



**Boardman to Hemingway  
Transmission Line Project**

**Appendix G—Framework Reclamation  
Plan for Construction Activities**

*Prepared by:*  
Idaho Power Company  
1221 W Idaho Street  
Boise, ID 83702

**November 2011**

## TABLE OF CONTENTS

1.0	INTRODUCTION .....	1
1.1	Reclamation Plan Purpose.....	1
1.2	Reclamation Goals and Objectives .....	1
2.0	NOXIOUS- AND INVASIVE-WEED CONTROL.....	2
2.1	Existing Conditions .....	3
2.2	Pre-Construction Surveys .....	4
2.3	Pre-Construction Treatment.....	4
2.4	Post-Construction Weed Control and Monitoring.....	4
3.0	TOPSOIL AND SPOIL TREATMENT .....	5
4.0	ROW RECLAMATION.....	5
4.1	Seedbed Preparation .....	6
	4.1.1 Seeding Methods .....	6
	4.1.2 Seed Mixes .....	6
4.2	Post-Construction Monitoring and Reporting.....	6
4.3	Monitoring Activities .....	6
4.4	Reporting .....	7
5.0	PLAN UPDATES .....	7
6.0	LITERATURE CITED .....	7

## LIST OF ATTACHMENTS

Attachment A	Invasive and Noxious Plants in Project Area
Attachment B	Species Abundance Ratings

## 1.0 INTRODUCTION

Idaho Power Company (IPC) is proposing to construct and operate approximately 304 miles of new transmission line known as the Boardman to Hemingway Transmission Line Project (Project), including 298.6 miles of a 500-kilovolt (kV) single circuit and rebuild of 5.3 miles of existing 138-kV and 69-kV double circuits between Boardman, Oregon, and the Hemingway Substation approximately 30 miles southwest of Boise, Idaho. The Project includes ground-disturbing activities associated with the construction of above-ground, single- and double-circuit transmission lines involving towers, access roads, staging areas, fly yards, pulling sites as well as associated substations, communication sites, and electrical supply distribution lines. The Project crosses private land and public lands administered by the Bureau of Land Management (BLM), U.S. Forest Service (USFS), and the states of Idaho and Oregon.

### 1.1 Purpose

This preliminary reclamation plan describes the framework for the development of the final Reclamation, Revegetation, and Noxious and Invasive Weed Control Plan (final Reclamation Plan). The focus of this framework and the final Reclamation Plan is to restore areas that have been impacted by construction activities. The framework and final Reclamation Plan are applicable Project-wide and will be modified as per agreements with federal land-managing agencies, states, counties, or individual landowners. The final Reclamation Plan is intended to meet the guidance contained in Chapter 2840 of the Forest Service Manual (USFS 1990) as applicable. The final Reclamation Plan will be based on the final selected location of all Project facilities and will be submitted to the BLM and USFS prior to the issuance of a right-of-way (ROW) grant.

This framework and the final Reclamation Plan incorporate the Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan (ESCP) that will be developed to comply with *Clean Water Act of 1972* (CWA) requirements and the Framework for Managing Noxious Weeds. The SWPPP and ESCP include measures to address erosion and sedimentation that could result from ground-disturbing activities. The Framework for Managing Noxious Weeds includes measures to limit the spread and establishment of noxious weeds. The SWPPP, ESCP and Framework for Managing Noxious Weeds are standalone documents and are incorporated by reference into this document and the final Reclamation Plan. Environmental protection measures (EPM) developed for the SWPPP, ESCP and Framework for Managing Noxious Weeds are detailed in the Plan of Development (POD), Appendix E.

### 1.2 Reclamation Goals and Objectives

The primary goal of conducting reclamation activities is to restore temporarily disturbed areas to pre-construction conditions to the extent practical. BLM reclamation goals emphasize the stabilization and protection of existing vegetation; minimal disturbance of the environment; soil stabilization; and the establishment of vegetation consistent and compatible with adjacent land uses. The goal of this framework is to provide a structure for developing and implementing the reclamation process, which is designed to restore temporary impacts to vegetation and resident soils and meet the following goals and objectives:

- Noxious- and invasive-weed control
- Topsoil segregation and stockpiling
- ROW restoration
- Seedbed preparation and re-seeding
- Road reclamation

1 Reclamation goals can be achieved through short- and long-term objectives. The short-term  
2 objectives for reclamation are to stabilize disturbed areas to minimize potential erosion and  
3 sedimentation, establish temporary vegetation cover, prevent or minimize the introduction and  
4 spread of noxious- and invasive-weed species, and conserve suitable topsoil for long-term  
5 reclamation activities. The long-term objective of reclamation is to establish permanent  
6 vegetation cover that is similar to pre-disturbance conditions, self-sustaining, and, where  
7 applicable, resistant to the introduction or spread of noxious- and invasive-weed species.

8 Measures to achieve reclamation goals include the following:

- 9 • Use proper soil-management techniques, including stripping; stockpiling; and re-applying  
10 topsoil material at temporarily disturbed areas to restore soil horizons, use the existing  
11 seedbank(s), and establish surface conditions that would allow for the rapid  
12 re-establishment of vegetative cover.
- 13 • Establish stable soil surface and drainage conditions and use applicable  
14 best-management practices (BMP) that would minimize surface erosion and  
15 sedimentation and facilitate plant establishment.
- 16 • Conduct pre-construction weed surveys.
- 17 • Perform pre-construction weed-control treatments at locations identified by  
18 pre-construction weed surveys (areas with large weed infestations within or adjacent to  
19 the Project ROW).
- 20 • Conduct post-construction weed monitoring for 2 years.
- 21 • Perform post-construction weed treatment (e.g., re-seeding and/or site restoration)  
22 to pre-disturbance conditions as documented by pre-construction surveys.
- 23 • Re-establishing topography to pre-construction conditions to the extent practicable.

## 24 **2.0 Noxious- and Invasive-Weed Control**

25 *Noxious weed* is a legal term meaning any plant officially designated by a federal, state, or local  
26 agency as injurious to public health, agriculture, recreation, wildlife, or property (Sheley and  
27 Petroff 1999). The more general term *invasive species* refers to species that are non-native to  
28 the ecosystem under consideration and whose introduction causes, or is likely to cause,  
29 economic or environmental harm or harm to human health (National Invasive Species  
30 Information Center 2011). Invasive plant species include those legally designated as noxious,  
31 as well as additional species that may be considered noxious in some areas but not others,  
32 and other species that are already widespread.

33 Soil disturbances, such as those caused by the construction of the Project, could result in the  
34 establishment of new populations and spread of existing populations of noxious and invasive  
35 weeds. This section of the framework describes the known status of noxious-weed species  
36 within the Project area, the regulatory agencies responsible for the control of noxious and  
37 invasive weeds, and steps IPC will take in preventing the establishment and spread of  
38 noxious- and invasive-weed species that are the result of IPC construction activities. In addition  
39 to providing updated information contained within this framework, the final Reclamation Plan will  
40 include information on locations of significant weed populations within the Project footprint and  
41 proposed treatment methods as applicable.

42 The focus of IPC's noxious-weed control efforts will be to prevent the spread of new infestations  
43 resulting from IPC's activities. IPC is only responsible for the control of noxious weeds and  
44 invasive species that are a result of its construction-related, surface-disturbing activities. IPC is

1 not responsible for noxious weeds and invasive species that occur adjacent to Project areas or  
2 for controlling or eradicating a species that was present prior to the Project. For example,  
3 cheatgrass (*Bromus tectorum*) is widespread across large portions of the Project area.  
4 Eradication of these infestations is not the responsibility of IPC and would not be attempted.

5 There are 5 noxious-weed control objectives for the Project: 1) to inventory the existing  
6 occurrence, distribution, and abundance of noxious weeds in the Project area prior to  
7 construction, 2) to monitor and document the occurrence, distribution, and abundance of  
8 noxious weeds in the Project area for a period of 2 years following the completion of  
9 construction activities, 3) to reduce infestations of noxious weeds caused by Project-related  
10 activities and to prevent the spread of new and existing populations within the Project area,  
11 4) to ensure any populations of rare plants along the transmission line are not negatively  
12 impacted by weed-control activities, and 5) to coordinate and consult with designated BLM  
13 personnel, as appropriate, regarding all noxious-weed inventory and control activities conducted  
14 by IPC.

## 15 2.1 Existing Conditions

16 Attachment A contains a list of the noxious- and invasive-weed species known or expected to  
17 occur within the Project area based on their recorded presence in the counties the Project is  
18 located. The BLM and USFS use the most current Idaho and Oregon state noxious-weed lists  
19 for managing weeds on federal lands. The final Reclamation Plan will include the most current  
20 noxious-weed species lists produced by the two states just prior to construction.

21 The State of Oregon has designated 116 plant species as noxious (ODA 2011). Oregon divides  
22 noxious weeds into 3 classifications:

- 23 • **A-designated weeds:** Weeds of known economic importance that occur in the state in  
24 small enough infestations to make eradication or containment possible; or are not known  
25 to occur, but their presence in neighboring states make future occurrence in Oregon  
26 seem inevitable.
- 27 • **B-designated weeds:** Weeds of economic importance that are regionally abundant but  
28 may have limited distribution in some counties.
- 29 • **T-listed weeds:** A subset of weeds on the A and B lists. T-designated weeds are priority  
30 noxious weeds designated by the Oregon State Weed Board (OSWB) as a target for  
31 which the Oregon Department of Agriculture (ODA) will develop and implement a  
32 statewide management plan.

33 The Idaho State Department of Agriculture (ISDA) has designated 64 plant species as noxious.  
34 Idaho's noxious weeds are divided into 3 categories (ISDA 2011):

- 35 • **Statewide Early Detection and Rapid Response (EDRR) List:** If weeds on this list are  
36 identified, they will be reported to the ISDA within 10 days and eradicated in the same  
37 growing season as identified.
- 38 • **Statewide Control List:** This list contains species known to exist throughout the state.  
39 When identified, a control plan will be developed by the county, with active control  
40 methods to be employed in no more than 5 years.
- 41 • **Statewide Containment Noxious Weed list:** This list contains species known to exist  
42 throughout the state. Weed-control efforts may be directed at reducing or eliminating  
43 new or expanding populations, while known populations may be managed by any  
44 approved weed-control methodology as determined by the county.

1 In addition to the ODA Noxious Weed Classification System used by the state, each county in  
2 Oregon uses a separate weed-classification system and maintains a separate list of county  
3 noxious weeds. These county weed lists also use a 3-point designation classification system;  
4 however, the definition of each designation differs slightly from the state classification system.  
5 The county classification system is as follows:

- 6 • **Class “A” County Noxious Weeds:** A weed of known economic/environmental  
7 importance known to occur in the county in very small numbers to make eradication  
8 practical or not known to occur but its status in surrounding counties makes future  
9 occurrence seem imminent.
- 10 • **Class “B” County Noxious Weeds:** A weed of known economic/environmental  
11 importance and of moderate-to-wide distribution and highly invasive, subject to intensive  
12 control or eradication where feasible at the county level.
- 13 • **Class “C” County Noxious Weeds:** A weed of known economic/environmental  
14 importance and of general distribution that is subject to control or eradication as local  
15 conditions warrant.

## 16 **2.2 Pre-Construction Surveys**

17 Pre-construction vegetation surveys will be conducted to document the vegetation species,  
18 evaluate the presence or potential habitat for plant species of special concern (state and  
19 federally listed), the overall landscape condition relative to plant growth (healthy plants,  
20 over-grazed, previously disturbed, recently burned, etc.), and the presence and extent of  
21 noxious or invasive weeds. These vegetation surveys will be conducted during the growing  
22 season and prior to construction and will provide baseline data to guide reclamation.

23 The locations of noxious weeds and invasive species would be documented with a handheld  
24 global positioning system (GPS) instrument and used to develop a pre-construction map.  
25 The pre-construction map would be used to define the area(s) infested with noxious weeds  
26 before construction and would be used to document the weeds IPC is responsible for  
27 introducing and/or spreading.

## 28 **2.3 Pre-Construction Treatment**

29 Mapped noxious- and invasive-weed species locations may be treated, within the disturbed  
30 construction area, prior to transmission line construction. In Idaho, weed species on the ED RR  
31 list will be treated prior to the start of ground-disturbing activities. For other weed species, the  
32 decision to treat prior to the start of construction activities will be based on the nature and extent  
33 of the infestation, surrounding conditions (e.g., the predominance of weeds outside Project  
34 areas), landowner permission, and the construction schedule. The intent is for Project  
35 construction activities not to be delayed to facilitate pre-construction treatment of noxious and  
36 invasive weeds. IPC will implement EPMS to minimize and control the introduction and spread  
37 of noxious- and invasive-weed species. EPMS developed for the control of noxious- and  
38 invasive-weed species are detailed in the POD, Appendix E.

## 39 **2.4 Post-Construction Weed Control and Monitoring**

40 Any required spraying will most likely occur from May to June; however, the potential for fall  
41 treatments, depending on the weed species, does exist. Following annual spraying, a  
42 monitoring survey will be conducted to verify locations of noxious weeds in the Project vicinity.  
43 Monitoring surveys will be conducted following the same methods as for the pre-construction

1 survey. The relative abundance (refer to Attachment B for abundance ratings) of each noxious  
2 weed will be recorded for the following 3 zones: 1) immediate area of disturbance (roadbed,  
3 laydown yard, or pulling and tensioning site), 2) within 30 feet of the immediate area of  
4 disturbance, and 3) in the area greater than 30 feet from the immediate area of disturbance.  
5 Surveys will be conducted in zones 1 and 2. Zone 3 will be surveyed at a reconnaissance level  
6 based on what is visible adjacent to the 30-foot buffer. The abundance will be recorded using  
7 the following 8 abundance categories: rare, locally rare, occasional, locally occasional, frequent,  
8 locally frequent, abundant, and locally abundant. Abundance categories are defined in  
9 Attachment B.

10 Using prior years' survey information, post-construction weed treatment will be planned by IPC  
11 and coordinated with the BLM to ensure treatment will be conducted at the proper growing  
12 period and during favorable environmental conditions.

13 If required, spraying will be conducted by IPC or a licensed, qualified contractor. The intent of  
14 applying herbicide will be to treat only the areas with weed infestation rather than broad  
15 application. Weed spraying will involve the use of appropriate chemicals to control the targeted  
16 species. It is anticipated that most spraying will be conducted using all-terrain vehicle  
17 (ATV)-mounted spray equipment supported by a 1 or more 4-wheel-drive (4WD) pickups  
18 equipped with water tanks. Pickups will carry the necessary chemicals, dyes, fluid pumps, tools,  
19 and water to provide a base station for refilling ATV spray tanks. Spraying weed infestations  
20 within the weed control area will be conducted on ATVs using handheld spray guns with  
21 25- to 50-foot hoses attached to spray tanks or by using 8- to 12-foot spray booms. The spray  
22 booms will be used for treating larger areas on roadbeds and gentle-to-moderately-steep  
23 terrain.

24 The final Reclamation Plan will provide site-specific information on noxious- and invasive-weed  
25 species, relative abundance, and treatment methods.

### 26 **3.0 TOPSOIL AND SPOIL TREATMENT**

27 IPC and/or its contractor will minimize ground disturbance where practical; however, there will  
28 still be extensive areas of soil disturbance due to the nature of the work and existing  
29 topography. The final Reclamation Plan will identify locations where the management of topsoil  
30 is warranted, such as areas where topsoil supports native plant species or is important to a  
31 private landowner (e.g., agricultural soils). Generally, topsoil is considered the upper 6 to  
32 12 inches, but this can vary by soil type. EPMs developed for topsoil removal and replacement  
33 are detailed in the POD, Appendix E.

### 34 **4.0 ROW RECLAMATION**

35 Reclamation of temporarily disturbed areas will involve replacing stockpiled subsoil and topsoil  
36 (where applicable), restoring pre-existing contours, installing permanent erosion-control  
37 structures (i.e., water bars), and re-establishing vegetation. These methods are further detailed  
38 in the POD, Appendix E.

39 Some areas may not have extensive vegetation before Project construction, such as areas of  
40 shallow bedrock, shallow topsoil, steep slopes, or dry desert soils. These areas will be identified  
41 during pre-construction surveys and will not be re-seeded. Where appropriate, other reclamation  
42 activities (e.g., restoring pre-construction contours) will be conducted.

## 1 **4.1 Seedbed Preparation**

2 As part of the reclamation process, IPC will prepare the seedbed to facilitate the restoration of  
3 vegetation to pre-construction conditions. General measures are discussed as follows, and  
4 habitat-specific seedbed measures will be provided in the final Reclamation Plan.

5 Soil amendments are intended to minimize soil erosion and subsequent sedimentation,  
6 conserve soil moisture, provide cover, and moderate temperatures to facilitate the germination  
7 of seeds. Measures regarding seedbed preparation are detailed in the POD, Appendix E.

### 8 **4.1.1 Seeding Methods**

9 Unless otherwise directed, following seedbed preparation, seed will be applied using a  
10 broadcast spreader, drill, and/or hydroseeder depending on site conditions and seed mix.  
11 Seeding will be done after ground-disturbing activities are complete and at the appropriate time  
12 of year (preferably in the fall or, if fall is not an option, the spring). If there is a lag time between  
13 the end of ground-disturbing activities and seeding, BMPs from the SWPPP will be  
14 implemented. Measures regarding seeding methods are detailed in the POD, Appendix E.

### 15 **4.1.2 Seed Mixes**

16 The choice of seed mixtures will be dependent on the existing vegetation types, the availability  
17 of commercial, weed-free live seed at the time of seeding, and landowner approval. The final  
18 Reclamation Plan will identify proposed seed mixes based on specific vegetation communities  
19 (e.g., sagebrush, grassland, etc.) and will include the species, cultivar (if applicable), percent  
20 seed mix, pure live seeds per acre, and the application rate. Proposed mixes will not be applied  
21 prior to landowner notification.

22 IPC will re-seed some permanently disturbed areas as well. Roads created for the Project that  
23 are necessary for the long-term operation and maintenance of the transmission line are  
24 considered a permanent impact; however, IPC will re-seed these areas as an EPM. The intent  
25 of this re-seeding differs from the long-term objective of establishing plant communities and  
26 habitat. Therefore, the final Reclamation Plan will also include one or more seed mixes that will  
27 be used as a BMP for permanently disturbed areas.

## 28 **5.0 Post-Construction Monitoring and Reporting**

29 IPC will conduct post-construction surveys for a 2-year period following the conclusion of  
30 ground-disturbing activities.

### 31 **5.1 Monitoring Activities**

32 Successful revegetation will be determined by monitoring reclaimed areas against existing  
33 conditions. Species and relative density will be assessed annually and compared to baseline  
34 data collected prior to the start of ground-disturbing activities. Reclamation will be determined  
35 successful if the seeded areas have germinated and are demonstrating that they will, over time,  
36 achieve a distribution and diversity similar to pre-construction conditions. If after a second  
37 growing season problem areas have been identified (e.g., seed germination is lower than  
38 expected; prevalence of noxious-weed species), the area will be treated and re-seeded.  
39 Treatment may include additional seedbed preparation, control of noxious weeds, use of soil  
40 amendments, and/or use of another appropriate seed mix. Monitoring reclamation activities and  
41 remedial measures on private lands will be up to the landowner and agreements they negotiate  
42 with IPC.

## 5.2 Reporting

IPC will document pre-construction observations, construction reclamation activities, and post-construction monitoring on federally and state-managed lands in an annual report. Annual reports will be prepared for submittal to federal or state entities that administer public lands in the Project area. The reports will provide a summary of Project reclamation activities and observations and include recommendations for additional corrective actions if necessary.

## 6.0 PLAN UPDATES

Once the preferred route is selected and final engineering is completed, a final Reclamation Plan will be prepared. The final Reclamation Plan will be updated prior to the start of construction. As IPC better defines the construction order and schedule, the final Reclamation Plan will be updated to include the schedule for baseline vegetation and weed surveys and identification of any areas for pre-construction noxious-weed treatment, and a more detailed reclamation schedule and plan.

## 7.0 LITERATURE CITED

ISDA (Idaho State Department of Agriculture). 2011. Idaho's 64 Noxious Weeds. Available online at:

<http://www.agri.state.id.us/Categories/PlantsInsects/NoxiousWeeds/watchlist.php>

National Invasive Species Information Center. 2011. Invasive Species. Available online at <http://www.invasivespeciesinfo.gov/whatis.shtml>. Modified February 8, 2011.

ODA (Oregon Department of Agriculture). 2011. Oregon Noxious Weed Policy and Classification System 2011. Available online at:

[http://oregon.gov/ODA/PLANT/WEEDS/docs/weed\\_policy.pdf](http://oregon.gov/ODA/PLANT/WEEDS/docs/weed_policy.pdf)

Sheley, R.L., and J.K. Petroff. 1999. Biology and Management of Noxious Rangeland Weeds. Oregon State University. Corvallis, Oregon.

USFS (U.S. Forest Service). 1990. FSM Chapter 2840—Reclamation. Available online at <http://www.fs.fed.us/im/directives/fsm/2800/2840.txt>

**ATTACHMENT A  
INVASIVE AND NOXIOUS  
PLANTS IN PROJECT AREA**

Table A-1. Designated Noxious Weeds Suspected to Occur within the Project Area; Based on State and County Noxious-Weed Lists				
Scientific Name	Common Name	Idaho State List	Oregon State List	Oregon County List <sup>6</sup>
<i>Centaurea nigrescens</i>	Short-fringe knapweed	–	–	A (Malheur)
<i>Centaurea pratensis</i> ( <i>Centaurea debeauxii</i> )	Meadow knapweed	Control (not known in Owyhee Co.)	B	A (Malheur, Union)
<i>Centaurea repens</i> ( <i>Acroptilon repens</i> )	Russian knapweed	Control	B	A (Union) B (Baker, Malheur <sup>3</sup> , Morrow, Umatilla)
<i>Centaurea solstitialis</i>	Yellow starthistle	Containment (not known in Owyhee Co.)	B, T	A (Baker, Malheur, Morrow) B (Umatilla, Union)
<i>Centaurea trichocephala</i>	Featherheaded knapweed			A (Malheur)
<i>Centaurea virgata</i> ( <i>Centaurea triumfetti</i> )	Squarrose knapweed	EDRR (not known in Owyhee Co.)	A, T	A (Malheur)
<i>Chondrilla juncea</i>	Rush skeletonweed	Containment	B, T	A (Baker, Malheur, Morrow, Umatilla, Union)
<i>Cichorium intybus</i>	Chickory	–	–	B (Baker)
<i>Cicuta douglasii</i>	Water hemlock	–	–	B (Morrow) C (Baker, Union)
<i>Cirsium arvense</i>	Canada thistle	Containment	B	B (Malheur, Morrow, Umatilla, Union)
<i>Cirsium vulgare</i>	Bull thistle	–	B	B (Baker) C (Malheur)
<i>Conium maculatum</i>	Poison hemlock	Containment	B	B (Morrow) C (Baker, Malheur, Union)
<i>Convolvulus arvensis</i>	Morning glory	Containment	A, T	B (Morrow) C (Baker, Malheur)
<i>Convolvulus sepium</i>	Morning glory	–	–	C (Union)
<i>Crupina vulgaris</i>	Common crupina	Control (not known in Owyhee Co.)	B	A (Malheur, Morrow)
<i>Cuscuta campestris</i>	Dodder	–	B	B (Baker, Morrow, Umatilla) C (Malheur)
<i>Cynoglossum officinale</i>	Houndstongue	Containment (not known in Owyhee Co.)	B	A (Morrow) B (Malheur)
<i>Cyperus esculentus</i>	Yellow nutsedge	–	B	C (Malheur)
<i>Cytisus scoparius</i>	Scotch broom	Control (not known in Owyhee Co.)	B	A (Union)

Table A-1. Designated Noxious Weeds Suspected to Occur within the Project Area; Based on State and County Noxious-Weed Lists				
Scientific Name	Common Name	Idaho State List	Oregon State List	Oregon County List <sup>6</sup>
<i>Datura stramonium</i>	Jimsonweed	–	–	A (Malheur)
<i>Dipsacus fullonum</i>	Teasel	–	–	B (Baker)
<i>Echium vulgare</i>	Viper's bugloss	Control (not known in Owyhee Co.)	–	B (Umatilla)
<i>Equisetum arvense</i>	Western horsetail	–	–	C (Malheur, Union)
<i>Euphorbia esula</i>	Leafy spurge	Containment	B, T	A (Baker, Malheur, Morrow, Umatilla, Union)
<i>Euphorbia myrsinites</i>	Myrtle spurge	–	B	B (Baker)
<i>Galium aparine</i>	Catchweed bedstraw	–	–	B (Union)
<i>Halogeton glomeratus</i>	Halogeton	–	B	C (Malheur)
<i>Hemizonia pungens</i>	Spikeweed	–	B	A (Morrow)
<i>Hibiscus trionum</i>	Venice mallow	–	–	B (Baker)
<i>Hydrilla venticillata</i>	Hydrilla	EDRR	A	A (Malheur)
<i>Hyoscyamus niger</i>	Black henbane	Control	–	A (Baker)
<i>Hypericum perforatum</i>	Klamathweed (St. Johnswort)	–	B	B (Baker, Malheur, Morrow, Umatilla)
<i>Iris pseudacorus</i> ( <i>Iris psudocorus</i> )	Yellow flag iris	Containment	B	A (Baker)
<i>Isatis tinctoria</i>	Dyers woad	Control	B	A (Malheur, Union)
<i>Kochia scoparia</i>	Kochia	–	B	B (Morrow, Umatilla, Union) C (Baker, Malheur)
<i>Lepidium draba</i> ( <i>Cardaria draba</i> )	Hoary cress (whitetop)	Containment	B	A (Baker <sup>1</sup> , Union, Morrow) B (Malheur, Umatilla, Union <sup>4</sup> )
<i>Lepidium latifolium</i>	Perennial pepperweed	Containment	B, T	A (Baker, Malheur <sup>2</sup> , Union) B (Umatilla)
<i>Linaria dalmatica</i>	Dalmation toadflax	Containment	B	A (Baker, Morrow, Union) B (Umatilla)
<i>Linaria vulgaris</i>	Yellow toadflax	Containment (not known in Owyhee Co.)	B	B (Baker, Malheur, Morrow)
<i>Lyrum salicaria</i>	Purple loosestrife	Containment	B	A (Baker, Umatilla, Morrow) A (Union, Malheur)

Table A-1. Designated Noxious Weeds Suspected to Occur within the Project Area; Based on State and County Noxious-Weed Lists				
Scientific Name	Common Name	Idaho State List	Oregon State List	Oregon County List <sup>6</sup>
<i>Melilotus officinalis</i>	Sweet clover	–	–	C (Malheur)
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	Control	B	-
<i>Onopordum acanthium</i>	Scotch thistle	Containment	B	A (Baker, Morrow) B (Malheur, Umatilla, Union)
<i>Panicum miliaceum</i>	Wild proso millet	–	–	A (Malheur)
<i>Phragmites australis</i>	Common reed	Control	A	-
<i>Polygonum cuspidatum</i> ( <i>Fallopia japonica</i> )	Japanese knotweed	Control (not known in Owyhee Co.)	B, T	A (Baker)
<i>Potamogeton crispus</i>	Curlyleaf pondweed	Containment	–	-
<i>Ranunculus testiculatus</i>	Bur buttercup	–	–	C (Baker)
<i>Roripa sylvestris</i>	Creeping yellow cress	–	B	A (Umatilla)
Rosaceae spp. ( <i>Potentilla recta</i> )	Sulphur (cinquefoil)	–	B	A (Malheur) B (Baker, Union)
<i>Salsola tenuifolia</i> v. <i>kali</i> ( <i>Salsola iberica</i> )	Russian thistle	–	–	C (Baker, Union)
<i>Salvia aethiopsis</i>	Mediterranean sage	Control (not known in Owyhee Co.)	B	A (Malheur, Morrow)
<i>Secale cereale</i>	Cereal rye	–	–	B (Umatilla, Morrow) C (Union)
<i>Senecio jacobaea</i>	Tansy ragwort	Containment (not known in Owyhee Co.)	B, T	A (Baker, Malheur, Morrow Umatilla, Union)
<i>Silybum marianum</i>	Milk thistle	–	B	A (Malheur)
<i>Solanum elaeagnifolium</i>	Silverleaf nightshade	–	A	A (Malheur)
<i>Solanum rostratum</i>	Buffalobur	Control (not known in Owyhee Co.)	B	A (Baker, Malheur, Union)
<i>Sonchus arvensis</i>	Perennial sowthistle	Control (not known in Owyhee Co.)	–	B (Morrow)

Table A-1. Designated Noxious Weeds Suspected to Occur within the Project Area; Based on State and County Noxious-Weed Lists				
Scientific Name	Common Name	Idaho State List	Oregon State List	Oregon County List <sup>6</sup>
<i>Sorghum halepense</i>	Johnsongrass	Control (not known in Owyhee Co.)	B	A (Malheur) B (Morrow, Umatilla)
<i>Sphaerophysa salsula</i>	Austrian peaweed	–	B	A (Malheur) B (Umatilla)
<i>Taeniatherum caput-medusae</i> ( <i>Elymus caput-meduseae</i> )	Medusahead wildrye	–	B	B (Morrow) C (Baker, Malheur)
<i>Tamarix parviflora</i> ( <i>Tamarix ramosissima</i> )	Saltcedar	Containment	B, T	A (Baker) C (Malheur)
<i>Tanacetum vulgare</i>	Common tansy	–	–	B (Baker)
<i>Tribulus terrestris</i>	Puncturevine	Containment	B	B (Baker, Malheur, Morrow, Umatilla, Union)
<i>Verbascum blattaria</i>	Moth mullein	–	–	C (Baker)
<i>Verbascum thapsis</i>	Common mullein	–	–	C (Baker)
<i>Xanthium spinosum</i>	Spiny cocklebur	–	B	A (Malheur)

<sup>1</sup> Whitetop is listed as an A weed in designated areas of the county (i.e., Pine Valley and West Baker Valley and Bowen Valley/Sumpter areas are mandatory control). Whitetop is a B weed in all other areas of the county.

<sup>2</sup> Perennial pepperweed is an A weed only in that part of Malheur County south of the road leading from the junction of the Malheur County line and McBride Creek Road, west to Leslie Gulch Road, to Lake Owyhee and the area south of the road leading from the Rinehart Ranch to the Crowley Road west to Highway 78, north to the Malheur County line. It is a B weed in all other parts of the county.

<sup>3</sup> Owners or occupants in Malheur County, Oregon, having Russian knapweed are required to control a minimum 20 percent of their annual infestation per discrete parcel of land per year. This includes the 50-foot buffer plus additional amounts to total 20 percent of the infestation.

<sup>4</sup> Class B in Union County south of Catherine Creek Drainage and Class A north of this drainage.

<sup>5</sup> Class B in Union County south of Willow Creek Drainage and Class C south of this drainage.

<sup>6</sup> This column includes the county lists from any county in Oregon crossed by the Project.

**ATTACHMENT B  
SPECIES ABUNDANCE RATINGS**

## **ABUNDANCE RATINGS**

### **Rare:**

Difficult to find; limited to 1 or very few individuals or colonies; < 1 percent of the total sample unit area; found in more than 1 place along the sample unit.

### **Locally Rare:**

Difficult to find; limited to 1 or very few individuals or colonies; < 1 percent of the total sample unit area; found at only 1 site within the sample unit.

### **Occasional:**

Widely scattered individuals or colonies but not difficult to find; 1–5 percent of the total sample unit area; found in more than 2 sites within the sample unit.

### **Locally Occasional:**

Scattered individuals or colonies but not difficult to find; 1–5 percent of the total sample unit area; found in only 1 or 2 sites within the sample unit.

### **Frequent:**

Easily found but not dominant in any one place; 5–25 percent of the total sample unit area; a moderate number of occurrences over a good portion of the sample unit.

### **Locally Frequent:**

Easily found but not dominant in any one place; 5–25 percent of the total sample unit area; a moderate number of occurrences over a small portion of the sample unit.

### **Abundant:**

Easily found; dominant or co-dominant in 1 or more areas; > 25 percent of the total sample unit; a high number of occurrences over most of the sample unit.

### **Locally Abundant:**

Easily found; dominant or co-dominant in 1 or more areas; > 25 percent of the total sample unit; a high number of occurrences over a small portion of the sample unit.