

- Final -
2009 Annual Noxious Weed Monitoring Report

El Dorado Hydroelectric Project
FERC Project 184



October 14, 2009

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El Dorado Irrigation District

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I. Introduction

This 2009 Noxious Weed Monitoring Report (Report) has been prepared to meet the requirements of El Dorado Irrigation District's (EID) "El Dorado Hydroelectric Project (Federal Energy Regulatory Commission (FERC) No. 184): A Plan for the Prevention and Control of Noxious Weeds" (Plan) (April 2007). The Plan was prepared under the U.S. Forest Service 4(e) condition No. 44 of the FERC license and approved by the Eldorado National Forest (ENF) on April 17, 2007 and by FERC on May 1, 2008.

The Plan describes an annual monitoring program to identify new infestations of noxious weeds and evaluate whether existing infestations have been controlled. The monitoring program utilizes ENF standardized monitoring forms and includes Global Positioning System (GPS) mapping of infestations. An annual report that includes the following information is due to ENF by January 15 of each year:

- Follow-up inspections of previously identified noxious weed populations;
- Presence of any new weed populations; and
- Updated Geographic Information System (GIS) base map with the results of on-going monitoring.

The data gathered from the 2008 survey serves as the baseline conditions for the 2009 survey. All of the occurrences documented in 2008 were re-visited in 2009 and evaluated in this report. Any additional occurrences observed along licensee-maintained roads or at project facilities were recorded. Weed treatments and effectiveness are noted and evaluated in the Report, where applicable. Only limited treatments were performed between the 2008 and 2009 surveys since the details of implementing the Integrated Pest Management Plan were not yet finalized.

The existing facilities covered under the FERC license and subject to noxious weed monitoring include:

- Four storage reservoirs (Lake Aloha, Echo Lake, Silver Lake, and Caples Lake),
- Echo Lake Conduit,
- El Dorado Diversion Dam,
- El Dorado Canal (including flumes, tunnels, and pipelines),
- Alder Creek Diversion Dam and Feeder,
- El Dorado Forebay,
- El Dorado Pipeline and Penstock,
- El Dorado Powerhouse, and
- Licensee-maintained access roads identified in Table 3.

This Report summarizes the noxious weed occurrences located within the Project 184 boundary and along licensee-maintained roads during the 2009 monitoring season and will be filed with FERC by March 1, 2010.

II. Methods

Field monitoring began on May 8, 2009 at the lower elevation sites and was completed on July 21, 2009. In accordance with the Plan, digital photos were taken, GPS data was collected, and standardized data forms were completed for each identified infestation. In most instances, GPS locations were captured using a Leica GS20 hand-held, sub-meter-accurate GPS unit with an external antenna. Where conditions did not allow for accurate GPS data capture, locations were approximated using existing maps and aerial photography. Most locations were captured with the GPS and a point or line was sufficient to show the location. Weeds were identified using information from *Weeds of the West* and the *USDA PLANTS Database* (Whitson 1996, USDA 2008).

Access roads covered under the FERC License were monitored by walking the road and scanning both shoulders for incidents of target weed species. The Project 184 facilities listed above were also monitored by walking each facility. The entire perimeter of each reservoir was not completely surveyed; rather, areas where Project-related activities occur or have occurred were surveyed. Occurrences of both “List A” and “List B” Noxious Weeds, as defined on the ENF List of Noxious Weeds (Appendix D), were recorded on ENF data forms found in the Plan. The approximate size of each infestation was estimated by field staff using pacing and/or measurements from the GPS (for linear occurrences).

All GPS data was post-processed using base station data to correct for inaccuracies inherent in non-processed GPS data. This data was exported into a GIS (ESRI ArcMap version 9.3) in NAD83, California State Plane Zone 2 coordinates and rectified, as needed for mapping purposes. A map depicting each delineated noxious weed occurrence (as defined above) is included in Appendix A (Figure 2). The MAP ID label found in Tables 4 and 5 and in the top right corner of each data sheet (Appendix C) corresponds to the label of each occurrence on Figure 2. The labeling protocol follows the format: 01-08 for points and L01-09 for linear features, the “L” before the number refers to “linear”. The number following the dash (-08) refers to the year that each occurrence was identified. Digital photos (Appendix B) are organized by date and photo number, corresponding to the photo log from each set of data sheets.

Coordinates for each of the point features are included in Table 4 below, rather than on the data sheets. A description of each occurrence is found on the data sheets along with an update that refers to changes in the occurrence (e.g., reduced density and/or treatment effectiveness) from 2008 to 2009. The data sheets found in the Noxious Weed Plan were adapted to Microsoft Excel spreadsheet format and the data from the field was entered into these sheets for easier reading and archiving.

III. Results and Discussion

Detailed data for each infestation is included in the data sheets found in Appendix C of this report. Table 1 summarizes the species of noxious weeds observed during the 2009 survey and whether they are “List A” or “List B” species. List A weeds are species that have been designated as a higher priority for control. Tables 2 and 3 summarize the weeds found at each facility and along the Project 184, EID-maintained roads, respectively. Table 3 also includes a column indicating whether the road was treated and the success of the treatment.

If a single weed or a couple of weeds were observed during the survey, the site was not recorded or mapped. This survey identifies locations of multiple plants forming a unit that can be targeted for control. Some of these weeds are ubiquitous and mapping each individual Klamath weed, for example, would not provide useful data. General observations were recorded if scattered individual weeds were present along a road or near a facility. These observations can serve as a reference for future surveys to determine if these scattered individual weeds are forming groups that need to be controlled.

Table 1. Summary of Noxious Weeds Observed in the 2009 Survey

	Species	Common Name	Abbreviation*
List A	<i>Aegilops triuncialis</i>	barbed goatgrass	BGG
	<i>Bromus tectorum</i>	cheat grass	CHT
	<i>Centaurea solstitialis</i>	yellow starthistle	ST
	<i>Chondrilla juncea</i>	rush skeletonweed	SW
	<i>Cytisus scoparius</i>	Scotch broom	SB
	<i>Taenatherum caput-medusae</i>	medusahead grass	MED
	<i>Bromus diandrus</i>	ripgut brome	RIP
List B	<i>Cirsium vulgare</i>	bull thistle	BT
	<i>Hypericum perforatum</i>	Klamath weed	KW
	<i>Leucanthemum vulgare</i>	ox-eye daisy	OXI
	<i>Lathyrus latifolius</i>	perennial sweet pea	SP
	<i>Melilotus alba</i>	white sweet clover	SC
	<i>Melilotus officinalis</i>	yellow sweet clover	SC
	<i>Rubus discolor (armeniacus)</i>	Himalayan blackberry	HB
	<i>Torilis arvensis</i>	hedge parsley	TA
	<i>Verbascum thapsus</i>	woolly mullein	WM

*These abbreviations are used in the tables below to indicate which species are present.

Table 2. Summary of Noxious Weeds Observed at Project 184 Facilities in 2009

Project 184 Facility	Noxious Weeds List A	Noxious Weeds List B
Lake Aloha	None	None
Echo Lake	None	None
Silver Lake	None	WM, SC, BT
Caples Lake	None	WM
Alder Creek Diversion Dam and Feeder	CHT (minor SW)	minor SP, KW
Echo Lake Conduit	None	None
El Dorado Diversion Dam	ST, CHT	SP, BT, WM, OXI
El Dorado Forebay	SB	HB, SP,
El Dorado Canal		
<i>Beat 1</i>	SW, ST, SB, CHT	OXI, KW, WM, SP,
<i>Beat 2</i>	CHT	None
<i>Beat 3</i>	None	OXI, HB
<i>Beat 4</i>	None	OXI, KW, BT
<i>Beat 5</i>	None	SP, KW, SC, BT
<i>El Dorado Tunnel</i>	CHT	SC, KW
<i>Lower Penstock</i>	SW	HB, KW
<i>Upper Penstock</i>	BGG	HB, BT, SP, KW,

*A designation of none means none of the ENF noxious weeds were present

Table 3. Summary of Noxious Weeds Observed Along Licensee-maintained Roads in 2009

Road #	Road Name	Length	Noxious Weeds A	Noxious Weeds B	Control*
11N05A	Echo North	0.2	None	None	N/A
11N05D	Echo Loop	0.2	None	None	N/A
10N23Y	Caples Aux. Dam	0.11	None	WM	None
R41	Woods Creek	0.19	None	None	See Report
R42	Caples Main Dam	0.16	None	None	N/A
R43	Caples House	0.14	None	WM	Eradicated
R44	Caples Quonset	0.06	None	None	N/A
R61	30 Milestone Spur	0.01	None	None	N/A
R71	Flume 39/40	0.42	N/A	N/A	N/A
R72	Camp X	0.56	None	None	N/A
R73	Camp 2	0.54	CHT	RB	None
R74/74A	El Dorado Tunnel	0.66	CHT, MED	SC, KW, TA, SP, WM,RIP	Partial
R75/75A	Camp 1	0.53	CHT	BT, SC, KW, SP, RIP, TA, WM	Partial
R76	Camp S	0.1	N/A	N/A	N/A
10N08Y	Bull Creek	0.43	None	None	N/A
10N08YA	Camp Two	0.79	None	BT	None
11N02Y	Eldorado Ditch Access	0.91	None	HB,KW, BT	None
10N440G	Highway Cut	1.66	None	HB, SP, BT, KW, MED	Partial
R81	Flume 47B	0.07	None	None	N/A
R82	Pacific Tunnel	0.24	None	None	N/A
R821	Hazel Creek Tunnel	0.18	None	None	N/A
R83	Spillway 33	0.28	None	HB	None
R84	Old Camp 4	0.28	None	None	N/A
R87	Camp 3	0.21	CHT	None	None
R88	Camp P	1.32	CHT,ST	TA,BT,SC,WM,KW,SP,OXI	None
R89	Rock Crusher	1.16	CHT	WM,SC,KW,BT,RIP	Partial
10N40N	El Dorado Ditch Loop	0.23	None	BT	None
12N34H	Powerhouse	2.86	None	HB, SP, BT, KW, SC, WM	Partial
R91	Moon Lane	0.31	None	None	N/A
R92	Moon Lane East	0.2	None	None	N/A
R93	Kodiak Trail	0.21	None	KW	None
R94	Bend Court	0.41	CHT	None	None
Total		15.63			

* Herbicide or other treatment effectiveness: Partial, Eradicated, N/A (not applicable; no weeds along road), None (there was no control observed)

Priority List

The Plan identifies general prevention and control measures and provides some guidance on prioritizing control efforts to maximize available resources. The following priorities have been identified in the Plan and are ranked in order:

1. Prevent the introduction of new invaders.
2. Conduct early treatment of new infestations.
3. Contain and control established infestations.

In determining the priority list for this survey, numbers 2 and 3 have been considered where possible. Since the exact locations of previously identified (1999 study), established infestations are not readily available, the 2008 data will serve as the new baseline for established infestations. No new invaders were identified this year and only a few new infestations were mapped. All of the mapped occurrences have been given a priority rating as described below. The following criteria were considered when assigning priorities:

- ENF List “A” or “B” species status (Appendix D)
- Ability of the species to spread
- California Invasive Plant Council (CalIPC) Ranking
- Size of the occurrence
- Location of the occurrence and potential for spread
- Density of weeds within the occurrence

Each occurrence has been given a ranking of 1 through 3, with 1 being the highest priority for control and 3 being the lowest priority. In general, a ranking of 1 involves a “List A” species. Larger areas were generally given a higher ranking than smaller areas. If the occurrence is a small area of scattered, low-density “List B” species, it received a ranking of 3. Occurrences with a priority ranking of 1 or 2 should be considered as significant targets for eradication. If occurrences appeared to be new infestations they were given a priority of 1 or 2.

Because Himalayan blackberry is relatively widespread, it was not given a rating of 1 even though the CalIPC scores it “high”, with severe impacts and invasiveness. A ranking of 1 was restricted to other “List A” species with a high CalIPC rating and a high probability to spread. Cheatgrass is also widespread and is listed as highly invasive but control of this species with herbicide is easier than Himalayan blackberry. Cheatgrass occurrences were prioritized as level 1 based on input from the USFS (Matt Brown, personal communication).

All noxious weeds located within the project are a high priority for control but the priority list attempts to give some guidance regarding which occurrences have the greatest potential to rapidly invade new areas or significantly alter natural landscapes. The list can serve as a tool for EID’s resource managers to use in allocating limited personnel and equipment. Tables 4 and 5 list each occurrence, along with its assigned priority. In addition, the last column “Control” indicates the level of control achieved by treatments between 2008 and 2009.

Table 4. Priority List of Point Occurrences

Collection Date	Weeds	MAP ID	X Coord.	Y Coord.	Location	Priority	Control*
5/8/2009	HB, BT	01-08	6954850.36	2051734.17	Road	2	Moderate
5/8/2009	HB	02-08	6954729.4	2051997.43	Road	2	Moderate
5/8/2009	HB	03-08	6954366.54	2052317.6	Road	2	Moderate
5/8/2009	HB	04-08	6953462.93	2052782.84	Road	2	Good
5/8/2009	HB	05-08	6952134.8	2052896.68	Road	2	Poor
5/8/2009	HB	06-08	6952678.7	2053048.47	Road	2	No
5/8/2009	HB	07-08	6953569.30	2053595.91	Road	2	No
5/8/2009	HB, KW, SP	08-08	6954272.46	2054085.68	Road	2	No
5/8/2009	HB, SC, WM	09-08	6955018.74	2054018.07	Powerhouse	2	No
7/2/2009	HB	10-08	6955121.13	2053572.31	L. penstock	2	see L01-09
7/2/2009	HB	11-08	6955188.65	2053066.73	L. penstock	2	No
5/8/2009	KW	12-08	6961361.85	2048685.29	Road	3	No
5/8/2009	SP, HB	13-08	6963202.58	2046813.86	U. penstock	2	No
5/28/2009	CHT	14-08	6971492.55	2043707.46	Road	1	No
5/22/2009	SP	15-08	6975830.42	2043491.32	Canal - 5	3	Complete
5/27/2009	HB	16-08	6983322.41	2040391.83	Road	2	No
5/22/2009	OXI, SP	17-08	6985525.52	2039178.79	Canal - 4	2	Good
5/28/2009	HB, SP	18-08	6986373.03	2040323.36	Road	2	Good
5/28/2009	HB, KW	19-08	6986740.71	2040777.22	Road	2	Good
5/28/2009	HB, SP	20-08	6987091.28	2040986.55	Road	2	Good
5/28/2009	HB, BT	21-08	6987696.98	2040910.37	Road	2	Good
5/28/2009	HB	22-08	6988102.93	2040756.85	Road	2	Moderate
5/28/2009	MED, KW	23-08	6989462.27	2041443.94	Road	1	Good
5/28/2009	HB	24-08	6989867.32	2042125.28	Road	2	Good
5/28/2009	BT	25-08	6991666.38	2042720.19	Road	2	No
6/16/2009	HB	26-08	6997324.69	2043108.91	Canal - 3	2	No
6/16/2009	SP, HB	27-08	6997474.07	2043534.68	Canal - 3	2	Moderate
6/16/2009	SP, HB	28-08	6997350.2	2043586.03	Canal - 3	2	No
6/11/2009	MULTIPLE	29-08	6997871.66	2043793.63	Road	1	No
6/11/2009	TA	30-08	6997715.6	2044783.6	Road	2	No
6/11/2009	TA	31-08	6998069.87	2045590	Road	2	No
6/11/2009	TA	32-08	6998807.15	2045932.01	Road	2	No
6/16/2009	SP, HB	33-08	6999613.1	2046520.61	Canal - 3	2	Moderate
6/16/2009	KW, BT	34-08	7000965.97	2044277.99	Road	3	No
7/16/2008	RIP	35-08	7008388.13	2043144.25	Road	2	see L07-09
6/25/2009	CHT, SC	36-08	7024182.79	2044078.51	Road	1	No
6/25/2009	CHT, RIP, SC	37-08	7024476.75	2044556.35	Road	1	No

6/23/2009	SP, SB	38-08	7025143.3	2044421.83	Canal - 1	3	Moderate
6/25/2009	CHT, SC	39-08	7025260.04	2044718.29	Road	1	Moderate
6/23/2009	OXI, KW	40-08	7038988.85	2043926.52	Canal - 1	3	Complete
6/23/2009	SP	41-08	7040924.83	2044986.97	Diversion D.	1	Good
6/30/2009	WM	42-08	7119995.7	2024581.53	Caples L..	3	Complete
6/30/2009	BT	43-08	7123665.79	2022339.67	Caples L.	2	Mis-ID
6/30/2009	BT, WM	44-08	7097977.02	2011316.78	Silver L.	3	No
5/22/2009	SP	45-08	6967150.56	2044448.8	Canal - 5	2	Good
7/8/2009	SP, KW	46-08	6965365.41	2045946.49	Forebay	3	No
6/23/2009	MULTIPLE	47-08	7040985.84	2045030.6	Diversion D.	1	No
6/23/2009	OXI	48-08	7038113.23	2044064.46	Canal - 1	2	No
6/30/2009	WM	49-08	7113897.88	2023827.66	Caples L.	3	No
6/11/2009	OXI	50-08	6992607.94	2042172.70	Canal - 4	3	No
5/8/2009	HB	01-09	6952562.95	2050890.11	Road	3	No
7/2/2009	SC	02-09	6957365.66	2051364.58	Surge	3	No
5/27/2009	HB	03-09	6983074.93	2040538.27	Road	3	No
5/27/2009	HB	04-09	6985158.77	2038541.74	Road	3	No
6/11/2009	OXI, HB	05-09	6992804.44	2042087.23	Canal - 4	3	No
6/16/2009	BT	06-09	7005496.18	2042673.45	Canal - 3	3	No
6/18/2009	CHT	07-09	7009298.52	2042163.42	Road	1	No
6/18/2009	BT	08-09	7010098.66	2039555.01	Road	3	No
6/16/2009	CHT	09-09	7007523.92	2044300.18	Plum Siphon	1	No
6/23/2009	KW	10-09	7035021.59	2043971.73	Canal - 1	3	No
6/30/2009	WM	11-09	7097898.36	2010048.13	Silver L.	2	No

*Values could be: Complete, Good, Moderate or No (no weed control observed).

Table 5. Priority List of Linear Occurrences

Collection Date	Weeds	Length	MAP ID	Location	Priority	Control*
5/8/2009	MULTIPLE	221	L01-08	Road	2	No
5/8/2009	KW, HB	504	L02-08	Road	2	Poor
5/8/2009	HB, BT, SP, KW	79	L03-08	U. penstock	2	No
5/8/2009	HB,SP, BT	408	L04-08	U. penstock	2	No
5/8/2009	BGG,BT, SP	311	L05-08	U. penstock	1	No
7/8/2009	SB	98	L06-08	Forebay	1	No
5/22/2009	BT, SC	297	L07-08	Canal - 5	2	No
5/22/2009	BT, SC,WM	367	L08-08	Canal - 5	2	Moderate
5/22/2009	SP, KW	133	L09-08	Canal - 5	2	Good
5/22/2009	OXI, BT	151	L10-08	Canal - 4	2	Complete
5/22/2009	OXI, KW	464	L11-08	Canal - 4	2	Complete
5/27/2009	HB, BT, KW	1063	L12-08	Road	1	No
5/18/2009	HB	171	L13-08	Road	2	No
5/28/2009	SP, HB, BT	545	L14-08	Road	1	Good
5/28/2009	HB	262	L15-08	Road	2	Moderate
6/16/2009	OXI	95	L16-08	Canal - 3	3	Complete
6/11/2009	MULTIPLE	940	L17-08	Road	1	No
6/16/2009	SP, HB	144	L18-08	Canal - 3	2	No
6/16/2009	SP	95	L19-08	Canal - 3	2	Moderate
6/11/2009	CHT, TA, BT	308	L20-08	Road	1	No
6/11/2009	MULTIPLE	630	L21-08	Road	1	No
6/11/2009	MULTIPLE	725	L22-08	Road	1	Good
6/11/2009	TA, BT	20	L23-08	Road	2	No
6/11/2009	TA, BT	64	L24-08	Road	2	No
6/18/2009	BT	188	L25-08	Road	3	No
6/25/2009	SC, CHT,KW,RIP	1014	L26-08	Road	1	Moderate
7/2/2009	KW, SC,CHT	225	L27-08	Canal - AC	1	Good
6/25/2009	MULTIPLE	866	L28-08	Road	1	Poor
6/25/2009	CHT, KW,TA	741	L29-08	Road	1	Moderate
6/25/2009	CHT, SP,KW,SC	340	L30-08	Road	1	Good
6/23/2009	CHT	325	L31-08	Alder crk	1	Poor
6/25/2009	CHT, BT SC,WM	237	L32-08	Road	1	Poor
6/23/2009	KW, WM	155	L33-08	Canal - 1	3	Good
6/23/2009	ST, SW, CHT	193	L34-08	Canal - 1	1	Good
6/23/2009	SW, CHT	201	L35-08	Canal - 1	1	Moderate
7/2/2009	HB,CHT,SW	418	L01-09	L. penstock	1	No
7/2/2009	KW	2373	L02-09	U. penstock	3	No
5/8/2009	HB, SP	141	L03-09	U. penstock	3	No

7/8/2009	MULTIPLE	46	L04-09	Forebay	2	No
7/8/2009	HB	328	L05-09	Forebay	2	No
5/27/2009	SC	167	L06-09	Road	3	No
6/18/2009	RIP, CHT	1845	L07-09	Road	1	No

*Values could be: Complete, Good, Moderate or No (no weed control observed).

Project Facilities

A brief summary of what was found at each project facility surveyed in 2009 is presented below. The data sheets in Appendix C, along with the photos in Appendix B (photos are in digital format only), provide more detailed information about each occurrence.

Lake Aloha

Lake Aloha was surveyed on July 21. The lake is within Desolation Wilderness at approximately 8,000 feet. The areas around the auxiliary dams, the main dam, and other areas where work has occurred as part of Project 184, were all surveyed. No incidences of noxious weeds were observed during the survey.

Echo Lake and Echo Conduit

Echo Lake was surveyed on July 25. The parking lot, dam area, and road down to the store and boat ramp were surveyed. The entire conduit, including the piped and open ditch sections, up to the outlet into the creek, was surveyed. The survey involved walking along the conduit and observing the maintained area immediately adjacent to the conduit for noxious weeds. No incidences of noxious weeds were observed during the survey.

Caples Lake

Caples Lake was surveyed on June 30. Facilities surveyed include both dams, the parking area near the overflow spillway, the area around the Quonset hut, and the day-use parking area for Woods Creek fishing access. A few individual woolly mullein plants were observed near the dam and overflow channel on the west side of the lake. The lake tender's site, which is the future site of the new boat ramp facility, was under construction and was not surveyed. The woolly mullein observed at this site has been eradicated due to construction. At the Woods Creek Fishing Access, the patchy occurrences of bull thistle surrounding the parking lot observed last year are actually Anderson's thistle (*Cirsium andersonii*), a native species. This occurrence does not need treatment.

Silver Lake

Silver Lake was surveyed on June 30. The facilities surveyed include the dam and outlet area, the parking area and land surrounding the former Kay's Resort, the road and parking area for the Sandy Cove day-use area, and the area surrounding a small structure at the corner of Highway 88 and Kit Carson road leading to the Fergusson point day-use area. The incidental occurrence of woolly mullein (5-10 plants) observed near the small structure at the corner of Highway 88 and Kit Carson Road in 2008 was absent; however, a few individual bull thistles had taken their place. In the gravel area between the main structure at Kay's and the edge of the lake there were scattered sweet clover and mullein. This occurrence will likely be impacted by the demolition work planned for Kay's Resort and should be evaluated following this work.

El Dorado Diversion Dam

The El Dorado Diversion Dam, near Kyburz, was surveyed on June 23. The facilities surveyed at this site include a short access road from Highway 50, the fish ladder and associated structures, and the gate area on the south side of the river. The site has some large areas of disturbed soil near the fish ladder along the north bank of the river. Point 47-08 contains a mixture of sweet pea, bull thistle, yellow starthistle, sweet clover, mustard, cheat grass and woolly mullein covering approximately 50% of 0.25 acre of disturbed ground. Sweet pea is the dominant weed but there are numerous other weeds, including starthistle and cheat grass, both List A species. Just downstream (west) of point 47-08, point 41-08 contains primarily sweet pea. In 2008, woolly mullein and ox-eye daisy were scattered throughout this area but appear to have been controlled by physical and/or chemical means. Sweet pea covers 5-10% of this 0.25 acre infested area.

Alder Creek Diversion Dam and Feeder

The Alder Creek Diversion Dam and Feeder were surveyed on June 23. This site begins at the Alder Creek Siphon at Camp 1 and continues along the contour toward the diversion dam, up the canyon, approximately 1 mile away. Some brush control was performed along this pipe between 2008 and 2009. Overall, there were incidental occurrences of sweet pea, Klamath weed, and rush skeletonweed along the feeder pipe (just a few isolated plants of each). Cheat grass is present near the start of the pipe at Camp 1 for approximately 350 feet along the pipe, as it was during the 2008 survey. It is scattered and patchy, comprising 1-5% of the canopy.

El Dorado Forebay

The reservoir was surveyed on May 8 and July 8. The areas surveyed include the dam and dam face; the parking and day-use area; and the grounds around the south side of the reservoir from the point where the canal enters the reservoir to the point where the canal exits the reservoir. The primary occurrence is a large area beginning at the toe of the dam on the north end of the reservoir. There is a significant infestation of Himalayan blackberry with perennial sweet pea interspersed throughout. The overall size of the area infested is approximately 0.25-0.33 acre, with the weeds comprising approximately 35% of the total area. The ground was very wet at the time of the survey due to a small seep with running water. The area appears to be a wetland, containing a variety of hydrophytic vegetation, including willows (*Salix sp.*), alders (*Alnus rhombifolia*), sedges (*Carex sp.*), and reeds (*Juncus sp.*). The use of herbicides in this potentially sensitive area is not recommended.

In the day-use area there is a moderate infestation (5-25% of the cover) of perennial sweet pea between Forebay Road and the parking area. The weed density appears to have increased at this location between 2008 and 2009. Just to the east of the parking area, between Forebay Road and the reservoir, there is a small group of scotch broom, a "List A" species. Several shrubs are present in a patchy distribution, covering about 500-1,000 square feet. Because this species is highly invasive it should be eradicated where observed. This population, observed in the 1999 survey, still remains, so removal efforts should be continued.

Two new infestations were mapped in 2009, L04-09 and L05-09. These are linear patches along the northeast shore of the reservoir. The primary species are Himalayan blackberry and ox-eye daisy. The blackberry is very dense in places along the shore. Because of the proximity to the

reservoir, these occurrences may best be controlled through physical means. Use herbicides with caution.

El Dorado Powerhouse

The powerhouse, located at the terminus of the Penstock along the South Fork American River, was surveyed on May 8 and July 2. There are some Himalayan blackberry, sweet clover, and woolly mullein along the road near the powerhouse. The overall extent is relatively minor. Given the proximity to the river and the potential for herbicides to enter a major waterway, special care should be taken when controlling this occurrence. Just above the powerhouse, along the lower penstock, there is a significant amount of Himalayan blackberry.

El Dorado Canal

Beat 1

This portion of the canal was surveyed on July 2. Beat 1 extends from the El Dorado diversion dam down to the Alder Creek Siphon at Camp 1 and includes large areas affected by the Cleveland Fire. Two minor noxious weed occurrences near Carpenter Creek, identified in 2008, include ox-eye daisy and Klamath weed. One of these, point 40-08, has been eradicated. A new, minor occurrence of Klamath weed was mapped this year near an un-named creek just east of 30 Milestone access road. The next two occurrences are in the burned area and include two List A species, rush skeletonweed and starthistle scattered in a strip along the canal bench. The List A weed density at both of these locations has been significantly reduced as a result of treatments in 2008.

El Dorado Tunnel

This short stretch of canal lies between the Alder Creek Siphon and the El Dorado Tunnel. In 2008, there were significant numbers of sweet clover and Klamath weed, especially near the gate. Weed control treatments have significantly reduced the density of weeds along this section (cover photo).

Beat 2

Beat 2 was surveyed on July 2. This is a very short stretch of canal between the Mill-Bull Tunnel and the Plum Creek Siphon. One incident of cheat grass was identified around the facilities where the canal enters the Plum Creek Siphon. No other occurrences were identified.

Beat 3

Beat 3 was surveyed on June 24. This section of canal begins at the outlet of the Plum Creek Siphon at Camp X and ends at the outlet of the Esmeralda Creek Tunnel. This section of canal has eight mapped occurrences, most of which are Himalayan blackberry and sweet pea. Two of the occurrences include ox-eye daisy as well. Four occurrences, L18-08, L19-08, 28-08, and 29-08 are all near Ogilby Creek and all are fairly close together and contain the same mixture of blackberry and sweet pea. Herbicide treatments along the canal have reduced the density of weeds at these locations. Caution should be used when treating these occurrences due to their proximity to the creek. The other mapped occurrences are relatively minor patches of "List B" species. L16-08, at the west end of beat 3, has been completely eliminated.

Beat 4

Beat 4 was surveyed on June 23 and 24. This section of canal begins at the outlet of the Esmeralda Creek Tunnel and ends where the canal crosses under Highway 50. Few incidents (5) of noxious weeds were observed in this portion of the canal, and they are all relatively small areas of "List B" species. They include ox-eye daisy, sweet pea, Klamath weed, and bull thistle. The linear occurrences, L10-08 and L11-08, were completely controlled by herbicide treatments along the canal.

Beat 5

Beat 5 was surveyed on June 19 and 23. This section of canal begins where the canal crosses Highway 50 and ends at Forebay Reservoir. Five locations with noxious weeds were mapped in 2008 and no additional sites were mapped in 2009. Near Camp 5 there was a large amount of sweet pea along the fences around the yard and extending down to the canal in a few places (L09-08 and 15-08). The weeds along the canal have been greatly reduced but there are still some very dense patches of sweet pea between the canal and the Camp 5 facility.

There are two very weedy areas along two separate, recently graded and graveled access roads leading down to the canal. One is near Camp 5 (L8-08) and contains some heavy cover of sweet clover and bull thistle, among a variety of other weeds, primarily along the slope between the road and the canal (20 feet wide by 300-350 feet long). The weeds here have been reduced but additional treatment is necessary. The second, similar occurrence (L07-08) of the same community of weed species is located along an access road near the canal just before Bullion Bend and has not been treated. At point 45-08, near the tunnel entrance at the end of Beat 5, there was a large patch of sweet pea in 2008; it is now almost entirely under control.

Upper Penstock

The upper penstock, extending from Forebay Reservoir to the surge chamber, was surveyed on May 8 and July 2. A total of six occurrences were mapped along this portion of the penstock. The most significant, high priority area of noxious weeds occurs in the section from the beginning of the penstock at Forebay to the Forebay Road undercrossing. This area contains a heavy infestation of barbed goatgrass, a "List A" species, along with several other noxious weed species. This highly invasive species appears to be thriving in the disturbed area along the penstock and has the potential to move into adjacent disturbed land, since this area is more populated than other areas within the project.

Several other areas of sweet pea, Himalayan blackberry, bull thistle, and Klamath weed were documented between Forebay Road and the tunnel. Some of these occurrences may extend outside the maintenance responsibility of EID. The blackberry is very thick in two occurrences, but is located primarily down-slope from the penstock bench. One new linear occurrence (L03-09) of the same group of weeds was mapped in 2009.

In addition, L2-09, located west of the tunnel, was recorded this year. This is a long line of very scattered, low density Klamath weed which existed in 2008. This is such a common weed and it is scattered so lightly along this section of the penstock that it did

not warrant mapping in 2008. We chose to include it this year as a low priority target for control.

Lower Penstock

The lower penstock refers to the section of penstock between the surge chamber and the powerhouse. The site is very steep and exposed along a northwest facing slope. A total of three occurrences were mapped along this portion of the penstock. Some brush clearing and herbicide treatment were performed along this section of the penstock between the 2008 and 2009 surveys. Klamath weed, cheatgrass, and rush skeletonweed are scattered throughout the lower half of this section (L1-09), comprising 5-15% of the cover, an increase from last year. Last year's point 10-08 is included in the newly mapped L1-09. The blackberry along the pipe has been reduced but the other species have slightly increased following brush control. Much of the skeleton weed is growing along the rail tracks. The patch of blackberry at point 11-08 looks unchanged from 2008. A few individual rush skeletonweed and Klamath weed were observed on the upper half of this section and did not warrant mapping. The patch of sweet clover at the surge chamber was included as a new point (02-09)

Licensee-maintained roads:

Table 3, above, summarizes the noxious weeds observed along the Project 184 licensee-maintained roads. A total of 15 roads had some noxious weeds, but most were relatively minor occurrences. Seven roads have "List A" noxious weeds, primarily cheatgrass, but medusa-head grass and starthistle are also present at the El Dorado Tunnel and Camp P roads, respectively. Himalayan blackberry is abundant along some roads, such as the Powerhouse Road and Highway Cut Road. Treatment along these roads has significantly reduced the blackberry in places but additional treatments are necessary.

A summary of the roads treated during the intervening period between 2008 and 2009 is included in Table 3 above. The treatments performed along the roads between the surveys were not directed at removing noxious weeds, rather they were standard vegetation maintenance. Treatments were by mechanical (mastication or weed trimmer) or chemical means. The data sheets and photos in Appendices B and C provide more information about each roadside occurrence.

Control Methods

Weed control can be accomplished through a variety of methods, but an approach that integrates a variety of techniques usually achieves more complete, longer-lasting control. The Plan outlines general guidelines for control actions and includes *Integrated Weed Management Guidelines* in Appendix D (EID 2008). In addition, the Integrated Pest Management Program for Project 184 (IPMP) provides more detailed guidance on weed control. The methods, with respect to herbicide use, described in the IPMP document must be adhered to for Project 184 to be in compliance with the FERC license. In addition, all herbicide applications must be recommended by a DPR-licensed Pest Control Advisor and supervised by a licensed, Qualified Applicator.

As described in the IPMP, all known locations of rare plants must be flagged with a 100-foot buffer and herbicide treatments must not be made within this zone. Figure 2 displays the locations of rare plants identified in the Project 184 boundary.

The section below describes some additional information about the control of specific weed species. Research has shown that certain treatments are more effective than others. Where information is available and applicable, these techniques are described below. Several keys to an effective integrated weed control program are:

1. Monitor weed populations and success of treatments regularly.
2. Re-seed disturbed areas with a fast growing cover crop or replant native species to out-compete weeds.
3. Allow and encourage native species to re-colonize an area after disturbance (this may conflict with vegetation management goals in some places).
4. Reduce the amount of herbicide used and/or use herbicides with selective modes of action.
5. Apply herbicide treatments at appropriate times to maximize their efficiency.

Barbed goatgrass

Control of this species will require several years of late winter/early spring sprays (there are no selective herbicides for this species). Re-seeding with clover or another grass species is beneficial (Davy 2008).

Cheatgrass

Mowing or trimming cheatgrass can reduce seed production if it occurs within one week of flowering. Herbicide applications will control cheatgrass if applied in early spring, when temperatures have warmed sufficiently but before the grass is matured (there are no selective herbicides for this species). If a perennial crop is established shortly after spraying or mowing cheatgrass, control will be improved (Bosard et.al. 2000).

Yellow starthistle

Starthistle can be controlled effectively with a combination of physical and chemical methods. Mowing or trimming should be done when 2-5 % of the flowering heads are blooming and may need to be repeated later in the season. Repeated mowing and revegetation with subterranean or rose clover provides good control. Several herbicides are available, but clopyralid is selective and provides excellent pre- and post-emergence control when applied early (December to April) (Bosard et.al. 2000).

Scotch broom

Cutting Scotch broom off at the base in September- October reduces re-sprouting and is effective in our region. If cut plants are allowed to dry on-site and burned in place in late May the fire destroys the shallow seeds and causes other seeds to re-sprout. The seedlings then perish during the summer dry season. Triclopyr applied to basal bark using a wick and low volume is effective for small areas such as the occurrence at Forebay. Because of the extensive seedbank, all treatment needs to be monitored closely and new seedlings destroyed promptly.

Ox-eye daisy

Several herbicides work for this species, but resistance to MCPA, 2,4-D, and dicamba has been observed (Bossard et.al. 2000). If non-chemical methods are desired, mulching heavily (3-4 inches compacted) with rice straw has been shown to be effective. Early season monitoring is necessary to make sure plants are not growing through the mulch.

Klamath weed

Where the Klamath weed leaf beetle, *Chrysolina quadrigemina*, has been introduced, this noxious weed has been prevented from rapidly spreading and invading in most cases. The beetle is present in the project area.

Himalayan blackberry

This weed requires special attention. It is often near water, so herbicide applications may not be possible or need to be done with caution. It vigorously re-sprouts when cut and herbicide applications often will not completely kill the roots, which subsequently re-sprout. Consult with a PCA regarding herbicide use, but in general, applications should be made in late summer – fall when nutrient transport to the roots is occurring. If an area is physically cleared, the new growth should be allowed to reach approximately 18 inches before a follow-up herbicide application. Caution: Excessive moisture stress may reduce herbicide effectiveness. Replanting an area recently treated for blackberry with a fast-growing native species that can shade it out helps prevent re-establishment of this species.

Others

The other weed species encountered can be controlled with standard herbicide use or other standard means and no specific control methods are recommended.

IV. Summary

Data was collected for a total of 100 occurrences throughout the Project 184 facilities and licensee-maintained roads. There were 7 new linear occurrences and 11 new point locations; however, 2 new linear occurrences actually replace 2 point occurrences from 2008 (10-08 and 35-08). One occurrence, the Woods Creek fishing access, was eliminated because the weed species was mis-identified as *Cirsium vulgare* in 2008 and it is actually *Cirsium andersonii*. There were relatively few occurrences of “List A” noxious weed species. Approximately 25 occurrences of “List A” species were observed along 7 roads and 8 facilities (Forebay, Diversion Dam, Alder Creek Feeder, and 5 sections of the Canal; Beat 1, Beat 2, El Dorado Tunnel, and the upper and lower penstock).

The most common “List A” species within the project area is cheatgrass, followed by starthistle. Cheatgrass is widespread in the region and the apparent increase in the number of occurrences in the 2009 data is primarily due to increased awareness of the species rather than a rapid spread of cheatgrass from 2008 to 2009. Starthistle infestations within the project are not large or dense at any location. Several infestations of starthistle on the canal have been greatly reduced over the last year. The other “List A” species are found only at one or two locations. The barbed goat grass along the upper penstock near Forebay Reservoir is significant in that, according to available information found in the Plan, it was not identified in the original 1998/1999 weed survey for the project. All of the other species were previously documented in the project area. The barbed goat grass covers a fairly large area and should be targeted for control and monitored closely.

As in 2008, the most common and abundant noxious weeds were Himalayan blackberry, perennial sweet pea, and ox-eye daisy. Of these, Himalayan blackberry is the most problematic in terms of spread and effect on native species. It is widespread throughout the region and is very difficult to control. Where it invades riparian areas, it out-competes native species, often forming dense, impenetrable thickets. As described above, a multi-pronged approach with follow-up treatments is often required to control this difficult to manage species. Partial control of this species was noted at the following locations: powerhouse road, highway cut road, the lower penstock, the upper penstock, and Beat 3 of the Canal.

With the implementation of the IPMP this year, high priority noxious weed occurrences will be targeted for control. The GIS database and map prepared this year will allow pest control managers to easily locate and treat the 2008-2009 occurrences. By comparing next year’s (2010) datasheets and photos with the 2008-2009 data, treatments done this year can be evaluated and EID staff can make changes to the overall weed control strategy. Eventually, the GIS database will allow resource managers to track the distribution and spread of noxious weeds at Project 184 facilities over time.

Recommendations

Currently the Plan calls for annual noxious weed monitoring. Given the intensity of the effort required to monitor the entire project area we propose that an amendment be made to the Noxious Weed Plan to allow for surveys to be carried out at a maximum of every 2 years or even longer intervals following the 2010 surveys. Observations of the first 2 years suggest that the weed populations are not changing very much from year to year. Perhaps yearly updates on the success of control efforts could be made as opposed to complete yearly surveys. A formal request to change the frequency of monitoring will be submitted to the FS for review and approval.

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APPENDIX A

Figures



Created By: Ethan Koenigs
Date: 10/06/09

Figure 1. Regional Location and Vicinity

2009 Noxious Weed Survey
Project 184 Roads and Facilities

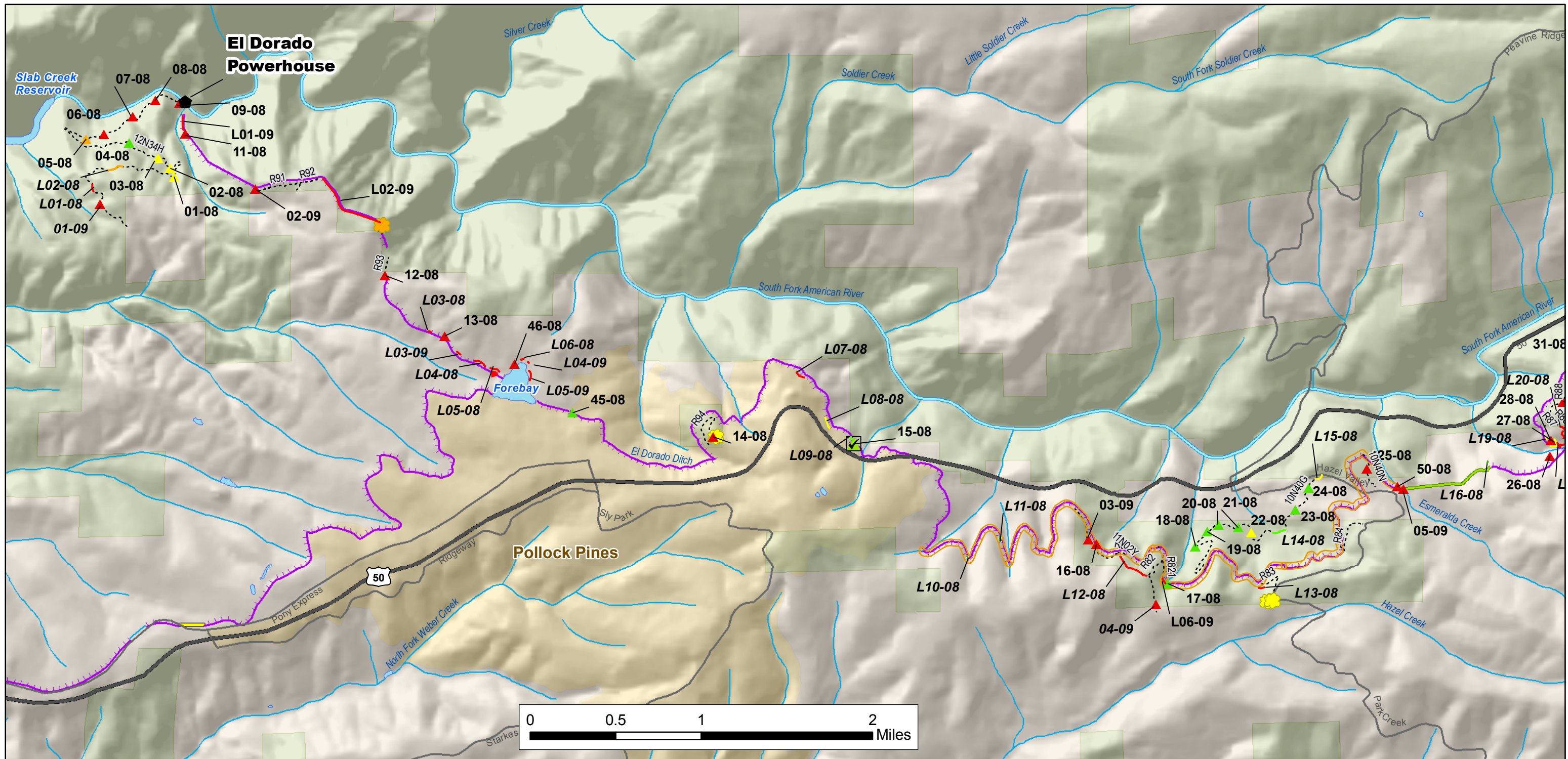


Figure 2. Noxious Weed and Rare Plant Occurrences

2009 Survey - FERC Project 184
Page 1 of 3



Noxious weed points		Noxious weed lines		Rare Plants		Hydrology	
	Complete		Complete		Red Hills Soap Lily		Canal/Ditch
	Good		Good		Yellow-burr Navaretia		Connector
	Moderate		Moderate		Pleasant Valley Mariposa Lily		Pipeline
	Poor		Poor		Pacific Yew		Stream/River
	None		None		Administrative Boundaries		Highway
			Noxious weed area		USFS Land		Major Road
					Communities		Licensee Maint'd Roads
							USFS Roads



Date: 10/06/09 Created By: Ethan Koenigs

N

1 inch = 3,000 feet
NAD 1983 State Plane California II Feet

Prepared By:

Water and Energy Consulting Services

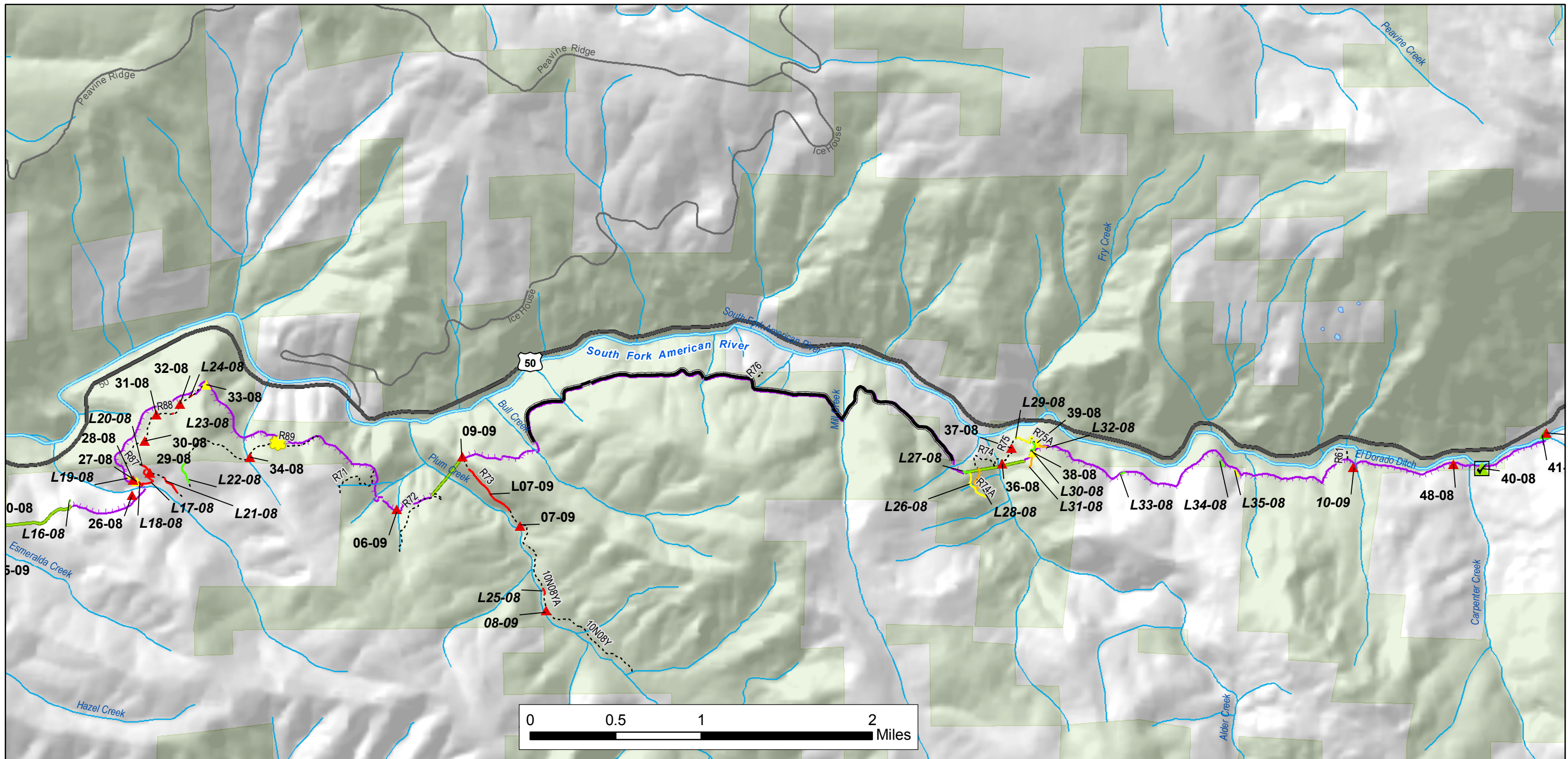


Figure 2. Noxious Weed and Rare Plant Occurrences

2009 Survey - FERC Project 184

Page 2 of 3



Noxious weed points

- Control**
- ☑ Complete
 - ▲ Good
 - ▲ Moderate
 - ▲ Poor
 - ▲ None

Noxious weed lines

- Control**
- Complete
 - Good
 - Moderate
 - Poor
 - None
 - Noxious weed area

Rare Plants

- 🌸 Red Hills Soap Lily
- 🌸 Yellow-burr Navaretia
- 🌸 Pleasant Valley Mariposa Lily
- 🌳 Pacific Yew

Administrative Boundaries

- USFS Land
- Communities

Hydrology

- Canal/Ditch
- Connector
- Pipeline
- Stream/River

Roads

- Highway
- Major Road
- Licensee Maint'd Roads
- USFS Roads



Date: 10/07/09 Created By: Ethan Koenigs



1 inch = 3,000 feet
NAD 1983 State Plane California II Feet

Prepared By:



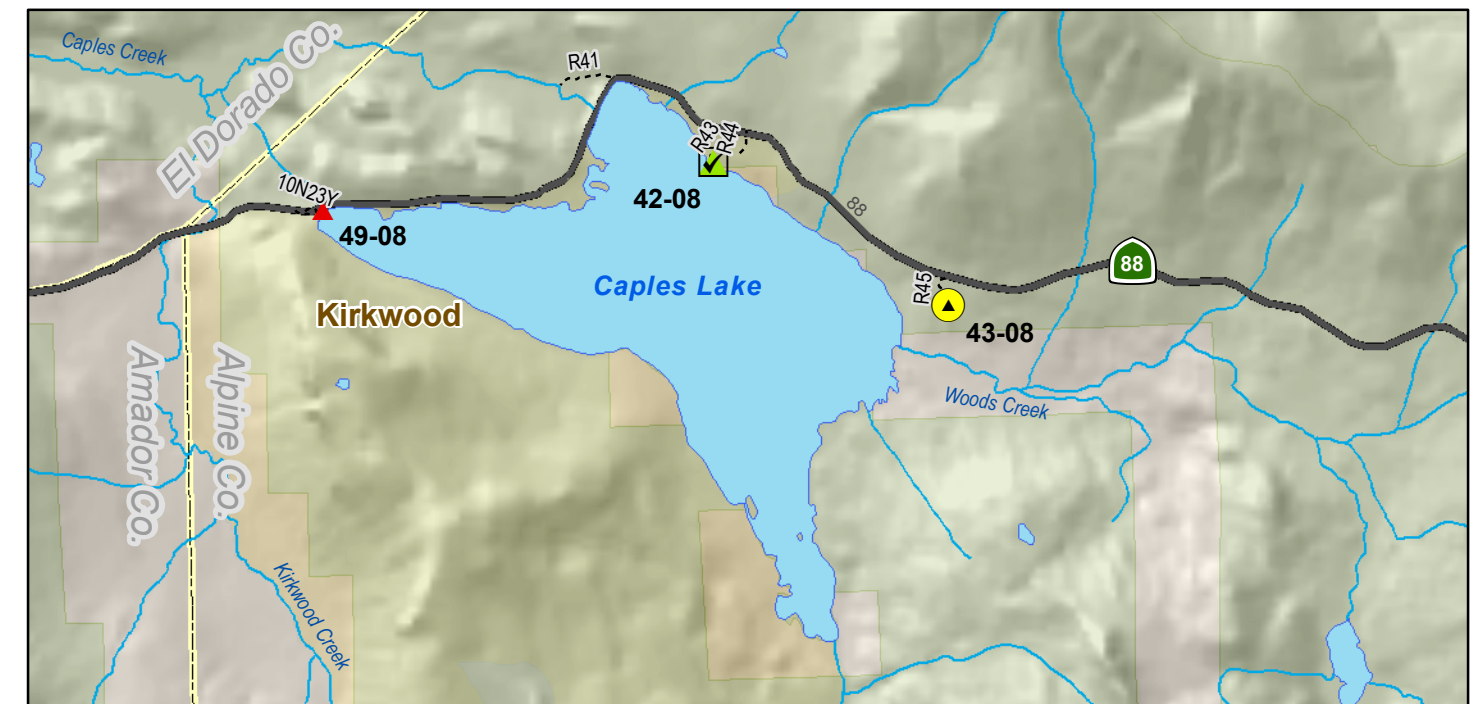
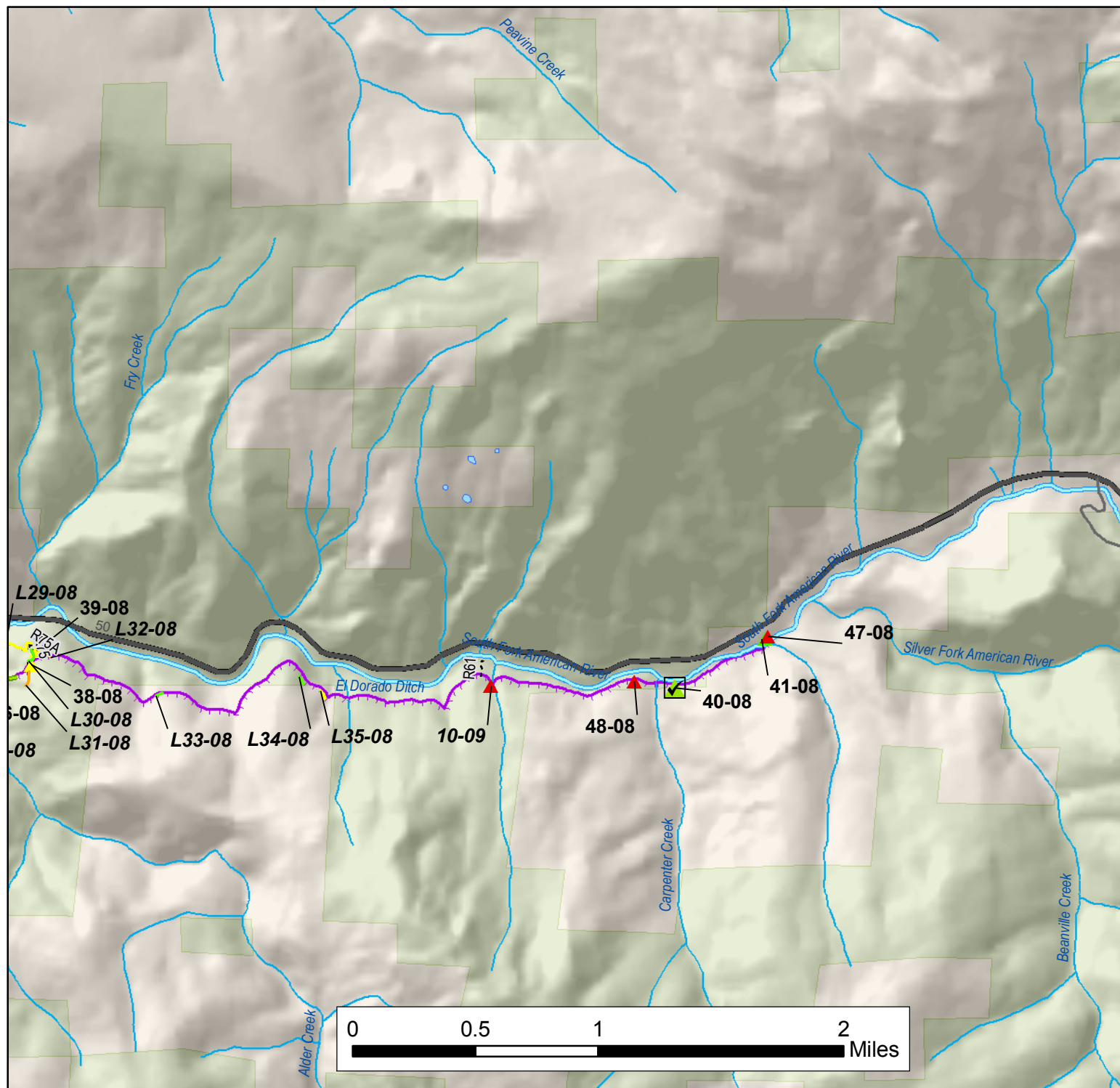


Figure 2. Noxious Weed and Rare Plant Occurrences

2009 Survey - FERC Project 184
Page 3 of 3



Noxious weed points

- Control**
- ☑ Complete
 - ▲ Good
 - ▲ Moderate
 - ▲ Poor
 - ▲ None
 - ▲ Mis-identified 2008

Noxious weed lines

- Control**
- Complete
 - Good
 - Moderate
 - Poor
 - None
 - Noxious weed area

Rare Plants

- 🌸 Red Hills Soap Lily
 - 🌸 Yellow-burr Navaretia
 - 🌸 Pleasant Valley Mariposa Lily
 - 🌳 Pacific Yew
- Administrative Boundaries**
- 🌲 USFS Land
 - 🏘 Communities

Hydrology

- Canal/Ditch
- Connector
- Pipeline
- Stream/River

Roads

- Highway
- Major Road
- Licensee Maint'd Roads
- USFS Roads



Date: 10/06/09 Created By: Ethan Koenigs



1 inch = 3,000 feet
NAD 1983 State Plane California II Feet

Prepared By:



APPENDIX B

Photos

2009 Annual Noxious Weed Monitoring Report: 05_08_2009



IMG_0802



IMG_0803



IMG_0804



IMG_0805



IMG_0812



IMG_0813



IMG_0814



IMG_0815



IMG_0816



IMG_0817



IMG_0821



IMG_0822



IMG_0823



IMG_0824



IMG_0825



IMG_0826



IMG_0829



IMG_0831



IMG_0834



IMG_0835



IMG_0836



IMG_0837



IMG_0838



IMG_0839



IMG_0840



IMG_0849



IMG_0850

2009 Annual Noxious Weed Monitoring Report: 05_22_2009



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IMG_0901



IMG_0902



IMG_0908



IMG_0909



IMG_0910



IMG_0911



IMG_0914



IMG_0915



IMG_0916



IMG_0921



IMG_0922



IMG_0923



IMG_0924



IMG_0925



IMG_0926

2009 Annual Noxious Weed Monitoring Report: 05_28_2009



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IMG_0933



IMG_0934



IMG_0935



IMG_0936



IMG_0937



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IMG_0939



IMG_0940



IMG_0941



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IMG_0943

2009 Annual Noxious Weed Monitoring Report: 06_11_2009



IMG_0975



IMG_0976



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2009 Annual Noxious Weed Monitoring Report: 06_16_2009



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IMG_1003



IMG_1004



IMG_1005



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IMG_1010



IMG_1011



IMG_1014

2009 Annual Noxious Weed Monitoring Report: 06_23_2009



IMG_1018



IMG_1019



IMG_1020



IMG_1021



IMG_1022



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IMG_1025



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IMG_1036

2009 Annual Noxious Weed Monitoring Report: 06_25_2009



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IMG_1075



IMG_1076

2009 Annual Noxious Weed Monitoring Report: 06_30_2009



IMG_1038



IMG_1039



IMG_1040



IMG_1044



IMG_1051



IMG_1054



IMG_1055



IMG_1056



IMG_1057



IMG_1058



IMG_1059



IMG_1060



IMG_1061



IMG_1062



IMG_1077



IMG_1098



IMG_1099



IMG_1100



IMG_1101



IMG_1102

APPENDIX C

Data Sheets

General Information

ID: 01-09

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Powerhouse Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	150	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Ponderosa Pine, Sugar Pine, Deer Brush, Annual Grasses, Manzanita, Poison Oak.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest exposure		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>		
Weed common name(s)	Himalayan Blackberry		

Presence

Presence or Absence	Present (all)		
Treated	Unknown		
Infested area	150	sq. ft.	
Canopy Cover	25-50%		
Appearance	New growth		
Distribution pattern	Clumpy		
Photo documentation	802		

Weed Location

Geographic location (ID)	01-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Outside edge of road; small occurrence.		

General Information

ID: 01-08

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area		sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Big-leaf Maple, Canyon Live Oak, California Hazelnut.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>	<i>Cirsium vulgare</i>
Weed common name(s)	Himalayan Blackberry	Bull Thistle

Presence

Presence or Absence	Present (all)	
Treated	Unknown	
Infested area	1,000	sq. ft.
Canopy Cover	5-25%	<1%
Appearance	Germ'g./early growth	
Distribution pattern	Clumpy	Scattered patchy
Photo documentation	812	

Weed Location

Geographic location (ID)	01-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	1-5m	
Location description	At a curve in the road at a drainage. Update: Approximately the same area of weeds as 08; however recent clearing along the shoulder has reduced HBB along the road; still much downslope from road.	

General Information

ID: L02-08

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	5000	sq. ft.
Disturbances & impacts	Roadside maintenance	Other man-made disturbance
Associated species	Douglas Fir, Canyon Live Oak, Black Oak, Big-leaf Maple, California Hazelnut, Poison Oak.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northeast exposure - full sun	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Hypericum perforatum</i>
Weed common name(s)	Himalayan Blackberry	Klamath Weed

Presence

Presence or Absence	Present (all)	
Treated	Growing Back	
Infested area	5,000	sq. ft.
Canopy Cover	1-5%	
Appearance	Germ'g./early growth	
Distribution pattern	Scattered patchy	Linear
Photo documentation	805	

Weed Location

Geographic location (ID)	L02-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Below power lines. Update: HBB along road has been cut back but is beginning to resprout. Klamath Weed is the same as 2008.	

General Information**ID: 01-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area		sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Big-leaf Maple, Canyon Live Oak, California Hazelnut.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Cirsium vulgare</i>
Weed common name(s)	Himalayan Blackberry	Bull Thistle

Presence

Presence or Absence	Present (all)	
Treated	Unknown	
Infested area	1,000	sq. ft.
Canopy Cover	5-25%	<1%
Appearance	Germ'g./early growth	
Distribution pattern	Clumpy	Scattered patchy
Photo documentation	812	

Weed Location

Geographic location (ID)	01-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	1-5m	
Location description	At a curve in the road at a drainage. Update: Approximately the same area of weeds as 08; however recent clearing along the shoulder has reduced HBB along the road; still much downslope from road.	

General Information**ID: 02-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	1000	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Big-leaf Maple, Pacific Dogwood.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Shady area along/near a drainage.	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan Blackberry	

Presence

Presence or Absence	Present (all)	
Treated	Not all	
Infested area	1,000	sq. ft.
Canopy Cover	1-5%	
Appearance	New growth	
Distribution pattern	Clumpy	Linear
Photo documentation	813, 814	

Weed Location

Geographic location (ID)	02-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	
Location description	Downslope of 01-08 (road switch back) near same drainage. Update: Recent roadside mastication/clearing has reduced HBB from shoulder of road previous canopy 50-75%, now 25-50% (35%).	

General Information**ID: 03-08**

Collection date (mm/dd/yyyy)	5/8/2009
Observer name(s)	Ethan Koenigs

Site Information

Site or facility name	Access Road
Site address or other description	Powerhouse Road
Ownership	
Land use type	Transportation Corridor
Invaded vegetation type	Forest
Gross Area	250 sq. ft.
Disturbances & impacts	Roadside maintenance
Associated species	Douglas Fir, Big-leaf Maple, Pacific Dogwood, California Hazelnut.
Environmental Conditions (e.g. soil conditions, exposure, etc.)	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>
Weed common name(s)	Himalayan Blackberry

Presence

Presence or Absence	Present (all)
Treated	Yes
Infested area	250 sq. ft.
Canopy Cover	5-25%
Appearance	New growth
Distribution pattern	Clumpy
Photo documentation	815, 816

Weed Location

Geographic location (ID)	03-08
Coordinate system	Ca. State Plane Zone 2
Datum	NAD83
Location data accuracy	5-15m
Location description	Downslope side of road. Update: Looks recently treated from edge of road down approximately 10-15'; HBB appears to be dying; moderate-good control

General Information**ID: 04-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	El Dorado Powerhouse	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	500	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Big-leaf Maple, Pacific Dogwood, California Hazelnut.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan Blackberry	

Presence

Presence or Absence	Present (all)	
Treated	Yes	
Infested area	500	sq. ft.
Canopy Cover	5-25%	
Appearance	Germ'g./early growth	
Distribution pattern	Clumpy	
Photo documentation	817, 821	

Weed Location

Geographic location (ID)	04-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	
Location description	Along road near a spur road fork. Update: Infestation appeared recently treated; Good control; Treatment needs to be continued down to the retaining wall. HBB along road reduced by about 50-75%.	

General Information**ID: 05-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	El Dorado Powerhouse	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area		sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Big-leaf Maple, Pacific Dogwood, California Hazelnut.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan Blackberry	

Presence

Presence or Absence	Present (all)	
Treated	Not all	
Infested area	500	sq. ft.
Canopy Cover	5-25%	
Appearance	Germ'g./early growth	
Distribution pattern	Clumpy	
Photo documentation	822	

Weed Location

Geographic location (ID)	05-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	
Location description	Near rock/fence retaining wall; downslope side also has a small linear stretch of HBB up the road from retaining wall(50'). Update: This infestation appears about the same as 2008; some reduction in occurrence extent due to roadside mastication on shoulder.	

General Information**ID: 06-08**

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Powerhouse Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	250	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Big-leaf Maple, Buckeye, California Bay Tree.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>		
Weed common name(s)	Himalayan Blackberry		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	250	sq. ft.	
Canopy Cover	25-50%		
Appearance	Germ'g./early growth	New growth	
Distribution pattern	Clumpy		
Photo documentation	823		

Weed Location

Geographic location (ID)	06-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	5-15m		
Location description	Along road on downslope side, at a slight bend in the road near a minor drainage. Update: Infestation appears about the same as 2008.		

General Information**ID: 07-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	El Dorado Powerhouse	
Site address or other description	Powerhouse Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	1,000	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Big-leaf Maple, Pacific Dogwood, Black Oak.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan Blackberry	

Presence

Presence or Absence	Present (all)	
Treated	Unknown	
Infested area	1,000	sq. ft.
Canopy Cover	25-50%	
Appearance	Germ'g./early growth	New growth
Distribution pattern	Clumpy	Scattered patchy
Photo documentation	824, 825, 826	

Weed Location

Geographic location (ID)	07-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	
Location description	Along road near a wide bend along a small drainage extending down the road for a couple hundred feet. Update: Extent appears same as 2008.	

General Information

ID: 08-08

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	El Dorado Powerhouse		
Site address or other description	Powerhouse Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	500	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Canyon Live Oak, Black Oak, California Grape.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>	<i>Hypericum perforatum</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Himalayan Blackberry	Klamath Weed	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	500	sq. ft.	
Canopy Cover	5-25%		
Appearance	Germ'g./early growth	New growth	
Distribution pattern	Clumpy		
Photo documentation	829		

Weed Location

Geographic location (ID)	08-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	5-15m		
Location description	Along road on downslope side; SMUD powerhouse visible. SP & KW conopy cover is <1%. Update: Extent of occurrence is about the same as 2008.		

General Information**ID: 09-08**

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	El Dorado Powerhouse		
Site address or other description	Powerhouse Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	1000	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Ponderosa Pine.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Very exposed sunny area; many weeds among rip rap below road.		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Melilotus alba</i>	
Weed common name(s)	Himalayan Blackberry	White Sweet Clover	

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	250	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Scattered patchy		
Photo documentation	831		

Weed Location

Geographic location (ID)	09-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	5-15m		
Location description	Along road and slope leading down to the river. Update: River is likely to close for chemical treatment. Extent of occurrence is about the same as 2008.		

General Information**ID: Area1-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Forebay Reservoir	
Site address or other description	Below face of dam.	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	0.25	acres
Disturbances & impacts	Facility Maintenance	
Associated species	Ponderosa Pine, Willow, Alder, Jucus species, Carex species, Grasses.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Wetland area	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Lathyrus latifolius</i>	<i>Cirsium vulgare</i>
Weed common name(s)	Himalayan Blackberry	Perennial Sweet Pea	Bull Thistle

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	0.25	acres	
Canopy Cover	25-50%		
Appearance	Germ'g./early growth	New growth	
Distribution pattern	Clumpy	Scattered patchy	
Photo documentation	834		

Weed Location

Geographic location (ID)	Area 1-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	At the base of the dam on the north side there is a wet area and weeds surround this area. Update: SP appears to be increasing, also some bull thistle noted.	

General Information

ID: L05-08

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	EID Penstock		
Site address or other description	Between outlet of Forebay Reservoir and Tunnel.		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	0.1	acres	
Disturbances & impacts	Pipe Maintenance		
Associated species	Ponderosa Pine, Annual Grasses, other weedy species.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Open area, fairly level.		

Weed Information**Weed Identification**

Weed genus and species	<i>Aegilops triuncialis</i>	<i>Cirsium vulgare</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Barbed goatgrass	Bull Thistle	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	0.1	acres	
Canopy Cover	25-50%		
Appearance	Germ'g./early growth	New growth	
Distribution pattern	Scattered patchy	Linear	Scattered even
Photo documentation	835		

Weed Location

Geographic location (ID)	L05-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Between Penstock and access road to base of forebay. BGG is along Penstock fairly evenly; SP and BT are patchy. Update: Appears similar to 2008.		

General Information**ID: L04-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	EID Penstock	
Site address or other description	Between Forebay reservoir and tunnel	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	0.5	acres
Disturbances & impacts	Pipe Maintenance	Other man-made disturbance tree removal
Associated species	Ponderosa Pine, Black Oak.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Very exposed.	

Weed Information**Weed Identification**

Weed genus and species	<i>Cirsium vulgare</i>	<i>Rubus discolor</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Bull Thistle	Himalayan Blackberry	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	0.5	acres	
Canopy Cover	50-75%		
Appearance	Germ'g./early growth	New growth	
Distribution pattern	Clumpy	Linear	
Photo documentation	836, 837		

Weed Location

Geographic location (ID)	L04-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Much of the HBB is downslope from the Penstock road in a disturbed area. Update: Appears the same as 2008.	

General Information

ID: L01-08

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Powerhouse Road	Section of road beneath transmission lines.	
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	4,400	sq. ft.	
Disturbances & impacts	Roadside maintenance	Other man-made disturbance	Transmission Corridor Maintena
Associated species	Douglas Fir, Sugar Pine, Manzanita, Rose Clover, Blue Wild-rye.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Full west facing exposure.		

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i> , <i>Rubus discolor</i> , <i>Hypericum perforatum</i> , <i>Lathyrus latifolius</i> , <i>Melilotus alba</i>		
Weed common name(s)	Bull Thistle, Himalayan Black Klamath Weed, Perennial Sweet Pea, White Sweet Clover		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	4,400	sq. ft.	
Canopy Cover	25-50%		
Appearance	New growth	Germ'g./early growth	
Distribution pattern	Clumpy	Scattered patchy	Scattered even
Photo documentation	803, 804		

Weed Location

Geographic location (ID)	L01-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Along road primarily on downslope side below transmission lines. Update: Appears similar to 2008.		

General Information

ID: L03-08

Collection date (mm/dd/yyyy)	5/8/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	EID Penstock		
Site address or other description	Between forebay reservoir and tunnel		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	0.1	acres	
Disturbances & impacts	Pipe Maintenance		
Associated species	Douglas Fir, Ponderosa Pine, Black Oak, Manzanita.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>	<i>Rubus discolor</i>	<i>Hypericum perforatum</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Bull Thistle	Himalayan Blackberry	Klamath Weed	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)			
Treated	No			
Infested area	0	acres		
Canopy Cover	1-5%	75-95%	1-5%	1-5%
Appearance	Germ'g./early growth	New growth		
Distribution pattern	Clumpy	Linear		
Photo documentation	839			

Weed Location

Geographic location (ID)	L03-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Edge of Penstock road on downslope, south side of road; continues into a ravine (most weeds in ravine). Update: Appears about the same as 2008.		

General Information**ID: 12-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Penstock Kodiak Trail access road.	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Pipe Maintenance	Roadside maintenance
Associated species	Ponderosa pine, incense cedar, mountain misery	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	partly sunny,	

Weed Information**Weed Identification**

Weed genus and species	<i>Hypericum perforatum</i>	
Weed common name(s)	Klamath Weed	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	250	sq. ft.
Canopy Cover	5-25%	
Appearance	New growth	
Distribution pattern	Clumpy	
Photo documentation	840	

Weed Location

Geographic location (ID)	12-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	On south side of Kodiak Trail near split in road; minor occurrence. Update: Appears to be the same as last year.	

General Information**ID: 13-08**

Collection date (mm/dd/yyyy)	5/8/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	EID Penstock	
Site address or other description	Between forebay reservoir and tunnel	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	700	sq. ft.
Disturbances & impacts	Pipe Maintenance	
Associated species	Ponderosa Pine, Mountain Misery.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Himalayan Blackberry	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	700	sq. ft.
Canopy Cover	25-50%	
Appearance	Germ'g./early growth	New growth
Distribution pattern	Clumpy	
Photo documentation	No photo	

Weed Location

Geographic location (ID)	13-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Isolated clump along Penstock road (southside). Update: Occurrence about the same as 2008. Slight spread of SP.	

General Information**ID: L13-08**

Collection date (mm/dd/yyyy)	5/18/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Spillway 33	
Ownership		
Land use type	Water Transport Facility	Transportation Corridor
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Douglas Fir, Ponderosa Pine, Incense Cedar, Thimble Berry, Annual Grasses.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	north slope, shady	

Weed Information**Weed Identification**

Weed genus and species	<i>Cirsium vulgare</i>	<i>Rubus discolor</i>	<i>Verbascum thapsus</i>
Weed common name(s)	Bull Thistle	Himalayan Blackberry	Woolly Mullein

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	250	sq. ft.	
Canopy Cover	50-75%		
Appearance	Germ'g./early growth	New growth	
Distribution pattern	Clumpy	Linear	
Photo documentation	849, 850		

Weed Location

Geographic location (ID)	L13-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	No GPS
Location description	Along road on downslope side. Update: About same as 2008.	

General Information

ID: 17-08

Collection date (mm/dd/yyyy)	5/22/2009	
Observer name(s)	Ethan Koenigs,	

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 4	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Canal Maintenance	
Associated species	Ponderosa Pine, Douglas Fir, Black Oak, Mountain Misery, Deer Brush	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest facing slope	

Weed Information**Weed Identification**

Weed genus and species	<i>Leucanthemum vulgare</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Ox-eye Daisy	Perennial Sweet Pea present

Presence

Presence or Absence	Present (not all species)	Perennial Sweet Pea	
Treated	Yes		
Infested area	250	sq. ft.	
Canopy Cover	<1%	1-5%	
	Germ'g./early growth	New growth	
Distribution pattern	Clumpy		
Photo documentation	897		

Weed Location

Geographic location (ID)	17-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Along canal near Hazel Crk tunnel. Almost completely controlled - 1-5% SP.		

General Information

ID: L11-08

Collection date (mm/dd/yyyy)	5/22/2009		
Observer name(s)	Ethan Koenigs,		

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 4		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	2600	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Ponderosa Pine, Douglas Fir, Black Oak, Mountain Misery, Deer Brush		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest exposure.		

Weed Information

Weed Identification

Weed genus and species	<i>Hypericum perforatum</i>	<i>Leucanthemum vulgare</i>
Weed common name(s)	Klamath Weed	Ox-eye Daisy

Presence

Presence or Absence	Absent		
Treated	Yes		
Infested area			
Canopy Cover			
Appearance			
Distribution pattern			
Photo documentation	900		

Weed Location

Geographic location (ID)	L11-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Along canal bench/North bank-linear stretch 10-15' wide x 175'. Update: Occurrence appears to be eradicated.		

General Information

ID: L10-08

Collection date (mm/dd/yyyy)	5/22/2009		
Observer name(s)	Ethan Koenigs,		

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 4		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	1000	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Ponderosa Pine, Douglas Fir, Black Oak, Deer Brush, Mountain Misery		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Exposed location, northwest facing slope		

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>	<i>Leucanthemum vulgare</i>
Weed common name(s)	Bull Thistle	Ox-eye Daisy

Presence

Presence or Absence	Absent		
Treated	Yes		
Infested area			
Canopy Cover			
Appearance			
Distribution pattern			
Photo documentation	901, 902		

Weed Location

Geographic location (ID)	L10-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Linear stretch along canal on downslope side. Update: Occurrence appears eradicated.		

General Information

ID: 15-08

Collection date (mm/dd/yyyy)	5/22/2009	
Observer name(s)	Ethan Koenigs,	

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 5	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	100	sq. ft.
Disturbances & impacts	Canal Maintenance	
Associated species	Ponderosa Pine, Douglas Fir, Black Oak, Mountain Misery, Deer Brush, Annual Grasses	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northeast facing slope	

Weed Information

Weed Identification

Weed genus and species	<i>Lathyrus latifolius</i>	
Weed common name(s)	Perennial Sweet Pea	

Presence

Presence or Absence	Absent	
Treated	Yes	
Infested area	100	sq. ft.
Canopy Cover	<1%	
Appearance	Dead	
Distribution pattern		
Photo documentation	908	

Weed Location

Geographic location (ID)	15-08	
Coordinates of Point		
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Update: Appears eradicated.	

General Information		ID: L09-08	
Collection date (mm/dd/yyyy)	5/22/2009		
Observer name(s)	Ethan Koenigs,		
Site Information			
Site or facility name	El Dorado Canal		
Site address or other description	Beat 5		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	1000	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Ponderosa Pine, Douglas Fir, Black Oak, Big-leaf Maple, Deer Brush		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	northwest exposure, partly shaded		
Weed Information			
Weed Identification			
Weed genus and species	<i>Hypericum perforatum</i>	<i>Lathyrus latifolius</i>	
Weed common name(s)	Klamath Weed	Perennial Sweet Pea	
Presence			
Presence or Absence (If P & A list Absence next to drop list)	Present (not all species)	perennial sweet pea present	
Treated	Yes		
Infested area	1000	sq. ft.	
Canopy Cover	25-50%		
Appearance	New growth		
Distribution pattern	Clumpy	Scattered patchy	
Photo documentation	909, 910		
Weed Location			
Geographic location (ID)	L09-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Just below Camp 5. Update: Occurrence along north bank bench nearly eradicated; however a large patch of SP remains along the south, up-slope bank near a small building (Photo 910).		

General Information**ID: 45-08**

Collection date (mm/dd/yyyy)	5/22/2009
Observer name(s)	Ethan Koenigs

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 5		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	1000	sq. ft.	
Disturbances & impacts	Canal Maintenance	Roadside maintenance	
Associated species	Ponderosa Pine, Douglas Fir, White Fir, other weedy species.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			

Weed Information**Weed Identification**

Weed genus and species	<i>Lathyrus latifolius</i>		
Weed common name(s)	Perennial Sweet Pea		

Presence

Presence or Absence	Present (all)		
Treated	Most but not all		
Infested area	1000	sq. ft.	
Canopy Cover	<1%		
	New growth		
Distribution pattern	Scattered even		
Photo documentation	911		

Weed Location

Geographic location (ID)	45-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	West end of Beat 5 near access gate and tunnel to Forebay on north bank. Update: Mostly eradicated.		

General Information

ID: L08-08

Collection date (mm/dd/yyyy)	5/22/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 5	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	0.3	acres
Disturbances & impacts	Roadside maintenance	
Associated species	Incense Cedar, White Fir, Douglas Fir, Big-leaf Maple, Other weeds	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Gravel/Graded area	

Weed Information

Weed Identification

Weed genus and species	<i>Verbascum thapsus</i>	<i>Cirsium vulgare</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Woolly Mullein	Bull Thistle	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	Not all		
Infested area	5000-7000	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Scattered patchy	Linear	
Photo documentation	914, 915		

Weed Location

Geographic location (ID)	L08-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Near camp 5; along road between canal and road on downslope bank. Overall weeds 1-5%. Update: Somewhat reduced from last year especially at the bottom of the road near canal.		

General Information	ID: L07-08
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Collection date (mm/dd/yyyy)	5/22/2009		
Observer name(s)	Ethan Koenigs,		

	Site Information
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Site or facility name	El Dorado Canal		
Site address or other description	Beat 5		
Ownership			
Land use type	Water Transport Facility	Transportation Corridor	
Invaded vegetation type	Forest		
Gross Area		sq. ft.	
Disturbances & impacts	Canal Maintenance	Roadside maintenance	
Associated species	Ponderosa Pine, Douglas Fir, Big Leaf Maple, Dogwood, Incense Cedar, Other weedy species.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	introduced gravel for road		

	Weed Information
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	Weed Identification
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Weed genus and species	<i>Cirsium vulgare</i>	<i>Melilotus alba</i>
Weed common name(s)	Bull Thistle	White Sweet Clover

	Presence
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Presence or Absence	Present (all)		
Treated	Growing Back		
Infested area	2000	sq. ft.	
Canopy Cover	5-25%		
	New growth		
Distribution pattern	Scattered patchy		
Photo documentation	916		

	Weed Location
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Geographic location (ID)	L07-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	Along gravel road near canal. Update: Appears similar to 2008.		

General Information

ID: L06-09

Collection date (mm/dd/yyyy)

5/27/2009

Observer name(s)

Ethan Koenigs

Site Information

Site or facility name

Access Road

Site address or other description

Hazel Creek Tunnel Road

Ownership

Land use type

Transportation Corridor Water Transport Facility

Invaded vegetation type

Forest

Gross Area

2600 sq. ft.

Disturbances & impacts

Roadside maintenance

Associated species

Douglas Fir, Ponderosa Pine, Incense Cedar, Cinquefoil, Deer Brush, Annual Grasses.

Environmental Conditions (e.g. soil conditions, exposure, etc.)

Exposed; very rocky, volcanic soil

Weed Information**Weed Identification**

Weed genus and species

Melilotus alba

Weed common name(s)

White Sweet Clover

Presence

Presence or Absence

Present (all)

Treated

No

Infested area

1000 sq. ft.

Canopy Cover

5-25%

Appearance

New growth

Distribution pattern

Clumpy

Scattered patchy

Linear

Photo documentation

921

Weed Location

Geographic location (ID)

L06-09

Coordinate system

Ca. State Plane Zone 2

Datum

NAD83

Location data accuracy

5-15m

Location description

At the terminus of Hazel tunnel road (last 150') large clump of White Sweet Clover at end of road.

General Information		ID: L12-08	
Collection date (mm/dd/yyyy)	5/27/2009		
Observer name(s)	Ethan Koenigs		
Site Information			
Site or facility name	Access Road		
Site address or other description	El Dorado Ditch		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	15,000	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Ponderosa Pine, Dogwood, Big-leaf Maple, Thimble Berry, native blackberry.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Mostly NW - NE exposer		
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i>	<i>Rubus discolor</i>	<i>Hypericum perforatum</i>
Weed common name(s)	Bull Thistle	Himalayan Blackberry	Klamath Weed
Presence			
Presence or Absence	Present (all)		
Treated	No		
Infested area	15,000	sq. ft.	
Canopy Cover	50-75%		
Appearance	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation	922, 923, 925		
Weed Location			
Geographic location (ID)	L12-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Begins near intersection with Hazel Tunnel Road spur and extends down to next spur road to North. Update: HBB appears to be getting thicker from 2008; growing into road in places.		

General Information

ID: 16-08 & 03-09

Collection date (mm/dd/yyyy)	5/27/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	El Ddorado Ditch Rd.		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	800	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Ponderosa Pine, Dogwood, Big-leaf Maple, Thimble Berry, Native blackberry.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Shady near drainage.		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>		
Weed common name(s)	Himalayan Blackberry		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	800	sq. ft.	
Canopy Cover	5-25%		
Appearance	New growth		
Distribution pattern	Clumpy		
Photo documentation	924		

Weed Location

Geographic location (ID)	16-08, 03-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	2 pts, first occurrence at an outer bend in road (16-08); second occurrence at an interior bend in road at a draw - 300' down road, just above the canal (03-09); both small incidences of HBB.		

General Information

ID: 04-09

Collection date (mm/dd/yyyy)	5/27/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Road from Hazel Creek Road to Hazel Tunnel		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	300	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, Ponderosa Pine, Incense Cedar, Big-leaf Maple, California Rose.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Gravel along Road		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>		
Weed common name(s)	Himalayan Blackberry		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	300	sq. ft.	
Canopy Cover	25-50%		
Appearance	New growth		
Distribution pattern	Clumpy		
Photo documentation	926		

Weed Location

Geographic location (ID)	04-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Approx. 150' from gate at start of road. Minor occurrence.		

General Information

ID: L15-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	3000	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Douglas Fir, White Fir, Incense Cedar, Ponderosa Pine, Dogwood, Black Oak, Deer Brush		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW facing slope, gentle slope, shady		

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>	<i>Cirsium vulgare</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Himalayan Blackberry	Bull Thistle	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	Yes	partial	
Infested area	3000	sq. ft.	
Canopy Cover	50-75%		
Appearance	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation	932		

Weed Location

Geographic location (ID)	L15-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Along both shoulders from intersection w/ Hazel Valley Rd. Himalayan Blackberry very heavy in places especially on North-side of road. Update: Control picks-up after gate. Very little Perennial Sweet Pea or Bull Thistle (<1%).		

General Information

ID: 24-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	500	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Mixed Conifer and Hardwood		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest exposure; gentle slope		

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>		
Weed common name(s)	Himalayan Blackberry		

Presence

Presence or Absence	Present (all)		
Treated	Yes		
Infested area		sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation	933		

Weed Location

Geographic location (ID)	24-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	5-15m		
Location description	1/8 to 1/4 mile from intersection with Hazel Vally Road. Update: Good control, about 90% reduction from 2008.		

General Information

ID: 23-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	100	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Mixed Conifer, Hardwood; Black Oak, Manzanita, and other annual grasses.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	In a large opening with rocky soil.		

Weed Information

Weed Identification

Weed genus and species	<i>Talienatherum caput-medusae</i> <i>Hypericum perforatum</i>		
Weed common name(s)	Medusahead Grass	Klamath Weed	

Presence

Presence or Absence	Absent		
Treated	Yes		
Infested area			
Canopy Cover			
Appearance			
Distribution pattern			
Photo documentation	934		

Weed Location

Geographic location (ID)	23-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Within a clearing/landing on North side of road. Update: Good control of weeds; occurrence appears eradicated.		

General Information

ID: L14-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	4500	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Mixed Conifer and Hardwood		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	near a drainage,		

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>	<i>Rubus discolor</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Bull Thistle	Himalayan Blackberry	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	Yes		
Infested area	4,500	sq. ft.	
Canopy Cover	1-5%		
Appearance			
Distribution pattern	Clumpy	Scattered even	
Photo documentation	935		

Weed Location

Geographic location (ID)	L14-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Between 2 small drainages, main creek is just downslope (North). Update: Good control of Himalayan Blackberry and other weeds along shoulder (8-12'ft along road). Weeds still persist beyond limit of treated area.		

General Information**ID: 22-08**

Collection date (mm/dd/yyyy)	5/28/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Highway Cut Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	1250	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Mixed Conifer and Hardwood	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	near small drainage, mostly shaded	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan Blackberry	

Presence

Presence or Absence	Present (all)	
Treated	Yes	
Infested area	1250	sq. ft.
Canopy Cover	1-5%	
Appearance	New growth	
Distribution pattern	Scattered patchy	
Photo documentation	936	

Weed Location

Geographic location (ID)	22-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	
Location description	2 patches about 300' apart; 1st patch is at a deep and wide bend in the road; 2nd is 300' up (west). Update: Partial control on second patch; First patch looks about the same (very minor occ. and very near a small drainage).	

General Information		ID: 21-08	
Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		
Site Information			
Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	1,250	sq. ft.	
Disturbances & impacts	Roadside maintenance	Other man-made disturbance	
Associated species	Mixed Conifer and Hardwood		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	shady, gentle slope		
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i>	<i>Rubus discolor</i>	
Weed common name(s)	Bull Thistle	Himalayan Blackberry	
Presence			
Presence or Absence	Present (not all species)	Bull Thistle absent	
Treated	Unknown		
Infested area	1,250	sq. ft.	
Canopy Cover	1-5%		
Appearance			
Distribution pattern			
Photo documentation	937, 938		
Weed Location			
Geographic location (ID)	21-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	At a landing and a broad curve; 3 sep. Patches; 1st patch at the landing near slash pile; 2nd +100'; 3rd + 100'. Update: No Bull Thistle; good control of Himalayan Blackberry along treated shoulder (5-10' on either side of road).		

General Information

ID: 20-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	2,000	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Mixed Conifer and Hardwood		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Himalayan Blackberry	Perennial Sweet Pea

Presence

Presence or Absence	Present (not all species)	Perennial Sweet Pea absent	
Treated	Not all		
Infested area	2,000	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Linear		
Photo documentation	939		

Weed Location

Geographic location (ID)	20-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	At a wide shallow bend in the road. Update: Good control; no SP ; HBB controlled along shoulder, 6-10' width; some HBB still present beyond extent of control area.		

General Information**ID: 19-08**

Collection date (mm/dd/yyyy)	5/28/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Highway Cut Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Mixed Conifer and Hardwood	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Hypericum perforatum</i>
Weed common name(s)	Himalayan Blackberry	Klamath Weed

Presence

Presence or Absence	Present (not all species)	Klamath Weed	
Treated	Yes		
Infested area	250	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation	940		

Weed Location

Geographic location (ID)	19-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Along edge of road. Update: Good control of KW; HBB = 1-5% canopy, some still exists beyond limits of control area (10-15' beyond shoulder).	

General Information

ID: 18-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Highway Cut Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	500	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Mixed Conifer and Hardwood; some riparian associates.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Himalayan Blackberry	Perennial Sweet Pea

Presence

Presence or Absence (If P & A list Absence next to drop list)	Present (not all species)	No SP	
Treated	Yes		
Infested area	500	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation	941		

Weed Location

Geographic location (ID)	18-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	At sharp hairpin turn where road incline increases, on downhill side of road. Update: Good control; no Perennial Sweet Pea and very little Himalayan Blackberry remaining.		

General Information

ID: 25-08

Collection date (mm/dd/yyyy)	5/28/2009	
Observer name(s)	Ethan Koenigs	

Site Information

Site or facility name	Access Road	
Site address or other description	Spur Road north of 10N40N, just past old Camp 4 bridge.	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	1,200	sq. ft.
Disturbances & impacts	Roadside maintenance	Other man-made disturbance
Associated species	Ponderosa Pine, Sugar Pine, Black Oak, Douglas Fir, Grasses	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Flat Clearing	

Weed Information**Weed Identification**

Weed genus and species	<i>Cirsium vulgare</i>	
Weed common name(s)	Bull Thistle	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	1,200	sq. ft.
Canopy Cover	5-25%	
Appearance	New growth	
Distribution pattern	Scattered patchy	
Photo documentation	942	

Weed Location

Geographic location (ID)	25-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Update: Appears same as 2008. Most are located within the clearing to the west of the road.	

General Information

ID: 14-08

Collection date (mm/dd/yyyy)	5/28/2009		
Observer name(s)	Ethan Koenigs		

Site Information

Site or facility name	Access Road		
Site address or other description	Bend Court	Near top of road	
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	1,200	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Ponderosa Pine, Black Oak, Deer Brush, Annual Grasses, and Forbes.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Open and sunny, Volcanic caprock, West facing.		

Weed Information

Weed Identification

Weed genus and species	<i>Bromus tectorum</i>		
Weed common name(s)	Cheat grass		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	1,200	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth		
Distribution pattern	Scattered even		
Photo documentation	943		

Weed Location

Geographic location (ID)	14-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Area at top of hill in a clearing and along roadway. Update: Rare Plant-Yellow Bur Navarretia is present throughout area No Treatment ; yellow Bur Navarretia also exists farther down the road in another, exposed and rocky outcropping.		

APPENDIX C**EID Weed Observation and Monitoring Form**

Photo Log			
Photo #	GPS Waypoint or feature #	Bearing or Direction	Feature/Notes
975	50-08	NW	Ox-eye Daisy near spillway-Beat 4
976	05-09	NW	OXI & HBB
977	L21-08	N	Camp P road
978	L21-08	SE	SP
979	29-08	SE	ST,CHT, RB, OXI – in clearing near road
980	29-08	NW	ST,CHT, RB, OXI
981	L20-08	NW	Down road near intersection; HBB, SP, CHT
982	L20-08	SE	Up road; HBB, SP, CHT
983	30-08	E-SE	Torilis
984	31-08	W	Up road-Torilis
985	L23-08	E	BT
986	32-08	NW	BT & Torilis
987	L24-08	E	Torilis down slope
988	L17-08	W	KW & CHT
992	L17-08	W	SP-mid road
993	L17-08	NW	SP & HBB
994	L22-08	N	WM & CHT on east side of road
Notes			

General Information

ID: 50-08

Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 4 near Esmerelda Tunnel		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	750	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Mixed Conifer, Montane Riparian; native blackberry; other weedy species		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Disturbed		

Weed Information**Weed Identification**

Weed genus and species	<i>Leucanthemum vulgare</i>		
Weed common name(s)	Ox-eye Daisy		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	750	sq. ft.	
Canopy Cover	5-25%		
	Flowering	New growth	
Distribution pattern	Scattered even		
Photo documentation	975		

Weed Location

Geographic location (ID)	50-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	On the north side of canal near spillway 30 (Esmerelda Creek).		

General Information

ID: 05-09

Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 4 at Esmerelda Crk. Flurr		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	1000	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Mixed Conifer and Montane Riparian; bracken fern, native blackberry, mixed grasses & forbs.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Riparian area		

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	<i>Leucanthemum vulgare</i>	
Weed common name(s)	Himalayan Blackberry	Ox-eye Daisy	

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	1000	sq. ft.	
Canopy Cover	5-25%		
Appearance	Flowering	New growth	
Distribution pattern	Scattered patchy		
Photo documentation	976		

Weed Location

Geographic location (ID)	05-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	5-15m		
Location description	Near propane tank & creek flume at tunnel exit. Minor occurrence		

General Information		ID: L21-08	
Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		
Site Information			
Site or facility name	Access Road		
Site address or other description	Camp P road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	12,000	sq. ft.	
Disturbances & impacts	Roadside maintenance	SPI Plantation to North-east side of road	
Associated species	Mixed Conifer; Deer Brush, Maple		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Gravel road and shoulder.		
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i> , <i>B. tectorum</i> , <i>T. arvensis</i> , <i>H. perforatum</i> , <i>L. latifolius</i> , <i>V. thapsus</i> <i>Rubus discolor</i>		
Weed common name(s)	Bull Thistle, Cheat grass Hedge Parsley, Klamath Weed Perennial Sweet Pea, Woolly Mullein Himalayan Blackberry		
Presence			
Presence or Absence	Present (all)		
Treated	No		
Infested area	12,000	sq. ft.	
Canopy Cover	<1%		
Appearance	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation			
Weed Location			
Geographic location (ID)	L21-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Along beginning of Camp P road, near intersection with 10N40N; extends for about 600'(ft) along road. Update: Appears same as 2008. Sweet pea may have increased in density. Abundant in clumps especially near canal. Also noted <i>Torilis arvensis</i> and <i>Bromus tectorum</i> . Spur Road to right 250-300'(ft) clearing has dense Sweet Pea and Himalayan Blackberry.		

General Information

ID: 29-08

Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		

Site Information

Site or facility name	Access Road		
Site address or other description	Camp P Road: Near intersection with Camp 3 Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	5000	sq. ft.	
Disturbances & impacts	Roadside maintenance		Clearing on road and SPI Plantation
Associated species	Mixed Conifer; Deer Brush, multiple weed sp.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Mostly Gravel within landing/clearing; full sun; flat		

Weed Information

Weed Identification

Weed genus and species	<i>Bromus tectorum</i> , <i>Hypericum</i>	<i>Leucanthemum vulgare</i>	<i>Bromus diandrus</i>	<i>Centaurea solstitialis</i>
Weed common name(s)	Cheat grass, Klamath Weed	Ox-eye Daisy	Ripgut Brome	Yellow Starthistle

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	4000-5000	sq. ft.	
Canopy Cover	25-50%		
Appearance	Flowering	New growth	Seeding
Distribution pattern	Clumpy	Linear	Scattered patchy
Photo documentation	979, 980		

Weed Location

Geographic location (ID)	29-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	At large clearing just before intersection of Camp P Road and Camp 3 Road. Update: Same or greater density as 2008. Heavy Cheat Grass and Star Thistle, 25-35%.		

General Information

ID: L20-08

Collection date (mm/dd/yyyy)	6/11/2009	
Observer name(s)	Ethan Koenigs,	

Site Information

Site or facility name	Access Road	
Site address or other description	Camp P Road - At gate near intersection w/ Camp 3 Road	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	1500	sq. ft.
Disturbances & impacts	Roadside maintenance	SPI plantation to northeast
Associated species	Mixed Conifer; Deer Brush, Sulfer Pea	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW exposure, gravelly soil	

Weed Information**Weed Identification**

Weed genus and species	<i>Bromus tectorum</i>	<i>Torilis arvensis</i>	<i>Rubus discolor</i>
Weed common name(s)	Cheat grass	Hedge Parsley	Himalayan Blackberry

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	1500	sq. ft.	
Canopy Cover	25-50%		
Appearance	Flowering	New growth	Seeding
Distribution pattern	Clumpy	Linear	
Photo documentation	979, 980		

Weed Location

Geographic location (ID)	L20-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Beginning at gate and extending down road for about 250ft. Update: Appears about the same as 2008.	

General Information**ID: 30-08**

Collection date (mm/dd/yyyy)	6/11/2009	
Observer name(s)	Ethan Koenigs,	

Site Information

Site or facility name	Access Road	
Site address or other description	Camp P Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Roadside maintenance	Other man-made disturbance
Associated species	Mixed Conifer; Big-leaf Maple, Dog Wood, California Blackberry.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW exposure, mostly shade	

Weed Information**Weed Identification**

Weed genus and species	<i>Torilis arvensis</i>	
Weed common name(s)	Hedge Parsley	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	200	sq. ft.
Canopy Cover	5-25%	
Appearance	New growth	
Distribution pattern	Scattered even	
Photo documentation	983	

Weed Location

Geographic location (ID)	30-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	At a gentle bend in the road; upslope side (primarily) near a stump & slash pile. Update: Appears same as last year; small occurrence.	

General Information**ID: 31-08**

Collection date (mm/dd/yyyy)	6/11/2009	
Observer name(s)	Ethan Koenigs,	

Site Information

Site or facility name	Access Road	
Site address or other description	Camp P road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	100	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Mixed Conifer; Big-leaf Maple, Dog Wood	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	N - NW exposure	

Weed Information**Weed Identification**

Weed genus and species	<i>Torilis arvensis</i>	
Weed common name(s)	Hedge Parsley	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	100	sq. ft.
Canopy Cover	1-5%	
	New growth	
Distribution pattern	Scattered even	
Photo documentation	984	

Weed Location

Geographic location (ID)	31-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	On shoulder of road (north side); very minor occurrence. Update: Same as 2008.	

General Information

ID: L23-08

Collection date (mm/dd/yyyy)	6/11/2009	
Observer name(s)	Ethan Koenigs,	

Site Information

Site or facility name	Access Road	
Site address or other description	Camp P Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	500	sq. ft.
Disturbances & impacts	Canal Maintenance	
Associated species	Mixed Conifer; Big-leaf Maple; grasses & forbs	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW exposure	

Weed Information**Weed Identification**

Weed genus and species	<i>Cirsium vulgare</i>	<i>Torilis arvensis</i>
Weed common name(s)	Bull Thistle	Hedge Parsley

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	500	sq. ft.
Canopy Cover	1-5%	
Flowering		
Distribution pattern	Clumpy	
Photo documentation	985	

Weed Location

Geographic location (ID)	L23-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	1-5m	
Location description	Just before bend in the road (heading downslope) small turnout on north side; minor occurrence. Update: Appears same as 2008.	

General Information		ID: 32-08	
Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		
Site Information			
Site or facility name	Access Road		
Site address or other description	Camp P Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	750	sq. ft.	
Disturbances & impacts	Roadside maintenance		Recent grading and matainace (within a few years)
Associated species	Mixed Conifer, Big-leaf Maple		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW exposure; recent disturbance;		
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i>	<i>Torilis arvensis</i>	
Weed common name(s)	Bull Thistle	Hedge Parsley	
Presence			
Presence or Absence	Present (all)		
Treated	Unknown		
Infested area	750	sq. ft.	
Canopy Cover	1-5%		
Flowering		New growth	
Distribution pattern	Clumpy		
Photo documentation	986		
Weed Location			
Geographic location (ID)	32-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Down slope in an area that was recently graded, straw still remains from erosion control. Update: Bull Thistle at this site; multiple large plants.		

General Information		ID: L24-08	
Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		
Site Information			
Site or facility name	Access Road		
Site address or other description	Camp P Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	200	sq. ft.	
Disturbances & impacts	Roadside maintenance		
Associated species	Mixed Conifer; Big-Leaf Maple, Dogwood		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i>	<i>Torilis arvensis</i>	
Weed common name(s)	Bull Thistle	Hedge Parsley	
Presence			
Presence or Absence	Present (not all species)	Bull Thistle not present	
Treated	No		
Infested area	200	sq. ft.	
Canopy Cover	5-25%		
	New growth		
Distribution pattern	Clumpy	Linear	
Photo documentation	987		
Weed Location			
Geographic location (ID)	L24-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Near end of road; 500' to gate. Update: No Bull Thistle observed; Torilis appears about the same density.		

General Information		ID: L17-08	
Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs		
Site Information			
Site or facility name	Access Road		
Site address or other description	Camp 3 Road		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	14,000-15,000	sq. ft.	
Disturbances & impacts	Roadside maintenance	Turnouts	
Associated species	Mixed Conifer & Hardwood - many weedy species on shoulder.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Road is near Ogilby Creek at terminus.		
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i> , <i>Bromus tectorum</i> <i>Torilis arvensis</i> , <i>Rubus discolor</i> <i>Hypericum perforatum</i> <i>Lathyrus latifolius</i>		
Weed common name(s)	Bull Thistle, Cheat grass	Hedge Parsley, Himalayan Blackberry	Klamath Weed Perennial Sweet Pea
Presence			
Presence or Absence	Present (all)		
Treated	No		
Infested area	14,000-15,000	sq. ft.	
Canopy Cover	1-5%		
	Flowering	New growth	Seeding
Distribution pattern	Clumpy	Linear	Scattered patchy
Photo documentation	988-990		
Weed Location			
Geographic location (ID)	L17-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	From gate on Camp P to canal. Little spur road approximately 250-300 ft from gate has heavy Sweet Pea & Himalayan Blackberry. Sweet Pea is very dense in places-especially near end of road at canal.		

General Information

ID: 22-08

Collection date (mm/dd/yyyy)	6/11/2009		
Observer name(s)	Ethan Koenigs,		

Site Information

Site or facility name	Access Road		
Site address or other description	Rock Crusher road		
Ownership	USFS/SPI		
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	0.5	acres	
Disturbances & impacts	Roadside maintenance	SPI plantation	
Associated species	Mixed Conifer, Deer Brush, weedy species along road.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Full sun; western exposure		

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i> , <i>H. perforatum</i>	<i>Bromus tectorum</i>	<i>Melilotus alba</i>	<i>Verbascum thapsus</i>
Weed common name(s)	Bull Thistle, Klamath Weed	Cheat Grass	White Sweet Clover	Woolly Mullein

Presence

Presence or Absence	Present (all)			
Treated	Yes			
Infested area	11,000	sq. ft.		
Canopy Cover	1-5%	<1%	1-5%	1-5%
	Flowering	New growth	Seeding	
Distribution pattern	Scattered patchy			
Photo documentation	869, 870, 994			

Weed Location

Geographic location (ID)	L22-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Linear stretch from gate all along SPI plantation to top of hill and FS boundary. Update: Most weeds are on SPI side of road (west). East side appears to have been treated, lots of dead deer brush. Some Woolly Mullein & Cheat Grass (<1%) but overall good control.		

General Information

ID: 06-09

Collection date (mm/dd/yyyy)	6/16/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 3	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	800	sq. ft.
Disturbances & impacts	Canal Maintenance	
Associated species	Mixed Conifer-hardwoods; Douglas Fir, Incense Cedar, Black Oak, Dogwood, yarrow, mixed annual grasses.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Shady, north-facing slope.	

Weed Information**Weed Identification**

Weed genus and species	<i>Cirsium vulgare</i>	
Weed common name(s)	Bull Thistle	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	800	sq. ft.
Canopy Cover	1-5%	
Appearance	New growth	
Distribution pattern	Scattered patchy	
Photo documentation	995	

Weed Location

Geographic location (ID)	06-09	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	5-15m	
Location description	On bench north of canal, near rock pile and just downstream of spillway. Very minor occurrence.	

General Information**ID: 33-08**

Collection date (mm/dd/yyyy)	6/16/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 3	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	1,500	sq. ft.
Disturbances & impacts	Canal Maintenance	
Associated species	Mixed Conifer; Ponderosa Pine, Douglas Fir, Incense Cedar, Canyon Live Oak, other weedy species.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)		

Weed Information**Weed Identification**

Weed genus and species	<i>Lathyrus latifolius</i>	<i>Rubus discolor</i>
Weed common name(s)	Perennial Sweet Pea	Himalayan Blackberry

Presence

Presence or Absence	Present (all)	
Treated	Yes	
Infested area	1500	sq. ft.
Canopy Cover	1-5%	
	New growth	
Distribution pattern	Scattered patchy	
Photo documentation	996, 997	

Weed Location

Geographic location (ID)	33-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	South bank of the canal; near access road terminus. Update: Good control of Himalayan Blackberry; some Perennial Sweet Pea remaining; large Bull Thistle near flume about 200 ft. downstream.	

General Information

ID: L18, 19-08; 27-08, 28-08

Collection date (mm/dd/yyyy)	6/16/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 3	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	0.25	acres
Disturbances & impacts	Canal Maintenance	Other man-made disturbance
Associated species	Mixed Conifer & Hardwood - Incense Cedar, Canyon Live Oak, Thimbleberry, Black Oak; Montane riparian as well.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	West facing slope near Ogilby Creek.	

Weed Information**Weed Identification**

Weed genus and species	<i>Lathyrus latifolius</i>	<i>Rubus discolor</i>
Weed common name(s)	Perennial Sweet Pea	Himalayan Blackberry

Presence

Presence or Absence	Present (all)	
Treated	Yes	
Infested area	0.25	acres
Canopy Cover	1-5%	
	New growth	
Distribution pattern	Clumpy	Linear
Photo documentation	998-1002	

Weed Location

Geographic location (ID)	L18-08, L19-08, 27-08, 28-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Linear stretch on downslope side of flume up to the end of access road near alarm station on Ogilby Creek. Update: L18-08 & 28-08 - same as 2008; L19-08, 27-08: Patchy control, good control near spillway area.	

General Information**ID: 26-08**

Collection date (mm/dd/yyyy)	6/16/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 3	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	500	sq. ft.
Disturbances & impacts	Canal Maintenance	
Associated species	Big leaf maple, Thimbleberry	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Very exposed, northwest facing slope, rocky soil.	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan Blackberry	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	500	sq. ft.
Canopy Cover	25-50%	
Appearance	New growth	
Distribution pattern	Clumpy	
Photo documentation	1004	

Weed Location

Geographic location (ID)	26-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Clump of Himalayan blackberry below flume; steep slope. Update: Same as 2008.	

General Information

ID: L16-08

Collection date (mm/dd/yyyy)	6/16/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 3		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	550	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Mixed Conifer; thimbleberry, annual grasses		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest-facing slope, partly shaded.		

Weed Information

Weed Identification

Weed genus and species	<i>Leucanthemum vulgare</i>		
Weed common name(s)	Ox-eye Daisy		

Presence

Presence or Absence	Absent			
Treated	Yes			
Infested area				
Canopy Cover				
Appearance				
Distribution pattern				
Photo documentation	1005			

Weed Location

Geographic location (ID)	L16-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Update: North bank of canal; good control no weeds observed.		

General Information

ID: 34-08

Collection date (mm/dd/yyyy)	6/16/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Rock Crusher Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Mixed Conifer; cinquefoil, tarweed	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Gently sloping, north-facing exposure in a clearing.	

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>	<i>Hypericum perforatum</i>
Weed common name(s)	Bull Thistle	Klamath Weed

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	250	sq. ft.
Canopy Cover	5-25%	
Appearance	Flowering	New growth
Distribution pattern	Scattered even	
Photo documentation	1006	

Weed Location

Geographic location (ID)	34-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Small clearing on southeast side of road. Update: Same as 2008.	

General Information

ID: L07-09 (35-08)

Collection date (mm/dd/yyyy)	6/18/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 2 Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	0.4	acres
Disturbances & impacts	Roadside maintenance	
Associated species	Canyon Live Oak, Manzanita, Douglas Fir; various other grasses and forbes.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	West-facing slope; very exposed, rocky soil.	

Weed Information

Weed Identification

Weed genus and species	<i>Bromus tectorum</i>	<i>Bromus diandrus</i>
Weed common name(s)	Cheat grass	Ripgut Brome

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	0.4	acres	
Canopy Cover	25-50%		
Appearance	Flowering	Seeding	
Distribution pattern	Clumpy	Linear	Scattered patchy
Photo documentation	1007, 1008		

Weed Location

Geographic location (ID)	L07-09	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Beginning past second gate, near rock outcrops & extending to 250' before tender's house; along road shoulders. Variable weed density. Includes point 35-08. Update: Weeds appear the same at point from 2008.	

General Information

ID: 07-09

Collection date (mm/dd/yyyy)	6/18/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 2 Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	150	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Canyon Live Oak, Doug Fir, Incense Cedar, Deer Brush	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	West-facing slope, rocky soil.	

Weed Information**Weed Identification**

Weed genus and species	<i>Bromus tectorum</i>	
Weed common name(s)	Cheat grass	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	150	sq. ft.
Canopy Cover	5-25%	
Appearance	Seeding	
Distribution pattern	Clumpy	
Photo documentation	1009	

Weed Location

Geographic location (ID)	07-09	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Approximately 250 ft. from second gate, on west side of the road.	

General Information		ID: L25-08	
Collection date (mm/dd/yyyy)	6/18/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	
Site Information			
Site or facility name	Access Road		
Site address or other description	Camp 2 Road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	900	sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Mixed Conifer		
Environmental Conditions (e.g. soil conditions, exposure, etc.)			
Weed Information			
Weed Identification			
Weed genus and species	<i>Cirsium vulgare</i>		
Weed common name(s)	Bull Thistle		
Presence			
Presence or Absence	Present (all)		
Treated	No		
Infested area	900	sq. ft.	
Canopy Cover	<1%		
Appearance	New growth		
Distribution pattern	Scattered patchy	Linear	
Photo documentation	1010		
Weed Location			
Geographic location (ID)	L25-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Primarily east side of road near small drainage. Update: Appears the same as 2008.		

General Information

ID: 08-09

Collection date (mm/dd/yyyy)	6/18/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 2 Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	1000	sq. ft.
Disturbances & impacts	Roadside maintenance	clearing next to road
Associated species	Douglas Fir, Incense Cedar, Dogwood, various weedy species.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Disturbed area	

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>	
Weed common name(s)	Bull Thistle	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	1000	sq. ft.
Canopy Cover	<1%	
Appearance	New growth	
Distribution pattern	Scattered even	
Photo documentation	1011	

Weed Location

Geographic location (ID)	08-09	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Large clearing on west side of road.	

General Information

ID: 09-09

Collection date (mm/dd/yyyy)	6/18/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	El Dorado Canal	
Site address or other description	Beat 2, Plum Creek siphon entrance	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	1500	sq. ft.
Disturbances & impacts	Canal Maintenance	Maintained area around spillway and siphon entrance
Associated species	Mixed Conifer - other weedy species	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Open & exposed-disturbed gravelly soil.	

Weed Information

Weed Identification

Weed genus and species	<i>Bromus tectorum</i>		
Weed common name(s)	Cheat grass		

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	1,500	sq. ft.	
Canopy Cover	1-5%		
Appearance	Flowering	Seeding	
Distribution pattern			
Photo documentation	1014		

Weed Location

Geographic location (ID)	09-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Along canal, between spillway and entrance to siphon.		

General Information**ID: 47-08**

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	Diversion Dam			
Site address or other description	Northeast side of facility			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	0.25 acres			
Disturbances & impacts	Facility Maintenance			
Associated species	Mixed Conifer, Black Oak			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Very exposed, sunny.			

Weed Information**Weed Identification**

Weed genus and species	<i>Lathyrus latifolius</i>	<i>Cirsium vulgare</i>	<i>Centaurea solstitialis</i>	<i>Melilotus alba</i>
Weed common name(s)	Sweet Pea	Bull thistle	Star Thistle	Sweet Clover
Weed genus and species	<i>Verbascum thapsus</i>	<i>Hirschfeldia incana</i>	<i>Bromus tectorum</i>	
Weed common name(s)	Woolly Mulein	Mustard	Cheat Grass	

Present (not all species)

Presence or Absence	Present (all)			
Treated				
Infested area	10,000 sq. ft.			
Canopy Cover	50-75%			
Appearance	New growth	Flowering	Seeding	
Distribution pattern	Clumpy	Scattered even		
Photo documentation	1018, 1019			

Weed Location

Geographic location (ID)	47-08			
Coordinate system	Other (specify):	State Plain		
Datum	NAD83			
Location data accuracy	1-5m			
Location description	Area adjacent to gravel turn around, near large boulders; mostly Sweet Pea; UPDATE: weed density greater than 2008.			

General Information**ID: 41-08**

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	Diversion Dam			
Site address or other description	Northwest side of facility			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	0.25-0.33	acres		
Disturbances & impacts	Facility Maintenance			
Associated species	Mixed Conifer, Black Oak, Black Cottonwood			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Rocky, exposed			

Weed Information**Weed Identification**

Weed genus and species	<i>Lathyrus latifolius</i>	<i>Verbascum thapsus</i>	<i>Leucanthemum vulgare</i>	
Weed common name(s)	Sweet Pea	Woolly Mullein	Ox-eye Daisy	

Present (not all species)

Presence or Absence	Present (not all species)			
Treated	Yes			
Infested area	5,000	sq. ft.		
Canopy Cover	5-25%			
Appearance	Flowering			
Distribution pattern	Scattered patchy			
Photo documentation	1020, 1021			

Weed Location

Geographic location (ID)	41-08			
Coordinate system	Other (specify):	State Plain		
Datum	NAD83			
Location data accuracy	1-5m			
Location description	Disturbed area adjacent to Diversion Dam and river; also along road. UPDATE: Evidence of weed control; chemical and physical; weed density reduced, no Mullein or Ox-eye.			

General Information

ID: 40-08

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal			
Site address or other description	Beat 1			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	500 sq. ft.			
Disturbances & impacts	Canal Maintenance			
Associated species	Montane Riparian; Mixed Conifer			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	sandy soil			

Weed Information

Weed Identification

Weed genus and species	<i>Leucanthemum vulgare</i>	<i>Hypericum perforatum</i>		
Weed common name(s)	Ox-eye Daisy	Klamath weed		

Presence

Presence or Absence	Absent			
Treated	Yes			
Infested area	500 sq. ft.			
Canopy Cover				
Appearance				
Distribution pattern				
Photo documentation	1022			

Weed Location

Geographic location (ID)	40-08			
Coordinate system	Ca. State Plane Zone 2			
Datum	NAD83			
Location data accuracy	1-5m			
Location description	Near Flume 1. UPDATE: weeds controlled.			

General Information**ID: 48-08**

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal			
Site address or other description	Beat 1			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	3750 sq. ft.			
Disturbances & impacts	Canal Maintenance			
Associated species	Black Oak, Ponderosa pine, Incense cedar, cinquefoil			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	shady			

Weed Information**Weed Identification**

Weed genus and species	<i>Leucanthemum vulgare</i>			
Weed common name(s)	Ox-eye Daisy			

Present (not all species)

Presence or Absence	Present (all)			
Treated	Unknown			
Infested area	3,750 sq. ft.			
Canopy Cover	1-5%			
Appearance	Flowering			
Distribution pattern	Scattered even			
Photo documentation	1023			

Weed Location

Geographic location (ID)	48-08			
Coordinate system	Ca. State Plane Zone 2			
Datum	NAD83			
Location data accuracy	1-5m			
Location description	South side of canal at bridge 27d; near access road; UPDATE: much less Ox-eye Daisy			

General Information

ID: 10-09

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal			
Site address or other description	Beat 1			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	2,000	sq. ft.		
Disturbances & impacts	Canal Maintenance			
Associated species	Big leaf maple, black oak, ponderosa pine; annual grasses			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Near a small drainage			

Weed Information**Weed Identification**

Weed genus and species	<i>Hypericum perforatum</i>			
Weed common name(s)	Klamath Weed			

Present (not all species)

Presence or Absence	Present (all)			
Treated	No			
Infested area	2,000	sq. ft.		
Canopy Cover	<1%			
Appearance	Flowering			
Distribution pattern	Scattered even	Clumpy		
Photo documentation	1024			

Weed Location

Geographic location (ID)	10-09			
Coordinate system	Other (specify):	State Plain		
Datum	NAD83			
Location data accuracy	1-5m			
Location description	West side of bridge over drainage; very minor occurrence.			

General Information

ID: L35-08

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal			
Site address or other description	Beat 1			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	3,000	sq. ft.		
Disturbances & impacts	Canal Maintenance	Historic Fire		
Associated species	Deer Brush, Big Leaf Maple, Black Oak, various weeds			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NE exposure; very exposed			

Weed Information**Weed Identification**

Weed genus and species	<i>Chondrilla juncea</i>	<i>Bromus tectorum</i>		
Weed common name(s)	Rush Skeleton weed	Cheat Grass		

Present (not all species)

Presence or Absence	Present (all)			
Treatment	Yes			
Infested area	3,000	sq. ft.		
Canopy Cover	<1%	25-50%		
Appearance	New growth	Flowering	Senesc.	
Distribution pattern	Linear	Scattered patchy		
Photo documentation	1025			

Weed Location

Geographic location (ID)	L35-08			
Coordinate system	Other (specify):	State Plain		
Datum	NAD83			
Location data accuracy	1-5m			
Location description	Beginning just west of flume on north side of canal for approximately 200'; UPDATE: good control of skeleton weed (<1% cover); fairly dense cheat grass remains.			

General Information

ID: L34-08

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal			
Site address or other description	Beat 1			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	3,000	sq. ft.		
Disturbances & impacts	Canal Maintenance	Historic Fire		
Associated species	Bracken Fern, Thimbleberry			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	very exposed, northeast facing slope			

Weed Information

Weed Identification

Weed genus and species	<i>Chondrilla juncea</i>	<i>Centaurea solstitialis</i>	<i>Bromus tectorum</i>	
Weed common name(s)	Rush Skeletonweed	Starthistle	Cheat Grass	

Present (not all species)

Presence or Absence	Present (not all species)	Rush Skeleton weed (abs)	Starthistle (absent)	
Treated	Yes			
Infested area	3,000	sq. ft.		
Canopy Cover	25-50%			
Appearance	Seeding	Senesc.	Dead	
Distribution pattern	Scattered even	Linear		
Photo documentation	1029, 1028			

Weed Location

Geographic location (ID)	L34-08			
Coordinate system	Ca. State Plane Zone 2			
Datum	NAD83			
Location data accuracy	1-5m			
Location description	Along canal bench north side; effective treatment; UPDATE: No starthistle or skeletonweed observed - fairly dense cheat grass.			

General Information

ID: L33-08

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal			
Site address or other description	Beat 1			
Ownership				
Land use type	Water Transport Facility			
Invaded vegetation type	Forest			
Gross Area	16,000	sq. ft.		
Disturbances & impacts	Canal Maintenance	Historic Fire		
Associated species	Douglas Fir, Incense cedar, Bracken Fern, horsetail			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW exposure; mesic site; potential wet area or riparian zone			

Weed Information

Weed Identification

Weed genus and species	<i>Hypericum perforatum</i>	<i>Verbascum thapsus</i>		
Weed common name(s)	Klamath weed	Woolly Mullein		

Present (not all species)

Presence or Absence	Present (all)			
Treatment	Yes			
Infested area	1,000	sq. ft.		
Canopy Cover	<1%			
Appearance	Flowering	New growth		
Distribution pattern				
Photo documentation	1032, 1033			

Weed Location

Geographic location (ID)	L33-08			
Coordinate system	Ca. State Plane Zone 2			
Datum	NAD83			
Location data accuracy	1-5m			
Location description	North side of canal & north side of fence near solar powered monitoring station 3; UPDATE: good control; significantly reduced weeds.			

General Information

ID: 38-08

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Beat 1		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	300	sq. ft.	
Disturbances & impacts	Canal Maintenance	Other man-made disturbance	
Associated species	Mixed conifer; Bracken Fern		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	NW Exposure		

Weed Information

Weed Identification

Weed genus and species	<i>Lathyrus latifolius</i>	<i>Cytisus scoparius</i>	
Weed common name(s)	Perennial Sweet Pea	Scotch Broom	

Presence

Presence or Absence	Present (all)		
Treated	Yes		
Infested area	300	sq. ft.	
Canopy Cover	1-5%		
Appearance	Flowering		
Distribution pattern	Clumpy		
Photo documentation	1034, 1035		

Weed Location

Geographic location (ID)	38-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	Near Camp 1 at entrance to Alder Creek Siphon; mostly on north side of canal along fence line; small area on south side of canal; Scotch broom (several plants) along fence and downslope toward house and driveway; UPDATE: some control but Sweet Pea still present.		

General Information**ID: L31-08**

Collection date (mm/dd/yyyy)	6/23/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	Alder Creek Diversion & Pipeline		
Site address or other description	near siphon entrance		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	7,000	sq. ft.	
Disturbances & impacts	Pipe Maintenance		
Associated species	P. Pine, Black Oak, Douglas Fir, Deer brush, Paint brush		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	west-facing exposure; very sunny; rocky soil		

Weed Information**Weed Identification**

Weed genus and species	<i>Bromus tectorum</i>		
Weed common name(s)	Cheat Grass		

Present (not all species)

Presence or Absence	Present (all)		
Treated	Yes		
Infested area	3,500	sq. ft.	
Canopy Cover	1-5%		
Appearance	Seeding	Senesc.	
Distribution pattern	Scattered patchy		
Photo documentation	1036		

Weed Location

Geographic location (ID)	L31-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	Alder diversion pipe; beginning at siphon entrance & extending for about 350' ; UPDATE: good brush control; Cheat Grass approximately the same as 2008.		

General Information**ID: 37-08**

Collection date (mm/dd/yyyy)	6/25/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 1 road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Black Oak, Douglas fir, Incense Cedar, Deer Brush, Yarrow	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	gravel road	

Weed Information**Weed Identification**

Weed genus and species	<i>Bromus tectorum</i>	<i>Melilotus alba</i>	<i>Bromus diandrus</i>	
Weed common name(s)	Cheat grass	White Sweet Clover	Ripgut Brome	

Weed Description

Presence or Absence	Present (all)		
Treated	Yes		
Infested area	250	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth	Seeding	Senesc.
Distribution pattern	Clumpy	Linear	
Photo documentation	1064		

Weed Location

Geographic location (ID)	37-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	West side of road, half-way up. Sweet clover very minimal, mostly ripgut and cheat grass. Update: Same as 2008.	

General Information

ID: L29-08

Collection date (mm/dd/yyyy)	6/25/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 1 Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	8,800	sq. ft.
Disturbances & impacts	Roadside maintenance	Other man-made disturbance
Associated species	Ponderosa pine, black oak, deer brush	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	rocky soil, northwest-facing slope	

Weed Information**Weed Identification**

Weed genus and species	<i>L. latifolius</i> , <i>Torilis arvensis</i> ,	<i>Melilotus alba</i>	<i>Hypericum perforatum</i>	<i>Bromus tectorum</i>
Weed common name(s)	Sweet Pea, Hedge Parsly,	Sweet Clover	Klamath Weed	Cheat Grass

Present (not all species)

Presence or Absence	Present (not all species)	Sweet Pea (absent)	Sweet Clover (absent)
Treated	Yes	mechanical	
Infested area	8800	sq. ft.	
Canopy Cover	1-5%		
Appearance	New growth	Flowering	Seeding Senesc.
Distribution pattern	Scattered patchy	Linear	
Photo documentation	1065, 1066		

Weed Location

Geographic location (ID)	L29-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Upper half of Camp 1 road, primarily on down-slope side. Update: Recent mechanical control along both shoulders (5-10 feet). Overall canopy significantly reduced.		

General Information		ID: L30-08		
Collection date (mm/dd/yyyy)	6/25/2009			
Observer name(s)	Ethan Koenigs,	Logan McCarthy		
Site Information				
Site or facility name	Access Road			
Site address or other description	Camp 1 road West fork			
Ownership				
Land use type	Transportation Corridor			
Invaded vegetation type	Forest			
Gross Area	2500	sq. ft.		
Disturbances & impacts	Roadside maintenance			
Associated species	Ponderosa Pine, Black Oak, Deer Brush			
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest-facing slope, partly shaded			
Weed Information				
Weed Identification				
Weed genus and species	<i>Bromus tectorum</i>	<i>Melilotus alba</i>	<i>Lathyrus latifolius</i>	<i>Hypericum perforatum</i>
Weed common name(s)	Cheat grass	White Sweet Clover	Perennial Sweet Pea	Klamath Weed
Present (not all species)				
Presence or Absence	Present (all)			
Treated	Yes			
Infested area	2500	sq. ft.		
Canopy Cover	<1%			
Appearance	Flowering	Seeding		
Distribution pattern	Clumpy	Linear	Scattered even	
Photo documentation	1067, 1068			
Weed Location				
Geographic location (ID)	L30-08			
Datum	NAD83			
Location data accuracy	< 1m			
Location description	From fork in the road to the house. Update: Good mechanical control along shoulder. Sweet Pea still outside treatment area.			

General Information

ID: 39-08

Collection date (mm/dd/yyyy)	6/25/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 1 road (East fork of road)	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	3500	sq. ft.
Disturbances & impacts	Roadside maintenance	Other man-made disturbance
Associated species	Ponderosa Pine, Douglas Fir, Black Oak, Deer Brush, Blue Wild Rye, Curly Dock	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest-facing slope, rocky soil, very exposed	

Weed Information

Weed Identification

Weed genus and species	<i>Melilotus alba</i>	<i>Bromus tectorum</i>
Weed common name(s)	Sweet Clover	Cheat Grass

Present (not all species)

Presence or Absence	Present (all)		
Treated	Unknown		
Infested area	1000	sq. ft.	
Canopy Cover	25-50%		
Appearance	New growth	Seeding	Senesc.
Distribution pattern	Clumpy	Scattered patchy	
Photo documentation	1069		

Weed Location

Geographic location (ID)	39-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Large clearing; weeds primarily around the margin. Update 6/25: Appears the same as 2008. Update 7/2/09: Area used as staging point for canal brush maintenance and weeds reduced do to disruption.		

General Information

ID: L32-08

Collection date (mm/dd/yyyy)	6/25/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	Camp 1 road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	2,500	sq. ft.
Disturbances & impacts	Roadside maintenance	
Associated species	Ponderosa Pine, Douglas Fir, Bracken Fern, Black Oak, Deer Brush, other weedy species.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Northwest-facing slope, rocky soil, very exposed	

Weed Information

Weed Identification

Weed genus and species	<i>Melilotus alba</i>	<i>Bromus tectorum</i>	<i>Verbascum thapsus</i>	<i>Cirsium vulgare</i>
Weed common name(s)	White Sweet Clover	Cheat grass	Woolly Mullein	Bull Thistle

Present (not all species)

Presence or Absence	Present (all)			
Treated	Unknown			
Infested area	2000	sq. ft.		
Canopy Cover	<1%	1-5%	<1%	<1%
	Flowering	New growth	Seeding	
Distribution pattern	Clumpy	Scattered even	Linear	
Photo documentation	1070, 1071			

Weed Location

Geographic location (ID)	L32-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	East fork of Camp 1 road, from clearing to gate at canal, on both sides of road. Update: Mechanical clearing of hillside from road to canal. Cheat grass about 5% canopy all others <1%		

General Information

ID: 36-08

Collection date (mm/dd/yyyy)	6/25/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Access Road	
Site address or other description	El Dorado Tunnel Road	
Ownership		
Land use type	Transportation Corridor	
Invaded vegetation type	Forest	
Gross Area	400	sq. ft.
Disturbances & impacts	Roadside maintenance	Turnout in road
Associated species	Ponderosa Pine, Douglas Fir, Blue Wild Rye, Alder, Big Leaf Maple, Willows	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Flat area, near Alder Creek	

Weed Information

Weed Identification

Weed genus and species	<i>Melilotus alba</i>	<i>Bromus tectorum</i>
Weed common name(s)	White Sweet Clover	Cheat grass

Present (not all species)

Presence or Absence	Present (all)	Treated	No
Infested area	100	sq. ft.	
Canopy Cover	<1%	1-5%	
	New growth	Seeding	
Distribution pattern	Scattered even		
Photo documentation	1072		

Weed Location

Geographic location (ID)	36-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	El Dorado Tunnel road, 100' from gate & near siphon; within 100' of Alder Crk. Update: Same as 2008.	

General Information

ID: L28-08

Collection date (mm/dd/yyyy)	6/25/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	Access Road		
Site address or other description	El Dorado tunnel road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	0.6	acres	
Disturbances & impacts	Roadside maintenance		Tunnel Construction
Associated species	Deer Brush, Black Oak, Big Leaf Maple, other weedy species		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	East-facing slope		

Weed Information

Weed Identification

Weed genus and species	<i>M. alba</i> , <i>T. arvensis</i>	<i>H. perforatum</i> , <i>B. tectorum</i>	<i>Bromus diandrus</i>	<i>Talienatherum caput-medusae</i>
Weed common name(s)	White Sweet Clover, Hedge	Klamath Weed, Cheat grass	Ripgut Brome	Medusahead Grass

Present (not all species)

Presence or Absence	Present (all)			
Treated	Yes			
Infested area	0.25	acres		
Canopy Cover	50-75%			
Appearance	Flowering	New growth	Seeding	Senesc.
Distribution pattern	Clumpy	Linear	Scattered even	
Photo documentation	1075, 1074			

Weed Location

Geographic location (ID)	L28-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Lower section of road starting from L26-08 to near bridge over Alder Creek. Update: Brush control on each side. Most species seem to be increasing except Sweet Clover, which has been reduced. Lower section of road from Alder bridge to second switchback has minimal weeds.		

General Information

ID: L26-08

Collection date (mm/dd/yyyy)	6/25/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	Access Road		
Site address or other description	The El Dorado Tunnel road		
Ownership			
Land use type	Transportation Corridor		
Invaded vegetation type	Forest		
Gross Area	3000	sq. ft.	
Disturbances & impacts	Roadside maintenance	Tunnel Constuction	
Associated species	Deer Brush, Black Oak, Big Leaf Maple, other weedy species		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	East-facing slope; very exposed		

Weed Information

Weed Identification

Weed genus and species	<i>Melilotus alba</i>	<i>Hypericum perforatum</i>	<i>Bromus tectorum</i>	<i>Bromus diandrus</i>
Weed common name(s)	White Sweet Clover	Klamath Weed	Cheat grass	Ripgut Brome

Present (not all species)

Presence or Absence	Present (all)			
Treated	Yes			
Infested area	3000	sq. ft.		
Canopy Cover	5-25%	<1%	5-25%	5-25%
Appearance	Flowering	Seeding	Senesc.	
Distribution pattern	Clumpy	Linear	Scattered even	
Photo documentation	1075, 1076			

Weed Location

Geographic location (ID)	L26-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Upper Section of road from siphon exit to old canal bench. Update: Brush clearing on sides of road & possible chemical treatment. Sweet Clover greatly reduced. Cheat Grass and Brome same as 2008. Needs additional treatment.		

General Information

ID: 44-08

Collection date (mm/dd/yyyy)	6/30/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Silver Lake	
Site address or other description	Adjacent to dam	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	250	sq. ft.
Disturbances & impacts	Roadside maintenance	Facility Maintenance
Associated species	Lodgepole Pine, Red Fir, Pennyroyal, Moutain White Thorn	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Flat Area near lake very little canopy cover.	

Weed Information

Weed Identification

Weed genus and species	<i>Verbascum thapsus</i>	<i>Cirsium vulgare</i>
Weed common name(s)	Woolly Mullein	Bull Thistle

Present (not all species)

Presence or Absence	Present (not all species)	Woolly Mullein (absent)		
Treated	No			
Infested area	50	sq. ft.		
Canopy Cover	<1%			
Appearance	New growth			
Distribution pattern	Scattered patchy			
Photo documentation	1038			

Weed Location

Geographic location (ID)	44-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	Northwest side of dam at intersection to Ferguson Point. Update: No Woolly Mullein and just a few Bull Thistle.		

General Information

ID: 11-09

Collection date (mm/dd/yyyy)	6/30/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Silver Lake	
Site address or other description	Kays Resort	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	0.25	acres
Disturbances & impacts	Canal Maintenance	Graded gravel area SW of resort
Associated species	Lodgepole Pine, Red Fir, Willow, Sedges	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Close to lake (50ft).	

Weed Information

Weed Identification

Weed genus and species	<i>Melilotus alba</i>	<i>Verbascum thapsus</i>
Weed common name(s)	White Sweet Clover	Woolly Mullein

Present (not all species)

Presence or Absence	Present (all)			
Treated	No			
Infested area	0.25	acres		
Canopy Cover	<1%			
Appearance	Germ'g./early growth	New growth		
Distribution pattern	Clumpy	Scattered patchy		
Photo documentation	1039, 1040			

Weed Location

Geographic location (ID)	11-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	Gated area, just southwest of Kays Resort within gravel clearing. SC primarily around the edges of the gravel area. Large clump of WM along shoreline (see photo 1040). Use caution if treating, near lake.		

General Information

ID: 49-08

Collection date (mm/dd/yyyy)	6/30/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	Caples Lake		
Site address or other description	Auxillary Dam		
Ownership			
Land use type	Water Storage Facility		
Invaded vegetation type	growing from rip rap		
Gross Area	1000	sq. ft.	
Disturbances & impacts	Facility Maintenance	Dam	
Associated species	Sage Brush, Rabbit brush, Phlox		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Fully exposed gravelly rocky soil.		

Weed Information

Weed Identification

Weed genus and species	<i>Verbascum thapsus</i>		
Weed common name(s)	Woolly Mullein		

Present (not all species)

Presence or Absence	Present (all)			
Treated	No			
Infested area	1000	sq. ft.		
Canopy Cover	<1%			
Appearance	New growth			
Distribution pattern	Scattered even	Linear		
Photo documentation	1044			

Weed Location

Geographic location (ID)	49-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	1-5m		
Location description	Along face of dam, very minor occurrence. Update: Same as 2008		

General Information

ID: 43-08

Collection date (mm/dd/yyyy)	6/30/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Caples Lake	
Site address or other description	Woods creek fishing access	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	0.25	acres
Disturbances & impacts	Canal Maintenance	
Associated species	Lodgepole Pine, White Fir, Rybes, Twin berry, Various flowering plants	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	High Elevation (8000ft). Very rocky lots of granite.	

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>
Weed common name(s)	Bull Thistle

Presence

Presence or Absence	Absent	
Treated	No	
Infested area		sq. ft.
Canopy Cover		
Appearance		
Distribution pattern		
Photo documentation	1054, 1055	

Weed Location

Geographic location (ID)	43-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Update: No noxious weeds, misidentified in 2008; thistle is actually: <i>Cirsium andersoni</i>	

General Information

ID: L01-09 (10-08)

Collection date (mm/dd/yyyy)	7/2/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Penstock	
Site address or other description	Near Powerhouse	
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	5000	sq. ft.
Disturbances & impacts	Canal Maintenance	Trail Maitenance
Associated species	Douglas fir , Canyon Live Oak, Deer Brush, Toyon	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Exposed, northwest-facing slope	

Weed Information

Weed Identification

Weed genus and species	<i>Rubus discolor</i>	<i>Chondrilla juncea</i>	<i>Bromus tectorum</i>
Weed common name(s)	Himalayan blackberry	Rush Skeletonweed	Cheat grass

Weed Description

Presence or Absence	Present (all)			
Treated	Yes			
Infested area	5000	sq. ft.		
Canopy Cover	5-25%			
	Seeding	Fruiting		
Distribution pattern	Scattered patchy	Linear		
Photo documentation	1056	1057	1058	

Weed Location

Geographic location (ID)	L01-09 (previously point 10-08)	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Trail from Powerhouse up to Penstock; Scattered along trail and Penstock approx. 300ft. Update: Appears to be the same as 2008; recent brush control along pipeline. HBB near pipe has been reduced but is growing back. SW is growing along the tracks. CHT just past concrete footing	

General Information

ID: 11-08

Collection date (mm/dd/yyyy)	7/2/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	EID Penstock	
Site address or other description		
Ownership		
Land use type	Water Transport Facility	
Invaded vegetation type	Forest	
Gross Area	1000	sq. ft.
Disturbances & impacts	Canal Maintenance	Trail Maintenance
Associated species	Douglas fir , Canyon Live Oak, Deer Brush, Toyon	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Exposed, northwest-facing slope	

Weed Information**Weed Identification**

Weed genus and species	<i>Rubus discolor</i>	
Weed common name(s)	Himalayan blackberry	

Weed Description

Presence or Absence	Present (all)		
Treatment	No		
Infested area	1000	sq. ft.	
Canopy Cover	25-50%		
Appearance	Flowering	Seeding	
Distribution pattern	Clumpy		
Photo documentation	1060		

Weed Location

Geographic location (ID)	11-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Clump of Himalayan blackberry near water tank. Update: Same as 2008.	

General Information

ID: 02-09

Collection date (mm/dd/yyyy)	7/2/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	EID Penstock		
Site address or other description	Surge Chamber		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area	250	sq. ft.	
Disturbances & impacts	Pipe Maintenance	Roadside maintenance	
Associated species	Manzanita, Ponderosa Pine		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Gravel Road at dead end.		

Weed Information**Weed Identification**

Weed genus and species	<i>Melilotus alba</i>		
Weed common name(s)	White Sweet Clover		

Weed Description

Presence or Absence	Present (all)			
Treatment	No			
Infested area	250	sq. ft.		
Canopy Cover	5-25%			
	Flowering			
Distribution pattern	Clumpy			
Photo documentation	1061			

Weed Location

Geographic location (ID)	02-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Small patch of sweet clover at surge chamber.		

General Information

ID: L02-09

Collection date (mm/dd/yyyy)	7/2/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	EID Penstock		
Site address or other description	Between Surge Chamber and		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area		sq. ft.	
Disturbances & impacts	Pipe Maintenance		
Associated species	Mixed Conifer - Ponderosa Pine, Douglas fir , Big Leaf Maple, Manzanita		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Steep East facing canyon slope. Dry and rocky soil.		

Weed Information**Weed Identification**

Weed genus and species	<i>Hypericum perforatum</i>			
Weed common name(s)	Klamath Weed			

Weed Description

Presence or Absence	Present (all)			
Treatment	No			
Infested area		sq. ft.		
Canopy Cover	<1%			
Appearance	Flowering			
Distribution pattern	Scattered even	Linear		
Photo documentation	1062			

Weed Location

Geographic location (ID)	L02-09		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Primarily on north side of pipe, along access road, from end of Moon Lane East, east toward tunnel.		

General Information

ID: L27-08

Collection date (mm/dd/yyyy)	7/2/2009		
Observer name(s)	Ethan Koenigs,	Logan McCarthy	

Site Information

Site or facility name	El Dorado Canal		
Site address or other description	Short Section just before El Dc		
Ownership			
Land use type	Water Transport Facility		
Invaded vegetation type	Forest		
Gross Area		sq. ft.	
Disturbances & impacts	Canal Maintenance		
Associated species	Ponderosa Pine, Douglas fir, Black Oak, Deer Brush, Big Leaf Maple, other weedy species.		
Environmental Conditions (e.g. soil conditions, exposure, etc.)	North facing slope no tree canopy.		

Weed Information

Weed Identification

Weed genus and species	<i>Hypericum perforatum</i>	<i>Melilotus alba</i>	<i>Bromus tectorum</i>
Weed common name(s)	Klamath Weed	White Sweet Clover	Cheat grass

Weed Description

Presence or Absence	Present (all)			
Treated	Yes			
Infested area		sq. ft.		
Canopy Cover	<1%	<1%	1-5%	
Appearance	Flowering			
Distribution pattern	Scattered patchy	Linear		
Photo documentation	1077			

Weed Location

Geographic location (ID)	L27-08		
Coordinate system	Ca. State Plane Zone 2		
Datum	NAD83		
Location data accuracy	< 1m		
Location description	Short section of canal from fence to flume. Update: Good control of SC and CW.		

General Information

ID: L05-09

Collection date (mm/dd/yyyy)

7/8/2009

Observer name(s)

Ethan Koenigs,

Logan McCarthy

Site Information

Site or facility name

Forebay Reservoir

Site address or other description

northeast side of reservoir

Ownership

Land use type

Water Storage Facility

Invaded vegetation type

Forest

Gross Area

sq. ft.

Disturbances & impacts

Other man-made disturbance

Lake fluctuations

Associated species

Ponderosa Pine, Native Blackberry, Cherry Tree, Alder, Willow

Environmental Conditions (e.g. soil conditions, exposure, etc.)

Sunny, west facing, in clearing.

Weed Information**Weed Identification**

Weed genus and species

*Rubus discolor**Leucanthemum vulgare*

Weed common name(s)

Himalayan Blackberry

Ox-eye Daisy

Presence

Presence or Absence

Present (all)

Treated

No

Infested area

sq. ft.

Canopy Cover

50-75%

1-5%

Appearance

Seeding

Flowering

Distribution pattern

Linear

Scattered patchy

Photo documentation

1101, 1102

Weed Location

Geographic location (ID)

L05-09

Coordinate system

Ca. State Plane Zone 2

Datum

NAD83

Location data accuracy

< 1m

Location description

Lake shore, Himalayan Blackberry forms a dense band along the shore; approximately 50'.

General Information

ID: L04-09

Collection date (mm/dd/yyyy)	7/8/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Forebay Reservoir	
Site address or other description	Along lake shore, northeast si	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	0.3	acres
Disturbances & impacts	Other man-made disturbance	Lake fluctuation
Associated species	Ponderosa Pine, Incense Cedar, Black Oak, Alder, Native Blackberry.	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Sunny, exposed, west-facing, along lake shore	

Weed Information

Weed Identification

Weed genus and species	<i>Cirsium vulgare</i>	<i>Hypericum perforatum</i>	<i>Leucanthemum vulgare</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Bull Thistle	Klamath Weed	Ox-eye Daisy	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)		
Treated	No		
Infested area	4000	sq. ft.	
Canopy Cover	<1%		
	Flowering	Seeding	
Distribution pattern	Clumpy	Linear	Scattered even
Photo documentation	1100		

Weed Location

Geographic location (ID)	L04-09	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Northeast side of lake along shore. Very close to edge of water.	

General Information

ID: L06-08

Collection date (mm/dd/yyyy)	7/8/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Forebay Reservoir	
Site address or other description	Trail on North side of reservio	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	2000	sq. ft.
Disturbances & impacts	Trail Maintenance	Other man-made disturbance
Associated species	Ponderosa Pine, Incense Cedar, Deer Brush, Black Oak	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	Heavy pine needle litter/ partly shaded	

Weed Information**Weed Identification**

Weed genus and species	<i>Cytisus scoparius</i>	
Weed common name(s)	Scotch Broom	

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	2000	sq. ft.
Canopy Cover	5-25%	
Appearance	Seeding	
Distribution pattern	Clumpy	Scattered even
Photo documentation	1099	

Weed Location

Geographic location (ID)	L06-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Approximately 50' from day-use area entrance. Update: Same as 2008.	

General Information

ID: 46-08

Collection date (mm/dd/yyyy)	7/8/2009	
Observer name(s)	Ethan Koenigs,	Logan McCarthy

Site Information

Site or facility name	Forebay Reservoir	
Site address or other description	Day use area parking	
Ownership		
Land use type	Water Storage Facility	
Invaded vegetation type	Forest	
Gross Area	0.25	acres
Disturbances & impacts	Facility Maintenance	Roadside maintenance
Associated species	Ponderosa Pine, Incense Cedar, Deer Brush, Black Oak	
Environmental Conditions (e.g. soil conditions, exposure, etc.)	High impact site; thick layer of pine needle litter.	

Weed Information

Weed Identification

Weed genus and species	<i>Hypericum perforatum</i>	<i>Lathyrus latifolius</i>
Weed common name(s)	Klamath Weed	Perennial Sweet Pea

Presence

Presence or Absence	Present (all)	
Treated	No	
Infested area	5000	sq. ft.
Canopy Cover	<1%	5-25%
Appearance	Flowering	Seeding
Distribution pattern	Scattered even	
Photo documentation	1098	

Weed Location

Geographic location (ID)	46-08	
Coordinate system	Ca. State Plane Zone 2	
Datum	NAD83	
Location data accuracy	< 1m	
Location description	Area between day use parking and Forebay road. Update: Sweet Pea infestation greater than 2008	

APPENDIX D
Eldorado National Forest Noxious Weeds List

Eldorado National Forest Noxious Weed List

List A. Highly invasive weed species known or suspected (*) to occur on the Eldorado National Forest

<i>Aegilops triuncialis</i>	barbed goatgrass
<i>Bromus tectorum</i>	cheat grass
<i>Cardus nutans*</i>	musk thistle
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Centaurea maculata</i>	spotted knapweed
<i>Centaurea solstitialis</i>	yellow starthistle
<i>Cirsium arvense*</i>	Canada thistle
<i>Chondrilla juncea</i>	rush skeletonweed
<i>Cytisus scoparius</i>	Scotch broom
<i>Genistia monspeliensis</i>	French broom
<i>Lepidium latifolium</i>	tall whitetop /perennial pepperweed
<i>Linaria genistifolia ssp. dalmatica*</i>	dalmation toadflax
<i>Lythrum salicaria</i> (added 12/26/07)	purple loosestrife
<i>Spartium junceum</i>	Spanish broom
<i>Taienatherum caput-medusae</i>	medusahead grass

List B. A list of other exotic or noxious weeds that may occur on the Eldorado National Forest that currently are not believed to be as aggressive as those in list A

<i>Acroptilon repens (Centaurea repens)</i>	Russian knapweed
<i>Ailanthus altissima</i>	Chinese tree of heaven
<i>Bromus diandrus</i>	riggut brome
<i>Cardaria chalapense</i>	small (lens podded) whitetop
<i>Cardaria draba</i>	heart podded whitetop
<i>Centaurea diffusa</i>	diffuse (white) knapweed
<i>Centaurea melitonensis</i>	totalote
<i>Cirsium vulgare</i>	bull thistle
<i>Conium maculatum</i>	poison hemlock
<i>Euphorbia esula *</i>	leafy spurge
<i>Euphorbia oblongata</i>	oblong spurge
<i>Festuca arundinaceae</i>	tall fescue
<i>Foeniculum vulgare</i>	fennel
<i>Hirschfeldia incana</i> (added 7/03)	mustard
<i>Hypericum perforatum</i>	Klamathweed
<i>Leucanthemum vulgare</i>	ox-eye daisy
<i>Lathyrus latifolius</i>	perennial sweet pea
<i>Lychinus coronaria</i>	rose campion / mullein pink
<i>Melilotus alba</i>	white sweet clover
<i>Melilotus officinalis</i>	yellow sweet clover
<i>Onopordum acanthium</i> (added 8/16/04)	Scotch thistle
<i>Rubus discolor</i>	Himalayan blackberry
<i>Salsola tragus</i>	Russian thistle / tumbleweed
<i>Silybum marianum</i> (added 9/25/03)	milk thistle
<i>Sisymbrium altissimum</i> (added 12/26/03)	Jim Hill or tumble mustard
<i>Tamarix chinensis *</i>	tamarisk / salt cedar
<i>Torilis arvensis</i> (added 7/2/03)	hedge parsley
<i>Verbascum thapsus</i>	woolly mullein