which includes noxious weed polygons from the current maximum normal operating WSE of 4,630 feet msl up to the new potential maximum normal operating WSE of 4,636 feet msl resulting from installation of a 6-foot spillway gate) includes portions of 33 noxious weed polygons occupying approximately 10 acres.
- **Area 2b** (which includes noxious weed polygons between 4,636 feet msl and the new potential maximum normal operating WSE of 4,640 feet msl resulting from the installation of a 10-foot spillway gate in Hell Hole Dam) includes portions of 34 noxious weed polygons occupying approximately 11 acres. Therefore, the

total area affected by installation of a 10-foot spillway gate (i.e., areas 2a and 2b) includes portions of 34 noxious weed polygons occupying approximately 21 acres.

6.2.3 Quantitative Geomorphic and Riparian Sampling Sites

Twenty noxious weed species were detected during noxious weed surveys conducted at quantitative geomorphic and riparian sampling sites. These sampling sites support a diverse assemblage of noxious weed species similar to the existing Project facilities and features, Project recreation facilities, and dispersed concentrated use areas, despite the fact that there is limited access to these sampling sites. In many cases, the quantitative geomorphic and riparian sampling sites are only accessible by helicopter or by foot through areas without established trails. Maps TERR 3-2a through TERR 3-2e provide the location of each noxious weed polygon and map identification numbers. Maps TERR 3-3 and TERR 3-4 provide additional information on the location of ENF-rated moderate and high priority noxious weeds species at quantitative geomorphic and riparian sampling sites within the ENF. Only one map is included for the moderate priority species (Map TERR 3-3), which occur only in the vicinity of Ralston Afterbay. Table TERR 3-12 provides a list of all noxious weed populations at these study sites. Refer to Appendix F for detailed information on each noxious weed polygon depicted on the maps, and associated noxious weed populations.

7.0 LITERATURE CITED

California Department of Food and Agriculture (CDFA). 2007. Noxious Weed Pest Ratings. Division of Plant Health and Pest Protection Services. Available at www.cdfa.ca.gov/phpps/ipc/encycloweedia/pdfs/noxiousweed_ratings.pdf. Accessed March 2007.

California Invasive Plant Council (Cal-IPC). 2006. California Invasive Plant Inventory. Available at <http://www.cal-ipc.org/ip/inventory/pdf/Inventory2006.pdf>. Accessed March 2007.

Placer County Water Agency (PCWA). 2007. Placer County Water Agency Middle Fork American River Project, FERC Project No. 2079, Pre-Application Document.

U.S. Department of Agriculture Forest Service (USDA-FS). 1995. Section 2083, Information and Reporting Guidelines for Noxious Weeds. In: Forest Service Manual, Section 2080.

Personal Communications

Durham, Susan. 2009. Eldorado National Forest botanist. Placerville, CA. February 20, 2009—e-mail to Janelle Nolan of RBI regarding priority ratings for noxious weeds in the ENF.

TABLES

Table TERR 3-1. Quantitative Geomorphic and Riparian Sampling Sites.

2006 Geomorphology and Riparian Quantitative Study Site Names	Reach Location (river mile)
Middle Fork American River	
MF-10	44.7
MF-9	36.2
MF-7	29.4
MF-6	28.6
MF-4	26.2
MF-3	16.95
MF-2	10.4
MF-1	4.8
Rubicon River	
R-16	28.1
R-15	25.7
R-13	20.9
R-12	19.5
R-10	14.3
R-5	3.8
R-4	3.5
R-3	2.6
R-2	1.2
R-1	0.7
Duncan Creek	
D-3	8.3
D-2	6.3
D-1	4.6
Long Canyon Creek	
LC-2	9
LC-1	0
SFLC-1	2.3
NFLC-1	1.9

Table TERR 3-2. Existing Project Facilities and Features.

Dams, Reservoirs, and Diversion Pools	
Large Dams	
French Meadows Dam and Outlet Works	
Hell Hole Dam and Outlet Works	
Medium Dams	
Middle Fork Interbay Dam	
Ralston Afterbay Dam	
Small Dams	
Duncan Creek Diversion Dam	
North Fork Long Canyon Diversion Dam	
South Fork Long Canyon Diversion Dam	
Large Reservoirs	
French Meadows Reservoir	
Hell Hole Reservoir	
Medium Reservoirs	
Middle Fork Interbay	
Ralston Afterbay	
Small Diversion Pools	
Duncan Creek Diversion Pool	
North Fork Long Canyon Diversion Pool	
South Fork Long Canyon Diversion Pool	
Water Conveyance Systems	
Tunnels	
Duncan Creek-Middle Fork Tunnel	
French Meadows-Hell Hole Tunnel	
Hell Hole - Middle Fork Tunnel	
Middle Fork - Ralston Tunnel	
Ralston - Oxbow Tunnel	
Diversion Pipes and Drop Inlets	
North Fork Long Canyon Diversion Pipe and Drop Inlet	
South Fork Long Canyon Diversion Pipe and Drop Inlet	
Surge Shafts and Adits	
Brushy Canyon Adit	
Hell Hole - Middle Fork Tunnel Surge Shaft and Tank	
Middle Fork - Ralston Tunnel Surge Shaft and Tank	
Removable Sections and Portals	
Duncan Creek - Middle Fork Tunnel Portal	
French Meadows - Hell Hole Tunnel Removable Section	
Hell Hole - Middle Fork Tunnel Removable Section	
Middle Fork - Ralston Tunnel Removable Section	
North Fork Long Canyon Crossing Removable Section	
Intakes and Gatehouses	
Duncan Creek - Middle Fork Tunnel Intake	
French Meadows - Hell Hole Tunnel Gatehouse	
French Meadows - Hell Hole Tunnel Intake	
Hell Hole - Middle Fork Tunnel Gatehouse	
Hell Hole - Middle Fork Tunnel Intake	
Middle Fork - Ralston Tunnel Intake and Gatehouse	
Ralston - Oxbow Tunnel Intake	

Table TERR 3-2. Existing Project Facilities and Features (continued).

Water Conveyance Systems (continued)	
Penstocks and Valve Houses	
French Meadows Powerhouse Penstock and Butterfly Valve House	
Middle Fork Powerhouse Penstock and Butterfly Valve House	
Ralston Powerhouse Penstock and Butterfly Valve House	
Powerhouses, Switchyards, and Substations	
French Meadows Powerhouse and Switchyard	
Hell Hole Powerhouse	
Middle Fork Powerhouse and Upper and Lower Switchyards	
Ralston Powerhouse and Switchyard	
Oxbow Powerhouse and Switchyard	
Hell Hole Substation	
Gaging Stations and Weirs	
Stream Gages and Weirs	
Duncan Creek Gage and Weir above Diversion Dam (USGS Gage and Weir No. 11427700)	
Duncan Creek Gage and Weir below Diversion Dam (USGS Gage and Weir No. 11427750)	
Middle Fork American River Gage and Weir below French Meadows Dam (USGS Gage and Weir No. 11427500)	
Middle Fork American River Gage at Interbay Dam (USGS Gage No. 11427770)	
Middle Fork American River Gage above Middle Fork Powerhouse (USGS Gage No. 11427760)	
Middle Fork American River Gage below Oxbow Powerhouse (USGS Gage No. 11433300)	
North Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433085)	
South Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433065)	
Rubicon River Gage and Weir below Hell Hole Dam (USGS Gage and Weir No. 11428800)	
Diversion Gages	
North Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433080)	
South Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433060)	
Reservoir Gages	
French Meadows Reservoir Gage (USGS Gage No. 11427400)	
French Meadows Reservoir Staff Gage	
Hell Hole Reservoir Gage (USGS Gage No. 11428700)	
Hell Hole Reservoir Staff Gage	
Middle Fork Interbay Reservoir Gage	
Ralston Afterbay Reservoir Gage	
Powerhouse Gages	
French Meadows Powerhouse Gage (USGS Gage No. 11427200)	
Middle Fork Powerhouse Gage (USGS Gage No. 11428600)	
Oxbow Powerhouse Gage (USGS Gage No. 11433212)	
Ralston Powerhouse Gage (USGS Gage No. 11427765)	
Leakage Weirs	
French Meadows Dam Leakage Weirs Nos. 1-6	
Hell Hole Dam Leakage Weir	
Project Communication Lines and Powerlines	
French Meadows Area	
French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	
French Meadows Dam Generator Building to French Meadows Dam Spillway Gates Powerline	

Table TERR 3-2. Existing Project Facilities and Features (continued).

Project Communication Lines and Powerlines (continued)
Hell Hole Area
French Meadows Powerhouse to French Meadows Powerhouse Penstock and Butterfly Valve House Communication Line/Powerline
French Meadows Powerhouse and Switchyard to Hell Hole - Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator's Cottages, and Hell Hole Powerhouse Communication Line/Powerline
Dormitory and Cottages Water Supply Tank Powerline
Hell Hole Powerhouse to Rubicon River Gage and Weir below Hell Hole Dam Communication Line/Powerline
Middle Fork Interbay Area
Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline
Middle Fork Powerhouse Butterfly Valve House to Radio Repeater near Hell Hole - Middle Fork Tunnel Surge Tank (underground) Communication Line/Powerline
Middle Fork Powerhouse to Middle Fork - Ralston Tunnel Intake and Gatehouse Communication Line/Powerline
Middle Fork Powerhouse to Middle Fork American River Gage above Middle Fork Powerhouse Communication Line/Powerline
Ralston - Oxbow Area
Ralston - Oxbow Tunnel Intake to Ralston Powerhouse Communication Line
Ralston Powerhouse to Ralston Powerhouse Butterfly Valve House Communication Line/Powerline
Ralston Afterbay Dam Generator Building to Ralston - Oxbow Tunnel Intake Communication Line/Powerline
Oxbow Powerhouse to Ralston Afterbay Dam Generator Building Communication Line/Powerline
Photovoltaic Poles and Powerlines
Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam
Photovoltaic Pole and Powerline at Duncan Creek Gage below Diversion Dam
Photovoltaic Pole and Powerline at Middle Fork American River Gage below French Meadows Dam
Photovoltaic Pole and Powerline at Middle Fork American River Gage above Middle Fork Powerhouse
Photovoltaic Pole and Powerline at North Fork Long Canyon Gage at Diversion Dam
Photovoltaic Pole and Powerline at South Fork Long Canyon Gage at Diversion Dam
Photovoltaic Pole at Middle Fork American River Gage below Oxbow Powerhouse
Microwave Reflectors and Radio Towers
Passive Microwave Reflector Station above Middle Fork Interbay
Radio Communications Tower near French Meadows - Hell Hole Tunnel Gatehouse
Radio Communications Tower and Repeater near Hell Hole - Middle Fork Tunnel Surge Shaft and Tank
Passive Microwave Reflector Station above Ralston Afterbay
Disposal Sites
Duncan Diversion Dam Sediment Disposal Area
North Fork Long Canyon Crossing Sediment Disposal Area
Middle Fork Interbay Sediment Disposal Area
Ralston Ridge Sediment Disposal Area
Indian Bar Sediment Disposal Area
Ancillary Facilities
French Meadows Dam Generator Building
French Meadows Dam Staging Area
Dormitory Facility
Dormitory and Cottages Water Supply Tank

Table TERR 3-2. Existing Project Facilities and Features (continued).

Ancillary Facilities (continued)
Hell Hole Staging Areas
Operator Cottages and Shop
Ralston Afterbay Dam Generator Building
Storage Building at Middle Fork - Ralston Tunnel Surge Shaft and Tank
Wabena Meadows Snow Course
Miranda Cabin Snow Course
Diamond Crossing Snow Course
Talbot Camp Snow Course
Project Fences
Slope Fences
French Meadows Powerhouse Penstock Rock Fence
French Meadows Powerhouse Slope Fence
Long Canyon Crossing Slope Fence
Middle Fork Powerhouse Upper Switchyard Slope Fence
Middle Fork Interbay Dam Slope Fence
Oxbow Powerhouse Slope Fence
Ralston Powerhouse Penstock and Butterfly Valve House Slope Fences
Ralston Powerhouse Slope Fence
Public Safety Fences
Dormitory Facility Barrier Fence
Hell Hole Dam General Parking Area Barrier Fence
North Fork Long Canyon Crossing Removable Section Barrier Fence
Project Roads and Access Points
Duncan Creek Area
Duncan Creek Diversion Intake Road and Diversion Pool Access Point
Duncan Creek Diversion Dam Road
Duncan Creek Diversion Pool Road and Access Point
French Meadows Area
Duncan Creek - Middle Fork Tunnel Portal Road and Spillway Access Point
French Meadows - Hell Hole Tunnel Gatehouse Road
French Meadows Dam Outlet Works and Leakage Weirs Road
French Meadows Dam Staging Area Road
Middle Fork American River Gage and Weir below French Meadows Dam Road
Hell Hole Area
Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point
Rubicon River Gage and Weir below Hell Hole Dam Road
Hell Hole Dam Leakage Weir Road
Hell Hole Dam Spillway Northern Access Point
French Meadows - Hell Hole Tunnel Portal Road
French Meadows Powerhouse Road
Hell Hole - Middle Fork Tunnel Gatehouse Road
Dormitory Facility Road
Hell Hole Dam Spillway Discharge Channel Road
Long Canyon Area
North Fork Long Canyon Diversion North Road
North Fork Long Canyon Diversion South Road
North Fork Long Canyon Diversion Drop Inlet Road

Table TERR 3-2. Existing Project Facilities and Features (continued).

Project Roads and Access Points (continued)
Long Canyon Area (continued)
South Fork Long Canyon Diversion and Drop Inlet Road
North Fork Long Canyon Crossing Removable Section North Road and Parking Area
North Fork Long Canyon Crossing Removable Section South Road
Middle Fork Interbay Area
Middle Fork Powerhouse Butterfly Valve House Road
Middle Fork Powerhouse Penstock and Butterfly Valve House Road
Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points
Middle Fork Powerhouse Upper Switchyard Road
Ralston-Oxbow Area
Brushy Canyon Adit Road
Oxbow Powerhouse Road
Ralston Powerhouse Butterfly Valve House Road
Ralston - Oxbow Tunnel Intake Road
Ralston Afterbay Road and Boat Ramp
Ralston Afterbay Dam Road and Afterbay Access Point
Ralston Afterbay Sediment Removal Access Point
Project Trails
Duncan Creek Area
Duncan Creek Diversion Dam North Trail
Duncan Creek Diversion Dam South Trail
Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam Trail
Duncan Creek Gage and Weir above Diversion Trail
Duncan Creek Gage and Weir below Diversion Trail
French Meadows Area
Middle Fork American River Gage and Weir below French Meadows Dam Trail
Middle Fork Interbay Area
Middle Fork American River Gage above Middle Fork Powerhouse Trail
Passive Microwave Reflector Station above Middle Fork Interbay Trail
Ralston Afterbay Area
Passive Microwave Reflector Station above Ralston Afterbay Trail
Middle Fork American River Gage below Oxbow Powerhouse Trail

Table TERR 3-3. Project Recreation Facilities.

French Meadows Area
Ahart Campground
Coyote Group Campground
Poppy Campground
French Meadows Campground
Gates Group Campground
Lewis Campground
French Meadows Picnic Area
McGuire Picnic Area
French Meadows Boat Ramp
McGuire Boat Ramp
Dolly Creek Water Supply
French Meadows Campground Water Supply
Hell Hole Area
Big Meadows Campground
Hell Hole Campground
Upper Hell Hole Campground
Hell Hole Vista
Hell Hole General Parking Area
Hell Hole Boat Ramp Parking Area
Hell Hole Boat Ramp
Big Meadows Campground Water Supply
Ralston Afterbay Area
Ralston Picnic Area
Ralston Picnic Area Cartop Boat Ramp
Indian Bar Rafting Access and General Parking
Long Canyon Area
Middle Meadows Group Campground
Middle Meadows Group Campground Water Supply

Table TERR 3-4. Dispersed Concentrated Use Areas.

Dispersed Concentrated Use Areas
French Meadows Reservoir Area
Area near French Meadows-Hell Hole Tunnel Gatehouse
Area immediately downstream of French Meadows Dam (both sides of river)
Area located immediately northwest of French Meadows Dam
Area near bridge over the Middle Fork American River, upstream French Meadows Reservoir
Duncan Creek Diversion Dam Area
Area on north side of Duncan Creek Diversion Dam
Area near Duncan Creek Gage and Weir, upstream of Duncan Creek Diversion Dam
Area near new bridge crossing Duncan Canyon on the road to the Grizzly, etc.
Hell Hole Reservoir Area
Area on west side of Hell Hole Reservoir, between dam and Hell Hole Boat Ramp
Grey Horse Area
Long Canyon Area
Area surrounding South Fork Long Canyon Diversion Dam
Areas along South Fork Long Canyon Creek, downstream of South Fork Long Canyon Diversion Dam
Middle Fork Interbay Area
Shoreline area surrounding Middle Fork Interbay
Ralston Afterbay Area
Ralston Afterbay Sediment Disposal Area
Shoreline area surrounding Ralston Afterbay
Area along Middle Fork American River, between Ralston Picnic Area and the new gage
Area at confluence of North Fork of the Middle Fork American River and Middle Fork American River
Indian Bar, Willow Bar, and Junction Bar Areas

Table TERR 3-5. Potential Project Betterments.

Hell Hole Reservoir Seasonal Storage Increase

Hell Hole Dam
Modified Facilities
Hell Hole Dam Spillway Crest Gates
Hell Hole Dam Parapet Walls
New Facilities
Hell Hole Dam Spillway Crest Gates Control Building
Hell Hole Dam Spillway Crest Gates Control Building Powerline
Temporary Construction and Staging Areas
Hell Hole Dam Spillway Crest Gates Construction Road
Hell Hole Dam Spillway Crest Gates Construction Work Area
Hell Hole Dam Spillway Crest Gates and Control Building Construction Staging Area
Hell Hole Dam Parapet Wall Construction Staging and Work Area
Hell Hole Dam Spillway Crest Gates Control Building Construction Work Area
Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Work Area
Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area
Hell Hole-Middle Fork Tunnel Gatehouse
Modified Facilities
Hell Hole - Middle Fork Tunnel Gatehouse Parapet Wall
Temporary Construction and Staging Areas
Hell Hole-Middle Fork Tunnel Gatehouse Parapet Wall Construction Staging and Work Area
French Meadows Powerhouse
Modified Facilities
French Meadows Powerhouse Parapet Wall
Temporary Construction and Staging Areas
French Meadows Powerhouse Parapet Wall Construction Staging and Work Area
South Fork Long Canyon Diversion
Modified Facilities
South Fork Long Canyon Diversion Dam Crest Gates
New Facilities
South Fork Long Canyon Diversion Dam Crest Gates Generator Building
Temporary Construction and Staging Areas
South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area

French Meadows Powerhouse Capacity Upgrade

French Meadows Reservoir
Modified Facilities
French Meadows - Hell Hole Tunnel Intake Trash Rack
Temporary Construction and Staging Areas
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Staging Area
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Work Area
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Road
French Meadows Powerhouse
Modified Facilities
French Meadows Powerhouse Switchyard
New Facilities
French Meadows Powerhouse

Table TERR 3-5. Potential Project Betterments (continued).

French Meadows Powerhouse Capacity Upgrade (continued)	
French Meadows Powerhouse (continued)	
French Meadows Powerhouse Penstock	
French Meadows - Hell Hole Tunnel Surge Shaft/Tank	
French Meadows - Hell Hole Tunnel Surge Pipeline	
French Meadows - Hell Hole Tunnel Surge Shaft or Pipeline Road	
Temporary Construction and Staging Areas	
French Meadows Powerhouse/Switchyard Construction Work Area	
French Meadows Powerhouse/Switchyard Construction Staging Area	
French Meadows Powerhouse Penstock Construction Work Area	
French Meadows Powerhouse Penstock Construction Staging Areas	
French Meadows - Hell Hole Tunnel Surge Shaft/Tank or Pipeline Construction Staging Areas	
French Meadows - Hell Hole Tunnel Surge Shaft/Tank Construction Work Area	
French Meadows - Hell Hole Tunnel Surge Pipeline Construction Work Area	
French Meadows - Hell Hole Tunnel Surge Shaft or Pipeline Road Construction Staging and Work Area	
Non-Project Facilities Modified During Construction	
Forest Road 14N09A	
Forest Road 14N09A Construction Staging and Work Area	
Middle Fork Powerhouse	
Modified Facilities	
Middle Fork Powerhouse Upper and Lower Switchyard	
Ralston Powerhouse Capacity Upgrade	
Ralston Powerhouse	
Modified Facilities	
Ralston Powerhouse	
Temporary Construction and Staging Areas	
Ralston Powerhouse Construction Staging Area	

Table TERR 3-6. Noxious Weed Species Identified During TERR 3 Noxious Weed Surveys.

Scientific Name	Common Name	Cal-IPC Rating ¹	CDFA Rating ²	Existing Project Facilities and Features	Project Recreation Facilities	Dispersed Concentrated Use Areas	Potential Project Betterments	Quantitative Geomorphic and Riparian Sampling Sites
<i>Agrostis stolonifera</i>	creeping bent grass	Limited	—	X		X		X
<i>Ailanthus altissima</i>	tree-of-heaven	Moderate	C	X				
<i>Bromus diandrus</i>	ripgut brome	Moderate	—	X	X	X	X	X
<i>Bromus tectorum</i>	cheatgrass	High	—	X	X	X	X	X
<i>Carduus pycnocephalus</i>	Italian thistle	Moderate	C	X	X	X	X	
<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	Moderate	C	X		X	X	
<i>Centaurea solstitialis</i>	yellow starthistle	High	C	X	X	X		X
<i>Chondrilla juncea</i>	rush skeletonweed	Moderate	A	X	X	X	X	X
<i>Cirsium arvense</i>	Canada thistle	Moderate	B	X			X	
<i>Cirsium vulgare</i>	bull thistle	Moderate	C	X	X	X	X	X
<i>Cynodon dactylon</i>	Bermuda grass	Moderate	C					X
<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	Moderate	—	X	X	X	X	X
<i>Cytisus scoparius</i>	Scotch broom	High	C					X
<i>Dactylis glomerata</i>	orchardgrass	Limited	—	X	X	X	X	X
<i>Hirschfeldia incana</i>	shortpod mustard	Moderate	—	X	X	X	X	X
<i>Hypericum perforatum</i>	klamathweed	Moderate	C	X	X	X	X	X
<i>Lepidium latifolium</i>	perennial pepperweed	High	B	X		X		
<i>Melilotus albus</i>	white sweet clover	—	—	X		X		
<i>Melilotus officinalis</i>	yellow sweetclover	—	—	X	X	X	X	X
<i>Plantago lanceolata</i>	English plantain	Limited	—	X	X	X	X	X
<i>Robinia pseudoacacia</i>	black locust	Limited	—			X		X
<i>Rubus discolor</i>	Himalayan blackberry	High	—	X	X	X	X	X
<i>Rumex acetosella</i>	sheep sorrel	Moderate	—	X	X	X	X	X
<i>Taeniatherum caput-medusae</i>	medusahead	High	C	X	X	X	X	
<i>Torilis arvensis</i>	spreading hedgeparsley	Moderate	—	X	X	X	X	X
<i>Verbascum thapsus</i>	woolly mullein	Limited	—	X	X	X	X	X
<i>Vulpia myuros</i>	rat-tail fescue	Moderate	—	X	X	X	X	X
Total Number of Species:				24	18	23	19	20

California Invasive Plant Council (Cal-IPC) Rating:

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

California Department of Food and Agriculture (CDFA) Rating:

A-rated pests: Weeds of known economic significance, subject to action by CDFA including eradication, quarantine, containment, rejection of shipments, or other holding action at the state-county level. Quarantine interceptions are to be rejected or treated at any point in the state.

B-rated pests: Weeds subject to action by CDFA only when found in a nursery, and otherwise subject to eradication, containment, control, or other holding action at the discretion of the local county agricultural commissioner.

C-rated pests: Not subject to state action except to provide for general pest cleanliness in nurseries; reject by CDFA only when found in a cropseed for planting or at the discretion of the commissioner, action to retard spread outside of nurseries at the discretion of the county agricultural commissioner.

¹Source: California Invasive Plant Inventory (Cal-IPC 2006).

²Source: Noxious Weed Pest Ratings (CDFA 2007).

Table TERR 3-7. Distribution of Noxious Weed Species in the Vicinity of the Middle Fork American River Project.

Species Scientific Name/ Common Name ¹	Ralston-Oxbow Area			Middle Fork Interbay Area			Long Canyon Area			Duncan Creek Area			Hell Hole Area			French Meadows Area			Snow Courses ²			MFP Totals		
	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres	No. of Pops.	Square Feet	Acres
<i>Verbascum thapsus</i> woolly mullein	10	1,175,252	26.98	8	589,496	13.53	8	129,810	2.98	1	100	0.00	18	3,757,150	86.25	27	8,229,673	188.93	—	—	—	72	13,881,480	318.68
<i>Bromus tectorum</i> cheatgrass	16	2,375,126	54.53	15	1,628,967	37.40	12	817,359	18.76	1	11,326	0.26	44	5,671,725	130.20	13	1,684,320	38.67	—	—	—	101	12,188,823	279.82
<i>Vulpia myuros</i> rat-tail fescue	17	2,112,375	48.49	12	1,890,704	43.40	4	566,380	13.00	—	—	—	41	5,184,628	119.02	3	58,128	1.33	—	—	—	77	9,812,215	225.26
<i>Rumex acetosella</i> sheep sorrel	9	441,857	10.14	6	1,048,422	24.07	15	439,180	10.08	—	—	—	6	1,672,929	38.41	48	4,648,752	106.72	2	2,400	0.06	86	8,253,539	189.48
<i>Hypericum perforatum</i> klamathweed	15	1,838,668	42.21	13	1,505,577	34.56	7	274,130	6.29	—	—	—	22	860,160	19.75	21	1,200,907	27.57	—	—	—	78	5,679,441	130.38
<i>Cirsium vulgare</i> bull thistle	2	500,940	11.50	10	370,080	8.50	9	135,510	3.11	2	600	0.01	12	872,444	20.03	28	2,641,274	60.63	—	—	—	63	4,520,847	103.78
<i>Bromus diandrus</i> ripgut brome	28	2,739,453	62.89	8	806,731	18.52	—	—	—	—	—	—	5	688,248	15.80	—	—	—	—	—	—	41	4,234,432	97.21
<i>Plantago lanceolata</i> English plantain	15	1,373,827	31.54	6	467,599	10.73	4	3,350	0.08	—	—	—	7	507,276	11.65	16	1,371,678	31.49	1	17,860	0.41	49	3,741,590	85.90
<i>Torilis arvensis</i> spreading hedgeparsley	24	2,264,030	51.97	9	1,338,699	30.73	—	—	—	—	—	—	1	74,052	1.70	—	—	—	—	—	—	34	3,676,781	84.41
<i>Chondrilla juncea</i> rush skeletonweed	16	2,102,781	48.27	9	1,295,321	29.74	2	219,300	5.03	—	—	—	1	8,712	0.20	—	—	—	—	—	—	28	3,626,115	83.24
<i>Cynosurus echinatus</i> hedgehog dogtailgrass	16	1,087,902	24.97	11	1,172,793	26.92	4	307,098	7.05	—	—	—	10	706,344	16.22	2	273,072	6.27	—	—	—	43	3,547,209	81.43
<i>Dactylis glomerata</i> orchardgrass	2	100,228	2.30	5	34,261	0.79	2	7,870	0.18	—	—	—	9	766,349	17.59	16	2,159,643	49.58	—	—	—	34	3,068,351	70.44
<i>Melilotus officinalis</i> yellow sweetclover	8	1,309,954	30.07	8	450,439	10.34	—	—	—	—	—	—	5	326,369	7.49	4	73,461	1.69	—	—	—	25	2,160,223	49.59
<i>Hirschfeldia incana</i> shortpod mustard	14	1,262,016	28.97	6	38,491	0.88	—	—	—	—	—	—	8	608,558	13.97	—	—	—	—	—	—	28	1,909,065	43.83
<i>Agrostis stolonifera</i> creeping bent grass	1	40	0.0	2	516,662	11.86	1	1,250	0.03	—	—	—	6	244,760	5.62	2	988,812	22.70	—	—	—	12	1,751,524	40.21
<i>Rubus discolor</i> Himalayan blackberry	19	1,366,918	31.38	6	28,465	0.65	1	130,680	3.00	—	—	—	1	375	0.01	1	56,628	1.30	—	—	—	28	1,583,066	36.34
<i>Centaurea melitensis</i> Malta starthistle (tocalote)	6	1,141,416	26.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	1,141,416	26.20
<i>Taeniatherum caput-medusae</i> medusahead	4	533,061	12.24	—	—	—	1	261,360	6.00	—	—	—	2	161,364	3.70	—	—	—	—	—	—	7	955,785	21.94
<i>Melilotus albus</i> white sweet clover	1	—	—	3	10,098	0.23	10	618,960	14.21	—	—	—	—	—	—	3	178,596	6.85	—	—	—	17	807,654	21.29
<i>Carduus pycnocephalus</i> Italian thistle	10	799,512	18.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	799,512	18.35
<i>Lepidium latifolium</i> perennial pepperweed	1	392,040	9.00	—	—	—	1	100	0.00	—	—	—	—	—	—	—	—	—	—	—	—	2	392,140	9.00
<i>Centaurea solstitialis</i> yellow starthistle	5	18,323	0.42	—	—	—	2	272,686	6.26	—	—	—	—	—	—	—	—	—	—	—	—	7	291,009	6.68
<i>Ailanthus altissima</i> tree-of-heaven	2	228,690	5.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	228,690	5.25
<i>Cirsium arvense</i> Canada thistle	1	—	—	2	1,800	0.04	2	300	0.01	—	—	—	—	—	—	—	—	—	—	—	—	5	2,100	0.05
<i>Robinia pseudoacacia</i> black locust	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—

¹Species are arranged in order of abundance (where abundance is defined as total acreage in the study area).²Snow courses located east of Hell Hole Reservoir and southeast of French Meadows Reservoir.

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features.

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DAMS, RESERVOIRS, AND DIVERSION POOLS					
Large Dams					
French Meadows Dam and Outlet Works	FM02	18.6 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
Hell Hole Dam and Outlet Works	H03	3.5 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
Medium Dams					
Middle Fork Interbay Dam	—	—	—	—	—
Ralston Afterbay Dam	—	—	—	—	—
Small Dams					
Duncan Creek Diversion Dam	—	—	—	—	—
North Fork Long Canyon Diversion Dam	LC07	1.3 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
South Fork Long Canyon Diversion Dam	LC11	2 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Melilotus albus</i>	white sweet clover	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
	LC12	0.68 acres	<i>Bromus tectorum</i>	cheatgrass	low
<i>Rumex acetosella</i>			sheep sorrel	low	
<i>Verbascum thapsus</i>			woolly mullein	low	

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DAMS, RESERVOIRS, AND DIVERSION POOLS CONTINUED					
Large Reservoirs					
French Meadows Reservoir	FM05	110 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	FM08	5.2 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
	FM13	3.8 acres	<i>Verbascum thapsus</i>	woolly mullein	high
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	low
	FM14	4 acres	<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
	FM19	2.7 acres	<i>Vulpia myuros</i>	rat-tail fescue	high
			<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	low
	FM20	20 acres	<i>Verbascum thapsus</i>	wooly mullein	low
			<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	low
	FM28	3.9 acres	<i>Verbascum thapsus</i>	wooly mullein	low
<i>Cirsium vulgare</i>			bull thistle	low	
<i>Rumex acetosella</i>			sheep sorrel	high	
			<i>Verbascum thapsus</i>	woolly mullein	high

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DAMS, RESERVOIRS, AND DIVERSION POOLS CONTINUED					
Large Reservoirs continued					
Hell Hole Reservoir	H35	4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H27	10.4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
	H28	8.9 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	H29	2.6 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H30	5.1 acres	<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Verbascum thapsus</i>	woolly mullein	high
	H31	4.1 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H32	5.3 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	high
	H33	3.4 acres	<i>Hypericum perforatum</i>	klamathweed	low
			<i>Verbascum thapsus</i>	woolly mullein	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H34	2.4 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H35	4 acres	<i>Agrostis stolonifera</i>	creeping bent grass	moderate
<i>Verbascum thapsus</i>			woolly mullein	low	
H36	2.4 acres	<i>Bromus tectorum</i>	cheatgrass	low	
		<i>Vulpia myuros</i>	rat-tail fescue	low	
H37	4 acres	<i>Bromus tectorum</i>	cheatgrass	low	
		<i>Verbascum thapsus</i>	woolly mullein	moderate	
		<i>Vulpia myuros</i>	rat-tail fescue	moderate	

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DAMS, RESERVOIRS, AND DIVERSION POOLS CONTINUED					
Large Reservoirs continued					
Hell Hole Reservoir	H38	1.7 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H39	1.4 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H40	2.7 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H41	3.9 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H42	3.4 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
	H43	2.8 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	H44	7.6 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H45	1 acre	<i>Vulpia myuros</i>	rat-tail fescue	low
	H46	12.1 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Verbascum thapsus</i>	woolly mullein	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H48	2.3 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
	H49	8.1 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
H50	1.7 acres	<i>Vulpia myuros</i>	rat-tail fescue	low	
H51	6.8 acres	<i>Verbascum thapsus</i>	woolly mullein	low	
		<i>Vulpia myuros</i>	rat-tail fescue	moderate	
H52	17.8 acres	<i>Agrostis stolonifera</i>	creeping bent grass	moderate	
		<i>Verbascum thapsus</i>	woolly mullein	high	
H53	2.9 acres	<i>Bromus tectorum</i>	cheatgrass	low	
		<i>Vulpia myuros</i>	rat-tail fescue	moderate	

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DAMS, RESERVOIRS, AND DIVERSION POOLS CONTINUED					
Large Reservoirs continued					
Hell Hole Reservoir	H54	2.7 acres	<i>Agrostis stolonifera</i>	creeping bent grass	High
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H55	3.8 acres	<i>Verbascum thapsus</i>	woolly mullein	low
Medium Reservoirs					
Middle Fork Interbay	—	—	—	—	—
Ralston Afterbay	R06	3 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Centaurea solstitialis</i>	yellow starthistle	high
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	moderate
	<i>Verbascum thapsus</i>	woolly mullein	moderate		
	R07	2 acres	<i>Hypericum perforatum</i>	klamathweed	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
	R08	2.3 acres	<i>Bromus diandrus</i>	ripgut brome	moderate
<i>Hypericum perforatum</i>			klamathweed	low	
<i>Plantago lanceolata</i>			English plantain	moderate	
Small Diversion Pools					
Duncan Creek Diversion Pool	DC03	0.19 acres	<i>Cirsium vulgare</i>	bull thistle	low
North Fork Long Canyon Diversion Pool	LC07	1 acre	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
WATER CONVEYANCE SYSTEMS					
Tunnels					
Duncan Creek - Middle Fork Tunnel	—	—	—	—	—
French Meadows - Hell Hole Tunnel	—	—	—	—	—
Hell Hole - Middle Fork Tunnel	—	—	—	—	—
Middle Fork - Ralston Tunnel	—	—	—	—	—
Ralston - Oxbow Tunnel	—	—	—	—	—
Diversion Pipes and Drop Inlets					
North Fork Long Canyon Diversion Pipe and Drop Inlet	—	—	—	—	—
South Fork Long Canyon Diversion Pipe and Drop Inlet	—	—	—	—	—
Surge Shafts and Adits					
Brushy Canyon Adit	—	—	—	—	—
Hell Hole - Middle Fork Tunnel Surge Shaft and Tank	—	—	—	—	—
Middle Fork - Ralston Tunnel Surge Shaft and Tank	—	—	—	—	—
Removable Sections and Portals					
Duncan Creek - Middle Fork Tunnel Portal	—	—	—	—	—
French Meadows - Hell Hole Tunnel Removable Section	—	—	—	—	—
Hell Hole - Middle Fork Tunnel Removable Section	—	—	—	—	—
Middle Fork - Ralston Tunnel Removable Section	—	—	—	—	—
North Fork Long Canyon Crossing Removable Section	LC02	0.26 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Centaurea solstitialis</i>	yellow starthistle	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
WATER CONVEYANCE SYSTEMS CONTINUED					
Intakes and Gatehouses					
Duncan Creek - Middle Fork Tunnel Intake	—	—	—	—	—
French Meadows - Hell Hole Tunnel Gatehouse	—	—	—	—	—
French Meadows - Hell Hole Tunnel Intake	—	—	—	—	—
Hell Hole - Middle Fork Tunnel Gatehouse	—	—	—	—	—
Hell Hole - Middle Fork Tunnel Intake	—	—	—	—	—
Middle Fork-Ralston Tunnel Intake and Gatehouse	I21	0.19 acres	<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	high
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
<i>Verbascum thapsus</i>	woolly mullein	low			
Ralston - Oxbow Tunnel Intake	—	—	—	—	—
French Meadows Powerhouse Penstock and Butterfly Valve House	H21	4.7 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
Middle Fork Powerhouse Penstock and Butterfly Valve House	I13	11 acres	<i>Cirsium arvense</i>	Canada thistle	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Verbascum thapsus</i>	woolly mullein	low
Penstocks and Valve Houses					
Ralston Powerhouse Penstock and Butterfly Valve House	R13	2.4 acres	<i>Ailanthus altissima</i>	tree-of-heaven	moderate
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Verbascum thapsus</i>	woolly mullein	moderate

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
POWERHOUSES, SWITCHYARDS, AND SUBSTATIONS					
French Meadows Powerhouse and Switchyard	H20	2 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Middle Fork Powerhouse and Upper and Lower Switchyard	I10	0.73 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Rubus discolor</i>	Himalayan blackberry	high
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	<i>Vulpia myuros</i>	rat-tail fescue	low		
	I11	0.17 acres	<i>Bromus diandrus</i>	ripgut brome	Low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
	I11	0.17 acres	<i>Melilotus officinalis</i>	yellow sweetclover	Low
<i>Torilis arvensis</i>			spreading hedgeparsley	low	
<i>Verbascum thapsus</i>			woolly mullein	low	
<i>Vulpia myuros</i>			rat-tail fescue	low	

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
POWERHOUSES, SWITCHYARDS, AND SUBSTATIONS CONTINUED					
Ralston Powerhouse and Switchyard	R09	0.84 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Cirsium arvense</i>	Canada thistle	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	R10	0.88 acres	<i>Bromus diandrus</i>	ripgut brome	high
			<i>Carduus pycnocephalus</i>	Italian thistle	high
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	high
			<i>Plantago lanceolata</i>	English plantain	moderate
<i>Taeniatherum caput-medusae</i>			medusahead	moderate	
R11	1 acre	<i>Bromus diandrus</i>	ripgut brome	high	
		<i>Bromus tectorum</i>	cheatgrass	moderate	
		<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	moderate	
		<i>Hirschfeldia incana</i>	shortpod mustard	moderate	
Oxbow Powerhouse and Switchyard	—	—	—	—	—
Hell Hole Substation	—	—	—	—	—
GAGING STATIONS AND WEIRS					
Stream Gages and Weirs					
Duncan Creek Gage and Weir above Diversion Dam (USGS Gage and Weir No. 11427700)	—	—	—	—	—
Duncan Creek Gage and Weir below Diversion Dam (USGS Gage and Weir No. 11427750)	—	—	—	—	—
Middle Fork American River Gage and Weir below French Meadows Dam (USGS Gage and Weir No. 11427500)	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
GAGING STATIONS AND WEIRS CONTINUED					
Stream Gages and Weirs continued					
Middle Fork American River Gage at Interbay Dam (USGS Gage No. 11427770)	—	—	—	—	—
Middle Fork American River Gage above Middle Fork Powerhouse (USGS Gage No. 11427760)	—	—	—	—	—
Middle Fork American River Gage below Oxbow Powerhouse (USGS Gage No. 11433300)	R01	0.15 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Bromus diandrus</i>	ripgut brome	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
North Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433085)	—	—	—	—	—
South Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433065)	—	—	—	—	—
Rubicon River Gage and Weir below Hell Hole Dam (USGS Gage and Weir No. 11428800)	—	—	—	—	—
Diversion Gages					
North Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433080)	—	—	—	—	—
South Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433060)	—	—	—	—	—
Reservoir Gages					
French Meadows Reservoir Gage (USGS Gage No. 11427400)	—	—	—	—	—
French Meadows Reservoir Staff Gage	—	—	—	—	—
Hell Hole Reservoir Gage (USGS Gage No. 11428700)	—	—	—	—	—
Hell Hole Reservoir Staff Gage	—	—	—	—	—
Middle Fork Interbay Reservoir Gage	—	—	—	—	—
Ralston Afterbay Reservoir Gage	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
GAGING STATIONS AND WEIRS CONTINUED					
Powerhouse Gages					
French Meadows Powerhouse Gage (USGS Gage No. 11427200)	—	—	—	—	—
Middle Fork Powerhouse Gage (USGS Gage No. 11428600)	—	—	—	—	—
Oxbow Powerhouse Gage (USGS Gage No. 11433212)	—	—	—	—	—
Ralston Powerhouse Gage (USGS Gage No. 11427765)	—	—	—	—	—
Leakage Weirs					
French Meadows Dam Leakage Weirs Nos. 1-6	—	—	—	—	—
Hell Hole Dam Leakage Weir	—	—	—	—	—
PROJECT COMMUNICATION LINES AND POWERLINES					
French Meadows Area					
French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	FM21	1.3 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
French Meadows Dam Generator Building to French Meadows Dam Spillway Gates Powerline	—	—	—	—	—
Hell Hole Area					
French Meadows Powerhouse to French Meadows Powerhouse Penstock and Butterfly Valve House Communication Line/Powerline	—	—	—	—	—
French Meadows Powerhouse and Switchyard to Hell Hole-Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator Cottages, and Hell Hole Powerhouse Communication Line / Powerline	H18	3.4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
Dormitory and Cottages Water Supply Tank Powerline	—	—	—	—	—
Hell Hole Powerhouse to Rubicon River Gage and Weir below Hell Hole Dam Communication Line/Powerline	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT COMMUNICATION LINES AND POWERLINES CONTINUED					
Middle Fork Interbay Area					
Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	114	5.2 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Middle Fork Powerhouse Butterfly Valve House to Radio Repeater near Hell Hole - Middle Fork Tunnel Surge Tank (underground) Communication Line/Powerline	—	—	—	—	—
Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	108	3.4 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Melilotus officinalis</i>	yellow sweetclover	low
<i>Plantago lanceolata</i>	English plantain	low			
Middle Fork Powerhouse to Middle Fork American River Gage above Middle Fork Powerhouse Communication Line/Powerline	—	—	—	—	—
Ralston - Oxbow Area					
Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	R17	0.23 acres	<i>Rubus discolor</i>	Himalayan blackberry	moderate

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT COMMUNICATION LINES AND POWERLINES CONTINUED					
Ralston - Oxbow Area continued					
Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	R21	13 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
<i>Vulpia myuros</i>	rat-tail fescue	low			
Middle Fork Interbay Area					
Ralston Powerhouse to Ralston Powerhouse Butterfly Valve House Communication Line/Powerline	—	—	—	—	—
Ralston Afterbay Dam Generator Building to Ralston - Oxbow Tunnel Intake Communication Line/Powerline	—	—	—	—	—
Oxbow Powerhouse to Ralston Afterbay Dam Generator Building Communication Line/Powerline	—	—	—	—	—
PHOTOVOLTAIC POLES AND POWERLINES					
Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam	—	—	—	—	—
Photovoltaic Pole and Powerline at Duncan Creek Gage below Diversion Dam	—	—	—	—	—
Photovoltaic Pole and Powerline at Middle Fork American River Gage below French Meadows Dam	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PHOTOVOLTAIC POLES AND POWERLINES CONTINUED					
Photovoltaic Pole and Powerline at Middle Fork American River Gage above Middle Fork Powerhouse	—	—	—	—	—
Photovoltaic Pole and Powerline at North Fork Long Canyon Gage at Diversion Dam	—	—	—	—	—
Photovoltaic Pole and Powerline at South Fork Long Canyon Gage at Diversion Dam	—	—	—	—	—
Photovoltaic Pole at Middle Fork American River Gage below Oxbow Powerhouse	—	—	—	—	—
MICROWAVE REFLECTORS AND RADIO TOWERS					
Passive Microwave Reflector Station above Middle Fork Interbay	—	—	—	—	—
Radio Communications Tower near French Meadows - Hell Hole Tunnel Gatehouse	—	—	—	—	—
Radio Communications Tower and Repeater near Hell Hole-Middle Fork Tunnel Surge Shaft and Tank	I20	0.38 acres	<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
Passive Microwave Reflector Station above Ralston Afterbay	R12	0.33 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
DISPOSAL SITES					
Duncan Diversion Dam Sediment Disposal Area	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DISPOSAL SITES CONTINUED					
North Fork Long Canyon Crossing Sediment Disposal Area	LC04	5 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus albus</i>	white sweet clover	high
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	LC05	3 acres	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Melilotus albus</i>	white sweet clover	high
			<i>Verbascum thapsus</i>	woolly mullein	low
	LC06	6 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Bromus tectorum</i>	cheatgrass	high
			<i>Centaurea solstitialis</i>	yellow starthistle	low
<i>Hypericum perforatum</i>			klamathweed	low	
<i>Melilotus albus</i>			white sweet clover	high	
<i>Rumex acetosella</i>			sheep sorrel	low	
<i>Taeniatherum caput-medusae</i>			medusahead	low	
<i>Verbascum thapsus</i>			woolly mullein	low	
		<i>Vulpia myuros</i>	rat-tail fescue	low	
Middle Fork Interbay Sediment Disposal Area	103	2 acres	<i>Bromus diandrus</i>	ripgut brome	high
			<i>Bromus tectorum</i>	cheatgrass	high
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Vulpia myuros</i>	rat-tail fescue	high

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
DISPOSAL SITES CONTINUED					
Ralston Ridge Sediment Disposal Area	R14	2.3 acres	<i>Bromus diandrus</i>	ripgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Carduus pycnocephalus</i>	Italian thistle	high
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Melilotus officinalis</i>	yellow sweetclover	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Taeniatherum caput-medusae</i>	medusahead	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Indian Bar Sediment Disposal Area	R23	1.5 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Rumex acetosella</i>	sheep sorrel	low
	R23	1.5 acres	<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	ANCILLARY FACILITIES				
French Meadows Dam Generator Building			<i>Bromus tectorum</i>	cheatgrass	high
			<i>Dactylis glomerata</i>	orchardgrass	low
French Meadows Dam Generator Building	—	—	—	—	—
French Meadows Dam Staging Area	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
ANCILLARY FACILITIES CONTINUED					
Dormitory Facility	H10	0.82 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
Dormitory and Cottages Water Supply Tank	H16	0.95 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	high
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
Hell Hole Staging Areas	H13	2 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Verbascum thapsus</i>	woolly mullein	low
Operator Cottages and Shop	H15	1 acre	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
Operator Cottages and Shop (continued)	H15	1 acre	<i>Plantago lanceolata</i>	English plantain	Low
			<i>Rubus discolor</i>	Himalayan blackberry	high
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
Ralston Afterbay Dam Generator Building	—	—	—	—	—

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
ANCILLARY FACILITIES CONTINUED					
Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	R15	0.92 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	moderate
Wabena Meadows Snow Course	SC03	0.79 acres	<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Rumex acetosella</i>	sheep sorrel	low
Miranda Cabin Snow Course	SC01	0.73 acres	<i>Dactylis glomerata</i>	orchardgrass	high
			<i>Rumex acetosella</i>	sheep sorrel	high
Diamond Crossing Snow Course	SC02	0.72 acres	<i>Plantago lanceolata</i>	English plantain	high
Talbot Camp Snow Course	—	—	—	—	—
PROJECT FENCES					
Slope Fences					
French Meadows Powerhouse Penstock Rock Fence	—	—	—	—	—
French Meadows Powerhouse Slope Fence	—	—	—	—	—
Long Canyon Crossing Slope Fence	—	—	—	—	—
Middle Fork Powerhouse Upper Switchyard Slope Fence	—	—	—	—	—
Middle Fork Interbay Dam Slope Fence	—	—	—	—	—
Oxbow Powerhouse Slope Fence	—	—	—	—	—
Ralston Powerhouse Penstock and Butterfly Valve House Slope Fences	—	—	—	—	—
Ralston Powerhouse Slope Fence	—	—	—	—	—
Public Safety Fences					
Dormitory Facility Barrier Fence	H11	3.4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Plantago lanceolata</i>	English plantain	high
			<i>Vulpia myuros</i>	rat-tail fescue	low

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT FENCES continued					
Public Safety Fences continued					
Hell Hole Dam General Parking Area Barrier Fence	—	—	—	—	—
North Fork Long Canyon Crossing Removable Section Barrier Fence	—	—	—	—	—
PROJECT ROADS AND ACCESS POINTS					
Duncan Creek Area					
Duncan Creek Diversion Intake Road and Diversion Pool Access Point	DC02	3.09 acres	<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Verbascum thapsus</i>	woolly mullein	moderate
Duncan Creek Diversion Dam Road	DC01	1.94 acres	<i>Bromus tectorum</i>	cheatgrass	high
Duncan Creek Diversion Pool Road and Access Point	—	—	—	—	—
French Meadows Area					
Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	FM06	5.4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
French Meadows-Hell Hole Tunnel Gatehouse Road	FM 30	1.9 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
French Meadows Dam Outlet Works and Leakage Weirs Road	FM01	4.1 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
French Meadows Dam Staging Area Road	—	—	—	—	—
Middle Fork American River Gage and Weir below French Meadows Dam Road	FM22	0.31 acres	<i>Rumex acetosella</i>	sheep sorrel	low
	FM23	0.28 acres	<i>Hypericum perforatum</i>	klamathweed	low
Hell Hole Area					
Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	H01	0.55 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	high
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
	H02	1.5 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Hell Hole Area continued					
Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	H04	1 acre	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H05	4.9 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	moderate
Rubicon River Gage and Weir below Hell Hole Dam Road	H07	0.66 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	H09	3.55 acres	<i>Taeniatherum caput-medusae</i>	medusahead	low
	Hell Hole Dam Leakage Weir Road	H06	1.7 acres	<i>Bromus tectorum</i>	cheatgrass
<i>Cirsium vulgare</i>				bull thistle	low
<i>Hirschfeldia incana</i>				shortpod mustard	moderate
<i>Melilotus officinalis</i>				yellow sweetclover	moderate
<i>Torilis arvensis</i>				spreading hedgeparsley	low
<i>Verbascum thapsus</i>				woolly mullein	moderate
<i>Vulpia myuros</i>				rat-tail fescue	moderate
Hell Hole Dam Spillway Northern Access Point	—	—	—	—	—
French Meadows-Hell Hole Tunnel Portal Road	H21	4.7 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
French Meadows Powerhouse Road	H19	9.5 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	moderate

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Hell Hole Area continued					
Hell Hole-Middle Fork Tunnel Gatehouse Road	H17	0.32 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
	H18	3.4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	high
<i>Vulpia myuros</i>			rat-tail fescue	moderate	
Dormitory Facility Road	H12	0.93 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Hell Hole Dam Spillway Discharge Channel Road	H14	3.6 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Verbascum thapsus</i>	woolly mullein	low
<i>Vulpia myuros</i>	rat-tail fescue	low			
Long Canyon Area					
North Fork Long Canyon Diversion North Road	LC08	1 acre	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
North Fork Long Canyon Diversion South Road	LC09	6.25 acres	<i>Hypericum perforatum</i>	klamathweed	low
			<i>Rumex acetosella</i>	sheep sorrel	high
North Fork Long Canyon Diversion Drop Inlet Road	LC10	0.86 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Rumex acetosella</i>	sheep sorrel	moderate

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Long Canyon Area continued					
South Fork Long Canyon Diversion and Drop Inlet Road	LC11	2 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
North Fork Long Canyon Crossing Removable Section North Road and Parking Area	LC03	0.89 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Dactylis glomerata</i>	orchardgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus albus</i>	white sweet clover	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Rumex acetosella</i>	sheep sorrel	moderate
<i>Verbascum thapsus</i>	woolly mullein	low			
North Fork Long Canyon Crossing Removable Section South Road	LC01	3 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	high
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Lepidium latifolium</i>	perennial pepperweed (tall whitetop)	low
			<i>Melilotus albus</i>	white sweet clover	high
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
<i>Rumex acetosella</i>	sheep sorrel	low			

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Middle Fork Interbay Area					
Middle Fork Powerhouse Butterfly Valve House Road	115	0.16 acres	<i>Agrostis stolonifera</i>	creeping bent grass	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	116	2.7 acres	<i>Bromus tectorum</i>	cheatgrass	low
<i>Cynosurus echinatus</i>			hedgehog dogtailgrass	low	
<i>Torilis arvensis</i>			spreading hedgeparsley	low	
Middle Fork Powerhouse Butterfly Valve House Road	117	2.6 acres	<i>Bromus tectorum</i>	cheatgrass	low
Middle Fork Powerhouse Penstock and Butterfly Valve House Road	113	11.7 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cirsium arvense</i>	Canada thistle	low
			<i>Hirschfeldia incana</i>	shortpod mustard	moderate
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
<i>Vulpia myuros</i>	rat-tail fescue	moderate			

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Middle Fork Interbay Area continued					
Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	I01	5 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	I02	7 acres	<i>Chondrilla juncea</i>	rush skeletonweed	Moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	high
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
	<i>Vulpia myuros</i>	rat-tail fescue	moderate		
	I04	6.1 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
<i>Plantago lanceolata</i>			English plantain	moderate	
<i>Rumex acetosella</i>			sheep sorrel	low	
<i>Torilis arvensis</i>			spreading hedgeparsley	moderate	
<i>Vulpia myuros</i>	rat-tail fescue	moderate			

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Middle Fork Interbay Area continued					
Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	105	6 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	moderate
	106	5.6 acres	<i>Bromus diandrus</i>	ripgut brome	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	Low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus albus</i>	white sweet clover	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
	108	3.4 acres	<i>Vulpia myuros</i>	rat-tail fescue	high
<i>Cirsium vulgare</i>			bull thistle	low	
Middle Fork Powerhouse Upper Switchyard Road	109	0.58 acres	<i>Melilotus officinalis</i>	yellow sweetclover	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Melilotus officinalis</i>	yellow sweetclover	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Verbascum thapsus</i>	woolly mullein	low

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Ralston-Oxbow Area					
Brushy Canyon Adit Road	BC01	6.7 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Rumex acetosella</i>	sheep sorrel	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
	BC02	4.8 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Chondrilla juncea</i>	rush skeletonweed	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Plantago lanceolata</i>	English plantain	low
BC02	4.8 acres	<i>Torilis arvensis</i>	spreading hedgeparsley	low	
		<i>Verbascum thapsus</i>	woolly mullein	low	
Oxbow Powerhouse Road	R27	1.2 acres	<i>Vulpia myuros</i>	rat-tail fescue	high
			<i>Bromus diandrus</i>	ripgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
<i>Torilis arvensis</i>	spreading hedgeparsley	moderate			
<i>Vulpia myuros</i>	rat-tail fescue	moderate			

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Ralston-Oxbow Area continued					
Ralston Powerhouse Butterfly Valve House Road	R13	2.4 acres	<i>Ailanthus altissima</i>	tree-of-heaven	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Chondrilla juncea</i>	rush skeletonweed	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
Ralston-Oxbow Tunnel Intake Road	R04	0.57 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Ralston Afterbay Road and Boat Ramp	R03	0.35 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
Ralston Afterbay Dam Road and Afterbay Access Point	R02	0.55 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Vulpia myuros</i>	rat-tail fescue	high

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT ROADS AND ACCESS POINTS CONTINUED					
Ralston-Oxbow Area continued					
Ralston Afterbay Sediment Removal Access Point	R16	0.32 acres	<i>Bromus diandrus</i>	rippgut brome	high
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Carduus pycnocephalus</i>	Italian thistle	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	moderate
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
PROJECT TRAILS					
Duncan Creek Area					
Duncan Creek Diversion Dam North Trail	—	—	—	—	—
Duncan Creek Diversion Dam South Trail	—	—	—	—	—
Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam Trail	—	—	—	—	—
Duncan Creek Gage and Weir above Diversion Trail	—	—	—	—	—
Duncan Creek Gage and Weir below Diversion Trail	—	—	—	—	—
French Meadows Area					
Middle Fork American River Gage and Weir below French Meadows Dam Trail	FM24	0.49 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
Middle Fork Interbay Area					
Middle Fork American River Gage above Middle Fork Powerhouse Trail	112	0.43 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	high
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
Passive Microwave Reflector Station above Middle Fork Interbay Trail	118	0.13 acres	<i>Cirsium vulgare</i>	bull thistle	low

Table TERR 3-8a. Noxious Weed Species at Existing Project Facilities and Features (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
PROJECT TRAILS CONTINUED					
Middle Fork Interbay Area continued					
Passive Microwave Reflector Station above Middle Fork Interbay Trail	119	0.77 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Ralston Afterbay Area					
Passive Microwave Reflector Station above Ralston Afterbay Trail	—	—	—	—	—
Middle Fork American River Gage below Oxbow Powerhouse Trail	—	—	—	—	—

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-2a through 3-2e.

²Acreage represents the area of the total polygon. Refer to Appendix E for detailed information on the size of each noxious weed population contained within the polygon.

³Infestation levels include: low (<5% cover); moderate (6–25% cover), and high (>25% cover).

Table TERR 3-8b. Noxious Weed Species at Existing Project Recreation Facilities.

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
French Meadows Area					
Ahart Campground	FM15	7.6 acres	<i>Rumex acetosella</i>	sheep sorrel	moderate
Coyote Group Campground	FM26	0.08 acres	<i>Cirsium vulgare</i>	bull thistle	low
Poppy Campground (trailhead)	FM09	5.8 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
French Meadows Campground	FM18	7.5 acres	<i>Dactylis glomerata</i>	orchardgrass	low
	FM27	5.5 acres	<i>Hypericum perforatum</i>	klamathweed	moderate
<i>Rumex acetosella</i>			sheep sorrel	moderate	
Gates Group Campground	FM16	8 acres	<i>Rumex acetosella</i>	sheep sorrel	low
Lewis Campground	FM11	18.1 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	FM12	6 acres	<i>Verbascum thapsus</i>	woolly mullein	low
French Meadows Picnic Area	FM28	1.6 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	high
	FM31	1.9 acres	<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	low
<i>Rumex acetosella</i>	sheep sorrel	low			
McGuire Picnic Area	FM07	9.2 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
<i>Vulpia myuros</i>	rat-tail fescue	high			

Table TERR 3-8b. Noxious Weed Species at Existing Project Recreation Facilities (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
French Meadows Area (continued)					
French Meadows Boat Ramp	—	—	—	—	—
McGuire Boat Ramp	FM09	5.9 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Rumex acetosella</i>	sheep sorrel	moderate
			<i>Verbascum thapsus</i>	woolly mullein	high
Dolly Creek Water Supply	FM10	10 acres	<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
	FM11	18 acres	<i>Verbascum thapsus</i>	woolly mullein	low
Dolly Creek Water Supply (continued)	FM12	6.2 acres	<i>Hypericum perforatum</i>	klamathweed	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Plantago lanceolata</i>	English plantain	high
			<i>Rumex acetosella</i>	sheep sorrel	moderate
	FM25	1.1 acres	<i>Verbascum thapsus</i>	woolly mullein	low
French Meadows Campground Water Supply and Trail	FM17	6 acres	<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
<i>Rumex acetosella</i>	sheep sorrel	low			
Hell Hole Area					
Big Meadows Campground	H26	23.5 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Rumex acetosella</i>	sheep sorrel	low
Hell Hole Campground	H23	3.3 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low

Table TERR 3-8b. Noxious Weed Species at Existing Project Recreation Facilities (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
Hell Hole Area					
Upper Hell Hole Campground	H47	5.9 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Hell Hole Vista	H22	3.3 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
Hell Hole General Parking Area	H08	3.7 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Melilotus officinalis</i>	yellow sweetclover	low
Hell Hole General Parking Area (continued)	H08	3.7 acres	<i>Rumex acetosella</i>	sheep sorrel	high
			<i>Taeniatherum caput-medusae</i>	medusahead	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Hell Hole Boat Ramp Parking Area; Hell Hole Boat Ramp	H09	3.5 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	low
<i>Verbascum thapsus</i>	woolly mullein	low			
Big Meadows Campground Water Supply	—	—	—	—	—

Table TERR 3-8b. Noxious Weed Species at Existing Project Recreation Facilities (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³		
Ralston Afterbay Area							
Ralston Picnic Area	R18	1.2 acres	<i>Bromus diandrus</i>	ripgut brome	low		
			<i>Carduus pycnocephalus</i>	Italian thistle	low		
			<i>Centaurea solstitialis</i>	yellow starthistle	low		
			<i>Chondrilla juncea</i>	rush skeletonweed	low		
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate		
			R18	1.2 acres	<i>Hirschfeldia incana</i>	shortpod mustard	moderate
					<i>Plantago lanceolata</i>	English plantain	high
					<i>Rubus discolor</i>	Himalayan blackberry	moderate
					<i>Torilis arvensis</i>	spreading hedgeparsley	moderate
					<i>Vulpia myuros</i>	rat-tail fescue	moderate
	R19	2.4 acres	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate		
			<i>Hypericum perforatum</i>	klamathweed	low		
			<i>Mellilotus officinalis</i>	yellow sweetclover	moderate		
			<i>Torilis arvensis</i>	spreading hedgeparsley	low		
			<i>Verbascum thapsus</i>	woolly mullein	low		
			<i>Vulpia myuros</i>	rat-tail fescue	low		
	R20	0.45 acres	<i>Bromus tectorum</i>	cheatgrass	low		
			<i>Mellilotus officinalis</i>	yellow sweetclover	moderate		
			<i>Plantago lanceolata</i>	English plantain	low		
<i>Rubus discolor</i>			Himalayan blackberry	low			
Ralston Picnic Area Cartop Boat Ramp	—	—	—	—	—		
Indian Bar Rafting Access Point and General Parking	R22	0.77 acres	<i>Bromus diandrus</i>	ripgut brome	high		
			<i>Bromus tectorum</i>	cheatgrass	low		
			<i>Carduus pycnocephalus</i>	Italian thistle	low		
			<i>Chondrilla juncea</i>	rush skeletonweed	low		
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low		
			<i>Hirschfeldia incana</i>	shortpod mustard	low		
			<i>Plantago lanceolata</i>	English plantain	low		

Table TERR 3-8b. Noxious Weed Species at Existing Project Recreation Facilities (continued).

Facility	Map ID ¹	Area Covered ²	Scientific Name	Common Name	Infestation Level ³
Ralston Afterbay Area (continued)					
Indian Bar Rafting Access Point and General Parking (continued)	R22	0.77 acres	<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Taeniatherum caput-medusae</i>	medusahead	high
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Long Canyon Area					
Middle Meadows Group Campground	LC13	2 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Rumex acetosella</i>	sheep sorrel	low
	LC14	0.37 acres	<i>Cirsium arvense</i>	Canada thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	high
	LC15	0.26 acres	<i>Cirsium arvense</i>	Canada thistle	moderate
			<i>Rumex acetosella</i>	sheep sorrel	moderate
Middle Meadows Group Campground Water Supply	—	—	—	—	—

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-2a through 3-2e.

²Acreage represents the area of the total polygon. Refer to Appendix D for detailed information on the size of each noxious weed population contained within the polygon.

³Infestation levels include: low (<5% cover); moderate (6–25% cover), and high (>25% cover).

Table TERR 3-8c. Noxious Weed Species at Dispersed Concentrated Use Areas.

Facility	Map ID	Area Covered	Latin Name	Common Name	Infestation Level ³
French Meadows Reservoir Area					
Area near French Meadows-Hell Hole Tunnel Gatehouse [French Meadows-Hell Hole Tunnel Intake Trash Rack construction and staging Area; French Meadows-Hell Hole Tunnel Gatehouse Road]	FM29	3.7 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Verbascum thapsus</i>	woolly mullein	high
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rumex acetosella</i>	sheep sorrel	moderate
Area immediately downstream of French Meadows Dam (both sides of river) [French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline]	FM21	1.3 acres	<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	low
Area located immediately northwest of French Meadows Dam [French Meadows Dam Staging Area and Road]	FM03	2.6 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
			<i>Bromus tectorum</i>	cheatgrass	high
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Mellilotus albus</i>	white sweet clover	moderate
			<i>Plantago lanceolata</i>	English plantain	low
<i>Rumex acetosella</i>	sheep sorrel	moderate			
<i>Verbascum thapsus</i>	woolly mullein	low			
Duncan Creek Diversion Dam Area					
Area near bridge over the Middle Fork American River, upstream of French Meadows Reservoir	—	—	—	—	—
Area on north side of Duncan Creek Diversion Dam	—	—	—	—	—
Area on north side of Duncan Creek Diversion Dam [Duncan Creek Diversion Dam Road]	DC01	0.26 acres	<i>Bromus tectorum</i>	cheatgrass	high
Area near new bridge crossing Duncan Canyon on the road to the Grizzly [Duncan Creek Diversion Intake Road and Diversion Pool Access Point]	DC02	3.09 acres	<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Verbascum thapsus</i>	woolly mullein	moderate
Area near Duncan Creek Gage and Weir, upstream of Duncan Creek Diversion Dam [Duncan Creek Diversion Intake Road and Diversion Pool Access Point]	DC02	3.09 acres	<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Verbascum thapsus</i>	woolly mullein	moderate

Table TERR 3-8c. Noxious Weed Species at Dispersed Concentrated Use Areas (continued).

Hell Hole Reservoir Area					
Area on west side of Hell Hole Reservoir, between dam and Hell Hole Boat Ramp [Hell Hole Dam and Powerhouse Road; Hell Hole Dam Spillway Southern Access Point; Hell Hole General Parking Area; Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area; Rubicon River Gage and Weir below Hell Hole Dam Road/Betterment Area]	H01	0.55 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	high
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
	H02	1.5 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
	H08	3.7 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Mellilotus officinalis</i>	yellow sweetclover	low
			<i>Rumex acetosella</i>	sheep sorrel	high
			<i>Taeniatherum caput-medusae</i>	medusahead	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	H09	3.5 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
<i>Cirsium vulgare</i>			bull thistle	low	
<i>Dactylis glomerata</i>			orchardgrass	low	
<i>Hirschfeldia incana</i>			shortpod mustard	low	
<i>Hypericum perforatum</i>			klamathweed	low	
<i>Plantago lanceolata</i>			English plantain	low	
<i>Rumex acetosella</i>			sheep sorrel	low	
<i>Taeniatherum caput-medusae</i>			medusahead	moderate	
<i>Verbascum thapsus</i>			woolly mullein	low	
Grey Horse Area/Hell Hole Reservoir	H35	4 acres	<i>Agrostis stolonifera</i>	creeping bent grass	moderate
			<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low

Table TERR 3-8c. Noxious Weed Species at Dispersed Concentrated Use Areas (continued).

Long Canyon Area					
Area surrounding South Fork Long Canyon Diversion Dam [South Fork Long Canyon Diversion Dam and Pool, and Inlet Road]	LC11	2 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Melilotus albus</i>	white sweet clover	moderate
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	LC12	0.68 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
Middle Fork Interbay Area					
Shoreline area surrounding Middle Fork Interbay [Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points; Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline; Middle Fork Powerhouse Upper Switchyard Road]	107	0.14 acres	<i>Plantago lanceolata</i>	English plantain	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Dactylis glomerata</i>	orchardgrass	high
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Melilotus albus</i>	white sweet clover	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
	108	3.4 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	moderate
			<i>Bromus diandrus</i>	rippgut brome	moderate
	109	0.58 acres	<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Cirsium vulgare</i>	bull thistle	Low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Melilotus officinalis</i>	yellow sweetclover	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Verbascum thapsus</i>	woolly mullein	low

Table TERR 3-8c. Noxious Weed Species at Dispersed Concentrated Use Areas (continued).

Ralston Afterbay Area					
Ralston Ridge Sediment Disposal Area	R14	2.3 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Carduus pycnocephalus</i>	Italian thistle	high
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	moderate
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Taeniatherum caput-medusae</i>	medusahead	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Area along Middle Fork American River, between Ralston Picnic Area and the new gage [Ralston Picnic Area]	R18	1.1 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Centaurea solstitialis</i>	yellow starthistle	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	moderate
			<i>Plantago lanceolata</i>	English plantain	high
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	moderate
	<i>Vulpia myuros</i>	rat-tail fescue	moderate		
	R19	2.4 acres	<i>Bromus diandrus</i>	rippgut brome	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	moderate
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
	R20	0.45 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	moderate
			<i>Plantago lanceolata</i>	English plantain	low
<i>Rubus discolor</i>			Himalayan blackberry	low	

Table TERR 3-8c. Noxious Weed Species at Dispersed Concentrated Use Areas (continued).

Ralston Afterbay Area (continued)					
Shoreline area surrounding Ralston Afterbay [Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line]	R21	13 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Rubus discolor</i>	Himalayan blackberry	moderate
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
Indian Bar, Willow Bar, and Junction Bar areas [Indian Bar]	R05	9 acres	<i>Bromus diandrus</i>	rippgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Carduus pycnocephalus</i>	Italian thistle	low
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Lepidium latifolium</i>	perennial pepperweed (tall whitetop)	low
			<i>Mellilotus officinalis</i>	yellow sweetclover	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Taeniatherum caput-medusae</i>	medusahead	low
	<i>Torilis arvensis</i>	spreading hedgeparsley	medium		
	<i>Vulpia myuros</i>	rat-tail fescue	low		
	R24	2.9 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Bromus diandrus</i>	rippgut brome	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	moderate
<i>Hypericum perforatum</i>			klamathweed	low	
<i>Mellilotus albus</i>			white sweet clover	low	
<i>Rumex acetosella</i>			sheep sorrel	low	
<i>Torilis arvensis</i>			spreading hedgeparsley	low	
<i>Verbascum thapsus</i>	woolly mullein	low			
<i>Vulpia myuros</i>	rat-tail fescue	low			

Table TERR 3-8c. Noxious Weed Species at Dispersed Concentrated Use Areas (continued).

Ralston Afterbay Area (continued)					
Indian Bar, Willow Bar, and Junction Bar areas [Indian Bar] (continued)	R25	1.1 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
	R26	9 acres	<i>Robinia pseudoacacia</i>	black locust	1 tree
			<i>Bromus diandrus</i>	ripgut brome	moderate
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Centaurea solstitialis</i>	yellow starthistle	moderate
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Rubus discolor</i>	Himalayan blackberry	high
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
<i>Vulpia myuros</i>	rat-tail fescue	low			

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-2a through 3-2e.

²Acreage represents the area of the total polygon. Refer to Appendix D for detailed information on the size of each noxious weed population contained within the polygon.

³Infestation levels include: low (<5% cover); moderate (6–25% cover), and high (>25% cover).

Table TERR 3-9. Noxious Weed Polygons in the Study Area for Hell Hole Reservoir for the Existing Project.

Area 1 Below the current maximum normal operating WSE (4,630 feet msl)																															
Map ID ¹	Area ²		Noxious Weed Species Present																												
	Sq Ft	Acres	<i>Agrostis stolonifer</i> creeping bent grass	<i>Ailanthus altissima</i> tree-of-heaven	<i>Bromus diandrus</i> ripgut brome	<i>Bromus tectorum</i> cheatgrass	<i>Carduus pycnocephalus</i> Italian thistle	<i>Centaurea melitensis</i> Malta starthistle (tocalote)	<i>Centaurea solstitialis</i> yellow starthistle	<i>Chondrilla juncea</i> rush skeletonweed	<i>Cirsium arvense</i> Canada thistle	<i>Cirsium vulgare</i> bull thistle	<i>Cynodon dactylon</i> Bermuda grass	<i>Cynosurus echinatus</i> hedghegog dogtailgrass	<i>Cytisus scoparius</i> Scotch broom	<i>Dactylis glomerata</i> orchardgrass	<i>Hirschfeldia incana</i> shortpod mustard	<i>Hypericum perforatum</i> klamathweed	<i>Lepidium latifolium</i> perennial pepperweed	<i>Melilotus albus</i> white sweet clover	<i>Melilotus officinalis</i> yellow sweetclover	<i>Plantago lanceolata</i> English plantain	<i>Robinia pseudoacacia</i> black locust	<i>Rubus discolor</i> Himalayan blackberry	<i>Rumex acetosella</i> sheep sorrel	<i>Taeniatherum caput-medusae</i> medusahead	<i>Torilis arvensis</i> spreading hedgeparsley	<i>Verbascum thapsus</i> woolly mullein	<i>Vulpia myuros</i> rat-tail fescue		
H01	2,257	0.05				X								X		X	X	X											X		
H02	3,923	0.09				X										X		X													X
H03	11,637	0.27				X												X				X							X	X	
H09	22,413	0.51			X	X					X					X	X	X				X			X	X			X		
H18	3,559	0.08				X												X												X	
H20	4,479	0.10				X					X						X	X			X									X	
H28	304,396	6.99				X																							X		
H30	183,210	4.21									X							X											X		
H33	116,116	2.67																X											X	X	
H35	54,743	1.26	X		X	X					X		X																X	X	
H37	9,293	0.21				X																							X	X	
H38	59,707	1.37	X			X																								X	
H40	13,795	0.32				X																								X	
H43	96,689	2.22	X								X																		X		
H46	475,844	10.92				X																							X	X	
H47	16,085	0.37				X																								X	
H52	661,909	15.20	X																										X		
H54	117,135	2.69	X			X																								X	
H55	132,988	3.05																										X			
Total:	2,290,176	52.58																													

¹Refer to Map TERR 3-2a through 3-2e for the location of each polygon within the study area.

²Includes only the portion of the polygon that falls between the specified elevations.

Table TERR 3-9. Noxious Weed Polygons in the Study Area for Hell Hole Reservoir for the Existing Project (continued).

Area 2 From the current maximum normal operating WSE (4,630 feet msl) to the maximum flood pool elevation (4,640 feet msl)																															
Map ID ¹	Area ²		Noxious Weed Species Present																												
	Sq Ft	Acres	<i>Agrostis stolonifer</i> creeping bent grass	<i>Ailanthus altissima</i> tree-of-heaven	<i>Bromus diandrus</i> ripgut brome	<i>Bromus tectorum</i> cheatgrass	<i>Carduus pycnocephalus</i> Italian thistle	<i>Centaurea melitensis</i> Malta starthistle (tocalote)	<i>Centaurea solstitialis</i> yellow starthistle	<i>Chondrilla juncea</i> rush skeletonweed	<i>Cirsium arvense</i> Canada thistle	<i>Cirsium vulgare</i> bull thistle	<i>Cynodon dactylon</i> Bermuda grass	<i>Cynosurus echinatus</i> hedgohog dogtailgrass	<i>Cytisus scoparius</i> Scotch broom	<i>Dactylis glomerata</i> orchardgrass	<i>Hirschfeldia incana</i> shortpod mustard	<i>Hypericum perforatum</i> klamathweed	<i>Lepidium latifolium</i> perennial pepperweed	<i>Melilotus albus</i> white sweet clover	<i>Melilotus officinalis</i> yellow sweetclover	<i>Plantago lanceolata</i> English plantain	<i>Robinia pseudoacacia</i> black locust	<i>Rubus discolor</i> Himalayan blackberry	<i>Rumex acetosella</i> sheep sorrel	<i>Taeniatherum caput-medusae</i> medusahead	<i>Torilis arvensis</i> spreading hedgeparsley	<i>Verbascum thapsus</i> woolly mullein	<i>Vulpia myuros</i> rat-tail fescue		
H01	1,238	0.03				X								X		X	X	X											X		
H02	3,417	0.08				X									X			X													X
H03	33,867	0.78				X												X				X							X	X	
H09	5,562	0.13			X	X					X				X	X	X					X			X	X		X			
H18	6,368	0.15				X												X												X	
H20	8,467	0.19				X					X						X	X			X									X	
H27	40,515	0.93				X																			X						
H28	75,908	1.74				X																						X			
H29	12,972	0.30				X																								X	
H30	38,536	0.88									X							X										X	X		
H31	45,966	1.06				X																									
H32	20,819	0.48				X																								X	
H33	26,136	0.60																X										X	X		
H34	10,884	0.25				X																								X	
H35	8,342	0.19	X		X	X					X		X															X	X		
H36	5,169	0.12				X																								X	
H37	17,135	0.39				X																						X	X		
H38	10,863	0.25	X			X																								X	
H39	679	0.02				X																								X	
H40	6,832	0.16				X																								X	
H41	19,837	0.46				X																								X	
H42	2,734	0.06																													X
H43	13,654	0.31	X								X																	X			
H44	14,259	0.33				X																								X	
H45	5	0.00																												X	
H46	45,122	1.04				X																						X	X		
H47	30,162	0.69				X																								X	
H48	35,851	0.82																												X	
H49	144,459	3.32																												X	

Table TERR 3-9. Noxious Weed Polygons in the Study Area for Hell Hole Reservoir for the Existing Project (continued).

Area 3 From the maximum flood pool elevation (4,640 feet msl) to the upper limit of the study area																															
Noxious Weed Species Present																															
Map ID ¹	Area ²		<i>Agrostis stolonifer</i> creeping bent grass	<i>Ailanthus altissima</i> tree-of-heaven	<i>Bromus diandrus</i> ripgut brome	<i>Bromus tectorum</i> cheatgrass	<i>Carduus pycnocephalus</i> Italian thistle	<i>Centaurea melitensis</i> Malta starthistle (tocalote)	<i>Centaurea solstitialis</i> yellow starthistle	<i>Chondrilla juncea</i> rush skeletonweed	<i>Cirsium arvense</i> Canada thistle	<i>Cirsium vulgare</i> bull thistle	<i>Cynodon dactylon</i> Bermuda grass	<i>Cynurus echinatus</i> hedgehog dogtailgrass	<i>Cytisus scoparius</i> Scotch broom	<i>Dactylis glomerata</i> orchardgrass	<i>Hirschfeldia incana</i> shortpod mustard	<i>Hypericum perforatum</i> klamathweed	<i>Lepidium latifolium</i> perennial pepperweed	<i>Melilotus albus</i> white sweet clover	<i>Melilotus officinalis</i> yellow sweetclover	<i>Plantago lanceolata</i> English plantain	<i>Robinia pseudoacacia</i> black locust	<i>Rubus discolor</i> Himalayan blackberry	<i>Rumex acetosella</i> sheep sorrel	<i>Taeniatherum caput-medusae</i> medusahead	<i>Torilis arvensis</i> spreading hedgeparsley	<i>Verbascum thapsus</i> woolly mullein	<i>Vulpia myuros</i> rat-tail fescue		
	Sq Ft	Acres																													
H01	20,482	0.47																													
H02	58,385	1.34																													
H03	97,256	2.23																													
H04	6,388	0.15				X						X					X	X												X	
H05	79	0.00				X						X					X	X			X									X	
H08	2,738	0.06			X	X								X		X		X			X				X	X			X	X	
H09	64,374	1.48			X	X						X				X	X	X				X			X	X			X	X	
H18	106,587	2.45				X												X												X	
H19	12,532	0.29				X						X		X				X												X	
H20	62,881	1.44				X						X					X	X				X								X	
H27	411,760	9.45				X																			X						
H28	8,920	0.20				X																							X		
H29	99,297	2.28				X																							X	X	
H30	7	0.00										X							X										X		
H31	132,148	3.03				X																									
H32	210,846	4.84				X																									X
H33	3,685	0.08																X											X	X	
H34	92,132	2.12				X																								X	
H35	111,703	2.56	X		X	X						X		X															X	X	
H36	100,833	2.31				X																									X
H37	149,088	3.42				X																							X	X	
H38	3,797	0.09	X			X																									X
H39	61,046	1.40				X																									X
H40	94,891	2.18				X																									X
H41	149,640	3.44				X																									X
H42	143,438	3.29																													X
H43	9,670	0.22	X									X																	X		
H44	316,308	7.26				X																									X
H45	45,689	1.05																													X
H46	7,189	0.17				X																							X	X	
H47	84,465	1.94				X																									X

Table TERR 3-10a. Noxious Weed Species at Facilities Associated with the Hell Hole Seasonal Storage Increase Betterment.

Facility ¹	Map ID ²	Area Covered ³	Scientific Name	Common Name	Infestation Level ⁴
Hell Hole Dam					
Modified Facilities					
Hell Hole Dam Spillway Crest Gates	—	—	—	—	—
Hell Hole Dam Parapet Walls	—	—	—	—	—
New Facilities					
Hell Hole Dam Spillway Crest Gates Control Building	—	—	—	—	—
Hell Hole Dam Spillway Crest Gates Control Building Powerline	—	—	—	—	—
Temporary Construction and Staging Areas					
Hell Hole Dam Spillway Crest Gates Construction Road	—	—	—	—	—
Hell Hole Dam Spillway Crest Gates Construction Work Area	—	—	—	—	—
Hell Hole Dam Spillway Crest Gates and Control Building Construction Staging Area	—	—	—	—	—
Hell Hole Dam Parapet Wall Construction Staging and Work Area	H03	3.5 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	moderate
Hell Hole Dam Spillway Crest Gates Control Building Construction Work Area	—	—	—	—	—
Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Work Area	—	—	—	—	—
Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	H13	2 acres	<i>Bromus tectorum</i>	cheatgrass	high
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Plantago lanceolata</i>	English plantain	low
			<i>Verbascum thapsus</i>	woolly mullein	high
Hell Hole-Middle Fork Tunnel Gatehouse					
Modified Facilities					
Hell Hole - Middle Fork Tunnel Gatehouse Parapet Wall	—	—	—	—	—

Table TERR 3-10a. Noxious Weed Species at Facilities Associated with the Hell Hole Seasonal Storage Increase Betterment (continued).

Hell Hole-Middle Fork Tunnel Gatehouse (continued)					
Temporary Construction and Staging Areas					
Hell Hole-Middle Fork Tunnel Gatehouse Parapet Wall Construction Staging and Work Area	—	—	—	—	—
French Meadows Powerhouse					
Modified Facilities					
French Meadows Powerhouse Parapet Wall	—	—	—	—	—
Temporary Construction and Staging Areas					
French Meadows Powerhouse Parapet Wall Construction Staging and Work Area	—	—	—	—	—
South Fork Long Canyon Diversion					
Modified Facilities					
South Fork Long Canyon Diversion Dam Crest Gates	LC12	0.68 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Rumex acetosella</i>	sheep sorrel	low
			<i>Verbascum thapsus</i>	woolly mullein	low
New Facilities					
South Fork Long Canyon Diversion Dam Crest Gates Generator Building	—	—	—	—	—
Temporary Construction and Staging Areas					
South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	LC11	2 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Melilotus albus</i>	white sweet clover	moderate
			<i>Verbascum thapsus</i>	woolly mullein	low

¹This table includes only noxious weed polygons occurring at facilities listed on Table TERR 3-5. Noxious weed polygons within the potential inundation area around Hell Hole Reservoir are addressed in Tables TERR 3-9 and 3-11.

²Map identification number corresponds to map identification numbers shown on Maps TERR 3-3a through 3-3d.

³Acreage represents the area of the total polygon. Refer to Appendix E for detailed information on the size of each noxious weed population contained within the polygon.

⁴Infestation levels include: low (<5% cover); moderate (6–25% cover), and high (>25% cover).

Table TERR 3-10b. Noxious Weed Species at Facilities Associated with the French Meadows Powerhouse Capacity Upgrade Betterment.

Facility ¹	Map ID ²	Area Covered ³	Scientific Name	Common Name	Infestation Level ⁴
French Meadows Reservoir					
Modified Facilities					
French Meadows - Hell Hole Tunnel Intake Trash Rack	—	—	—	—	—
Temporary Construction and Staging Areas					
French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Staging Area	FM30	1.9 acres	<i>Cirsium vulgare</i>	bull thistle	low
French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Work Area	FM29	3.7 acres	<i>Cirsium vulgare</i>	bull thistle	low
			<i>Rumex acetosella</i>	sheep sorrel	moderate
			<i>Verbascum thapsus</i>	woolly mullein	high
French Meadows - Hell Hole Tunnel Intake Trash Rack Construction Road	—	—	—	—	—
French Meadows Powerhouse					
Modified Facilities					
French Meadows Powerhouse Switchyard	—	—	—	—	—
New Facilities					
French Meadows Powerhouse	H20	2 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Cirsium vulgare</i>	bull thistle	moderate
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Hypericum perforatum</i>	klamathweed	high
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
French Meadows Powerhouse/Switchyard Construction Work Area	—	—	—	—	—
French Meadows Powerhouse/Switchyard Construction Staging Area	H28	8.9 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Verbascum thapsus</i>	woolly mullein	low
French Meadows Powerhouse Penstock Construction Work Area	—	—	—	—	—
French Meadows Powerhouse Penstock Construction Staging Areas	H21	4.7 acres	<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
French Meadows - Hell Hole Tunnel Surge Shaft/Tank or Pipeline Construction Staging Areas	—	—	—	—	—
French Meadows - Hell Hole Tunnel Surge Shaft/Tank Construction Work Area	—	—	—	—	—

Table TERR 3-10b. Noxious Weed Species at Facilities Associated with the French Meadows Powerhouse Capacity Upgrade Betterment.

Facility ¹	Map ID ²	Area Covered ³	Scientific Name	Common Name	Infestation Level ⁴
French Meadows Powerhouse (continued)					
French Meadows - Hell Hole Tunnel Surge Pipeline Construction Work Area	—	—	—	—	—
French Meadows - Hell Hole Tunnel Surge Shaft or Pipeline Road Construction Staging and Work Area	—	—	—	—	—
Non-Project Facilities Modified During Construction					
Forest Road 14N09A	H24	5.4 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
	H25	1.7 acres	<i>Bromus tectorum</i>	cheatgrass	moderate
Forest Road 14N09A Construction Staging and Work Area	—	—	—	—	—
Middle Fork Powerhouse					
Modified Facilities					
Middle Fork Powerhouse and Upper and Lower Switchyard	110	0.73 acres	<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Cirsium vulgare</i>	bull thistle	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Rubus discolor</i>	Himalayan blackberry	high
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
	111	0.17 acres	<i>Verbascum thapsus</i>	woolly mullein	low
			<i>Vulpia myuros</i>	rat-tail fescue	low
			<i>Bromus diandrus</i>	ripgut brome	low
			<i>Bromus tectorum</i>	cheatgrass	low
			<i>Dactylis glomerata</i>	orchardgrass	low
			<i>Hypericum perforatum</i>	klamathweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
<i>Torilis arvensis</i>	spreading hedgeparsley	low			
<i>Verbascum thapsus</i>	woolly mullein	low			
<i>Vulpia myuros</i>	rat-tail fescue	low			

¹This table includes only noxious weed polygons occurring at facilities listed on Table TERR 3-5. Noxious weed polygons within the potential inundation area around Hell Hole Reservoir are addressed in Tables TERR 3-9 and 3-11.

²Map identification number corresponds to map identification numbers shown on Maps TERR 3-3a through 3-3d.

³Acreage represents the area of the total polygon. Refer to Appendix E for detailed information on the size of each noxious weed population contained within the polygon.

⁴Infestation levels include: low (<5% cover); moderate (6–25% cover), and high (>25% cover).

Table TERR 3-10c. Noxious Weed Species at Facilities Associated with the Ralston Powerhouse Capacity Upgrade Betterment.

Facility ¹	Map ID ²	Area Covered ³	Scientific Name	Common Name	Infestation Level ⁴
RALSTON POWERHOUSE					
Modified Facilities					
Ralston Powerhouse	R09	0.84 acres	<i>Cirsium arvense</i>	Canada thistle	low
			<i>Bromus diandrus</i>	ripgut brome	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Hirschfeldia incana</i>	shortpod mustard	low
			<i>Melilotus officinalis</i>	yellow sweetclover	low
			<i>Rubus discolor</i>	Himalayan blackberry	low
			<i>Torilis arvensis</i>	spreading hedgeparsley	low
	R10	0.88 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
			<i>Bromus diandrus</i>	ripgut brome	high
			<i>Carduus pycnocephalus</i>	Italian thistle	high
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	low
			<i>Chondrilla juncea</i>	rush skeletonweed	low
			<i>Melilotus officinalis</i>	yellow sweetclover	high
			<i>Plantago lanceolata</i>	English plantain	moderate
			<i>Taeniatherum caput-medusae</i>	medusahead	moderate
	<i>Verbascum thapsus</i>	woolly mullein	low		
Temporary Construction and Staging Areas					
Ralston Powerhouse Construction Staging Area	R11	1 acre	<i>Bromus diandrus</i>	ripgut brome	high
			<i>Bromus tectorum</i>	cheatgrass	moderate
			<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	moderate
			<i>Hirschfeldia incana</i>	shortpod mustard	moderate

¹This table includes only noxious weed polygons occurring at facilities listed on Table TERR 3-5. Noxious weed polygons within the potential inundation area around Hell Hole Reservoir are addressed in Tables TERR 3-9 and 3-11.

²Map identification number corresponds to map identification numbers shown on Maps TERR 3-3a through 3-3d.

³Acreage represents the area of the total polygon. Refer to Appendix E for detailed information on the size of each noxious weed population contained within the polygon.

⁴Infestation levels include: low (<5% cover); moderate (6–25% cover), and high (>25% cover).

Table TERR 3-11. Noxious Weed Polygons in the Study Area for Hell Hole Reservoir Associated with the Hell Hole Reservoir Seasonal Storage Increase Betterment.

Area 2a (continued)																														
From the current maximum normal operating WSE (4,630 feet msl) to the potential new maximum normal operating WSE (4,636 feet msl) with installation of 6' gate.																														
Noxious Weed Species Present																														
Map ID ¹	Area ²		<i>Agrostis stolonifer</i> creeping bent grass	<i>Ailanthus altissima</i> tree-of-heaven	<i>Bromus diandrus</i> ripgut brome	<i>Bromus tectorum</i> cheatgrass	<i>Carduus pycnocephalus</i> Italian thistle	<i>Centaurea melitensis</i> Malta starthistle (tocalote)	<i>Centaurea solstitialis</i> yellow starthistle	<i>Chondrilla juncea</i> rush skeletonweed	<i>Cirsium arvense</i> Canada thistle	<i>Cirsium vulgare</i> bull thistle	<i>Cynodon dactylon</i> Bermuda grass	<i>Cynurus echinatus</i> hedgohog dogtailgrass	<i>Cytisus scoparius</i> Scotch broom	<i>Dactylis glomerata</i> orchardgrass	<i>Hirschfeldia incana</i> shortpod mustard	<i>Hypericum perforatum</i> klamathweed	<i>Lepidium latifolium</i> perennial pepperweed	<i>Melilotus albus</i> white sweet clover	<i>Melilotus officinalis</i> yellow sweetclover	<i>Plantago lanceolata</i> English plantain	<i>Robinia pseudoacacia</i> black locust	<i>Rubus discolor</i> Himalayan blackberry	<i>Rumex acetosella</i> sheep sorrel	<i>Taeniatherum caput-medusae</i> medusahead	<i>Torilis arvensis</i> spreading hedgeparsley	<i>Verbascum thapsus</i> woolly mullein	<i>Vulpia myuros</i> rat-tail fescue	
	Sq Ft	Acres																												
H50	14,970	0.34																												
H51	23,775	0.55																												X
H52	73,247	1.68	X																									X		
H54	1,351	0.03	X			X																							X	
H55	9,224	0.21																										X		
Total:	443,963	10.19																												

¹Refer to Map TERR 3-3a through 3-3c for the location of each polygon within the study area.

²Includes only the portion of the polygon that falls between the specified elevations.

Table TERR 3-11. Noxious Weed Polygons in the Study Area for Hell Hole Reservoir Associated with the Hell Hole Reservoir Seasonal Storage Increase Betterment.

Area 2b																														
From the new potential maximum normal operating WSE (4,636 feet msl) with installation of 6' gate to the new potential maximum normal operating WSE (4,640 feet msl) with installation of 10' gate.																														
Noxious Weed Species Present																														
Map ID ¹	Area ²		<i>Agrostis stolonifer</i> creeping bent grass	<i>Ailanthus altissima</i> tree-of-heaven	<i>Bromus diandrus</i> ripgut brome	<i>Bromus tectorum</i> cheatgrass	<i>Carduus pycnocephalus</i> Italian thistle	<i>Centaurea melitensis</i> Malta starthistle (tocalote)	<i>Centaurea solstitialis</i> yellow starthistle	<i>Chondrilla juncea</i> rush skeletonweed	<i>Cirsium arvense</i> Canada thistle	<i>Cirsium vulgare</i> bull thistle	<i>Cynodon dactylon</i> Bermuda grass	<i>Cynurus echinatus</i> hedgohog dogtailgrass	<i>Cytisus scoparius</i> Scotch broom	<i>Dactylis glomerata</i> orchardgrass	<i>Hirschfeldia incana</i> shortpod mustard	<i>Hypericum perforatum</i> klamathweed	<i>Lepidium latifolium</i> perennial pepperweed	<i>Melilotus albus</i> white sweet clover	<i>Melilotus officinalis</i> yellow sweetclover	<i>Plantago lanceolata</i> English plantain	<i>Robinia pseudoacacia</i> black locust	<i>Rubus discolor</i> Himalayan blackberry	<i>Rumex acetosella</i> sheep sorrel	<i>Taeniatherum caput-medusae</i> medusahead	<i>Torilis arvensis</i> spreading hedgeparsley	<i>Verbascum thapsus</i> woolly mullein	<i>Vulpia myuros</i> rat-tail fescue	
	Sq Ft	Acres																												
H01	630	0.01																												
H02	1,725	0.04				X										X		X												X
H03	17,911	0.41				X												X				X						X	X	
H09	2,514	0.06			X	X					X					X	X	X				X			X	X		X		
H18	4,458	0.10				X												X											X	
H20	4,748	0.11				X						X					X	X			X								X	
H27	34,267	0.79				X																			X					
H28	22,676	0.52				X																						X		
H29	11,833	0.27				X																							X	
H30	2,026	0.05									X							X										X	X	
H31	32,998	0.76				X																							X	
H32	18,705	0.43				X																							X	
H33	6,602	0.15																X										X	X	
H34	6,773	0.16				X																							X	
H35	3,882	0.09	X		X	X					X			X														X	X	
H36	4,543	0.10				X																							X	
H37	10,933	0.25				X																					X	X		
H38	2,726	0.06	X			X																							X	
H39	679	0.02				X																							X	
H40	2,760	0.06				X																							X	
H41	18,139	0.42				X																							X	
H42	2,575	0.06																											X	
H43	5,626	0.13	X								X																	X		
H44	13,447	0.31				X																							X	
H46	15,424	0.35				X																						X	X	
H47	14,952	0.34				X																							X	
H48	19,640	0.45																											X	
H49	81,169	1.86																											X	

Table TERR 3-12. Location of Noxious Weed Species at Quantitative Geomorphic and Riparian Sampling Sites.

Map ID ¹	Reach Location (river mile)	Transect Number	Area Covered ²	Scientific Name	Common Name	Infestation Level
Middle Fork American River						
MF-10	44.7	1	0.06 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
				<i>Cirsium vulgare</i>	bull thistle	low
				<i>Cirsium vulgare</i>	bull thistle	low
		2	0.02 acres	<i>Agrostis stolonifera</i>	creeping bent grass	low
				<i>Rumex acetosella</i>	sheep sorrel	low
MF-9	36.2	—	—	—	—	—
MF-7	29.4	1	0.06 acres	<i>Bromus diandrus</i>	ripgut brome	low
		2	0.10 acres	<i>Chondrilla juncea</i>	rush skeletonweed	medium
				<i>Cynosurus echinatus</i>	hedgehog dogtailgras	low
MF-6	28.6	1	0.07 acres	<i>Bromus diandrus</i>	ripgut brome	low
		2	0.09 acres	<i>Bromus diandrus</i>	ripgut brome	low
		3	0.05 acres	<i>Bromus diandrus</i>	ripgut brome	low
MF-4	26.2	2	0.04 acres	<i>Rumex acetosella</i>	sheep sorrel	low
MF-3	16.95	1	0.07 acres	<i>Bromus diandrus</i>	ripgut brome	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Plantago lanceolata</i>	English plantain	low
				<i>Rubus discolor</i>	Himalayan blackberry	high
		2	0.10 acres	<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Cynodon dactylodon</i>	bull thistle	low
				<i>Rubus discolor</i>	Himalayan blackberry	medium
		3	0.18 acres	<i>Verbascum thapsus</i>	woolly mullein	low
				<i>Bromus diandrus</i>	ripgut brome	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Cynosurus echinatus</i>	hedgehog dogtailgras	low
				<i>Plantago lanceolata</i>	English plantain	low
<i>Rubus discolor</i>	Himalayan blackberry	low				

Table TERR 3-12. Location of Noxious Weed Species at Quantitative Geomorphic and Riparian Sampling Sites (continued).

Map ID ¹	Reach Location (river mile)	Transect Number	Area Covered ²	Scientific Name	Common Name	Infestation Level
Middle Fork American River (continued)						
MF-2	10.4	1	0.15 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
		2	0.02 acres	<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Cytisus scoparius</i>	Scotch broom	low
				<i>Melilotus officinalis</i>	yellow sweetclover	low
3	0.03 acres	<i>Rubus discolor</i>	Himalayan blackberry	low		
MF-1	4.8	1	0.18 acres	<i>Bromus diandrus</i>	ripgut brome	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Cytisus scoparius</i>	Scotch broom	low
				<i>Hirschfeldia incana</i>	shortpod mustard	low
				<i>Rubus discolor</i>	Himalayan blackberry	low
		2	0.24 acres	<i>Bromus diandrus</i>	ripgut brome	low
				<i>Centaurea solstitialis</i>	yellow starthistle	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Cynodon dactylodon</i>	bull thistle	low
				<i>Hirschfeldia incana</i>	shortpod mustard	low
		3	0.48 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
				<i>Centaurea solstitialis</i>	ripgut brome	low
				<i>Centaurea solstitialis</i>	yellow starthistle	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Cytisus scoparius</i>	Scotch broom	low
				<i>Dactylus glomerata</i>	orchardgrass	low
				<i>Hirschfeldia incana</i>	shortpod mustard	low
				<i>Rubus discolor</i>	Himalayan blackberry	low
Rubicon River						
R-16	28.1	—	—	—	—	—
R-15	25.7	2	0.07 acres	<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Rubus discolor</i>	Himalayan blackberry	low

Table TERR 3-12. Location of Noxious Weed Species at Quantitative Geomorphic and Riparian Sampling Sites (continued).

Map ID ¹	Reach Location (river mile)	Transect Number	Area Covered ²	Scientific Name	Common Name	Infestation Level
Rubicon River (continued)						
R-13	20.9	2	0.06 acres	<i>Hirschfeldia incana</i>	shortpod mustard	low
R-12	19.5	1	0.02 acres	<i>Hirschfeldia incana</i>	shortpod mustard	low
		2	0.06 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
R-10	14.3	2	0.12 acres	<i>Hirschfeldia incana</i>	shortpod mustard	low
				<i>Bromus diandrus</i>	rippgut brome	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Rumex acetosella</i>	sheep sorrel	low
		3	0.06 acres	<i>Vulpia myuros</i>	rat-tail fescue	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
				<i>Verbascum thapsus</i>	woolly mullein	low
R-5	3.8	2	0.08 acres	<i>Cynodon dactylodon</i>	bull thistle	low
				<i>Cynosurus echinatus</i>	hedgehog dogtailgras	low
				<i>Melilotus officinalis</i>	yellow sweetclover	low
R-4	3.5	2	0.07 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
		3	0.08 acres	<i>Verbascum thapsus</i>	woolly mullein	low
R-3	2.6	1	0.07 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
				<i>Chondrilla juncea</i>	rush skeletonweed	low
		2	0.07 acres	<i>Verbascum thapsus</i>	woolly mullein	low
R-2	1.2	2	0.08 acres	<i>Rubus discolor</i>	Himalayan blackberry	low
				<i>Bromus diandrus</i>	rippgut brome	low
R-1	0.7	1	0.12 acres	<i>Hirschfeldia incana</i>	shortpod mustard	low
				<i>Rubus discolor</i>	Himalayan blackberry	low
Duncan Creek						
D-3	8.3	—	—	—	—	—
D-2	6.3	—	—	—	—	—
D-1	4.6	—	—	—	—	—

Table TERR 3-12. Location of Noxious Weed Species at Quantitative Geomorphic and Riparian Sampling Sites (continued).

Map ID ¹	Reach Location (river mile)	Transect Number	Area Covered ²	Scientific Name	Common Name	Infestation Level
Long Creek Canyon						
LC-2	9	—	—	—	—	—
LC-1	0	—	—	—	—	—
SFLC-1	2.3	1	0.03 acres	<i>Rumex acetosella</i>	sheep sorrel	low
		2	0.02 acres	<i>Rumex acetosella</i>	sheep sorrel	low
		3	0.03 acres	<i>Cirsium vulgare</i>	bull thistle	low
				<i>Rubus discolor</i>	Himalayan blackberry	low
				<i>Rumex acetosella</i>	sheep sorrel	low
NFLC-1	1.9	1	0.03 acres	<i>Cirsium vulgare</i>	bull thistle	low

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-2a through 3-2e.

²Acerage represents the area of the total polygon. Refer to Appendix F for detailed information on the size of each noxious weed population contained within the polygon.

FIGURES

Figure TERR 3-1. Study Objectives and Related Study Elements and Reports.

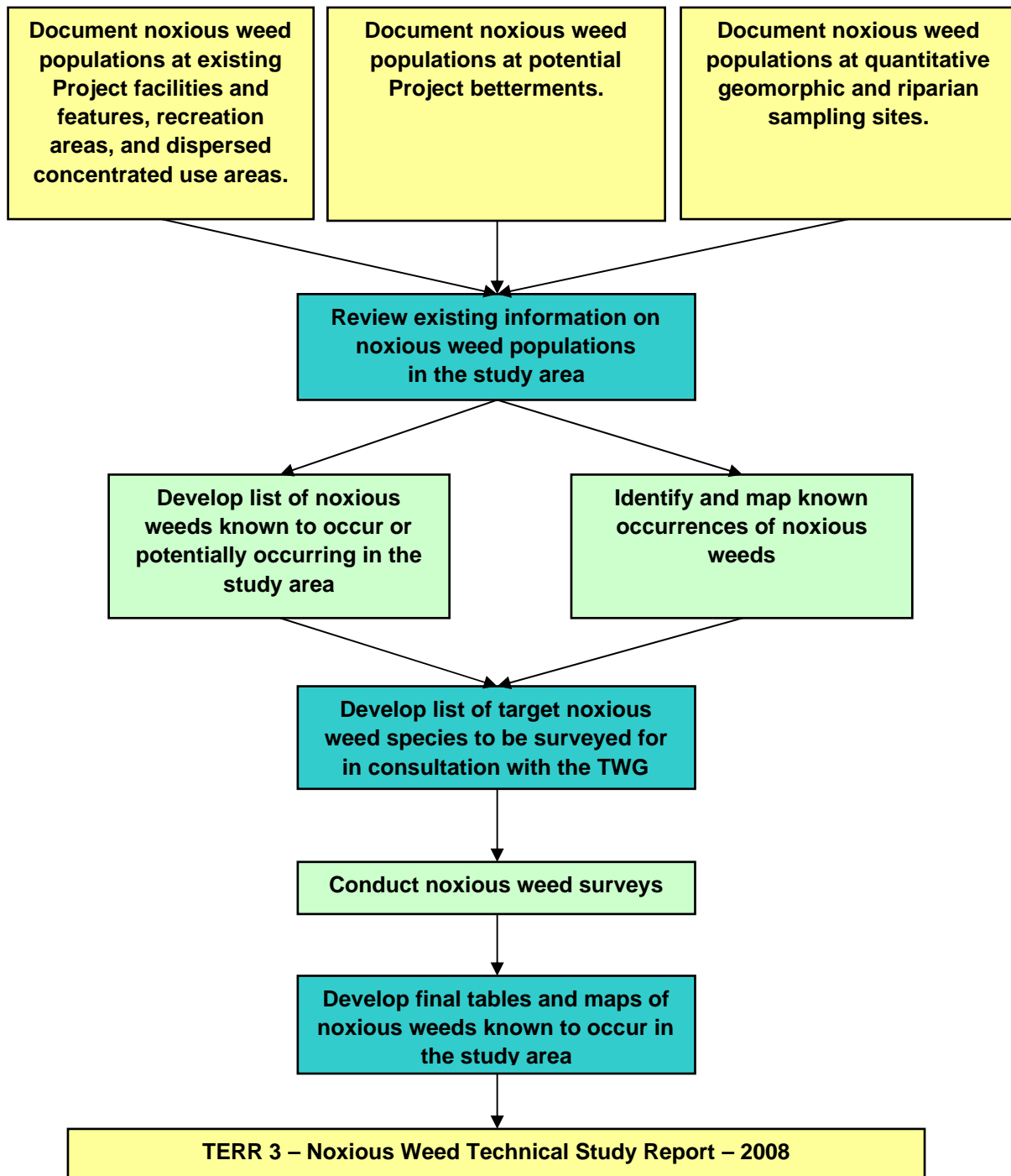
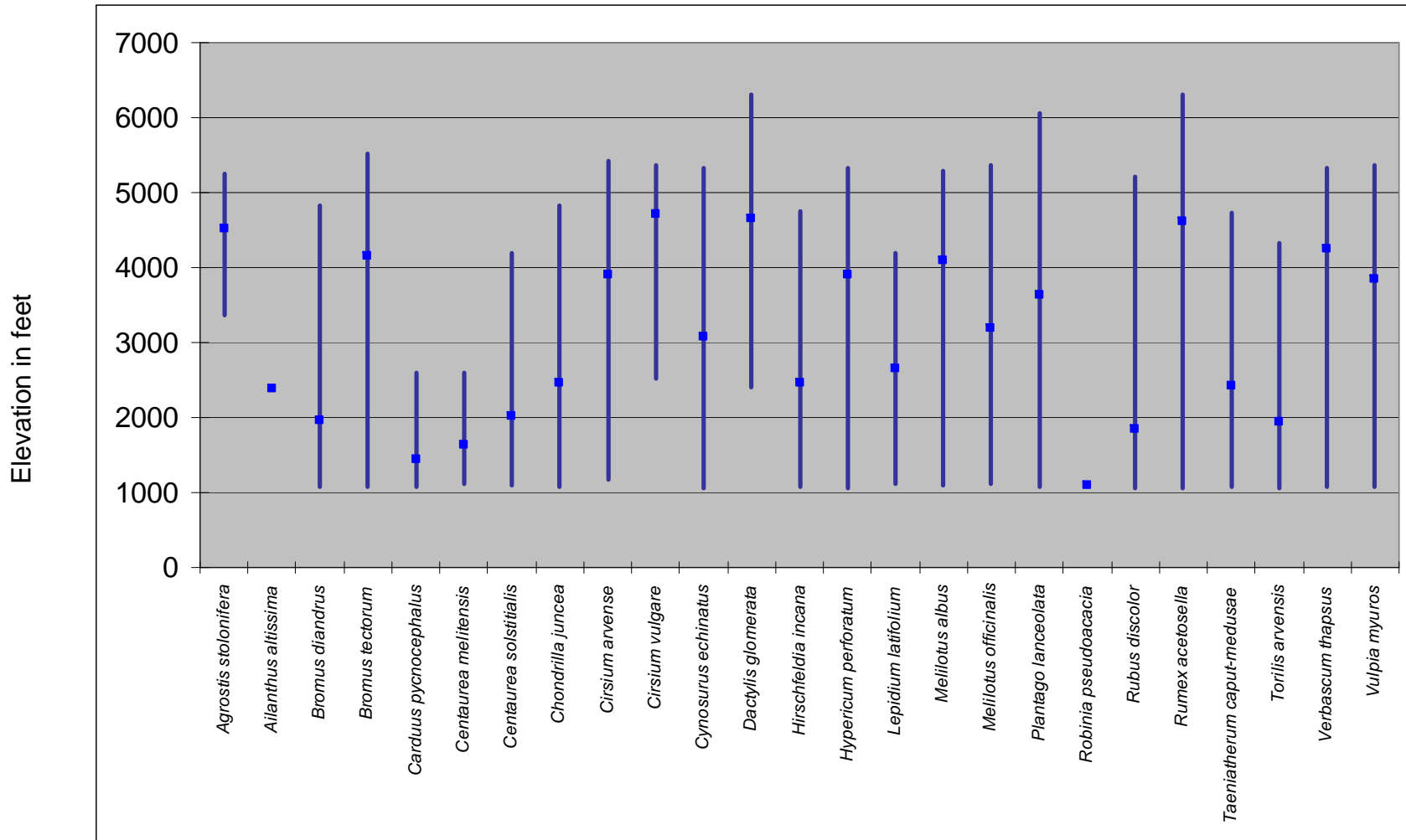


Figure TERR 3-4. Elevational Distribution of Noxious Weed Species in the TERR 3 Study Area.

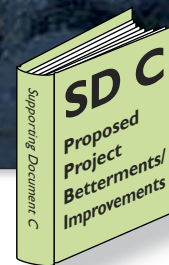


MAPS

APPENDIX A
Brief Summary of Project Betterments



HELL HOLE RESERVOIR SPILLWAY



Project Betterments/ Improvements

IN PREPARATION FOR THE RELICENSING OF THE MFP, PCWA conducted an assessment to identify potential modifications or additions (betterments) to existing Project facilities that would improve operations or maintenance of the Project, and result in an increase in net or peaking generation. As a result of this assessment, PCWA is including the following three potential Project betterments in the PAD:

- Hell Hole Reservoir Seasonal Storage Increase
- French Meadows Powerhouse Capacity Upgrade
- Ralston Powerhouse Capacity Upgrade

PCWA intends to further evaluate these potential betterments during relicensing with respect to their engineering and economic feasibility and the potential protection, mitigation, or enhancement measures that may be necessary to address potential effects on environmental and cultural resources. The specific Project betterments to be included in the License Application will be determined after reviewing the results of on-going engineering, economic, cultural, and environmental studies in relation to potential future license conditions.

HELL HOLE RESERVOIR SEASONAL STORAGE INCREASE

The purpose of this betterment would be to seasonally increase the storage capacity of Hell Hole Reservoir. The betterment would utilize a portion of the existing flood control pool, above the present normal maximum operating water level, to store additional water during the spring and summer after the peak of the runoff period. An approximate 9,750 ac-ft to 12,000 ac-ft increase in seasonal storage in the reservoir would be achieved by installing 8-10 foot high crest gates on the existing dam spillway. The crest gates would be raised when needed to increase reservoir storage. Operation of the crest gates would also seasonally increase the reservoir's inundation area within the existing flood pool by approximately 37 acres.



Installation of spillway gates on Hell Hole Reservoir will increase seasonal storage and power generation.

In years when either French Meadows or Hell Hole reservoirs would have spilled, this betterment would allow the MFP to capture additional water in storage in Hell Hole Reservoir which can later be used to increase net annual energy generation. In all but the driest years, the betterment would also allow the MFP to shift the timing of some generation from the spring run-off period to the summer peak energy demand period. While the shift in the timing of the generation will not increase total annual MFP generation, it will increase the benefit of the Project by increasing generation during the peak energy demand period. This betterment would require a new water right to allow for additional storage at Hell Hole Reservoir.

This betterment would require the following modifications to existing Project facilities:

- Hell Hole Dam Spillway - install 8-10 foot-high crest gates on the existing concrete spillway
- Hell Hole Dam - install 2 foot-high parapet walls on each end of the existing dam to maintain minimum freeboard requirements, if 10 foot-high crest gates are installed
- French Meadow Powerhouse - install 4 foot-high parapet wall at the powerhouse to avoid inundation from wave action when the reservoir is at its maximum water surface elevation
- Hell Hole - Middle Fork Tunnel Gatehouse - install 4 foot-high parapet wall around the gatehouse to avoid inundation from wave action
- South Fork Long Canyon Diversion Dam - install 3 foot-high crest gates on the diversion dam or a check valve at the drop inlet to avoid the backflow of water from the Hell Hole - Middle Fork Tunnel into South Fork Long Canyon Creek when Middle Fork Powerhouse is not operating

The betterment would also require construction of three new Project facilities including:

- Hell Hole Dam Spillway Crest Gates Control Building - construct a small control building adjacent to the spillway to provide power to operate the spillway crest gates
- Hell Hole Dam Spillway Crest Gates Control Building Powerline - construct a short spur line (approximately 525 feet) from the control building to an existing powerline to provide power for spillway crest gate operations
- South Fork Long Canyon Diversion Dam Generator Building - construct a control building with a generator to provide power to operate the crest gate

FRENCH MEADOWS POWERHOUSE CAPACITY UPGRADE

The purpose of this betterment would be to increase the generating capacity of the existing French Meadows Powerhouse from 15.3 MW to approximately 30 MW. Generating capacity would be increased by adding a second powerhouse immediately adjacent to the existing powerhouse. The existing French Meadows Powerhouse is only able to utilize approximately one-half of the maximum hydraulic capacity of the French Meadows - Hell Hole Tunnel. The addition



FRENCH MEADOWS POWERHOUSE

The addition of a second French Meadows Powerhouse will allow PCWA to increase peaking generation.

of a second unit would allow the maximum hydraulic capacity of the tunnel to be used to transport more water over a shorter period of time from French Meadows Reservoir to Hell Hole Reservoir, thereby increasing the MFP's peaking generation capabilities. This betterment would require a new water right to allow for an increase in the permitted direct diversion rate from French Meadows Reservoir to Hell Hole Reservoir.

The new powerhouse would also increase the capability of the MFP to supply electrical grid support services. The new generating unit could be operated simultaneously or independently of the existing generating unit. The existing PG&E 60-kV French Meadows - Middle Fork Transmission Line will be used to interconnect the new powerhouse with the PG&E transmission system.

This betterment would require the following modifications to existing Project facilities:

- French Meadows - Hell Hole Tunnel Intake Trash Rack - possible replacement of the existing cylindrical trash rack with a larger trash rack to reduce head losses and allow greater volume of water to flow into the tunnel
- French Meadows Powerhouse Switchyard - expand the existing switchyard to include additional buswork, transformers, and electrical switching equipment necessary to convey the additional power generated at the new powerhouse
- Middle Fork Powerhouse Upper Switchyard - upgrade the transformers and switchgear at the existing 60kV substation at Middle Fork Interbay to handle the additional power transfer

This betterment would also require construction of the following new Project facilities:

- French Meadows Powerhouse - construct a second powerhouse with installed generating capacity of approximately 15 MW immediately adjacent to existing powerhouse
- French Meadows Powerhouse Penstock - construct a second penstock, parallel to the existing penstock, to provide water to the new powerhouse
- Additional Surge Capacity Facility - develop additional surge capacity through construction of a surge shaft, surge shaft and tank, or surge pipeline located above the French Meadows - Hell Hole Tunnel Portal, or installation of a bypass valve in the new powerhouse
- French Meadows - Hell Hole Tunnel Surge Shaft or Pipeline Access Road - construct a new Project road from an existing Forest Service road to the surge shaft or pipeline and temporarily improve the existing Forest Service road

RALSTON POWERHOUSE CAPACITY UPGRADE

The purpose of this betterment is to improve the operating efficiency of the Middle Fork - Ralston system by increasing the hydraulic capacity of Ralston Powerhouse to match Middle Fork Powerhouse throughput, plus accretions at Middle Fork Interbay. This betterment would allow the MFP to maximize peaking generation during periods of high energy demand, thereby increasing the overall benefit of the MFP. This betterment would only require upgrades to electrical and mechanical equipment within the Ralston Powerhouse. This betterment may result in the ability of Ralston Powerhouse to utilize more than 1,000 cfs, in which case a new water right will be needed.



RALSTON POWERHOUSE

The Ralston Powerhouse upgrade will increase peaking generation opportunities.

APPENDIX B

Target Noxious Weed Species for the TERR 3 Noxious Weed Surveys

Appendix B. Target Noxious Weed Species for the TERR 3 Noxious Weed Surveys.

Scientific Name	Common Name	Cal-IPC Rating ³	CDFA Rating ⁴	ENF Rating ⁵
<i>Acroptilon repens</i> (<i>Centaurea repens</i>) ²	Russian knapweed	Moderate	B	—
<i>Aegilops triuncialis</i> ¹	barbed goatgrass	High	B	Moderate
<i>Agrostis stolonifera</i> ¹	creeping bent grass	Limited	—	—
<i>Ailanthus altissima</i> ¹	tree-of-heaven	Moderate	C	High
<i>Bromus diandrus</i> ¹	ripgut brome	Moderate	—	Low
<i>Bromus tectorum</i> ¹	cheatgrass	High	—	Moderate
<i>Cardaria chalapensis</i> ²	whitetop	Moderate	B	—
<i>Cardaria draba</i> ²	heart podded whitetop	Moderate	B	—
<i>Cardaria pubescens</i> ²	hairy whitetop	Limited	B	—
<i>Carduus nutans</i> ²	musk thistle	Moderate	A	—
<i>Carduus pycnocephalus</i> ²	Italian thistle	Moderate	C	Moderate
<i>Carthamus lanatus</i> ²	woolly distaff thistle	Moderate	B	—
<i>Centaurea diffusa</i> ²	diffuse knapweed	Moderate	A	—
<i>Centaurea maculosa</i> ¹	spotted knapweed	High	A	High
<i>Centaurea melitensis</i> ²	Malta starthistle (tocalote)	Moderate	C	Moderate
<i>Centaurea solstitialis</i> ¹	yellow starthistle	High	C	High
<i>Chondrilla juncea</i> ¹	rush skeletonweed	Moderate	A	High
<i>Cirsium arvense</i> ²	Canada thistle	Moderate	B	High
<i>Cirsium vulgare</i> ¹	bull thistle	Moderate	C	Low
<i>Conium maculatum</i> ²	poison hemlock	Moderate	—	—
<i>Cynodon dactylodon</i> ¹	bermudagrass	Moderate	C	—
<i>Cynosurus echinatus</i> ¹	hedgehog dogtailgrass	Moderate	—	—
<i>Cytisus scoparius</i> ¹	Scotch broom	High	C	High
<i>Dactylis glomerata</i> ¹	orchardgrass	Limited	—	—
<i>Euphorbia esula</i> ²	leafy spurge	High	A	—
<i>Euphorbia oblongata</i> ²	eggleaf (oblong) spurge	Limited	B	—
<i>Festuca arundinacea</i> ²	tall fescue	Moderate	—	—
<i>Foeniculum vulgare</i> ¹	fennel	High	—	Moderate
<i>Genista monspessulana</i> ²	French broom	High	C	—
<i>Halogeton glomeratus</i> ²	Halogeton	Moderate	A	—
<i>Hirschfeldia incana</i> ¹	shortpod mustard	Moderate	—	Moderate
<i>Hydrilla verticillata</i> ²	hydrilla	High	A	—
<i>Hypericum perforatum</i> ²	klamathweed	Moderate	C	—
<i>Isatis tinctoria</i> ²	dyer's woad	Moderate	—	—
<i>Lathyrus latifolius</i> ²	perennial sweet pea	—	—	—
<i>Lepidium latifolium</i> ¹	perennial pepperweed	High	B	High
<i>Leucanthemum vulgare</i> ²	ox-eye daisy	Moderate	—	—
<i>Linaria genistifolia</i> ssp. <i>Dalmatica</i> ²	Dalmatian toadflax	Moderate	A	—
<i>Lychnis coronaria</i> ²	rose campion	—	—	—
<i>Lythrum salicaria</i> ²	purple loosestrife	High	B	—
<i>Mellilotus albus</i> ²	white sweet clover	—	—	Moderate

Appendix B. Target Noxious Weed Species for the TERR 3 Noxious Weed Surveys (continued).

Scientific Name	Common Name	Cal-IPC Rating ³	CDFA Rating ⁴	ENF Rating ⁵
<i>Melilotus officinalis</i> ¹	yellow sweetclover	—	—	Moderate
<i>Mysiophyllum spicatum</i> ²	Eurasian water milfoil	High	C	—
<i>Onopordum acanthium</i> ssp. <i>Acanthium</i> ²	Scotch thistle	High	A	—
<i>Plantago lanceolata</i> ¹	English plantain	Limited	—	—
<i>Robinia pseudoacacia</i> ¹	black locust	Limited	—	—
<i>Rubus discolor</i> ¹	Himalayan blackberry	High	—	Low
<i>Rumex acetosella</i> ¹	sheep sorrel	Moderate	—	—
<i>Salsola tragus</i> ²	Russian thistle	Limited	C	—
<i>Silybum marianum</i> ²	milk thistle	Limited	—	—
<i>Spartium junceum</i> ²	Spanish broom	High	—	—
<i>Taeniatherum caput-medusae</i> ¹	medusahead	High	C	Moderate
<i>Tamarix chinensis</i> ²	tamarisk	—	B	—
<i>Torilis arvensis</i> ²	spreading hedgeparsley	Moderate	—	—
<i>Ulex europaeus</i> ²	gorse	High	B	—
<i>Verbascum thapsus</i> ¹	woolly mullein	Limited	—	Low
<i>Vulpia myuros</i> ¹	rat-tail fescue	Moderate	—	—

¹Noxious weed species known to occur in the Middle Fork American River watershed.

²Noxious weed species potentially occurring in the Middle Fork American River watershed.

³**California Invasive Plant Council (Cal-IPC) Rating:**

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

⁴**California Department of Food and Agriculture (CDFA) Rating:**

A-rated pests: Weeds of known economic significance, subject to action by CDFA including eradication, quarantine, containment, rejection of shipments, or other holding action at the state-county level. Quarantine interceptions are to be rejected or treated at any point in the state.

B-rated pests: Weeds subject to action by CDFA only when found in a nursery, and otherwise subject to eradication, containment, control, or other holding action at the discretion of the local county agricultural commissioner.

C-rated pests: Not subject to state action except to provide for general pest cleanliness in nurseries; reject by CDFA only when found in a cropseed for planting or at the discretion of the commissioner, action to retard spread outside of nurseries at the discretion of the county agricultural commissioner.

⁵**Eldorado National Forest (ENF) Rating:** The ENF assigns management priorities to noxious weeds based on a species' potential ecological impact. ENF will establish goals of eradication, control, or containment dependant upon each species' rating and level of infestation (Durham, pers. comm. 2009).

APPENDIX C

Photographs of Selected Noxious Weeds in the Study Area

Appendix C. Photographs of Selected Noxious Weeds in the Study Area.



Rush skeleton weed (*Chondrilla juncea*) on Junction Bar near Ralston Powerhouse.



English plantain (*Plantago lanceolata*) near the North Fork Long Canyon Removable Section.

Appendix C. Photographs of Selected Noxious Weeds in the Study Area.



White sweet clover (*Melilotus alba*) at North Fork Long Canyon Crossing Sediment Disposal Area.



Cheatgrass (*Bromus tectorum*) at North Fork Long Canyon Crossing Sediment Disposal Area.

Appendix C. Photographs of Selected Noxious Weeds in the Study Area.



Rat-tail fescue (*Vulpia myuros*) at Hell Hole Vista.



Rat-tail fescue occupying flat areas on granite along the shoreline of Hell Hole Reservoir.

Appendix C. Photographs of Selected Noxious Weeds in the Study Area.



Woolly mullein (*Verbascum thapsus*) on the north shore of French Meadows Reservoir in early spring.



Woolly mullein on the north shore of French Meadows Reservoir in early spring.

Appendix C. Photographs of Selected Noxious Weeds in the Study Area.



Woolly mullein on the north shore of French Meadows Reservoir in summer.



Woolly mullein along the exposed shoreline of Hell Hole Reservoir in summer.

APPENDIX D

**Results of Noxious Weed Surveys at Existing Project Facilities and Features,
Project Recreation Facilities, and Dispersed Concentrated Use Areas**

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas.

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
BC01	5/23/2008	Brushy Canyon Adit Road	<i>Agrostis stolonifera</i>	creeping bent grass	39.00920	-120.65450	0.00	40	low
	5/23/2008	Brushy Canyon Adit Road	<i>Bromus diandrus</i>	ripgut brome	39.01180	-120.65640	6.7	291,852	low
	5/23/2008	Brushy Canyon Adit Road	<i>Bromus tectorum</i>	cheatgrass	39.01180	-120.65640	6.7	291,852	low
	5/23/2008	Brushy Canyon Adit Road	<i>Cirsium vulgare</i>	bull thistle	39.01180	-120.65640	6.7	291,852	low
	5/23/2008	Brushy Canyon Adit Road	<i>Dactylis glomerata</i>	orchardgrass	39.00920	-120.65450	0.00	40	low
	5/23/2008	Brushy Canyon Adit Road	<i>Rumex acetosella</i>	sheep sorrel	39.00840	-120.65320	0.00	25	moderate
	5/23/2008	Brushy Canyon Adit Road	<i>Rumex acetosella</i>	sheep sorrel	39.00920	-120.65450	0.00	40	moderate
	5/23/2008	Brushy Canyon Adit Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.01180	-120.65640	6.7	291,852	low
5/23/2008	Brushy Canyon Adit Road	<i>Vulpia myuros</i>	rat-tail fescue	39.01180	-120.65640	6.7	291,852	low	
BC02	5/23/2008	Brushy Canyon Adit Road	<i>Bromus diandrus</i>	ripgut brome	39.01180	-120.65640	4.8	209,088	low
	5/23/2008	Brushy Canyon Adit Road	<i>Bromus tectorum</i>	cheatgrass	39.01180	-120.65640	4.8	209,088	low
	5/23/2008	Brushy Canyon Adit Road	<i>Chondrilla juncea</i>	rush skeletonweed	39.01180	-120.65640	4.8	209,088	moderate
	5/23/2008	Brushy Canyon Adit Road	<i>Cirsium vulgare</i>	bull thistle	39.01180	-120.65640	4.8	209,088	low
	5/23/2008	Brushy Canyon Adit Road	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.01180	-120.65640	4.8	209,088	low
	5/23/2008	Brushy Canyon Adit Road	<i>Hypericum perforatum</i>	klamathweed	39.01180	-120.65640	4.8	209,088	moderate
	5/23/2008	Brushy Canyon Adit Road	<i>Plantago lanceolata</i>	English plantain	39.01490	-120.66080	0.00	150	low
	5/23/2008	Brushy Canyon Adit Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.01180	-120.65640	4.8	209,088	low
	5/23/2008	Brushy Canyon Adit Road	<i>Verbascum thapsus</i>	woolly mullein	39.01180	-120.65640	4.8	209,088	low
5/23/2008	Brushy Canyon Adit Road	<i>Vulpia myuros</i>	rat-tail fescue	39.01180	-120.65640	4.8	209,088	high	
DC01	5/23/2008	Duncan Creek Diversion Dam Road	<i>Bromus tectorum</i>	cheatgrass	39.13490	-120.48160	0.26	11,326	high
DC02	5/23/2008	Duncan Creek Diversion Intake Road and Diversion Pool Access Point	<i>Cirsium vulgare</i>	bull thistle	39.13630	-120.47780	0.01	400	moderate
	7/24/2008	Duncan Creek Diversion Intake Road and Diversion Pool Access Point	<i>Verbascum thapsus</i>	woolly mullein	39.13600	-120.47928	0.00	100	moderate
DC03	7/24/2008	Duncan Creek Diversion Pool	<i>Cirsium vulgare</i>	bull thistle	39.13512	-120.48020	0.00	200	low
FM01	6/3/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Bromus tectorum</i>	cheatgrass	39.11160	-120.47210	4.1	178,596	low
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Cirsium vulgare</i>	bull thistle	39.10862	-120.47050	0.23	10,019	low
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Cirsium vulgare</i>	bull thistle	39.11062	-120.47140	0.05	2,000	low
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Cirsium vulgare</i>	bull thistle	39.11102	-120.47172	0.02	750	low
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Hypericum perforatum</i>	klamathweed	39.10777	-120.47053	4.1	178,596	low
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Melilotus albus</i>	white sweet clover	39.10777	-120.47053	4.1	178,596	low
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Plantago lanceolata</i>	English plantain	39.10862	-120.47050	0.23	10,019	low
	6/3/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Rumex acetosella</i>	sheep sorrel	39.11100	-120.47220	0.00	25	moderate
	7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Rumex acetosella</i>	sheep sorrel	39.11167	-120.47232	0.00	50	low
7/26/2008	French Meadows Dam Outlet Works and Leakage Weirs Road	<i>Verbascum thapsus</i>	woolly mullein	39.11062	-120.47140	0.05	2,000	low	
FM02	6/3/2008	French Meadows Dam and Outlet Works	<i>Bromus tectorum</i>	cheatgrass	39.11120	-120.47170	18.6	810,216	moderate
	5/25/2008	French Meadows Dam and Outlet Works	<i>Dactylis glomerata</i>	orchardgrass	39.11480	-120.47150	18.6	810,216	low
	7/26/2008	French Meadows Dam and Outlet Works	<i>Hypericum perforatum</i>	klamathweed	39.10838	-120.46988	18.6	810,216	low
	7/26/2008	French Meadows Dam and Outlet Works	<i>Plantago lanceolata</i>	English plantain	39.10838	-120.46988	18.6	810,216	low
	7/26/2008	French Meadows Dam and Outlet Works	<i>Rumex acetosella</i>	sheep sorrel	39.10838	-120.46988	18.6	810,216	low
	7/26/2008	French Meadows Dam and Outlet Works	<i>Verbascum thapsus</i>	woolly mullein	39.10838	-120.46988	18.6	810,216	low
FM03	7/25/2008	French Meadows Dam Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.11470	-120.47410	2.6	113,256	high
	7/25/2008	French Meadows Dam Staging Area Road	<i>Cirsium vulgare</i>	bull thistle	39.11570	-120.47470	2.6	113,256	low
	5/25/2008	French Meadows Dam Staging Area and Road	<i>Dactylis glomerata</i>	orchardgrass	39.11470	-120.47410	2.6	113,256	low
	5/26/2008	French Meadows Dam Staging Area	<i>Hypericum perforatum</i>	klamathweed	39.11430	-120.47430	2.6	113,256	high
	5/25/2008	French Meadows Dam Staging Area and Road	<i>Melilotus albus</i>	white sweet clover	39.11470	-120.47410	2.6	113,256	moderate
	5/25/2008	French Meadows Dam Staging Area and Road	<i>Plantago lanceolata</i>	English plantain	39.11470	-120.47410	2.6	113,256	low
	5/25/2008	French Meadows Dam Staging Area	<i>Rumex acetosella</i>	sheep sorrel	39.11430	-120.47430	2.6	113,256	moderate
5/25/2008	French Meadows Dam Staging Area	<i>Verbascum thapsus</i>	woolly mullein	39.11470	-120.47410	2.6	113,256	low	
FM04	5/25/2008	French Meadows Dam Generator Building	<i>Bromus tectorum</i>	cheatgrass	39.11480	-120.47150	0.42	18,295	high
	7/25/2008	French Meadows Dam Generator Building	<i>Dactylis glomerata</i>	orchardgrass	39.11480	-120.47150	0.42	18,295	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
FM05	5/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.11710	-120.44440	0.00	25	low
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.12578	-120.41845	0.06	2,500	low
	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.11450	-120.45900	0.28	12,197	moderate
	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.11410	-120.46380	0.70	30,492	high
	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.13240	-120.40920	110	4,791,600	low
	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.11640	-120.44600	0.11	4,900	low
	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.11510	-120.45790	0.13	5,625	low
	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.11430	-120.45580	0.02	900	moderate
FM06	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Bromus tectorum</i>	cheatgrass	39.11510	-120.47060	5.4	235,224	moderate
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Cirsium vulgare</i>	bull thistle	39.11470	-120.46960	0.06	2,500	low
	7/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Cirsium vulgare</i>	bull thistle	39.11502	-120.46860	0.01	225	low
	7/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Cirsium vulgare</i>	bull thistle	39.11510	-120.47060	0.09	4,000	low
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Dactylis glomerata</i>	orchardgrass	39.11510	-120.47060	0.02	1,000	moderate
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Melilotus albus</i>	white sweet clover	39.11470	-120.46960	0.06	2,500	low
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Melilotus albus</i>	white sweet clover	39.11510	-120.47060	0.09	4,000	moderate
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Plantago lanceolata</i>	English plantain	39.11510	-120.47060	0.02	1,000	low
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Plantago lanceolata</i>	English plantain	39.11470	-120.46960	0.06	2,500	low
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Rumex acetosella</i>	sheep sorrel	39.11480	-120.46900	0.00	100	low
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Rumex acetosella</i>	sheep sorrel	39.11510	-120.47060	0.09	4,000	low
	7/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Rumex acetosella</i>	sheep sorrel	39.11502	-120.46860	0.01	225	low
	5/26/2008	Duncan Creek-Middle Fork Tunnel Portal Road and Spillway Access Point	<i>Verbascum thapsus</i>	woolly mullein	39.11510	-120.47060	0.01	500	low
FM08	5/25/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.12290	-120.42050	5.2	226,512	low
	7/25/2008	French Meadows Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.12303	-120.42077	0.04	1,600	moderate
	5/25/2008	French Meadows Reservoir	<i>Plantago lanceolata</i>	English plantain	39.12290	-120.42050	5.2	226,512	low
	5/25/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.12290	-120.42050	5.2	226,512	low
	7/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.12308	-120.42068	5.2	226,512	high
FM13	7/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.13263	-120.41022	3.8	165,528	low
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.13263	-120.41022	3.8	165,528	low
	7/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.13263	-120.41022	3.8	165,528	low
FM14	5/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.12860	-120.41620	4	174,240	low
	7/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.13013	-120.41607	0.04	1,750	high
	7/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.13235	-120.41510	0.01	400	moderate
	7/26/2008	French Meadows Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.13235	-120.41510	0.06	2,400	high
	7/26/2008	French Meadows Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.13283	-120.41455	0.06	2,800	high
	7/26/2008	French Meadows Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.13045	-120.41615	0.46	20,000	high
	7/26/2008	French Meadows Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.12890	-120.41593	0.01	250	low
	5/26/2008	French Meadows Reservoir	<i>Plantago lanceolata</i>	English plantain	39.12860	-120.41620	4	174,240	low
7/26/2008	French Meadows Reservoir	<i>Plantago lanceolata</i>	English plantain	39.13283	-120.41455	0.34	14,810	low	

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
FM14	7/26/2008	French Meadows Reservoir	<i>Plantago lanceolata</i>	English plantain	39.13013	-120.41607	0.04	1,750	high
	7/26/2008	French Meadows Reservoir	<i>Plantago lanceolata</i>	English plantain	39.12890	-120.41593	0.11	5,000	low
	5/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.12860	-120.41620	4	174,240	low
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.13283	-120.41455	0.34	14,810	high
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.13323	-120.41310	0.02	1,000	high
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.13235	-120.41510	0.06	2,500	low
FM19	7/26/2008	French Meadows Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.13323	-120.41310	0.01	500	high
	5/26/2008	French Meadows Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.11610	-120.42220	2.7	117,612	low
	5/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.11610	-120.42220	2.7	117,612	low
	5/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.11610	-120.42220	2.7	117,612	low
FM20	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	wooly mullein	39.11610	-120.42220	2.7	117,612	low
	5/26/2008	French Meadows Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.11820	-120.41870	20	871,200	low
	5/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.11820	-120.41870	20	871,200	low
	5/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.12550	-120.41230	0.14	6,098	moderate
	5/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.11820	-120.41870	20	871,200	low
FM21	5/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	wooly mullein	39.11820	-120.41870	20	871,200	low
	5/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Bromus tectorum</i>	cheatgrass	39.11420	-120.47220	1.3	56,628	moderate
	7/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Hypericum perforatum</i>	klamathweed	39.11493	-120.47263	1.3	56,628	moderate
	7/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Rubus discolor</i>	Himalayan blackberry	39.11493	-120.47263	1.3	56,628	low
	5/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Vulpia myuros</i>	rat-tail fescue	39.11420	-120.47220	1.3	56,628	low
FM22	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Road	<i>Rumex acetosella</i>	sheep sorrel	39.10678	-120.47774	0.00	25	high
	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Road	<i>Rumex acetosella</i>	sheep sorrel	39.10670	-120.47738	0.00	25	high
FM23	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Road	<i>Hypericum perforatum</i>	klamathweed	39.10773	-120.47924	0.05	2,000	low
FM24	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Trail	<i>Bromus tectorum</i>	cheatgrass	39.10956	-120.48111	0.02	1,000	low
	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Trail	<i>Bromus tectorum</i>	cheatgrass	39.10962	-120.48091	0.02	1,000	high
	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Trail	<i>Bromus tectorum</i>	cheatgrass	39.10939	-120.48077	0.00	213	high
	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Trail	<i>Cirsium vulgare</i>	bull thistle	39.10968	-120.48105	0.00	75	low
	7/26/2008	Middle Fork American River Gage and Weir below French Meadows Dam Trail	<i>Hypericum perforatum</i>	klamathweed	39.10968	-120.48105	0.00	75	moderate
FM28	7/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.11304	-120.42618	3.9	169,884	low
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.11304	-120.42618	3.9	169,884	high
	7/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	wooly mullein	39.11304	-120.42618	3.9	169,884	high
FM30	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Cirsium vulgare</i>	bull thistle	39.10735	-120.43289	0.01	500	low
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Plantago lanceolata</i>	English plantain	39.10735	-120.43289	0.01	500	low
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Rumex acetosella</i>	sheep sorrel	39.10842	-120.43226	0.00	100	high
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Rumex acetosella</i>	sheep sorrel	39.10968	-120.48105	0.00	25	moderate
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Verbascum thapsus</i>	wooly mullein	39.10735	-120.43289	0.01	500	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H01	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Bromus tectorum</i>	cheatgrass	39.06001	-120.41355	0.55	23,958	high
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.06001	-120.41355	0.55	23,958	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Dactylis glomerata</i>	orchardgrass	39.06001	-120.41355	0.55	23,958	high
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hirschfeldia incana</i>	shortpod mustard	39.06001	-120.41355	0.55	23,958	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.06001	-120.41355	0.55	23,958	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Verbascum thapsus</i>	woolly mullein	39.06001	-120.41355	0.55	23,958	low
H02	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Bromus tectorum</i>	cheatgrass	39.05880	-120.41380	1.5	65,340	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Dactylis glomerata</i>	orchardgrass	39.05880	-120.41380	1.5	65,340	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.05880	-120.41380	1.5	65,340	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Vulpia myuros</i>	rat-tail fescue	39.05880	-120.41380	1.5	65,340	moderate
H03	5/24/2008	Hell Hole Dam and Outlet Works	<i>Bromus tectorum</i>	cheatgrass	39.05804	-120.41003	3.5	152,460	low
	5/24/2008	Hell Hole Dam and Outlet Works	<i>Hypericum perforatum</i>	klamathweed	39.05792	-120.41122	0.00	158	low
	7/27/2008	Hell Hole Dam and Outlet Works	<i>Plantago lanceolata</i>	English plantain	39.05804	-120.41003	3.5	152,460	moderate
	5/24/2008	Hell Hole Dam and Outlet Works	<i>Verbascum thapsus</i>	woolly mullein	39.05804	-120.41003	3.5	152,460	low
	5/24/2008	Hell Hole Dam and Outlet Works	<i>Vulpia myuros</i>	rat-tail fescue	39.05804	-120.41003	3.5	152,460	moderate
H04	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Bromus tectorum</i>	cheatgrass	39.05717	-120.41190	1	43,560	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Cirsium vulgare</i>	bull thistle	39.05717	-120.41190	1	43,560	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hirschfeldia incana</i>	shortpod mustard	39.05717	-120.41190	1	43,560	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.05717	-120.41190	1	43,560	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Vulpia myuros</i>	rat-tail fescue	39.05717	-120.41190	1	43,560	moderate
H05	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Bromus tectorum</i>	cheatgrass	39.05518	-120.41028	4.9	213,444	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Cirsium vulgare</i>	bull thistle	39.05518	-120.41028	4.9	213,444	low
	7/27/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hirschfeldia incana</i>	shortpod mustard	39.05518	-120.41028	4.9	213,444	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.05518	-120.41145	0.00	188	high
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.05518	-120.41028	4.9	213,444	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Melilotus officinalis</i>	yellow sweetclover	39.05547	-120.41120	0.09	4,000	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Vulpia myuros</i>	rat-tail fescue	39.05518	-120.41028	4.9	213,444	moderate

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H06	5/24/2008	Hell Hole Dam Leakage Weir Road	<i>Bromus tectorum</i>	cheatgrass	39.05621	-120.40839	1.7	74,052	high
	5/24/2008	Hell Hole Dam Leakage Weir Road	<i>Cirsium vulgare</i>	bull thistle	39.05621	-120.40839	1.7	74,052	low
	5/24/2008	Hell Hole Dam Leakage Weir Road	<i>Hirschfeldia incana</i>	shortpod mustard	39.05621	-120.40839	1.7	74,052	moderate
	5/24/2008	Hell Hole Dam Leakage Weir Road	<i>Melilotus officinalis</i>	yellow sweetclover	39.05621	-120.40839	1.7	74,052	moderate
	5/24/2008	Hell Hole Dam Leakage Weir Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.05621	-120.40839	1.7	74,052	low
	5/24/2008	Hell Hole Dam Leakage Weir Road	<i>Verbascum thapsus</i>	woolly mullein	39.05621	-120.40839	1.7	74,052	moderate
H07	5/24/2008	Rubicon River Gage and Weir below Hell Hole Dam Road	<i>Bromus tectorum</i>	cheatgrass	39.05538	-120.40872	0.66	28,750	low
	5/24/2008	Rubicon River Gage and Weir below Hell Hole Dam Road	<i>Vulpia myuros</i>	rat-tail fescue	39.05538	-120.40872	0.66	28,750	low
H09	5/24/2008	Rubicon River Gage and Weir below Hell Hole Dam Road	<i>Taeniatherum caput-medusae</i>	medusahead	39.06128	-120.41367	0.00	192	moderate
H10	5/24/2008	Dormitory Facility	<i>Bromus tectorum</i>	cheatgrass	39.05900	-120.41540	0.82	35,719	moderate
	5/24/2008	Dormitory Facility	<i>Hypericum perforatum</i>	klamathweed	39.05900	-120.41540	0.82	35,719	low
	5/24/2008	Dormitory Facility	<i>Vulpia myuros</i>	rat-tail fescue	39.05900	-120.41540	0.82	35,719	moderate
H11	5/24/2008	Dormitory Facility Barrier Fence/Hell Hole Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.05750	-120.41470	3.4	148,104	moderate
	7/27/2008	Dormitory Facility Barrier Fence/Hell Hole Staging Area	<i>Dactylis glomerata</i>	orchardgrass	39.05750	-120.41470	3.4	148,104	low
	5/24/2008	Dormitory Facility Barrier Fence/Hell Hole Staging Area	<i>Plantago lanceolata</i>	English plantain	39.05752	-120.41463	0.01	400	high
	5/24/2008	Dormitory Facility Barrier Fence/Hell Hole Staging Area	<i>Vulpia myuros</i>	rat-tail fescue	39.05750	-120.41470	3.4	148,104	low
H12	5/24/2008	Dormitory Facility Road	<i>Bromus tectorum</i>	cheatgrass	39.05830	-120.41590	0.93	40,511	moderate
	5/24/2008	Dormitory Facility Road	<i>Hypericum perforatum</i>	klamathweed	39.05830	-120.41590	0.02	750	low
	5/24/2008	Dormitory Facility Road	<i>Vulpia myuros</i>	rat-tail fescue	39.05830	-120.41590	0.93	40,511	low
H13	7/27/2008	Hell Hole Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.05748	-120.41620	0.01	625	high
	7/27/2008	Hell Hole Staging Area	<i>Hypericum perforatum</i>	klamathweed	39.05748	-120.41620	0.02	1000	high
	7/27/2008	Hell Hole Staging Area	<i>Hypericum perforatum</i>	klamathweed	39.05670	-120.41670	0.01	600	low
	7/27/2008	Hell Hole Staging Area	<i>Plantago lanceolata</i>	English plantain	39.05748	-120.41620	1 plant	1 plant	low
	7/27/2008	Hell Hole Staging Area	<i>Verbascum thapsus</i>	woolly mullein	39.05748	-120.41620	0.00	100	high
H14	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Bromus diandrus</i>	ripgut brome	39.05520	-120.41290	3.6	156,816	low
	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Bromus tectorum</i>	cheatgrass	39.05670	-120.41680	3.6	156,816	moderate
	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.05670	-120.41680	3.6	156,816	low
	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Dactylis glomerata</i>	orchardgrass	39.05670	-120.41680	3.6	156,816	low
	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Hypericum perforatum</i>	klamathweed	39.05670	-120.41680	3.6	156,816	low
	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Plantago lanceolata</i>	English plantain	39.05670	-120.41680	3.6	156,816	low
	5/24/2008	Hell Hole Dam Spillway Discharge Channel Road	<i>Verbascum thapsus</i>	woolly mullein	39.05670	-120.41680	3.6	156,816	low
H15	5/24/2008	Operator Cottages and Shop	<i>Agrostis stolonifera</i>	creeping bent grass	39.05820	-120.41790	1	43,560	low
	5/24/2008	Operator Cottages and Shop	<i>Bromus diandrus</i>	ripgut brome	39.05820	-120.41790	1	43,560	low
	5/24/2008	Operator Cottages and Shop	<i>Bromus tectorum</i>	cheatgrass	39.05820	-120.41790	1	43,560	moderate
	5/24/2008	Operator Cottages and Shop	<i>Chondrilla juncea</i>	rush skeletonweed	39.05807	-120.41852	0.2	8,712	low
	7/27/2008	Operator Cottages and Shop	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.05820	-120.41790	1	43,560	low
	5/24/2008	Operator Cottages and Shop	<i>Dactylis glomerata</i>	orchardgrass	39.05820	-120.41790	1	43,560	low
	5/24/2008	Operator Cottages and Shop	<i>Plantago lanceolata</i>	English plantain	39.05820	-120.41790	1	43,560	low
	7/27/2008	Operator Cottages and Shop	<i>Rubus discolor</i>	Himalayan blackberry	39.05810	-120.41860	0.01	375	high
	5/24/2008	Operator Cottages and Shop	<i>Rumex acetosella</i>	sheep sorrel	39.05830	-120.41830	1	43,560	low
5/24/2008	Operator Cottages and Shop	<i>Verbascum thapsus</i>	woolly mullein	39.05820	-120.41790	1	43,560	low	
H16	7/27/2008	Dormitory and Cottages Water Supply Tank	<i>Bromus tectorum</i>	cheatgrass	39.06040	-120.41790	0.95	41,382	low
	5/24/2008	Dormitory and Cottages Water Supply Tank	<i>Cirsium vulgare</i>	bull thistle	39.06047	-120.41640	0.02	1,000	low
	7/27/2008	Dormitory and Cottages Water Supply Tank	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.06070	-120.41792	0.01	450	high
	5/24/2008	Dormitory and Cottages Water Supply Tank	<i>Dactylis glomerata</i>	orchardgrass	39.06047	-120.41640	0.02	1,000	low
	7/27/2008	Dormitory and Cottages Water Supply Tank	<i>Hypericum perforatum</i>	klamathweed	39.06040	-120.41790	0.95	41,382	moderate
	7/27/2008	Dormitory and Cottages Water Supply Tank	<i>Hypericum perforatum</i>	klamathweed	39.06047	-120.41640	0.02	1,000	high

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H17	5/24/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road	<i>Bromus tectorum</i>	cheatgrass	39.06080	-120.41641	0.32	13,939	low
	5/24/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road	<i>Dactylis glomerata</i>	orchardgrass	39.06080	-120.41641	0.32	13,939	low
	5/24/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road	<i>Hirschfeldia incana</i>	shortpod mustard	39.06080	-120.41641	0.32	13,939	low
	5/24/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road	<i>Hypericum perforatum</i>	klamathweed	39.06080	-120.41641	0.32	13,939	low
H18	5/24/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road/French Meadows Powerhouse and Switchyard to Hell Hole-Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator Cottages, and Hell Hole Powerhouse Communication Line / Powerline	<i>Bromus tectorum</i>	cheatgrass	39.06243	-120.41540	3.4	148,104	moderate
	7/27/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road/French Meadows Powerhouse and Switchyard to Hell Hole-Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator Cottages, and Hell Hole Powerhouse Communication Line / Powerline	<i>Hypericum perforatum</i>	klamathweed	39.06454	-120.41547	0.03	1,500	high
	7/27/2008	Hell Hole-Middle Fork Tunnel Gatehouse Road/French Meadows Powerhouse and Switchyard to Hell Hole-Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator Cottages, and Hell Hole Powerhouse Communication Line / Powerline	<i>Vulpia myuros</i>	rat-tail fescue	39.06183	-120.41538	0.14	6,098	moderate
H19	7/27/2008	French Meadows Powerhouse Road	<i>Bromus tectorum</i>	cheatgrass	39.07047	-120.41347	9.5	413,820	low
	5/24/2008	French Meadows Powerhouse Road	<i>Cirsium vulgare</i>	bull thistle	39.07047	-120.41347	0.02	1,000	moderate
	5/24/2008	French Meadows Powerhouse Road	<i>Cirsium vulgare</i>	bull thistle	39.06511	-120.41796	0.02	1,000	low
	7/27/2008	French Meadows Powerhouse Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.07248	-120.41089	0.03	1,500	moderate
	7/27/2008	French Meadows Powerhouse Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.06744	-120.41559	0.01	400	low
	7/27/2008	French Meadows Powerhouse Road	<i>Hypericum perforatum</i>	klamathweed	39.07443	-120.41001	0.07	3,000	moderate
	7/27/2008	French Meadows Powerhouse Road	<i>Hypericum perforatum</i>	klamathweed	39.06744	-120.41559	0.02	1,000	moderate
	7/27/2008	French Meadows Powerhouse Road	<i>Vulpia myuros</i>	rat-tail fescue	39.06511	-120.41796	0.02	1,000	moderate
H20	5/24/2008	French Meadows Powerhouse	<i>Bromus tectorum</i>	cheatgrass	39.07750	-120.40715	2	87,120	moderate
	7/27/2008	French Meadows Powerhouse	<i>Cirsium vulgare</i>	bull thistle	39.07764	-120.40691	2	87,120	moderate
	5/24/2008	French Meadows Powerhouse	<i>Hirschfeldia incana</i>	shortpod mustard	39.07764	-120.40691	2	87,120	low
	7/27/2008	French Meadows Powerhouse	<i>Hirschfeldia incana</i>	shortpod mustard	39.07750	-120.40715	0.00	25	high
	7/27/2008	French Meadows Powerhouse	<i>Hypericum perforatum</i>	klamathweed	39.07750	-120.40715	2	87,120	high
	7/27/2008	French Meadows Powerhouse	<i>Melilotus officinalis</i>	yellow sweetclover	39.07764	-120.40691	2	87,120	low
	7/27/2008	French Meadows Powerhouse	<i>Vulpia myuros</i>	rat-tail fescue	39.07764	-120.40691	2	87,120	low
H21	5/24/2008	French Meadows-Hell Hole Tunnel Portal Road/French Meadows Powerhouse Penstock and Butterfly Valve House	<i>Bromus tectorum</i>	cheatgrass	39.07708	-120.41059	4.7	204,732	low
	5/24/2008	French Meadows-Hell Hole Tunnel Portal Road/French Meadows Powerhouse Penstock and Butterfly Valve House	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.07726	-120.41030	0.01	500	low
	7/27/2008	French Meadows-Hell Hole Tunnel Portal Road	<i>Vulpia myuros</i>	rat-tail fescue	39.07708	-120.41059	4.7	204,732	low
H27	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.06860	-120.41237	10.4	453,024	moderate
	7/30/2008	Hell Hole Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.06860	-120.41237	10.4	453,024	low
H28	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.07590	-120.40768	8.9	387,684	low
	7/30/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.07724	-120.40694	8.9	387,684	low
H29	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08545	-120.39542	2.6	113,256	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08545	-120.39542	2.6	113,256	low
H30	7/30/2008	Hell Hole Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.08670	-120.39065	0.06	2,500	moderate
	7/30/2008	Hell Hole Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.08670	-120.39065	0.34	14,810	high
	7/30/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08618	-120.38888	5.1	222,156	high
H31	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08663	-120.38827	4.1	178,596	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08663	-120.38827	4.1	178,596	low
H32	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08651	-120.37735	5.3	230,868	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08651	-120.37735	5.3	230,868	high

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H33	7/29/2008	Hell Hole Reservoir	<i>Hypericum perforatum</i>	klamathweed	39.08617	-120.37824	0.01	415	low
	7/30/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08733	-120.38065	3.4	148,104	moderate
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08733	-120.38065	3.4	148,104	moderate
H34	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08722	-120.37221	2.4	104,544	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08722	-120.37221	2.4	104,544	low
H35	5/29/2008	Hell Hole Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.08787	-120.36741	0.05	2,000	moderate
	5/29/2008	Gray Horse Area/Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08940	-120.36690	4	174,240	moderate
	7/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08910	-120.36640	4	174,240	low
	7/30/2008	Gray Horse Area/ Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08940	-120.36690	4	174,240	low
H36	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08540	-120.36832	2.4	104,544	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08540	-120.36832	2.4	104,544	low
H37	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08709	-120.35585	4	174,240	low
	5/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08780	-120.35770	4	174,240	moderate
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08780	-120.35770	4	174,240	moderate
H38	7/30/2008	Hell Hole Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.08560	-120.35425	1.7	74,052	low
	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08560	-120.35425	1.7	74,052	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08560	-120.35425	1.7	74,052	low
H39	7/30/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08471	-120.35444	1.4	60,984	low
	7/30/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08471	-120.35444	1.4	60,984	low
H40	7/29/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08295	-120.35376	2.7	117,612	low
	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08295	-120.35376	2.7	117,612	moderate
H41	7/29/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08150	-120.34955	3.9	169,884	low
	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08150	-120.34955	3.9	169,884	low
H42	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.07945	-120.34981	3.4	148,104	low
H43	5/28/2008	Hell Hole Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.08000	-120.34674	2.8	121,968	low
	7/29/2008	Hell Hole Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.08030	-120.34710	2.8	121,968	low
	7/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08000	-120.34674	2.8	121,968	low
H44	5/28/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08030	-120.34360	0.06	2,800	moderate
	5/28/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08030	-120.34360	7.6	331,056	moderate
H45	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08012	-120.34239	1	43,560	low
H46	7/29/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08240	-120.35650	2.1	91,476	low
	7/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08355	-120.36453	12.1	527,076	moderate
	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08240	-120.35650	2.1	91,476	moderate
H48	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08178	120.37704	2.3	100,188	low
H49	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.07838	120.38862	8.1	352,836	low
H50	5/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.07810	-120.38890	1.7	74,052	low
H51	5/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.06700	-120.40310	6.8	296,208	low
	5/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.06700	-120.40310	6.8	296,208	moderate
H52	5/29/2008	Hell Hole Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.07020	-120.40130	0.04	1,600	moderate
	7/30/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.06998	-120.40193	17.8	775,368	high
H53	5/29/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08160	-120.35550	0.03	1,200	moderate
	5/29/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.05820	-120.40620	2.9	126,324	low
	5/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08160	-120.35550	0.03	1,200	high
	5/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.05820	-120.40620	2.9	126,324	moderate
H54	7/29/2008	Hell Hole Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.08085	-120.34559	0.04	1,580	high
	7/29/2008	Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08085	-120.34559	0.04	1,580	low
	7/29/2008	Hell Hole Reservoir	<i>Plantago lanceolata</i>	English plantain	39.08085	-120.34559	0.04	1,580	moderate
	7/29/2008	Hell Hole Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.08085	-120.34559	0.00	200	high
	7/29/2008	Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08085	-120.34559	0.04	1,580	moderate
H55	5/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08050	-120.35370	3.8	165,528	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
101	7/31/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Bromus tectorum</i>	cheatgrass	39.05180	-120.61630	5	217,800	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Chondrilla juncea</i>	rush skeletonweed	39.04630	-120.61570	0.02	800	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.04850	-120.61650	0.06	2,400	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.04626	-120.61509	0.01	400	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.05180	-120.61630	5	217,800	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Plantago lanceolata</i>	English plantain	39.05180	-120.61630	0.00	100	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.04570	-120.61200	0.00	25	high
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.05180	-120.61630	5	217,800	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.04560	-120.61450	0.01	500	high
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.04580	-120.61180	0.00	75	high
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Vulpia myuros</i>	rat-tail fescue	39.05180	-120.61630	5	217,800	moderate
102	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Chondrilla juncea</i>	rush skeletonweed	39.04170	-120.60860	7	304,920	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.04130	-120.60790	7	304,920	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.04280	-120.61280	0.00	100	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.04370	-120.61310	0.02	800	high
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hypericum perforatum</i>	klamathweed	39.04470	-120.61140	0.01	500	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hypericum perforatum</i>	klamathweed	39.04190	-120.60750	7	304,920	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Plantago lanceolata</i>	English plantain	39.04110	-120.60970	0.00	150	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Plantago lanceolata</i>	English plantain	39.04170	-120.60860	7	304,920	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.04570	-120.61060	7	304,920	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Torilis arvensis</i>	spreading hedgeparsley	39.04570	-120.61060	0.00	50	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Vulpia myuros</i>	rat-tail fescue	39.04230	-120.61240	7	304,920	moderate
103	5/22/2008	Middle Fork Interbay Sediment Disposal Area	<i>Bromus diandrus</i>	riggut brome	39.03900	-120.61360	2	87,120	high
	5/22/2008	Middle Fork Interbay Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.03900	-120.61360	2	87,120	high
	5/22/2008	Middle Fork Interbay Sediment Disposal Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.03900	-120.61360	0.01	625	low
	5/22/2008	Middle Fork Interbay Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.03905	-120.61265	0.03	1,500	low
	7/31/2008	Middle Fork Interbay Sediment Disposal Area	<i>Melilotus albus</i>	white sweet clover	39.03905	-120.61265	0.03	1,500	low
	7/31/2008	Middle Fork Interbay Sediment Disposal Area	<i>Vulpia myuros</i>	rat-tail fescue	39.03900	-120.61360	1.9	82,764	high

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
104	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.03950	-120.61570	0.01	350	moderate
	7/31/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.03550	-120.61019	1 plant	1 plant	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.03950	-120.61570	6.1	265,716	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hypericum perforatum</i>	klamathweed	39.03950	-120.61570	6.1	265,716	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Plantago lanceolata</i>	English plantain	39.03620	-120.60930	0.00	100	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.04000	-120.61600	0.02	1,000	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Rumex acetosella</i>	sheep sorrel	39.03560	-120.61040	0.00	75	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Torilis arvensis</i>	spreading hedgeparsley	39.03550	-120.60920	6.1	265,716	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Vulpia myuros</i>	rat-tail fescue	39.04000	-120.61600	6.1	265,716	moderate
105	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Bromus diandrus</i>	ripgut brome	39.03400	-120.61420	6	261,360	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Chondrilla juncea</i>	rush skeletonweed	39.03090	-120.61380	0.01	500	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.03390	-120.61560	6	261,360	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Dactylis glomerata</i>	orchardgrass	39.03040	-120.61310	0.01	600	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hypericum perforatum</i>	klamathweed	39.03470	-120.61270	6	261,360	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Torilis arvensis</i>	spreading hedgeparsley	39.03470	-120.61270	6	261,360	moderate
106	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Bromus diandrus</i>	ripgut brome	39.03040	-120.61310	5.6	243,936	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Bromus tectorum</i>	cheatgrass	39.03360	-120.61470	5.6	243,936	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Chondrilla juncea</i>	rush skeletonweed	39.03040	-120.61310	5.6	243,936	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.03010	-120.60790	5.6	243,936	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hirschfeldia incana</i>	shortpod mustard	39.03080	-120.61030	0.05	2,250	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hirschfeldia incana</i>	shortpod mustard	39.02770	-120.60340	0.01	300	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Hypericum perforatum</i>	klamathweed	39.03010	-120.60790	5.6	243,936	low
	7/31/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Melilotus albus</i>	white sweet clover	39.03080	-120.61038	0.06	2,500	moderate
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Torilis arvensis</i>	spreading hedgeparsley	39.03040	-120.61310	5.6	243,936	low
	5/22/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Vulpia myuros</i>	rat-tail fescue	39.02980	-120.60500	5.6	243,936	high

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
108	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Bromus diandrus</i>	ripgut brome	39.02570	-120.60210	3.4	148,104	moderate
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Bromus tectorum</i>	cheatgrass	39.02570	-120.60210	3.4	148,104	low
	7/31/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.02485	-120.59964	1 plant	1 plant	low
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.02570	-120.60210	3.4	148,104	low
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Hypericum perforatum</i>	klamathweed	39.02570	-120.60210	3.4	148,104	moderate
	5/21/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Melilotus officinalis</i>	yellow sweetclover	39.02480	-120.59900	0.05	2,250	moderate
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Melilotus officinalis</i>	yellow sweetclover	39.02570	-120.60210	3.4	148,104	low
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Plantago lanceolata</i>	English plantain	39.02570	-120.60210	3.4	148,104	low
109	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Cirsium vulgare</i>	bull thistle	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Dactylis glomerata</i>	orchardgrass	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Hirschfeldia incana</i>	shortpod mustard	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Melilotus officinalis</i>	yellow sweetclover	39.02430	-120.59670	0.58	25,265	moderate
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Rubus discolor</i>	Himalayan blackberry	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Verbascum thapsus</i>	woolly mullein	39.02430	-120.59670	0.58	25,265	Low
110	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.02490	-120.59610	0.73	31,799	Low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus tectorum</i>	cheatgrass	39.02490	-120.59610	0.73	31,799	Low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Cirsium vulgare</i>	bull thistle	39.02490	-120.59610	0.73	31,799	Low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Hypericum perforatum</i>	klamathweed	39.02490	-120.59610	0.73	31,799	Low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Melilotus officinalis</i>	yellow sweetclover	39.02490	-120.59610	0.73	31,799	Low
	7/31/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Rubus discolor</i>	Himalayan blackberry	39.02491	-120.59588	0.01	400	High
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Torilis arvensis</i>	spreading hedgeparsley	39.02490	-120.59610	0.73	31,799	Low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Verbascum thapsus</i>	woolly mullein	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Vulpia myuros</i>	rat-tail fescue	39.02490	-120.59610	0.73	31,799	low
111	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus tectorum</i>	cheatgrass	39.02430	-120.59650	0.17	7,405	low
	7/31/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Dactylis glomerata</i>	orchardgrass	39.02430	-120.59650	0.00	20	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Hypericum perforatum</i>	klamathweed	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Melilotus officinalis</i>	yellow sweetclover	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Torilis arvensis</i>	spreading hedgeparsley	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Verbascum thapsus</i>	woolly mullein	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Vulpia myuros</i>	rat-tail fescue	39.02430	-120.59650	0.17	7,405	low
112	5/21/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Bromus diandrus</i>	ripgut brome	39.02500	-120.59500	0.43	18,731	low
	5/21/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Bromus tectorum</i>	cheatgrass	39.02500	-120.59500	0.43	18,731	low
	7/31/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Cirsium vulgare</i>	bull thistle	39.02558	-120.59417	0.00	100	low
	5/21/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.02500	-120.59500	0.43	18,731	moderate
	5/21/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Rubus discolor</i>	Himalayan blackberry	39.02500	-120.59500	0.05	2,250	high
	5/21/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Torilis arvensis</i>	spreading hedgeparsley	39.02500	-120.59500	0.43	18,731	low
	7/31/2008	Middle Fork American River Gage above Middle Fork Powerhouse Trail	<i>Verbascum thapsus</i>	woolly mullein	39.02558	-120.59417	0.00	100	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
I13	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Agrostis stolonifera</i>	creeping bent grass	39.02450	-120.59570	11.7	509,652	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.02450	-120.59570	11.7	509,652	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Chondrilla juncea</i>	rush skeletonweed	39.02450	-120.59570	11.7	509,652	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Cirsium arvense</i>	Canada thistle	39.01850	-120.58780	0.02	900	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Cirsium arvense</i>	Canada thistle	39.02290	-120.59270	0.02	900	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Hirschfeldia incana</i>	shortpod mustard	39.02460	-120.59490	0.02	900	moderate
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Hypericum perforatum</i>	klamathweed	39.01850	-120.58780	0.02	900	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Hypericum perforatum</i>	klamathweed	39.02060	-120.58930	0.00	50	moderate
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Melilotus officinalis</i>	yellow sweetclover	39.01850	-120.58780	0.02	900	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Rubus discolor</i>	Himalayan blackberry	39.02440	-120.59460	0.00	100	moderate
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Rubus discolor</i>	Himalayan blackberry	39.02400	-120.59400	0.00	200	moderate
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Rubus discolor</i>	Himalayan blackberry	39.02350	-120.59370	0.01	250	high
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Rumex acetosella</i>	sheep sorrel	39.02450	-120.59570	11.7	509,652	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.02450	-120.59570	11.7	509,652	moderate
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Verbascum thapsus</i>	woolly mullein	39.01850	-120.58780	0.02	900	low
	5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Verbascum thapsus</i>	woolly mullein	39.02450	-120.59570	11.7	509,652	low
5/23/2008	Middle Fork Powerhouse Penstock and Butterfly Valve House Road	<i>Vulpia myuros</i>	rat-tail fescue	39.02450	-120.59570	11.7	509,652	moderate	
I14	5/23/2008	Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	<i>Bromus tectorum</i>	cheatgrass	39.02450	-120.59570	5.2	226,512	moderate
	5/23/2008	Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	<i>Chondrilla juncea</i>	rush skeletonweed	39.02450	-120.59570	5.2	226,512	moderate
	5/23/2008	Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	<i>Hypericum perforatum</i>	klamathweed	39.02450	-120.59570	5.2	226,512	low
	5/23/2008	Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	<i>Melilotus officinalis</i>	yellow sweetclover	39.02450	-120.59570	5.2	226,512	low
	5/23/2008	Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline	<i>Vulpia myuros</i>	rat-tail fescue	39.02450	-120.59570	5.2	226,512	low
I15	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Agrostis stolonifera</i>	creeping bent grass	39.01860	-120.58840	0.16	6,970	moderate
	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.01860	-120.58840	0.16	6,970	low
	7/23/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Chondrilla juncea</i>	rush skeletonweed	39.01845	-120.58815	0.00	100	low
	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.01860	-120.58840	0.16	6,970	low
	7/23/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Vulpia myuros</i>	rat-tail fescue	39.01845	-120.58815	0.00	100	moderate
I16	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.01530	-120.59040	0.02	1,000	low
	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.01750	-120.59010	0.00	50	low
	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.01620	-120.58810	0.00	80	low
	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.01530	-120.59040	0.02	1,000	low
	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.01750	-120.59010	0.00	50	low
I17	6/6/2008	Middle Fork Powerhouse Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.01270	-120.59290	2.6	113,256	low
I18	7/31/2008	Passive Microwave Reflector Station above Middle Fork Interbay Trail	<i>Cirsium vulgare</i>	bull thistle	39.03687	-120.57519	0.10	4,446	high

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
I19	6/3/2008	Passive Microwave Reflector Station above Middle Fork Interbay Trail	<i>Vulpia myuros</i>	rat-tail fescue	39.03540	-120.57650	0.00	100	moderate
	6/3/2008	Passive Microwave Reflector Station above Middle Fork Interbay Trail	<i>Vulpia myuros</i>	rat-tail fescue	39.03620	-120.57540	0.00	100	moderate
I20	5/23/2008	Radio Communications Tower and Repeater near Hell Hole-Middle Fork Tunnel Surge Shaft and Tank	<i>Bromus tectorum</i>	cheatgrass	39.01590	-120.58290	0.38	16,553	low
	7/28/2008	Radio Communications Tower and Repeater near Hell Hole-Middle Fork Tunnel Surge Shaft and Tank	<i>Cirsium vulgare</i>	bull thistle	39.01590	-120.58290	0.01	400	moderate
I21	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Bromus diandrus</i>	rippgut brome	39.02560	-120.60210	0.19	8,276	moderate
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Chondrilla juncea</i>	rush skeletonweed	39.02560	-120.60210	0.19	8,276	low
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.02560	-120.60210	0.19	8,276	low
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Dactylis glomerata</i>	orchardgrass	39.02560	-120.60210	0.19	8,276	low
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Hirschfeldia incana</i>	shortpod mustard	39.02560	-120.60210	0.19	8,276	low
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Hypericum perforatum</i>	klamathweed	39.02560	-120.60210	0.19	8,276	low
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Melilotus officinalis</i>	yellow sweetclover	39.02560	-120.60210	0.19	8,276	high
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Plantago lanceolata</i>	English plantain	39.02560	-120.60210	0.19	8,276	low
	5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Rumex acetosella</i>	sheep sorrel	39.02560	-120.60210	0.19	8,276	low
5/21/2008	Middle Fork-Ralston Tunnel Intake and Gatehouse	<i>Verbascum thapsus</i>	woolly mullein	39.02560	-120.60210	0.19	8,276	low	
LC01	5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Bromus tectorum</i>	cheatgrass	39.02720	-120.51540	3	130,680	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Chondrilla juncea</i>	rush skeletonweed	39.02400	-120.51578	0.03	1,500	high
	7/24/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.02800	-120.51468	3	130,680	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Hypericum perforatum</i>	klamathweed	39.02520	-120.51570	0.00	100	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Hypericum perforatum</i>	klamathweed	39.02810	-120.51470	0.01	300	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Lepidium latifolium</i>	perennial pepperweed (tall whitetop)	39.02623	-120.51572	0.00	100	low
	7/24/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Melilotus albus</i>	white sweet clover	39.02760	-120.51510	3	130,680	high
	7/24/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Plantago lanceolata</i>	English plantain	39.02720	-120.51540	0.02	700	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Rubus discolor</i>	Himalayan blackberry	39.02810	-120.51470	3	130,680	low
5/27/2008	North Fork Long Canyon Crossing Removable Section South Road	<i>Rumex acetosella</i>	sheep sorrel	39.02810	-120.51470	3	130,680	low	
LC02	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Bromus tectorum</i>	cheatgrass	39.02870	-120.51460	0.09	3,750	high
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Centaurea solstitialis</i>	yellow starthistle	39.02860	-120.51470	0.26	11,326	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Cirsium vulgare</i>	bull thistle	39.02870	-120.51460	0.02	900	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Hypericum perforatum</i>	klamathweed	39.02870	-120.51460	0.00	100	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Melilotus albus</i>	white sweet clover	39.02860	-120.51470	0.00	25	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Melilotus albus</i>	white sweet clover	39.02870	-120.51460	0.02	750	high
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Plantago lanceolata</i>	English plantain	39.02860	-120.51470	0.01	600	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Rumex acetosella</i>	sheep sorrel	39.02870	-120.51460	0.01	400	high
	5/27/2008	North Fork Long Canyon Crossing Removable Section	<i>Rumex acetosella</i>	sheep sorrel	39.02860	-120.51470	0.01	600	low
7/24/2008	North Fork Long Canyon Crossing Removable Section	<i>Vulpia myuros</i>	rat-tail fescue	39.02870	-120.51460	0.00	100	moderate	

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
LC03	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Bromus tectorum</i>	cheatgrass	39.02900	-120.51530	0.89	38,768	high
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Bromus tectorum</i>	cheatgrass	39.02900	-120.51530	0.03	1,500	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.02880	-120.51500	0.89	38,768	moderate
	7/24/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Dactylis glomerata</i>	orchardgrass	39.02900	-120.51530	0.02	900	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Hypericum perforatum</i>	klamathweed	39.02880	-120.51500	0.01	400	low
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Melilotus albus</i>	white sweet clover	39.02880	-120.51500	0.04	1,600	high
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Melilotus albus</i>	white sweet clover	39.02900	-120.51530	0.13	5,625	low
	7/24/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Plantago lanceolata</i>	English plantain	39.02880	-120.51500	0.05	2,000	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Rumex acetosella</i>	sheep sorrel	39.02900	-120.51530	0.04	1,800	moderate
	5/27/2008	North Fork Long Canyon Crossing Removable Section North Road and Parking Area	<i>Verbascum thapsus</i>	woolly mullein	39.02900	-120.51530	0.03	1,500	low
LC04	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.02290	-120.51490	5	217,800	high
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.02290	-120.51490	5	217,800	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.02290	-120.51490	0.16	6,970	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Dactylis glomerata</i>	orchardgrass	39.02290	-120.51490	0.16	6,970	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Hypericum perforatum</i>	klamathweed	39.02290	-120.51490	0.16	6,970	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Melilotus albus</i>	white sweet clover	39.02290	-120.51490	5	217,800	high
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Plantago lanceolata</i>	English plantain	39.02230	-120.51570	0.00	50	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Verbascum thapsus</i>	woolly mullein	39.02230	-120.51570	0.00	150	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Vulpia myuros</i>	rat-tail fescue	39.02290	-120.51490	5	217,800	moderate
LC05	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.02280	-120.51200	0.01	400	high
	7/24/2008	Long Canyon Crossing Sediment Disposal Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.02280	-120.51200	3	130,680	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Melilotus albus</i>	white sweet clover	39.02280	-120.51200	0.01	400	high
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Verbascum thapsus</i>	woolly mullein	39.02280	-120.51200	0.01	400	low
LC06	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.02340	-120.50970	6	261,360	high
	7/24/2008	Long Canyon Crossing Sediment Disposal Area	<i>Centaurea solstitialis</i>	yellow starthistle	39.02340	-120.50970	6	261,360	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Cirsium vulgare</i>	bull thistle	39.02340	-120.50970	0.23	10,019	low
	7/24/2008	Long Canyon Crossing Sediment Disposal Area	<i>Hypericum perforatum</i>	klamathweed	39.02340	-120.50970	6	261,360	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Melilotus albus</i>	white sweet clover	39.02340	-120.50970	6	261,360	high
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Rumex acetosella</i>	sheep sorrel	39.02340	-120.50970	0.23	10,019	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Taeniatherum caput-medusae</i>	medusahead	39.02340	-120.50970	6	261,360	low
	5/27/2008	Long Canyon Crossing Sediment Disposal Area	<i>Verbascum thapsus</i>	woolly mullein	39.02340	-120.50970	0.23	10,019	low
	7/24/2008	Long Canyon Crossing Sediment Disposal Area	<i>Vulpia myuros</i>	rat-tail fescue	39.02340	-120.50970	6	261,360	low
LC07	5/27/2008	North Fork Long Canyon Diversion Dam and Pool	<i>Cirsium vulgare</i>	bull thistle	39.05110	-120.48130	0.00	200	low
	7/24/2008	North Fork Long Canyon Diversion Dam and Pool	<i>Melilotus albus</i>	white sweet clover	39.05110	-120.48130	0.01	600	low
	5/27/2008	North Fork Long Canyon Diversion Dam and Pool	<i>Rumex acetosella</i>	sheep sorrel	39.05098	-120.48158	1	43,560	low
	7/24/2008	North Fork Long Canyon Diversion Dam and Pool	<i>Verbascum thapsus</i>	woolly mullein	39.05098	-120.48158	0.02	900	low
LC08	5/27/2008	North Fork Long Canyon Diversion North Road	<i>Bromus tectorum</i>	cheatgrass	39.04930	-120.48310	1	43,560	moderate
	5/27/2008	North Fork Long Canyon Diversion North Road	<i>Cirsium vulgare</i>	bull thistle	39.04930	-120.48310	0.01	250	low
	5/27/2008	North Fork Long Canyon Diversion North Road	<i>Rumex acetosella</i>	sheep sorrel	39.04930	-120.48310	1	43,560	moderate
	5/27/2008	North Fork Long Canyon Diversion North Road	<i>Verbascum thapsus</i>	woolly mullein	39.04930	-120.48310	0.00	100	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
LC09	7/24/2008	North Fork Long Canyon Diversion South Road	<i>Cirsium vulgare</i>	bull thistle	39.04995	-120.48182	0.10	4,500	low
	7/24/2008	North Fork Long Canyon Diversion South Road	<i>Hypericum perforatum</i>	klamathweed	39.05053	-120.48193	0.11	4,900	low
	5/27/2008	North Fork Long Canyon Diversion South Road	<i>Rumex acetosella</i>	sheep sorrel	39.04320	-120.48550	0.03	1,200	high
	5/27/2008	North Fork Long Canyon Diversion South Road	<i>Rumex acetosella</i>	sheep sorrel	39.04460	-120.48460	0.01	225	high
	5/27/2008	North Fork Long Canyon Diversion South Road	<i>Rumex acetosella</i>	sheep sorrel	39.04740	-120.48280	0.01	400	low
LC10	5/27/2008	North Fork Long Canyon Diversion Drop Inlet Road	<i>Bromus tectorum</i>	cheatgrass	39.04260	-120.48400	0.03	1,200	moderate
	5/27/2008	North Fork Long Canyon Diversion Drop Inlet Road	<i>Cirsium vulgare</i>	bull thistle	39.04230	-120.48380	0.01	400	moderate
	5/27/2008	North Fork Long Canyon Diversion Drop Inlet Road	<i>Rumex acetosella</i>	sheep sorrel	39.04260	-120.48400	0.05	2,000	moderate
	5/27/2008	North Fork Long Canyon Diversion Drop Inlet Road	<i>Rumex acetosella</i>	sheep sorrel	39.04230	-120.48380	0.01	625	moderate
LC11	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Agrostis stolonifera</i>	creeping bent grass	39.05186	-120.47070	0.03	1,250	low
	5/27/2008	South Fork Long Canyon Diversion and Drop Inlet Road	<i>Bromus tectorum</i>	cheatgrass	39.05170	-120.47080	2	87,120	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Cirsium vulgare</i>	bull thistle	39.05186	-120.47070	2	87,120	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Cirsium vulgare</i>	bull thistle	39.05130	-120.47120	0.06	2,500	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Melilotus albus</i>	white sweet clover	39.05186	-120.47035	0.00	120	moderate
	7/24/2008	South Fork Long Canyon Diversion and Drop Inlet Road	<i>Rumex acetosella</i>	sheep sorrel	39.05170	-120.47080	2	87,120	low
	7/24/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Verbascum thapsus</i>	woolly mullein	39.05186	-120.47070	2	87,120	low
LC12	5/27/2008	South Fork Long Canyon Diversion and Drop Inlet Road	<i>Vulpia myuros</i>	rat-tail fescue	39.05170	-120.47080	2	87,120	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Bromus tectorum</i>	cheatgrass	39.05132	-120.47042	0.68	29,621	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Rumex acetosella</i>	sheep sorrel	39.05132	-120.47042	0.68	29,621	low
R01	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Verbascum thapsus</i>	woolly mullein	39.05132	-120.47042	0.68	29,621	low
	8/1/2008	Middle Fork American River Gage below Oxbow Powerhouse	<i>Bromus diandrus</i>	ripgut brome	39.00647	-120.76025	0.15	6,534	moderate
	8/1/2008	Middle Fork American River Gage below Oxbow Powerhouse	<i>Bromus tectorum</i>	cheatgrass	39.00647	-120.76025	0.03	1,500	moderate
	8/1/2008	Middle Fork American River Gage below Oxbow Powerhouse	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00647	-120.76025	0.01	250	moderate
	8/1/2008	Middle Fork American River Gage below Oxbow Powerhouse	<i>Hypericum perforatum</i>	klamathweed	39.00662	-120.75942	0.15	6,534	moderate
	8/1/2008	Middle Fork American River Gage below Oxbow Powerhouse	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00647	-120.76025	0.00	100	moderate
R02	8/1/2008	Middle Fork American River Gage below Oxbow Powerhouse	<i>Vulpia myuros</i>	rat-tail fescue	39.00662	-120.75942	0.15	6,534	moderate
	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Bromus diandrus</i>	ripgut brome	39.00300	-120.74520	0.55	23,958	moderate
	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Bromus tectorum</i>	cheatgrass	39.00300	-120.74520	0.55	23,958	moderate
	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Chondrilla juncea</i>	rush skeletonweed	39.00300	-120.74520	0.55	23,958	low
	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Hypericum perforatum</i>	klamathweed	39.00300	-120.74520	0.55	23,958	moderate
	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Plantago lanceolata</i>	English plantain	39.00300	-120.74520	0.55	23,958	moderate
R03	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Rubus discolor</i>	Himalayan blackberry	39.00300	-120.74520	0.55	23,958	moderate
	5/20/2008	Ralston Afterbay Dam Road and Afterbay Access Point	<i>Vulpia myuros</i>	rat-tail fescue	39.00300	-120.74520	0.55	23,958	high
	5/20/2008	Ralston Afterbay Road and Boat Ramp	<i>Bromus diandrus</i>	ripgut brome	39.00430	-120.74660	0.35	15,246	moderate
	5/20/2008	Ralston Afterbay Road and Boat Ramp	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00430	-120.74660	0.35	15,246	low
	5/20/2008	Ralston Afterbay Road and Boat Ramp	<i>Hypericum perforatum</i>	klamathweed	39.00430	-120.74660	0.35	15,246	low
R04	5/20/2008	Ralston Afterbay Road and Boat Ramp	<i>Plantago lanceolata</i>	English plantain	39.00430	-120.74660	0.35	15,246	moderate
	5/20/2008	Ralston Afterbay Road and Boat Ramp	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00430	-120.74660	0.35	15,246	low
R04	5/20/2008	Ralston-Oxbow Tunnel Intake Road	<i>Bromus diandrus</i>	ripgut brome	39.00570	-120.74550	0.57	24,829	low
	5/20/2008	Ralston-Oxbow Tunnel Intake Road	<i>Vulpia myuros</i>	rat-tail fescue	39.00570	-120.74550	0.57	24,829	low
R06	5/21/2008	Ralston Afterbay	<i>Plantago lanceolata</i>	English plantain	39.00270	-120.73340	3	130,680	low
	5/21/2008	Ralston Afterbay	<i>Bromus diandrus</i>	ripgut brome	39.00250	-120.73400	3	130,680	low
	5/21/2008	Ralston Afterbay	<i>Carduus pycnocephalus</i>	Italian thistle	39.00210	-120.73840	0.02	1,000	low
	5/21/2008	Ralston Afterbay	<i>Centaurea solstitialis</i>	yellow starthistle	39.00260	-120.73860	0.13	5,625	high
	5/21/2008	Ralston Afterbay	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00250	-120.73400	0.07	3,000	low
	5/21/2008	Ralston Afterbay	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00310	-120.74180	0.01	400	low
	5/21/2008	Ralston Afterbay	<i>Hypericum perforatum</i>	klamathweed	39.00270	-120.73340	3	130,680	moderate
	5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00230	-120.74190	0.02	1,000	high
	5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00360	-120.74230	0.04	1,600	high
	5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00240	-120.73990	0.01	225	high
	5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00270	-120.73340	0.10	4,500	moderate
5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00140	-120.73650	0.02	675	high	

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
R06	5/21/2008	Ralston Afterbay	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00250	-120.73400	3	130,680	moderate
	5/21/2008	Ralston Afterbay	<i>Verbascum thapsus</i>	woolly mullein	39.00210	-120.73840	0.09	4,000	moderate
	5/21/2008	Ralston Afterbay	<i>Verbascum thapsus</i>	woolly mullein	39.00210	-120.73730	0.11	5,000	moderate
R07	5/21/2008	Ralston Afterbay	<i>Hypericum perforatum</i>	klamathweed	39.00200	-120.74410	2		low
	5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00110	-120.74290	0.04	1,800	high
	5/21/2008	Ralston Afterbay	<i>Rubus discolor</i>	Himalayan blackberry	39.00080	-120.73780	0.01	400	low
	5/21/2008	Ralston Afterbay	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00140	-120.73980	0.03	1,200	moderate
	5/21/2008	Ralston Afterbay	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00080	-120.73780	0.01	400	low
	5/21/2008	Ralston Afterbay	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00130	-120.73830	0.02	800	low
R08	5/21/2008	Ralston Afterbay	<i>Bromus diandrus</i>	ripgut brome	39.00190	-120.73290	0.01	400	moderate
	5/21/2008	Ralston Afterbay	<i>Hypericum perforatum</i>	klamathweed	39.00190	-120.73290	2.3	100,188	low
	5/21/2008	Ralston Afterbay	<i>Plantago lanceolata</i>	English plantain	39.00360	-120.72920	2.3	100,188	moderate
R09	5/20/2008	Ralston Powerhouse and Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Chondrilla juncea</i>	rush skeletonweed	39.00060	-120.72440	0.00	25	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Cirsium arvense</i>	Canada thistle	39.00060	-120.72440	1 plant	1 plant	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Hirschfeldia incana</i>	shortpod mustard	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Melilotus officinalis</i>	yellow sweetclover	39.00060	-120.72440	0.00	25	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Rubus discolor</i>	Himalayan blackberry	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Vulpia myuros</i>	rat-tail fescue	39.00060	-120.72440	0.84	36,590	low
R10	5/20/2008	Ralston Powerhouse and Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.00080	-120.72430	0.88	38,333	high
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Carduus pycnocephalus</i>	Italian thistle	39.00080	-120.72430	0.88	38,333	high
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00080	-120.72430	0.88	38,333	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Chondrilla juncea</i>	rush skeletonweed	39.00080	-120.72430	0.88	38,333	low
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Melilotus officinalis</i>	yellow sweetclover	39.00080	-120.72430	0.88	38,333	high
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Plantago lanceolata</i>	English plantain	39.00080	-120.72430	0.88	38,333	moderate
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Taeniatherum caput-medusae</i>	medusahead	39.00080	-120.72430	0.88	38,333	moderate
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Verbascum thapsus</i>	woolly mullein	39.00080	-120.72430	0.88	38,333	low
R11	5/20/2008	Ralston Powerhouse and Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.00140	-120.72610	1	43,560	high
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Bromus tectorum</i>	cheatgrass	39.00140	-120.72610	1	43,560	moderate
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00140	-120.72610	0.10	4,500	moderate
	5/20/2008	Ralston Powerhouse and Switchyard	<i>Hirschfeldia incana</i>	shortpod mustard	39.00140	-120.72610	1	43,560	moderate
R12	5/21/2008	Passive Microwave Reflector Station above Ralston Powerhouse	<i>Bromus diandrus</i>	ripgut brome	38.99740	-120.71840	0.33	14,375	low
	5/21/2008	Passive Microwave Reflector Station above Ralston Powerhouse	<i>Chondrilla juncea</i>	rush skeletonweed	38.99740	-120.71840	0.33	14,375	low
	5/21/2008	Passive Microwave Reflector Station above Ralston Powerhouse	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	38.99740	-120.71840	0.33	14,375	low
	5/21/2008	Passive Microwave Reflector Station above Ralston Powerhouse	<i>Torilis arvensis</i>	spreading hedgeparsley	38.99740	-120.71840	0.33	14,375	low
R13	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Ailanthus altissima</i>	tree-of-heaven	39.00390	-120.72280	2.5	108,900	low
	5/21/2008	Ralston Powerhouse Penstock and Butterfly Valve House	<i>Ailanthus altissima</i>	tree-of-heaven	39.00380	-120.72270	2.75	119,790	moderate
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Bromus tectorum</i>	cheatgrass	39.00390	-120.72280	2.4	104,544	low
	5/21/2008	Ralston Powerhouse Penstock and Butterfly Valve House	<i>Carduus pycnocephalus</i>	Italian thistle	39.00380	-120.72270	2.4	104,544	low
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road/ Ralston Powerhouse Penstock and Butterfly Valve House	<i>Chondrilla juncea</i>	rush skeletonweed	39.00530	-120.72340	2.4	104,544	moderate
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00390	-120.72280	2.4	104,544	low
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Hypericum perforatum</i>	klamathweed	39.00390	-120.72280	2.4	104,544	low
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Melilotus officinalis</i>	yellow sweetclover	39.00560	-120.72040	2.4	104,544	moderate
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Rubus discolor</i>	Himalayan blackberry	39.00390	-120.72280	2.4	104,544	low
	5/21/2008	Ralston Powerhouse Butterfly Valve House Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00390	-120.72280	2.4	104,544	low
5/21/2008	Ralston Powerhouse Penstock and Butterfly Valve House	<i>Verbascum thapsus</i>	woolly mullein	39.00380	-120.72270	2.4	104,544	moderate	
5/21/2008	Ralston Powerhouse Butterfly Valve House Road/ Ralston Powerhouse Penstock and Butterfly Valve House	<i>Vulpia myuros</i>	rat-tail fescue	39.00390	-120.72280	2.4	104,544	moderate	

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
R14	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Bromus diandrus</i>	ripgut brome	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Carduus pycnocephalus</i>	Italian thistle	39.00620	-120.72030	0.01	600	high
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.00620	-120.72030	0.01	600	high
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Dactylis glomerata</i>	orchardgrass	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00600	-120.72050	0.06	2,500	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Taeniatherum caput-medusae</i>	medusahead	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00620	-120.72020	2.3	100,188	low
5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Verbascum thapsus</i>	woolly mullein	39.00620	-120.72020	2.3	100,188	low	
5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Vulpia myuros</i>	rat-tail fescue	39.00620	-120.72020	2.3	100,188	low	
R15	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Bromus diandrus</i>	ripgut brome	39.00500	-120.72160	0.92	40,075	low
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Carduus pycnocephalus</i>	Italian thistle	39.00500	-120.72160	0.92	40,075	low
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00500	-120.72160	0.92	40,075	low
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Chondrilla juncea</i>	rush skeletonweed	39.00500	-120.72160	0.92	40,075	low
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	39.00500	-120.72160	0.92	40,075	moderate
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Hypericum perforatum</i>	klamathweed	39.00500	-120.72160	0.92	40,075	moderate
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00500	-120.72160	0.92	40,075	low
	5/21/2008	Storage Building at Middle-Fork Ralston Tunnel Surge Shaft and Tank	<i>Verbascum thapsus</i>	woolly mullein	39.00500	-120.72160	0.92	40,075	moderate
R16	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Bromus diandrus</i>	ripgut brome	39.00300	-120.73270	0.32	13,939	high
	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Bromus tectorum</i>	cheatgrass	39.00300	-120.73270	0.32	13,939	low
	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Carduus pycnocephalus</i>	Italian thistle	39.00300	-120.73270	0.32	13,939	moderate
	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	39.00300	-120.73270	0.32	13,939	low
	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Hirschfeldia incana</i>	shortpod mustard	39.00300	-120.73270	0.32	13,939	moderate
	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Plantago lanceolata</i>	English plantain	39.00300	-120.73270	0.32	13,939	low
	5/21/2008	Ralston Afterbay Sediment Removal Access Point	<i>Rubus discolor</i>	Himalayan blackberry	39.00300	-120.73270	0.32	13,939	moderate
R17	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Rubus discolor</i>	Himalayan blackberry	39.00460	-120.73240	0.01	450	moderate
R21	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Bromus diandrus</i>	ripgut brome	39.00150	-120.72590	13	566,280	moderate
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Bromus tectorum</i>	cheatgrass	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Carduus pycnocephalus</i>	Italian thistle	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Chondrilla juncea</i>	rush skeletonweed	39.00150	-120.72590	13	566,280	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
R21	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Hirschfeldia incana</i>	shortpod mustard	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Hypericum perforatum</i>	klamathweed	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Melilotus officinalis</i>	yellow sweetclover	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Plantago lanceolata</i>	English plantain	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Rubus discolor</i>	Himalayan blackberry	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Rubus discolor</i>	Himalayan blackberry	39.00150	-120.72590	13	566,280	moderate
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Verbascum thapsus</i>	woolly mullein	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Vulpia myuros</i>	rat-tail fescue	39.00150	-120.72590	13	566,280	low
R23	5/20/2008	Indian Bar Sediment Disposal Area	<i>Bromus diandrus</i>	ripgut brome	39.00660	-120.74720	0.17	7,405	high
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Bromus diandrus</i>	ripgut brome	39.00660	-120.74730	1.5	65,340	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.00720	-120.74710	0.46	20,000	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00720	-120.74710	0.07	3,200	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00680	-120.74700	0.17	7,405	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Rumex acetosella</i>	sheep sorrel	39.00700	-120.74700	0.34	14,810	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00660	-120.74720	0.03	1,200	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00700	-120.74700	0.11	5,000	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Verbascum thapsus</i>	woolly mullein	39.00720	-120.74710	0.07	3,200	low
R27	5/20/2008	Oxbow Powerhouse Road	<i>Bromus diandrus</i>	ripgut brome	39.00620	-120.74650	1.2	52,272	moderate
	5/20/2008	Oxbow Powerhouse Road	<i>Bromus tectorum</i>	cheatgrass	39.00620	-120.74650	1.2	52,272	low
	5/20/2008	Oxbow Powerhouse Road	<i>Chondrilla juncea</i>	rush skeletonweed	39.00620	-120.74650	1.2	52,272	low
	5/20/2008	Oxbow Powerhouse Road	<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	39.00620	-120.74650	1.2	52,272	low
	5/20/2008	Oxbow Powerhouse Road	<i>Hirschfeldia incana</i>	shortpod mustard	39.00620	-120.74650	1.2	52,272	low
	5/20/2008	Oxbow Powerhouse Road	<i>Hypericum perforatum</i>	klamathweed	39.00620	-120.74650	1.2	52,272	low
	5/20/2008	Oxbow Powerhouse Road	<i>Plantago lanceolata</i>	English plantain	39.00620	-120.74650	1.2	52,272	low
	5/20/2008	Oxbow Powerhouse Road	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00620	-120.74650	1.2	52,272	moderate
	5/20/2008	Oxbow Powerhouse Road	<i>Vulpia myuros</i>	rat-tail fescue	39.00620	-120.74650	1.2	52,272	moderate
SC01	7/31/2008	Miranda Cabin Snow Course	<i>Dactylis glomerata</i>	orchardgrass	39.12032	-120.36068	0.00	50	high
	7/31/2008	Miranda Cabin Snow Course	<i>Rumex acetosella</i>	sheep sorrel	39.12032	-120.36068	0.04	1,600	high
SC02	7/31/2008	Diamond Crossing Snow Course	<i>Plantago lanceolata</i>	English plantain	39.11090	-120.28412	0.41	17,860	high
SC03	7/28/2008	Wabena Meadows Snow Course	<i>Dactylis glomerata</i>	orchardgrass	39.22705	-120.40208	0.00	4	high
	7/28/2008	Wabena Meadows Snow Course	<i>Rumex acetosella</i>	sheep sorrel	39.22708	-120.40238	0.02	800	low
FM07	5/25/2008	McGuire Picnic Area	<i>Bromus tectorum</i>	cheatgrass	39.12350	-120.42090	0.23	10,019	moderate
	5/25/2008	McGuire Picnic Area	<i>Bromus tectorum</i>	cheatgrass	39.12280	-120.42150	0.13	5,625	high
	7/25/2008	McGuire Picnic Area	<i>Cirsium vulgare</i>	bull thistle	39.12328	-120.42118	0.26	11,326	low
	7/25/2008	McGuire Picnic Area	<i>Cirsium vulgare</i>	bull thistle	39.12433	-120.42127	0.04	1,875	low
	7/25/2008	McGuire Picnic Area	<i>Dactylis glomerata</i>	orchardgrass	39.12328	-120.42118	0.26	11,326	low
	7/25/2008	McGuire Picnic Area	<i>Hypericum perforatum</i>	klamathweed	39.12433	-120.42127	0.04	1,875	moderate
	7/25/2008	McGuire Picnic Area	<i>Plantago lanceolata</i>	English plantain	39.12433	-120.42127	0.04	1,875	low
	7/25/2008	McGuire Picnic Area	<i>Plantago lanceolata</i>	English plantain	39.12300	-120.42172	0.01	400	low
	5/25/2008	McGuire Picnic Area	<i>Rumex acetosella</i>	sheep sorrel	39.12360	-120.42530	9.2	400,752	low
7/25/2008	McGuire Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.12433	-120.42127	0.04	1,875	low	

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
FM07	7/25/2008	McGuire Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.12407	-120.42053	0.06	2,400	low
	7/25/2008	McGuire Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.12415	-120.42083	0.02	800	high
	7/25/2008	McGuire Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.12300	-120.42172	0.01	400	low
	7/25/2008	McGuire Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.12360	-120.42530	0.02	900	low
	7/25/2008	McGuire Picnic Area	<i>Vulpia myuros</i>	rat-tail fescue	39.12253	-120.42192	0.02	1,000	high
FM09	5/25/2008	McGuire Boat Ramp	<i>Bromus tectorum</i>	cheatgrass	39.12300	-120.42560	0.04	1,600	moderate
	5/25/2008	Poppy Campground Trailhead	<i>Bromus tectorum</i>	cheatgrass	39.12360	-120.42530	5.8	252,648	moderate
	5/25/2008	McGuire Boat Ramp	<i>Cirsium vulgare</i>	bull thistle	39.12200	-120.42510	0.02	700	low
	7/25/2008	McGuire Boat Ramp	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.12370	-120.42430	0.07	3,000	low
	7/25/2008	McGuire Boat Ramp	<i>Dactylis glomerata</i>	orchardgrass	39.12343	-120.42432	0.03	1,500	low
	7/25/2008	McGuire Boat Ramp	<i>Dactylis glomerata</i>	orchardgrass	39.12297	-120.42503	0.00	100	low
	7/25/2008	McGuire Boat Ramp	<i>Dactylis glomerata</i>	orchardgrass	39.12292	-120.42555	0.06	2,500	moderate
	5/25/2008	McGuire Boat Ramp	<i>Hypericum perforatum</i>	klamathweed	39.12290	-120.42520	0.04	1,600	low
	5/25/2008	McGuire Boat Ramp	<i>Plantago lanceolata</i>	English plantain	39.12290	-120.42520	0.04	1,600	low
	5/25/2008	McGuire Boat Ramp	<i>Plantago lanceolata</i>	English plantain	39.12370	-120.42430	0.07	3,000	moderate
	5/25/2008	McGuire Boat Ramp	<i>Rumex acetosella</i>	sheep sorrel	39.12290	-120.42520	0.04	1,600	high
	5/25/2008	McGuire Boat Ramp	<i>Rumex acetosella</i>	sheep sorrel	39.12390	-120.42390	0.00	25	low
	5/25/2008	McGuire Boat Ramp	<i>Rumex acetosella</i>	sheep sorrel	39.12360	-120.42360	0.07	3,000	low
	5/25/2008	McGuire Boat Ramp	<i>Rumex acetosella</i>	sheep sorrel	39.12260	-120.42580	0.11	5,000	moderate
	7/25/2008	Poppy Campground Trailhead	<i>Rumex acetosella</i>	sheep sorrel	39.12405	-120.42520	0.00	100	low
5/25/2008	McGuire Boat Ramp	<i>Verbascum thapsus</i>	woolly mullein	39.12290	-120.42520	5.9	257,004	high	
FM10	7/25/2008	Dolly Creek Water Supply	<i>Hypericum perforatum</i>	klamathweed	39.12795	-120.41907	0.01	400	moderate
	5/25/2008	Dolly Creek Water Supply	<i>Rumex acetosella</i>	sheep sorrel	39.12540	-120.42120	0.02	1,000	moderate
	7/25/2008	Dolly Creek Water Supply	<i>Rumex acetosella</i>	sheep sorrel	39.12812	-120.41937	0.01	500	low
	7/25/2008	Dolly Creek Water Supply	<i>Rumex acetosella</i>	sheep sorrel	39.12733	-120.41920	0.04	1,600	moderate
	7/25/2008	Dolly Creek Water Supply	<i>Rumex acetosella</i>	sheep sorrel	39.12583	-120.42085	10	435,600	low
	5/25/2008	Dolly Creek Water Supply	<i>Verbascum thapsus</i>	woolly mullein	39.12530	-120.42190	10	435,600	low
FM11	7/25/2008	Lewis Campground	<i>Cirsium vulgare</i>	bull thistle	39.13337	-120.41642	0.05	2,000	low
	7/25/2008	Lewis Campground	<i>Dactylis glomerata</i>	orchardgrass	39.13162	-120.41697	0.04	1,600	moderate
	7/25/2008	Lewis Campground	<i>Dactylis glomerata</i>	orchardgrass	39.13190	-120.41638	18.1	788,436	low
	7/25/2008	Dolly Creek Water Supply	<i>Hypericum perforatum</i>	klamathweed	39.13365	-120.41505	0.04	1,800	low
	7/25/2008	Dolly Creek Water Supply	<i>Hypericum perforatum</i>	klamathweed	39.13105	-120.41675	0.01	600	low
	7/25/2008	Lewis Campground	<i>Plantago lanceolata</i>	English plantain	39.13190	-120.41638	0.06	2,500	low
	7/25/2008	Lewis Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13337	-120.41642	0.05	2,000	low
	7/25/2008	Lewis Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13162	-120.41697	0.04	1,600	low
	7/25/2008	Lewis Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13302	-120.41742	0.05	2,000	high
	7/25/2008	Lewis Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13190	-120.41638	0.06	2,500	moderate
	5/25/2008	Lewis Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13300	-120.41660	0.06	2,500	low
	7/25/2008	Lewis Campground	<i>Verbascum thapsus</i>	woolly mullein	39.13337	-120.41642	0.05	2,000	low
7/25/2008	Lewis Campground	<i>Verbascum thapsus</i>	woolly mullein	39.13302	-120.41742	0.05	2,000	low	
FM12	7/25/2008	Dolly Creek Water Supply	<i>Cirsium vulgare</i>	bull thistle	39.13472	-120.41430	6.2	270,072	low
	7/25/2008	Dolly Creek Water Supply	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.13472	-120.41430	6.2	270,072	low
	5/25/2008	Dolly Creek Water Supply	<i>Hypericum perforatum</i>	klamathweed	39.13320	-120.41560	0.11	5,000	low
	7/25/2008	Dolly Creek Water Supply	<i>Plantago lanceolata</i>	English plantain	39.13320	-120.41560	0.06	2,500	high
	5/25/2008	Dolly Creek Water Supply	<i>Rumex acetosella</i>	sheep sorrel	39.13320	-120.41560	6	261,360	moderate
	5/25/2008	Dolly Creek Water Supply	<i>Verbascum thapsus</i>	woolly mullein	39.13320	-120.41560	0.07	3,000	low
	7/25/2008	Lewis Campground	<i>Verbascum thapsus</i>	woolly mullein	39.13365	-120.41505	1 plant	1 plant	low
FM15	7/25/2008	Ahart Campground	<i>Rumex acetosella</i>	sheep sorrel	39.14501	-120.40835	0.07	3,000	moderate
	7/25/2008	Ahart Campground	<i>Rumex acetosella</i>	sheep sorrel	39.14580	-120.40716	0.01	400	moderate
FM16	7/25/2008	Gates Group Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13909	-120.41032	0.00	100	low
	7/25/2008	Gates Group Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13928	-120.41003	0.01	300	moderate
	7/25/2008	Gates Group Campground	<i>Rumex acetosella</i>	sheep sorrel	39.13873	-120.40705	8	348,480	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
FM17	5/25/2008	French Meadows Campground Water Supply and Trail	<i>Cirsium vulgare</i>	bull thistle	39.10480	-120.43140	6	261,360	low
	5/25/2008	French Meadows Campground Water Supply and Trail	<i>Rumex acetosella</i>	sheep sorrel	39.10480	-120.43140	6	261,360	low
FM18	7/26/2008	French Meadows Campground	<i>Dactylis glomerata</i>	orchardgrass	39.11395	-120.42332	0.73	31,799	high
	7/26/2008	French Meadows Campground	<i>Dactylis glomerata</i>	orchardgrass	39.11441	-120.42341	0.05	2,100	moderate
	7/26/2008	French Meadows Campground	<i>Dactylis glomerata</i>	orchardgrass	39.11337	-120.42474	0.06	2,794	high
	7/26/2008	French Meadows Campground	<i>Dactylis glomerata</i>	orchardgrass	39.11395	-120.42332	7.5	326,700	low
FM25	7/26/2008	Dolly Creek Water Supply	<i>Dactylis glomerata</i>	orchardgrass	39.13860	-120.40222	1.1	47,916	low
FM26	7/25/2008	Coyote Group Campground	<i>Cirsium vulgare</i>	bull thistle	39.13629	-120.40962	0.03	1,147	low
FM27	7/26/2008	French Meadows Campground	<i>Hypericum perforatum</i>	klamathweed	39.11530	-120.42021	0.03	1,415	moderate
	7/26/2008	French Meadows Campground	<i>Hypericum perforatum</i>	klamathweed	39.06511	-120.41796	0.00	114	moderate
	7/26/2008	French Meadows Campground	<i>Hypericum perforatum</i>	klamathweed	39.11492	-120.41948	0.01	282	moderate
	7/26/2008	French Meadows Campground	<i>Rumex acetosella</i>	sheep sorrel	39.11484	-120.41966	0.00	75	moderate
FM28	7/26/2008	French Meadows Picnic Area	<i>Cirsium vulgare</i>	bull thistle	39.11155	-120.42846	1.6	69,696	low
	7/26/2008	French Meadows Reservoir	<i>Cirsium vulgare</i>	bull thistle	39.11304	-120.42618	3.9	169,884	low
	7/26/2008	French Meadows Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.11155	-120.42846	1.6	69,696	low
	7/26/2008	French Meadows Picnic Area	<i>Rumex acetosella</i>	sheep sorrel	39.11155	-120.42846	1.6	69,696	low
	7/26/2008	French Meadows Reservoir	<i>Rumex acetosella</i>	sheep sorrel	39.11304	-120.42618	3.9	169,884	high
	7/26/2008	French Meadows Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.11155	-120.42846	1.6	69,696	high
	7/26/2008	French Meadows Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.11304	-120.42618	3.9	169,884	high
FM31	7/26/2008	French Meadows Picnic Area	<i>Dactylis glomerata</i>	orchardgrass	39.11087	-120.42817	0.00	105	low
	7/26/2008	French Meadows Picnic Area	<i>Hypericum perforatum</i>	klamathweed	39.11093	-120.42770	2 plants	2 plants	low
	7/26/2008	French Meadows Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.11128	-120.42720	0.08	3,685	moderate
	7/26/2008	French Meadows Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.11054	-120.42775	0.00	40	high
	7/26/2008	French Meadows Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.11147	-120.42693	0.00	40	low
	7/26/2008	French Meadows Picnic Area	<i>Rumex acetosella</i>	sheep sorrel	39.11106	-120.42715	0.06	2,500	low
	7/26/2008	French Meadows Picnic Area	<i>Rumex acetosella</i>	sheep sorrel	39.11087	-120.42817	0.01	600	high
H08	5/24/2008	Hell Hole General Parking Area	<i>Bromus diandrus</i>	ripgut brome	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Bromus tectorum</i>	cheatgrass	39.06090	-120.41496	3.7	161,172	moderate
	7/27/2008	Hell Hole General Parking Area	<i>Cynosurus echinatus</i>	hedgohog dogtailgrass	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Dactylis glomerata</i>	orchardgrass	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Hypericum perforatum</i>	klamathweed	39.06053	-120.41584	0.02	1,000	high
	5/24/2008	Hell Hole General Parking Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Rumex acetosella</i>	sheep sorrel	39.06092	-120.41524	0.00	25	high
	7/27/2008	Hell Hole General Parking Area	<i>Taeniatherum caput-medusae</i>	medusahead	39.06090	-120.41496	3.7	161,172	moderate
	5/24/2008	Hell Hole General Parking Area	<i>Verbascum thapsus</i>	woolly mullein	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Vulpia myuros</i>	rat-tail fescue	39.06090	-120.41496	3.7	161,172	low
H09	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Bromus diandrus</i>	ripgut brome	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Bromus tectorum</i>	cheatgrass	39.06129	-120.41469	3.5	152,460	moderate
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Cirsium vulgare</i>	bull thistle	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Dactylis glomerata</i>	orchardgrass	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Hypericum perforatum</i>	klamathweed	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Plantago lanceolata</i>	English plantain	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Rumex acetosella</i>	sheep sorrel	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Rubicon River Gage and Weir below Hell Hole Dam Road	<i>Taeniatherum caput-medusae</i>	medusahead	39.06128	-120.41367	0.00	192	moderate
	7/27/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Verbascum thapsus</i>	woolly mullein	39.06129	-120.41469	3.5	152,460	low
H22	5/25/2008	Hell Hole Vista	<i>Bromus tectorum</i>	cheatgrass	39.07390	-120.41370	3.3	143,748	high
	5/25/2008	Hell Hole Vista	<i>Vulpia myuros</i>	rat-tail fescue	39.07390	-120.41370	3.3	143,748	moderate

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H23	7/27/2008	Hell Hole Campground	<i>Bromus tectorum</i>	cheatgrass	39.06988	-120.41607	3.3	143,748	low
	7/27/2008	Hell Hole Campground	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.06988	-120.41607	3.3	143,748	low
	7/27/2008	Hell Hole Campground	<i>Vulpia myuros</i>	rat-tail fescue	39.06988	-120.41607	3.3	143,748	low
H26	5/27/2008	Big Meadows Campground	<i>Cirsium vulgare</i>	bull thistle	39.07430	-120.42580	0.00	100	low
	5/27/2008	Big Meadows Campground	<i>Melilotus officinalis</i>	yellow sweetclover	39.07425	-120.42635	0.00	25	moderate
	7/25/2008	Big Meadows Campground	<i>Rumex acetosella</i>	sheep sorrel	39.07340	-120.42900	23.5	1,023,660	low
H47	5/24/2008	Upper Hell Hole Campground	<i>Bromus tectorum</i>	cheatgrass	39.08200	-120.35790	5.94	258,746	low
	5/24/2008	Upper Hell Hole Campground	<i>Vulpia myuros</i>	rat-tail fescue	39.08200	-120.35790	5.94	258,746	low
LC13	5/27/2008	Middle Meadows Group Campground	<i>Bromus tectorum</i>	cheatgrass	39.05280	-120.46720	0.04	1,600	high
	5/27/2008	Middle Meadows Group Campground	<i>Rumex acetosella</i>	sheep sorrel	39.05370	-120.46800	2	87,120	low
LC14	5/27/2008	Middle Meadows Group Campground	<i>Cirsium arvense</i>	Canada thistle	39.05127	-120.46899	0.00	200	low
	5/27/2008	Middle Meadows Group Campground	<i>Rumex acetosella</i>	sheep sorrel	39.05127	-120.46899	0.00	200	high
LC15	5/27/2008	Middle Meadows Group Campground	<i>Cirsium arvense</i>	Canada thistle	39.05240	-120.46830	0.00	100	moderate
	7/24/2008	Middle Meadows Group Campground	<i>Rumex acetosella</i>	sheep sorrel	39.05240	-120.46830	0.00	50	moderate
R18	5/20/2008	Ralston Picnic Area	<i>Bromus diandrus</i>	ripgut brome	39.00520	-120.73230	0.2	8,712	low
	5/20/2008	Ralston Picnic Area	<i>Carduus pycnocephalus</i>	Italian thistle	39.00520	-120.73230	0.01	600	low
	5/20/2008	Ralston Picnic Area	<i>Centaurea solstitialis</i>	yellow starthistle	39.00520	-120.73230	0.07	3,000	low
	5/20/2008	Ralston Picnic Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.00520	-120.73230	0.07	3,000	low
	5/20/2008	Ralston Picnic Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00520	-120.73230	0.09	4,000	moderate
	5/20/2008	Ralston Picnic Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00520	-120.73230	0.07	3,000	moderate
	5/20/2008	Ralston Picnic Area	<i>Plantago lanceolata</i>	English plantain	39.00520	-120.73230	0.07	3,000	high
	5/20/2008	Ralston Picnic Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00520	-120.73230	1.2	52,272	moderate
	5/20/2008	Ralston Picnic Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00520	-120.73230	0.14	6,098	moderate
R19	5/20/2008	Ralston Picnic Area	<i>Vulpia myuros</i>	rat-tail fescue	39.00520	-120.73230	0.14	6,098	moderate
	5/20/2008	Ralston Picnic Area	<i>Bromus diandrus</i>	ripgut brome	39.00730	-120.73140	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00750	-120.73230	2.4	104,544	moderate
	5/20/2008	Ralston Picnic Area	<i>Hypericum perforatum</i>	klamathweed	39.00750	-120.73230	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.00730	-120.73140	2.4	104,544	moderate
	5/20/2008	Ralston Picnic Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00750	-120.73230	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.00730	-120.73140	2.4	104,544	low
R20	5/20/2008	Ralston Picnic Area	<i>Vulpia myuros</i>	rat-tail fescue	39.00750	-120.73230	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Bromus tectorum</i>	cheatgrass	39.00590	-120.73160	0.09	4,000	low
	5/20/2008	Ralston Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.00590	-120.73160	0.09	4,000	moderate
	5/20/2008	Ralston Picnic Area	<i>Plantago lanceolata</i>	English plantain	39.00590	-120.73160	0.09	4,000	low
R22	5/20/2008	Ralston Picnic Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00590	-120.73160	0.09	4,000	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Bromus diandrus</i>	ripgut brome	39.00590	-120.74710	0.77	33,541	high
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Bromus tectorum</i>	cheatgrass	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Carduus pycnocephalus</i>	Italian thistle	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Chondrilla juncea</i>	rush skeletonweed	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Hirschfeldia incana</i>	shortpod mustard	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Plantago lanceolata</i>	English plantain	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Rubus discolor</i>	Himalayan blackberry	39.00640	-120.74720	0.05	2,000	moderate
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Rumex acetosella</i>	sheep sorrel	39.00590	-120.74710	0.77	33,541	low
DC01	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Taeniatherum caput-medusae</i>	medusahead	39.00640	-120.74720	0.06	2,500	high
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00590	-120.74710	0.77	33,541	low
	5/20/2008	Indian Bar Rafting Access Point and General Parking	<i>Vulpia myuros</i>	rat-tail fescue	39.00590	-120.74710	0.77	33,541	low
DC01	5/23/2008	Duncan Creek Diversion Dam Road	<i>Bromus tectorum</i>	cheatgrass	39.13490	-120.48160	0.26	11,326	high

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
DC02	5/23/2008	Duncan Creek Diversion Intake Road and Diversion Pool Access Point	<i>Cirsium vulgare</i>	bull thistle	39.13630	-120.47780	0.01	400	moderate
	7/24/2008	Duncan Creek Diversion Intake Road and Diversion Pool Access Point	<i>Verbascum thapsus</i>	woolly mullein	39.13600	-120.47928	0.00	100	moderate
FM03	7/25/2008	French Meadows Dam Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.11470	-120.47410	2.6	113,256	high
	7/25/2008	French Meadows Dam Staging Area Road	<i>Cirsium vulgare</i>	bull thistle	39.11570	-120.47470	2.6	113,256	low
	5/25/2008	French Meadows Dam Staging Area and Road	<i>Dactylis glomerata</i>	orchardgrass	39.11470	-120.47410	2.6	113,256	low
	5/26/2008	French Meadows Dam Staging Area	<i>Hypericum perforatum</i>	klamathweed	39.11430	-120.47430	2.6	113,256	high
	5/25/2008	French Meadows Dam Staging Area and Road	<i>Melilotus albus</i>	white sweet clover	39.11470	-120.47410	2.6	113,256	moderate
	5/25/2008	French Meadows Dam Staging Area and Road	<i>Plantago lanceolata</i>	English plantain	39.11470	-120.47410	2.6	113,256	low
	5/25/2008	French Meadows Dam Staging Area	<i>Rumex acetosella</i>	sheep sorrel	39.11430	-120.47430	2.6	113,256	moderate
FM21	5/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Bromus tectorum</i>	cheatgrass	39.11420	-120.47220	1.3	56,628	moderate
	7/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Hypericum perforatum</i>	klamathweed	39.11493	-120.47263	1.3	56,628	moderate
	7/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Rubus discolor</i>	Himalayan blackberry	39.11493	-120.47263	1.3	56,628	low
	5/25/2008	French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline	<i>Vulpia myuros</i>	rat-tail fescue	39.11420	-120.47220	1.3	56,628	low
FM29	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Work Area	<i>Cirsium vulgare</i>	bull thistle	39.10912	-120.43171	3.01	131,116	low
	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Work Area	<i>Rumex acetosella</i>	sheep sorrel	39.10912	-120.43171	3.01	131,116	moderate
	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Work Area	<i>Verbascum thapsus</i>	woolly mullein	39.10912	-120.43171	3.01	131,116	high
FM30	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Cirsium vulgare</i>	bull thistle	39.10735	-120.43289	0.01	500	low
	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Staging Area	<i>Cirsium vulgare</i>	bull thistle	39.10830	-120.43215	0.04	1,950	low
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Plantago lanceolata</i>	English plantain	39.10735	-120.43289	0.01	500	low
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Rumex acetosella</i>	sheep sorrel	39.10842	-120.43226	0.00	100	high
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Rumex acetosella</i>	sheep sorrel	39.10968	-120.48105	0.00	25	moderate
	7/26/2008	French Meadows-Hell Hole Tunnel Gatehouse Road	<i>Verbascum thapsus</i>	woolly mullein	39.10735	-120.43289	0.01	500	low
H01	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Bromus tectorum</i>	cheatgrass	39.06001	-120.41355	0.55	23,958	high
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	39.06001	-120.41355	0.55	23,958	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Dactylis glomerata</i>	orchardgrass	39.06001	-120.41355	0.55	23,958	high
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hirschfeldia incana</i>	shortpod mustard	39.06001	-120.41355	0.55	23,958	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.06001	-120.41355	0.55	23,958	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Verbascum thapsus</i>	woolly mullein	39.06001	-120.41355	0.55	23,958	low
H02	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Bromus tectorum</i>	cheatgrass	39.05880	-120.41380	1.5	65,340	moderate
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Dactylis glomerata</i>	orchardgrass	39.05880	-120.41380	1.5	65,340	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Hypericum perforatum</i>	klamathweed	39.05880	-120.41380	1.5	65,340	low
	5/24/2008	Hell Hole Dam and Powerhouse Road and Spillway Southern Access Point	<i>Vulpia myuros</i>	rat-tail fescue	39.05880	-120.41380	1.5	65,340	moderate

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/ UTM East	Longitude/ UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H08	5/24/2008	Hell Hole General Parking Area	<i>Bromus diandrus</i>	ripgut brome	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Bromus tectorum</i>	cheatgrass	39.06090	-120.41496	3.7	161,172	moderate
	7/27/2008	Hell Hole General Parking Area	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Dactylis glomerata</i>	orchardgrass	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Hypericum perforatum</i>	klamathweed	39.06053	-120.41584	0.02	1,000	high
	5/24/2008	Hell Hole General Parking Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.06090	-120.41496	3.7	161,172	low
	5/24/2008	Hell Hole General Parking Area	<i>Rumex acetosella</i>	sheep sorrel	39.06092	-120.41524	0.00	25	high
	7/27/2008	Hell Hole General Parking Area	<i>Taeniatherum caput-medusae</i>	medusahead	39.06090	-120.41496	3.7	161,172	moderate
	5/24/2008	Hell Hole General Parking Area	<i>Verbascum thapsus</i>	woolly mullein	39.06090	-120.41496	3.7	161,172	low
5/24/2008	Hell Hole General Parking Area	<i>Vulpia myuros</i>	rat-tail fescue	39.06090	-120.41496	3.7	161,172	low	
H09	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Bromus diandrus</i>	ripgut brome	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Bromus tectorum</i>	cheatgrass	39.06129	-120.41469	3.5	152,460	moderate
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Cirsium vulgare</i>	bull thistle	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Dactylis glomerata</i>	orchardgrass	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Hypericum perforatum</i>	klamathweed	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Plantago lanceolata</i>	English plantain	39.06129	-120.41469	3.5	152,460	low
	5/24/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Rumex acetosella</i>	sheep sorrel	39.06129	-120.41469	3.5	152,460	low
7/27/2008	Hell Hole Boat Ramp / Hell Hole Boat Ramp Parking Area	<i>Verbascum thapsus</i>	woolly mullein	39.06129	-120.41469	3.5	152,460	low	
H35	5/29/2008	Hell Hole Reservoir	<i>Agrostis stolonifera</i>	creeping bent grass	39.08787	-120.36741		2,000	moderate
	5/29/2008	Gray Horse Area	<i>Bromus diandrus</i>	ripgut brome	39.08940	-120.36690	4	174,240	low
	5/29/2008	Gray Horse Area / Hell Hole Reservoir	<i>Bromus tectorum</i>	cheatgrass	39.08940	-120.36690	4	174,240	moderate
	5/29/2008	Gray Horse Area	<i>Cirsium vulgare</i>	bull thistle	39.08940	-120.36690	4	174,240	low
	7/30/2008	Gray Horse Area	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.08940	-120.36690	4	174,240	moderate
	7/29/2008	Hell Hole Reservoir	<i>Verbascum thapsus</i>	woolly mullein	39.08910	-120.36640	4	174,240	low
	7/30/2008	Gray Horse Area / Hell Hole Reservoir	<i>Vulpia myuros</i>	rat-tail fescue	39.08940	-120.36690	4	174,240	low
I07	5/22/2008	Middle Fork Interbay Dispersed Concentrated Use Area	<i>Dactylis glomerata</i>	orchardgrass	39.02630	-120.60220	0.00	100	high
	7/31/2008	Middle Fork Interbay Dispersed Concentrated Use Area	<i>Hypericum perforatum</i>	klamathweed	39.02633	-120.60219	0.14	6,098	low
	7/31/2008	Middle Fork Interbay Dispersed Concentrated Use Area	<i>Melilotus albus</i>	white sweet clover	39.02633	-120.60219	0.14	6,098	moderate
	7/31/2008	Middle Fork Interbay Dispersed Concentrated Use Area	<i>Plantago lanceolata</i>	English plantain	39.02633	-120.60219	0.14	6,098	low
	7/31/2008	Middle Fork Interbay Dispersed Concentrated Use Area	<i>Rumex acetosella</i>	sheep sorrel	39.02633	-120.60219	0.14	6,098	low
	7/31/2008	Middle Fork Interbay Dispersed Concentrated Use Area	<i>Verbascum thapsus</i>	woolly mullein	39.02633	-120.60219	0.14	6,098	low
I08	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Bromus diandrus</i>	ripgut brome	39.02570	-120.60210	3.4	148,104	moderate
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Bromus tectorum</i>	cheatgrass	39.02570	-120.60210	3.4	148,104	low
	7/31/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Cirsium vulgare</i>	bull thistle	39.02485	-120.59964	1 plant	1 plant	low
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Cynosurus echinatus</i>	hedghegog dogtailgrass	39.02570	-120.60210	3.4	148,104	low
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Hypericum perforatum</i>	klamathweed	39.02570	-120.60210	3.4	148,104	moderate
	5/21/2008	Middle Fork Interbay Dam and Powerhouse Road and Interbay Access Points	<i>Melilotus officinalis</i>	yellow sweetclover	39.02480	-120.59900	0.05	2,250	moderate
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Melilotus officinalis</i>	yellow sweetclover	39.02570	-120.60210	3.4	148,104	low
	5/21/2008	Middle Fork Powerhouse to Middle Fork- Ralston Tunnel Intake and Gatehouse Communication Line/Powerline	<i>Plantago lanceolata</i>	English plantain	39.02570	-120.60210	3.4	148,104	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
I09	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Cirsium vulgare</i>	bull thistle	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Dactylis glomerata</i>	orchardgrass	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Hirschfeldia incana</i>	shortpod mustard	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Melilotus officinalis</i>	yellow sweetclover	39.02430	-120.59670	0.58	25,265	moderate
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Rubus discolor</i>	Himalayan blackberry	39.02430	-120.59670	0.58	25,265	low
	5/21/2008	Middle Fork Powerhouse Upper Switchyard Road	<i>Verbascum thapsus</i>	woolly mullein	39.02430	-120.59670	0.58	25,265	low
LC11	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Agrostis stolonifera</i>	creeping bent grass	39.05186	-120.47070	0.03	1,250	low
	5/27/2008	South Fork Long Canyon Diversion and Drop Inlet Road	<i>Bromus tectorum</i>	cheatgrass	39.05170	-120.47080	2	87,120	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Cirsium vulgare</i>	bull thistle	39.05186	-120.47070	2	87,120	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Cirsium vulgare</i>	bull thistle	39.05130	-120.47120	0.06	2,500	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Melilotus albus</i>	white sweet clover	39.05186	-120.47035	0.00	120	moderate
	7/24/2008	South Fork Long Canyon Diversion and Drop Inlet Road	<i>Rumex acetosella</i>	sheep sorrel	39.05170	-120.47080	2	87,120	low
	7/24/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Verbascum thapsus</i>	woolly mullein	39.05186	-120.47070	2	87,120	low
5/27/2008	South Fork Long Canyon Diversion and Drop Inlet Road	<i>Vulpia myuros</i>	rat-tail fescue	39.05170	-120.47080	2	87,120	low	
LC12	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Bromus tectorum</i>	cheatgrass	39.05132	-120.47042	0.68	29,621	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Rumex acetosella</i>	sheep sorrel	39.05132	-120.47042	0.68	29,621	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool	<i>Verbascum thapsus</i>	woolly mullein	39.05132	-120.47042	0.68	29,621	low
R05	5/20/2008	Indian Bar	<i>Bromus diandrus</i>	ripgut brome	39.00460	-120.74830	9	392,040	moderate
	5/20/2008	Indian Bar	<i>Bromus tectorum</i>	cheatgrass	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Carduus pycnocephalus</i>	Italian thistle	39.00460	-120.74830	0.01	600	low
	5/20/2008	Indian Bar	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Chondrilla juncea</i>	rush skeletonweed	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00370	-120.74830	9	392,040	low
	5/20/2008	Indian Bar	<i>Hirschfeldia incana</i>	shortpod mustard	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Hypericum perforatum</i>	klamathweed	39.00370	-120.74830	9	392,040	low
	5/20/2008	Indian Bar	<i>Lepidium latifolium</i>	perennial pepperweed (tall whitetop)	39.00370	-120.74830	9	392,040	low
	5/20/2008	Indian Bar	<i>Melilotus officinalis</i>	yellow sweetclover	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Plantago lanceolata</i>	English plantain	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Rubus discolor</i>	Himalayan blackberry	39.00370	-120.74830	9	392,040	low
	5/20/2008	Indian Bar	<i>Rumex acetosella</i>	sheep sorrel	39.00370	-120.74830	9	392,040	low
	5/20/2008	Indian Bar	<i>Taeniatherum caput-medusae</i>	medusahead	39.00490	-120.74740	9	392,040	low
	5/20/2008	Indian Bar	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00490	-120.74740	9	392,040	moderate
5/20/2008	Indian Bar	<i>Vulpia myuros</i>	rat-tail fescue	39.00490	-120.74740	9	392,040	low	
R14	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Bromus diandrus</i>	ripgut brome	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Bromus tectorum</i>	cheatgrass	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Carduus pycnocephalus</i>	Italian thistle	39.00620	-120.72030	0.01	600	high
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.00620	-120.72030	0.01	600	high
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Dactylis glomerata</i>	orchardgrass	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00600	-120.72050	0.06	2,500	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00620	-120.72020	2.3	100,188	moderate
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Taeniatherum caput-medusae</i>	medusahead	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00620	-120.72020	2.3	100,188	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
R14	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Verbascum thapsus</i>	woolly mullein	39.00620	-120.72020	2.3	100,188	low
	5/21/2008	Ralston Ridge Sediment Disposal Area	<i>Vulpia myuros</i>	rat-tail fescue	39.00620	-120.72020	2.3	100,188	low
R18	5/20/2008	Ralston Picnic Area	<i>Bromus diandrus</i>	ripgut brome	39.00520	-120.73230	0.2	8,712	low
	5/20/2008	Ralston Picnic Area	<i>Bromus diandrus</i>	ripgut brome	39.00520	-120.73230	0.03	1,500	low
	5/20/2008	Ralston Picnic Area	<i>Carduus pycnocephalus</i>	Italian thistle	39.00520	-120.73230	0.01	600	low
	5/20/2008	Ralston Picnic Area	<i>Carduus pycnocephalus</i>	Italian thistle	39.00520	-120.73230	0.01	600	low
	5/20/2008	Ralston Picnic Area	<i>Centaurea solstitialis</i>	yellow starthistle	39.00520	-120.73230	0.07	3,000	low
	5/20/2008	Ralston Picnic Area	<i>Chondrilla juncea</i>	rush skeletonweed	39.00520	-120.73230	0.07	3,000	low
	5/20/2008	Ralston Picnic Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00520	-120.73230	0.03	1,500	low
	5/20/2008	Ralston Picnic Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00520	-120.73230	0.05	2,000	low
	5/20/2008	Ralston Picnic Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00520	-120.73230	0.09	4,000	moderate
	5/20/2008	Ralston Picnic Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00520	-120.73230	0.07	3,000	moderate
	5/20/2008	Ralston Picnic Area	<i>Plantago lanceolata</i>	English plantain	39.00520	-120.73230	0.07	3,000	high
	5/20/2008	Ralston Picnic Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00520	-120.73230	1.2	52,272	moderate
	5/20/2008	Ralston Picnic Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00520	-120.73230	0.14	6,098	moderate
	5/20/2008	Ralston Picnic Area	<i>Vulpia myuros</i>	rat-tail fescue	39.00520	-120.73230	0.14	6,098	moderate
R19	5/20/2008	Ralston Picnic Area	<i>Bromus diandrus</i>	ripgut brome	39.00730	-120.73140	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.00750	-120.73230	2.4	104,544	moderate
	5/20/2008	Ralston Picnic Area	<i>Hypericum perforatum</i>	klamathweed	39.00750	-120.73230	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.00730	-120.73140	2.4	104,544	moderate
	5/20/2008	Ralston Picnic Area	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00750	-120.73230	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Verbascum thapsus</i>	woolly mullein	39.00730	-120.73140	2.4	104,544	low
	5/20/2008	Ralston Picnic Area	<i>Vulpia myuros</i>	rat-tail fescue	39.00750	-120.73230	2.4	104,544	low
R20	5/20/2008	Ralston Picnic Area	<i>Bromus tectorum</i>	cheatgrass	39.00590	-120.73160	0.09	4,000	low
	5/20/2008	Ralston Picnic Area	<i>Melilotus officinalis</i>	yellow sweetclover	39.00590	-120.73160	0.09	4,000	moderate
	5/20/2008	Ralston Picnic Area	<i>Plantago lanceolata</i>	English plantain	39.00590	-120.73160	0.09	4,000	low
	5/20/2008	Ralston Picnic Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00590	-120.73160	0.09	4,000	low
R21	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Bromus diandrus</i>	ripgut brome	39.00150	-120.72590	13	566,280	moderate
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Bromus tectorum</i>	cheatgrass	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Carduus pycnocephalus</i>	Italian thistle	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Chondrilla juncea</i>	rush skeletonweed	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Hirschfeldia incana</i>	shortpod mustard	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Hypericum perforatum</i>	klamathweed	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Melilotus officinalis</i>	yellow sweetclover	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Plantago lanceolata</i>	English plantain	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Rubus discolor</i>	Himalayan blackberry	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Rubus discolor</i>	Himalayan blackberry	39.00150	-120.72590	13	566,280	moderate
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00150	-120.72590	13	566,280	low

Appendix D. Results of Noxious Weed Surveys at Existing Project Facilities and Features, Project Recreation Facilities, and Dispersed Concentrated Use Areas (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
R21	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Verbascum thapsus</i>	woolly mullein	39.00150	-120.72590	13	566,280	low
	5/21/2008	Ralston-Oxbow Tunnel Intake to Ralston Powerhouse Communication Line	<i>Vulpia myuros</i>	rat-tail fescue	39.00150	-120.72590	13	566,280	low
R24	5/20/2008	Junction Bar	<i>Bromus tectorum</i>	cheatgrass	39.00840	-120.74710	2.9	126,324	moderate
	5/20/2008	Junction Bar	<i>Bromus diandrus</i>	ripgut brome	39.00840	-120.74710	2.9	126,324	low
	7/23/2008	Junction Bar	<i>Chondrilla juncea</i>	rush skeletonweed	39.00855	-120.74673	2.9	126,324	low
	5/20/2008	Junction Bar	<i>Hirschfeldia incana</i>	shortpod mustard	39.00800	-120.75010	0.11	5,000	moderate
	7/23/2008	Junction Bar	<i>Hypericum perforatum</i>	klamathweed	39.00793	-120.74708	1 plant	1 plant	low
	7/23/2008	Junction Bar	<i>Melilotus albus</i>	white sweet clover	39.00855	-120.74673	1 plant	1 plant	low
	7/23/2008	Junction Bar	<i>Rumex acetosella</i>	sheep sorrel	39.00858	-120.74672	1 plant	1 plant	low
	5/20/2008	Junction Bar	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00840	-120.74710	2.9	126,324	low
	7/23/2008	Junction Bar	<i>Verbascum thapsus</i>	woolly mullein	39.00855	-120.74673	2 plants	2 plants	low
5/20/2008	Junction Bar	<i>Vulpia myuros</i>	rat-tail fescue	39.00840	-120.74710	2.9	126,324	low	
R25	5/20/2008	Junction Bar	<i>Cynosurus echinatus</i>	hedgheg dogtailgrass	39.00770	-120.74750	0.01	400	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Hypericum perforatum</i>	klamathweed	39.00730	-120.74730	0.14	6,098	low
	5/20/2008	Indian Bar Sediment Disposal Area	<i>Rubus discolor</i>	Himalayan blackberry	39.00730	-120.74730	1.1	6,098	high
	5/20/2008	Junction Bar	<i>Rubus discolor</i>	Himalayan blackberry	39.00790	-120.74740	0.05	2,000	high
	7/23/2008	Junction Bar	<i>Rubus discolor</i>	Himalayan blackberry	39.00767	-120.74708	0.00	100	high
	5/20/2008	Junction Bar	<i>Rumex acetosella</i>	sheep sorrel	39.00770	-120.74750	0.00	100	low
	5/20/2008	Junction Bar	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00770	-120.74750	0.00	100	low
R26	5/20/2008	Junction Bar	<i>Bromus diandrus</i>	ripgut brome	39.00690	-120.75020	0.70	30,492	high
	7/23/2008	Junction Bar	<i>Bromus diandrus</i>	ripgut brome	39.00827	-120.74982	0.14	6,098	high
	7/23/2008	Junction Bar	<i>Bromus diandrus</i>	ripgut brome	39.00592	-120.74753	9	392,040	moderate
	7/23/2008	Junction Bar	<i>Bromus tectorum</i>	cheatgrass	39.00605	-120.75098	9	392,040	low
	5/20/2008	Junction Bar	<i>Centaurea solstitialis</i>	yellow starthistle	39.00830	-120.74970	0.14	6,098	moderate
	5/20/2008	Junction Bar	<i>Centaurea solstitialis</i>	yellow starthistle	39.00960	-120.74690	0.08	3,600	high
	7/23/2008	Junction Bar	<i>Centaurea solstitialis</i>	yellow starthistle	39.00988	-120.74685	0.01	400	moderate
	7/23/2008	Junction Bar	<i>Chondrilla juncea</i>	rush skeletonweed	39.00827	-120.74982	0.14	6,098	high
	7/23/2008	Junction Bar	<i>Chondrilla juncea</i>	rush skeletonweed	39.00988	-120.74685	9	392,040	low
	7/23/2008	Junction Bar	<i>Hirschfeldia incana</i>	shortpod mustard	39.00802	-120.75017	0.06	2,500	low
	5/20/2008	Junction Bar	<i>Plantago lanceolata</i>	English plantain	39.00830	-120.74970	0.00	100	moderate
	5/20/2008	Junction Bar	<i>Plantago lanceolata</i>	English plantain	39.00860	-120.74930	0.00	100	moderate
	7/23/2008	Junction Bar	<i>Robinia pseudoacacia</i>	black locust	39.00955	-120.74868	1 tree	1 tree	
	5/20/2008	Junction Bar	<i>Rubus discolor</i>	Himalayan blackberry	39.00860	-120.74930	0.00	100	high
	5/20/2008	Junction Bar	<i>Rubus discolor</i>	Himalayan blackberry	39.00620	-120.75070	0.06	2,500	high
	7/23/2008	Junction Bar	<i>Rubus discolor</i>	Himalayan blackberry	39.00883	-120.74970	0.18	7,841	high
	5/20/2008	Junction Bar	<i>Rumex acetosella</i>	sheep sorrel	39.00710	-120.75030	0.01	400	low
	5/20/2008	Junction Bar	<i>Rumex acetosella</i>	sheep sorrel	39.00720	-120.75020	0.02	900	low
	5/20/2008	Junction Bar	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00690	-120.75020	0.70	30,492	low
5/20/2008	Junction Bar	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00830	-120.74970	0.02	1,000	moderate	
5/20/2008	Junction Bar	<i>Vulpia myuros</i>	rat-tail fescue	39.00690	-120.75020	0.70	30,492	low	

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-2a through 3-2e.²Acres amounts are provided only for populations greater than 200 square feet.

APPENDIX E

Results of Noxious Weed Surveys at Potential Project Betterments

Appendix E. Results of Noxious Weed Surveys at Potential Project Betterments.

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/ UTM East	Longitude/ UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
FM29	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Work Area	<i>Cirsium vulgare</i>	bull thistle	39.10912	-120.43171	3.0	131,076	low
	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Work Area	<i>Rumex acetosella</i>	sheep sorrel	39.10912	-120.43171	3.0	131,076	moderate
	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Work Area	<i>Verbascum thapsus</i>	woolly mullein	39.10912	-120.43171	3.0	131,076	high
FM30	7/26/2008	French Meadows-Hell Hole Tunnel Intake Trash Rack Construction Staging Area	<i>Cirsium vulgare</i>	bull thistle	39.10830	-120.43215	0.04	1,950	low
H03	5/24/2008	Hell Hole Dam and Outlet Works / Hell Hole Dam Parapet Wall Construction Staging and Work Area	<i>Bromus tectorum</i>	cheatgrass	39.05804	-120.41003	3.5	152,460	low
	5/24/2008	Hell Hole Dam and Outlet Works / Hell Hole Dam Parapet Wall Construction Staging and Work Area	<i>Hypericum perforatum</i>	klamathweed	39.05792	-120.41122	0.00	158	low
	7/27/2008	Hell Hole Dam and Outlet Works / Hell Hole Dam Parapet Wall Construction Staging and Work Area	<i>Plantago lanceolata</i>	English plantain	39.05804	-120.41003	3.5	152,460	moderate
	5/24/2008	Hell Hole Dam and Outlet Works / Hell Hole Dam Parapet Wall Construction Staging and Work Area	<i>Verbascum thapsus</i>	woolly mullein	39.05804	-120.41003	3.5	152,460	low
	5/24/2008	Hell Hole Dam and Outlet Works / Hell Hole Dam Parapet Wall Construction Staging and Work Area	<i>Vulpia myuros</i>	rat-tail fescue	39.05804	-120.41003	3.5	152,460	moderate
H13	7/27/2008	Hell Hole Staging Area / Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.05748	-120.41620	0.01	625	high
	7/27/2008	Hell Hole Staging Area / Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	<i>Hypericum perforatum</i>	klamathweed	39.05748	-120.41620	0.02	1000	high
	7/27/2008	Hell Hole Staging Area / Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	<i>Hypericum perforatum</i>	klamathweed	39.05670	-120.41670	0.01	600	low
	7/27/2008	Hell Hole Staging Area / Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	<i>Plantago lanceolata</i>	English plantain	39.05748	-120.41620	1 plant	1 plant	low
	7/27/2008	Hell Hole Staging Area / Hell Hole Dam Spillway Crest Gates Control Building Powerline Construction Staging Area	<i>Verbascum thapsus</i>	woolly mullein	39.05748	-120.41620	0.00	100	high
H20	5/24/2008	French Meadows Powerhouse	<i>Bromus tectorum</i>	cheatgrass	39.07750	-120.40715	2	87,120	moderate
	7/27/2008	French Meadows Powerhouse	<i>Cirsium vulgare</i>	bull thistle	39.07764	-120.40691	2	87,120	moderate
	5/24/2008	French Meadows Powerhouse	<i>Hirschfeldia incana</i>	shortpod mustard	39.07764	-120.40691	2	87,120	low
	7/27/2008	French Meadows Powerhouse	<i>Hirschfeldia incana</i>	shortpod mustard	39.07750	-120.40715	0.00	25	high
	7/27/2008	French Meadows Powerhouse	<i>Hypericum perforatum</i>	klamathweed	39.07750	-120.40715	2	87,120	high
	7/27/2008	French Meadows Powerhouse	<i>Melilotus officinalis</i>	yellow sweetclover	39.07764	-120.40691	2	87,120	low
	7/27/2008	French Meadows Powerhouse	<i>Vulpia myuros</i>	rat-tail fescue	39.07764	-120.40691	2	87,120	low
H21	5/24/2008	French Meadows-Hell Hole Tunnel Portal Road / French Meadows Powerhouse Penstock and Butterfly Valve House / French Meadows Powerhouse Penstock Construction Staging Areas	<i>Bromus tectorum</i>	cheatgrass	39.07708	-120.41059	4.7	204,732	low
	5/24/2008	French Meadows-Hell Hole Tunnel Portal Road / French Meadows Powerhouse Penstock and Butterfly Valve House / French Meadows Powerhouse Penstock Construction Staging Areas	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	39.07726	-120.41030	0.01	500	low
	7/27/2008	French Meadows-Hell Hole Tunnel Portal Road / French Meadows Powerhouse Penstock Construction Staging Areas	<i>Vulpia myuros</i>	rat-tail fescue	39.07708	-120.41059	4.7	204,732	low
H24	5/27/2008	Forest Road 14N09A	<i>Bromus tectorum</i>	cheatgrass	39.07730	-120.41310	5.4	235,224	moderate
H25	5/27/2008	Forest Road 14N09A	<i>Bromus tectorum</i>	cheatgrass	39.07440	-120.41610	1.7	74,052	moderate

Appendix E. Results of Noxious Weed Surveys at Potential Project Betterments (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/ UTM East	Longitude/ UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
H28	7/30/2008	Hell Hole Reservoir / Powerhouse/Switchyard Construction Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.07590	-120.40768	8.9	387,684	low
	7/30/2008	Hell Hole Reservoir / Powerhouse/Switchyard Construction Staging Area	<i>Verbascum thapsus</i>	woolly mullein	39.07724	-120.40694	8.9	387,684	low
I10	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus tectorum</i>	cheatgrass	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Cirsium vulgare</i>	bull thistle	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Hypericum perforatum</i>	klamathweed	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Melilotus officinalis</i>	yellow sweetclover	39.02490	-120.59610	0.73	31,799	low
	7/31/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Rubus discolor</i>	Himalayan blackberry	39.02491	-120.59588	0.01	400	high
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Torilis arvensis</i>	spreading hedgeparsley	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Verbascum thapsus</i>	woolly mullein	39.02490	-120.59610	0.73	31,799	low
I11	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Vulpia myuros</i>	rat-tail fescue	39.02490	-120.59610	0.73	31,799	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus diandrus</i>	ripgut brome	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Bromus tectorum</i>	cheatgrass	39.02430	-120.59650	0.17	7,405	low
	7/31/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Dactylis glomerata</i>	orchardgrass	39.02430	-120.59650	0.00	20	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Hypericum perforatum</i>	klamathweed	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Melilotus officinalis</i>	yellow sweetclover	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Torilis arvensis</i>	spreading hedgeparsley	39.02430	-120.59650	0.17	7,405	low
	5/21/2008	Middle Fork Powerhouse and Upper and Lower Switchyard	<i>Verbascum thapsus</i>	woolly mullein	39.02430	-120.59650	0.17	7,405	low
LC11	5/27/2008	South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	<i>Agrostis stolonifera</i>	creeping bent grass	39.05186	-120.47070	0.03	1,250	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	<i>Cirsium vulgare</i>	bull thistle	39.05186	-120.47070	2	87,120	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	<i>Cirsium vulgare</i>	bull thistle	39.05130	-120.47120	0.06	2,500	low
	5/27/2008	South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	<i>Melilotus albus</i>	white sweet clover	39.05186	-120.47035	0.00	120	moderate
	7/24/2008	South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates and Generator Building Construction Staging and Work Area	<i>Verbascum thapsus</i>	woolly mullein	39.05186	-120.47070	2	87,120	low
	LC12	5/27/2008	South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates	<i>Bromus tectorum</i>	cheatgrass	39.05132	-120.47042	0.68	29,621
5/27/2008		South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates	<i>Rumex acetosella</i>	sheep sorrel	39.05132	-120.47042	0.68	29,621	low
5/27/2008		South Fork Long Canyon Diversion Dam and Pool / South Fork Long Canyon Diversion Dam Crest Gates	<i>Verbascum thapsus</i>	woolly mullein	39.05132	-120.47042	0.68	29,621	low

Appendix E. Results of Noxious Weed Surveys at Potential Project Betterments (continued).

Map ID ¹	Survey Date	Facility	Scientific Name	Common Name	Latitude/UTM East	Longitude/UTM North	Population Size (Acres) ²	Population Size (Square feet)	Infestation Level
R09	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Bromus diandrus</i>	ripgut brome	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Cirsium arvense</i>	Canada thistle	39.00060	-120.72440	1 plant	1 plant	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Chondrilla juncea</i>	rush skeletonweed	39.00060	-120.72440	0.00	25	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Hirschfeldia incana</i>	shortpod mustard	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Melilotus officinalis</i>	yellow sweetclover	39.00060	-120.72440	0.00	25	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Rubus discolor</i>	Himalayan blackberry	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Torilis arvensis</i>	spreading hedgeparsley	39.00060	-120.72440	0.84	36,590	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Vulpia myuros</i>	rat-tail fescue	39.00060	-120.72440	0.84	36,590	low
R10	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Bromus diandrus</i>	ripgut brome	39.00080	-120.72430	0.88	38,333	high
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Carduus pycnocephalus</i>	Italian thistle	39.00080	-120.72430	0.88	38,333	high
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00080	-120.72430	0.88	38,333	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Chondrilla juncea</i>	rush skeletonweed	39.00080	-120.72430	0.88	38,333	low
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Melilotus officinalis</i>	yellow sweetclover	39.00080	-120.72430	0.88	38,333	high
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Plantago lanceolata</i>	English plantain	39.00080	-120.72430	0.88	38,333	moderate
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Taeniatherum caput-medusae</i>	medusahead	39.00080	-120.72430	0.88	38,333	moderate
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse	<i>Verbascum thapsus</i>	woolly mullein	39.00080	-120.72430	0.88	38,333	low
R11	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse Construction Staging Area	<i>Bromus diandrus</i>	ripgut brome	39.00140	-120.72610	1	43,560	high
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse Construction Staging Area	<i>Bromus tectorum</i>	cheatgrass	39.00140	-120.72610	1	43,560	moderate
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse Construction Staging Area	<i>Centaurea melitensis</i>	Malta starthistle (tocalote)	39.00140	-120.72610	0.10	4,500	moderate
	5/20/2008	Ralston Powerhouse and Switchyard / Ralston Powerhouse Construction Staging Area	<i>Hirschfeldia incana</i>	shortpod mustard	39.00140	-120.72610	1	43,560	moderate

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-3a through 3-3d.²Acres amounts are provided only for populations greater than 200 square feet.

APPENDIX F

**Results of Noxious Weed Surveys at Quantitative
Geomorphic and Riparian Sampling Sites**

Appendix F. Results of Noxious Weed Surveys at Quantitative Geomorphic and Riparian Sampling Sites.

Map ID ¹	Transect Number	Survey Date	Facility	Scientific Name	Common Name	UTM East	UTM North	Population Size (acres) ²	Population Size (square feet)	Infestation Level	
MF-1	1	10/16/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	677264	4311975	0.18	7,841	low	
		10/16/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	677264	4311974	0.18	7,841	low	
		10/16/2006	Middle Fork American River	<i>Cytisus scoparius</i>	Scotch broom	677264	4311975	0.18	7,841	low	
		10/16/2006	Middle Fork American River	<i>Hirschfeldia incana</i>	shortpod mustard	677264	4311975	0.18	7,841	low	
		10/16/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	677264	4311975	0.18	7,841	low	
	2	10/16/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	676073	4311264	0.24	10,454	low	
		10/16/2006	Middle Fork American River	<i>Centaurea solstitialis</i>	yellow starthistle	676073	4311264	0.24	10,454	low	
		10/16/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	676073	4311264	0.24	10,454	low	
		10/16/2006	Middle Fork American River	<i>Cynodon dactylodon</i>	bull thistle	676073	4311264	0.24	10,454	low	
		10/16/2006	Middle Fork American River	<i>Hirschfeldia incana</i>	shortpod mustard	676073	4311264	0.24	10,454	low	
	3	10/16/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	676073	4311264	0.24	10,454	low	
		10/16/2006	Middle Fork American River	<i>Centaurea solstitialis</i>	ripgut brome	674892	4310834	0.48	20,909	low	
		10/16/2006	Middle Fork American River	<i>Centaurea solstitialis</i>	yellow starthistle	674892	4310834	0.48	20,909	low	
		10/16/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	674892	4310834	0.48	20,909	low	
		10/16/2006	Middle Fork American River	<i>Cytisus scoparius</i>	Scotch broom	674892	4310834	0.48	20,909	low	
		10/16/2006	Middle Fork American River	<i>Dactylus glomerata</i>	orchardgrass	674892	4310834	0.48	20,909	low	
	MF-2	1	10/9/2006	Middle Fork American River	<i>Hirschfeldia incana</i>	shortpod mustard	674892	4310834	0.48	20,909	low
			10/9/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	674892	4310834	0.48	20,909	low
2		10/9/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	681590	4313762	0.15	6,534	low	
		10/9/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	681013	4313835	0.02	871	low	
MF-3	1	10/17/2006	Middle Fork American River	<i>Cytisus scoparius</i>	Scotch broom	681013	4313835	0.02	871	low	
		10/17/2006	Middle Fork American River	<i>Melilotus officina</i>	yellow sweetclover	681013	4313835	0.02	871	low	
		10/17/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	680125	4314358	0.03	1,307	low	
		10/17/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	687920	4316712	0.07	3,049	low	
	2	10/17/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	687920	4316712	0.07	3,049	low	
		10/17/2006	Middle Fork American River	<i>Plantago lanceolata</i>	English plantain	687920	4316712	0.07	3,049	low	
		10/17/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	687920	4316712	0.07	3,049	high	
		10/17/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	687730	4316153	0.10	4,356	low	
	3	10/17/2006	Middle Fork American River	<i>Cynodon dactylodon</i>	bull thistle	687730	4316153	0.10	4,356	low	
		10/17/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	687730	4316153	0.10	4,356	moderate	
		10/17/2006	Middle Fork American River	<i>Verbascum thapsus</i>	woolly mullein	687730	4316153	0.10	4,356	low	
		10/17/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	687092	4316136	0.18	7,841	low	
MF-4	2	8/1/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	687092	4316136	0.18	7,841	low	
MF-6	1	9/26/2006	Middle Fork American River	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	687092	4316136	0.18	7,841	low	
		9/26/2006	Middle Fork American River	<i>Plantago lanceolata</i>	English plantain	687092	4316136	0.18	7,841	low	
		9/26/2006	Middle Fork American River	<i>Rubus discolor</i>	Himalayan blackberry	687092	4316136	0.18	7,841	low	
MF-7	2	8/1/2006	Middle Fork American River	<i>Rumex acetosella</i>	sheep sorrel	716374	4324288	0.04	1,742	low	
		9/26/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	700337	4321499	0.07	3,049	low	
		9/26/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	699925	4321349	0.09	3,920	low	
MF-10	1	9/26/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	699801	4321340	0.05	2,178	low	
		9/26/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	701158	4321487	0.06	2,614	low	
		9/26/2006	Middle Fork American River	<i>Chondrilla juncea</i>	rush skeletonweed	701013	4321433	0.10	4,356	moderate	
NFLC-1	1	9/26/2006	Middle Fork American River	<i>Cynosurus echinatus</i>	hedgehog dogtailgrass	701013	4321433	0.10	4,356	low	
		9/26/2006	Middle Fork American River	<i>Bromus diandrus</i>	ripgut brome	700943	4321326	0.05	2,178	low	
MF-10	1	8/29/2006	Middle Fork American River	<i>Agrostis stolonifera</i>	creeping bent grass	716563	4329823	0.06	2,614	low	
		8/29/2006	Middle Fork American River	<i>Cirsium vulgare</i>	bull thistle	716563	4329823	0.06	2,614	low	
		8/29/2006	Middle Fork American River	<i>Cirsium vulgare</i>	bull thistle	716563	4329823	0.06	2,614	low	
	2	8/29/2006	Middle Fork American River	<i>Agrostis stolonifera</i>	creeping bent grass	716554	4329657	0.02	871	low	
		8/29/2006	Middle Fork American River	<i>Rumex acetosella</i>	sheep sorrel	716374	4324288	0.02	871	low	
NFLC-1	1	8/1/2006	North Fork Long Canyon Creek	<i>Cirsium vulgare</i>	bull thistle	716447	4324379	0.03	1,307	low	

Appendix F. Results of Noxious Weed Surveys at Quantitative Geomorphic and Riparian Sampling Sites (continued).

Map ID ¹	Transect Number	Survey Date	Facility	Scientific Name	Common Name	UTM East	UTM North	Population Size (acres) ²	Population Size (square feet)	Infestation Level
R-1	1	8/18/2006	Rubicon River	<i>Rubus discolor</i>	Himalayan blackberry	697152	4319180	0.12	5,227	low
R-2	2	8/18/2006	Rubicon River	<i>Bromus diandrus</i>	ripgut brome	697323	4318377	0.08	3,485	low
		8/18/2006	Rubicon River	<i>Hirschfeldia incana</i>	shortpod mustard	697323	4318377	0.08	3,485	low
R-3	1	9/27/2006	Rubicon River	<i>Chondrilla juncea</i>	rush skeletonweed	699533	4317524	0.07	3,049	low
		9/27/2006	Rubicon River	<i>Verbascum thapsus</i>	woolly mullein	699533	4317524	0.07	3,049	low
	2	9/27/2006	Rubicon River	<i>Rubus discolor</i>	Himalayan blackberry	699046	4317262	0.07	3,049	low
R-4	2	10/10/2006	Rubicon River	<i>Rubus discolor</i>	Himalayan blackberry	700154	4318171	0.07	3,049	low
		10/10/2006	Rubicon River	<i>Verbascum thapsus</i>	woolly mullein	700154	4318171	0.07	3,049	low
	3	10/10/2006	Rubicon River	<i>Rubus discolor</i>	Himalayan blackberry	700050	4318009	0.08	3,485	low
R-5	2	10/10/2006	Rubicon River	<i>Cynodon dactylodon</i>	bull thistle	700537	4318151	0.08	3,485	low
		10/10/2006	Rubicon River	<i>Cynosurus echinatus</i>	hedgheg dogtailgras	700537	4318151	0.08	3,485	low
		10/10/2006	Rubicon River	<i>Melilotus officinalis</i>	yellow sweetclover	700537	4318151	0.08	3,485	low
R-10	2	9/28/2006	Rubicon River	<i>Bromus diandrus</i>	ripgut brome	710653	4310009	0.12	5,227	low
		9/28/2006	Rubicon River	<i>Chondrilla juncea</i>	rush skeletonweed	710653	4310009	0.12	5,227	low
		9/28/2006	Rubicon River	<i>Rumex acetosella</i>	sheep sorrel	710653	4310009	0.12	5,227	low
		9/28/2006	Rubicon River	<i>Vulpia myuros</i>	rat-tail fescue	710653	4310009	0.12	5,227	low
		9/28/2006	Rubicon River	<i>Chondrilla juncea</i>	rush skeletonweed	710334	4310217	0.06	2,614	low
	3	9/28/2006	Rubicon River	<i>Verbascum thapsus</i>	woolly mullein	710334	4310217	0.06	2,614	low
		9/28/2006	Rubicon River	<i>Verbascum thapsus</i>	woolly mullein	710334	4310217	0.06	2,614	low
R-12	1	8/24/2006	Rubicon River	<i>Hirschfeldia incana</i>	shortpod mustard	716801	4313287	0.02	871	low
		8/24/2006	Rubicon River	<i>Rubus discolor</i>	Himalayan blackberry	716801	4313287	0.02	871	low
	2	8/24/2006	Rubicon River	<i>Hirschfeldia incana</i>	shortpod mustard	716534	4313268	0.06	2,614	low
R-13	2	8/24/2006	Rubicon River	<i>Hirschfeldia incana</i>	shortpod mustard	717693	4314618	0.06	2,614	low
R-15	2	8/24/2006	Rubicon River	<i>Chondrilla juncea</i>	rush skeletonweed	720836	4320560	0.07	3,049	low
		8/24/2006	Rubicon River	<i>Rubus discolor</i>	Himalayan blackberry	720836	4320560	0.07	3,049	low
SFLC-1	1	8/22/2006	South Fork Long Canyon Creek	<i>Rumex acetosella</i>	sheep sorrel	718146	4324447	0.03	1,307	low
	2	8/22/2006	South Fork Long Canyon Creek	<i>Rumex acetosella</i>	sheep sorrel	717916	4324237	0.02	871	low
	3	8/22/2006	South Fork Long Canyon Creek	<i>Cirsium vulgare</i>	bull thistle	717864	4324178	0.03	1,307	low
		8/22/2006	South Fork Long Canyon Creek	<i>Rubus discolor</i>	Himalayan blackberry	717864	4324178	0.03	1,307	low
		8/22/2006	South Fork Long Canyon Creek	<i>Rumex acetosella</i>	sheep sorrel	717864	4324178	0.03	1,307	low

¹Map identification number corresponds to map identification numbers shown on Maps TERR 3-2a through 3-2e.²Acreages amounts are provided only for populations greater than 200 square feet.