APPENDIX C – ENVIRONMENTAL PROTECTION PLAN FRAMEWORKS

C1 – Reclamation, Revegetation, and Monitoring Plan Framework

C2 – Stormwater Pollution Prevention Plan Framework

C3 – Spill Prevention, Control, and Countermeasures Plan Framework

C4 – Hazardous Materials Management Plan Framework

C5 – Emergency Preparedness and Response Plan Framework

C6 – Blasting Plan Framework

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Appendix C1
Reclamation, Revegetation, and Monitoring Plan Framework

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Attachment B Species Abundance Ratings

Acronyms and Abbreviations

ATV	all-terrain vehicle
BLM	Bureau of Land Management
EDRR	Early Detection and Rapid Response
ESCP	Erosion and Sediment Control Plan
final Reclamation Plan	final Reclamation, Revegetation, and Noxious and Invasive Weed Control Plan
GPS	global positioning system
IPC	Idaho Power Company
ISDA	Idaho State Department of Agriculture
ODA	Oregon Department of Agriculture
ODOE	Oregon Department of Energy
OFP	Oregon Flora Project
Project	Boardman to Hemingway Transmission Line Project
ROW	right-of-way
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States
USFS	U.S. Forest Service

APPENDIX C1 – RECLAMATION, REVEGETATION, AND MONITORING PLAN FRAMEWORK

C1.1 Introduction

This Reclamation, Revegetation, and Monitoring Plan Framework has been developed based on the principles and procedures established by the Bureau of Land Management (BLM) and U.S. Forest Service (USFS), which are applicable to high-voltage transmission projects. This plan applies to the construction of transmission structures, permanent and temporary access roads, multi-use areas, pulling and tensioning sites, and other ancillary work areas associated with the Boardman to Hemingway Transmission Line Project (Project) on lands managed by federal, cooperating agencies and other lands as negotiated between Idaho Power Company (IPC) and the land manager. Requirements for reclamation, revegetation, and monitoring on private lands will be negotiated between IPC and the landowner. The intent of this plan is to provide a framework for assigning (planning) and applying (implementing) reclamation treatments to reclaim Project-related disturbance, prevent unnecessary degradation of the environment, and reclaim disturbed areas such that these areas are ecologically functional and visually compatible with the surrounding environment to the greatest extent practicable.

C1.1.1 Plan Framework Updates

This plan framework will support the National Environmental Policy Plan of Development sufficiently to complete and execute the BLM and USFS Records of Decision, the BLM right-of-way (ROW) grant and USFS special-use authorization for the Project. This plan framework serves as a baseline document to guide development of the complete Reclamation, Revegetation, and Monitoring Plan developed with the Plan of Development before issuance of the Notice(s) to Proceed and commencement of construction. The complete Reclamation, Revegetation, and Monitoring Plan will be developed by the Construction Contractor(s)/Reclamation Contractor(s) in consultation with IPC and the agencies as detailed design and engineering of the Project is completed and contain the detailed information necessary for site-specific guidance. This plan framework provides Project-specific guidance for development of the complete Reclamation, Revegetation, and Monitoring Plan by identifying treatments and measures required to avoid, minimize, and mitigate Project-related impacts; prevent unnecessary degradation of the environment; ensure reclamation and revegetation activities comply with federal, state, or other agency requirements; and meet any stipulations of the Records of Decision, BLM ROW grant and USFS special-use authorization. The Construction Contractor(s) will be responsible for preparing and implementing the complete Reclamation, Revegetation, and Monitoring Plan.

C1.1.2 Purpose

This 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 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* 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.

C1.1.3 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 objectives:

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

Reclamation goals can be achieved through short- and long-term objectives. The short-term objectives for reclamation are to stabilize disturbed areas to minimize potential erosion and sedimentation, establish temporary vegetation cover, prevent or minimize the introduction and spread of noxious- and invasive-weed species, and conserve suitable topsoil for long-term reclamation activities. The long-term objective of reclamation is to establish permanent vegetation cover that is similar to pre-disturbance conditions, self-sustaining, and, where applicable, resistant to the introduction or spread of noxious- and invasive-weed species. In forested and some riparian areas that support tall growing vegetation reclamation to pre-disturbance conditions will not be possible as conductor clearances must be maintained for safe operation of the Project. Achievement of reclamation goals in these areas will be the establishment of low growing shrubs and grasses.

Measures to achieve reclamation goals include the following:

- Use proper soil-management techniques, including stripping; stockpiling; and re-applying topsoil material at temporarily disturbed areas to restore soil horizons, use the existing seedbank(s), and establish surface conditions that would allow for the rapid re-establishment of vegetative cover.
- Establish stable soil surface and drainage conditions and use applicable best-management practices that would minimize surface erosion and sedimentation and facilitate plant establishment.
- Conduct pre-construction weed surveys.
- Perform pre-construction weed-control treatments at locations identified by pre-construction weed surveys (areas with large weed infestations within the Project ROW).
- Conduct post-construction weed monitoring for a minimum of 3 to 5 years in areas disturbed by Project construction.
- Conduct ongoing monitoring and focused control of noxious weed infestations inside of the ROW, as needed, for the life of the BLM ROW grant and USFS special-use authorization.

- Perform post-construction weed treatment (e.g., re-seeding and/or site restoration) to pre-disturbance conditions as documented by pre-construction surveys.
- Re-establishing topography to pre-construction conditions to the extent practicable.

C1.2 Noxious- and Invasive-Weed Control

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

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

The focus of IPC's noxious-weed control efforts will be to prevent the spread of new infestations resulting from IPC's activities. IPC is only responsible for the control of noxious weeds and invasive species that are a result of its construction-related, surface-disturbing activities. IPC is not responsible for noxious weeds and invasive species that occur adjacent to Project areas or for controlling or eradicating a species that was present prior to the Project. For example, cheatgrass *(Bromus tectorum)* is widespread across large portions of the Project area. Eradication of these infestations is not the responsibility of IPC and would not be attempted.

There are 5 noxious-weed control objectives for the Project: 1) to inventory the existing occurrence, distribution, and abundance of noxious weeds in the Project area prior to construction, 2) to monitor and document the occurrence, distribution, and abundance of noxious weeds in the Project disturbance areas for a period of 3 to 5 years following the completion of construction activities, 3) to reduce infestations of noxious weeds caused by Project-related activities and to prevent the spread of new and existing populations within the Project area by conducting ongoing monitoring and focused control of noxious weed infestations inside of the ROW, as needed, for the life of the BLM ROW grant and USFS special-use authorization, 4) to ensure any populations of rare plants along the transmission line are not negatively impacted by weed-control activities, and 5) to coordinate and consult with designated BLM personnel, as appropriate, regarding all noxious-weed inventory and control activities conducted by IPC.

C1.2.1 Noxious Weed Status and Classification

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

The Oregon Department of Agriculture (ODA) updates the state of Oregon noxious weed list each year (ODA 2015). Currently, 131 plant species are listed as noxious in Oregon. Oregon divides noxious weeds into 3 classifications:

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

The Idaho State Department of Agriculture (ISDA) has designated 67 plant species as noxious. This list is based on State of Idaho Department of Agriculture species extent maps (http://www.agri.idaho.gov/AGRI/Categories/PlantsInsects/NoxiousWeeds/watchlist.php). Based on this information, 25 state listed noxious weed species are known to occur in Owyhee County, Idaho. Idaho's noxious weeds are divided into 3 categories (ISDA 2011):

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

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

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

C1.2.2 Pre-Construction Surveys

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

The locations of noxious weeds and invasive species would be documented with a handheld global positioning system (GPS) instrument and used to develop a pre-construction map. The pre-construction

map would be used to define the area(s) infested with noxious weeds before construction and would be used to document the weeds IPC is responsible for introducing and/or spreading.

C1.2.3 Post-Construction Weed Control and Monitoring

Any required spraying would occur at the most appropriate time when considering the selected herbicide and target species. Following annual spraying, a monitoring survey will be conducted to verify locations of noxious weeds in the Project ROW. Monitoring surveys will be conducted following the same methods as for the pre-construction survey. The relative abundance (refer to Attachment B for abundance ratings) of each noxious weed will be recorded. The abundance will be recorded using the following eight abundance categories: rare, locally rare, occasional, locally occasional, frequent, locally frequent, abundant, and locally abundant. Abundance categories are defined in Attachment B.

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

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

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

C1.3 Topsoil and Spoil Treatment

IPC and/or its contractor will minimize ground disturbance where practical; however, there will still be extensive areas of soil disturbance due to the nature of the work and existing topography. The final Reclamation Plan will identify locations where the management of topsoil is warranted, such as areas where topsoil supports native plant species or is important to a private landowner (e.g., agricultural soils). Generally, topsoil is considered the upper 6 to 12 inches, but this can vary by soil type.

C1.4 ROW Reclamation

Reclamation of temporarily disturbed areas will involve replacing stockpiled subsoil and topsoil (where applicable), restoring pre-existing contours, installing permanent erosion-control structures (i.e., water bars), and re-establishing vegetation.

Some areas may not have extensive vegetation before Project construction, such as areas of shallow bedrock, shallow topsoil, steep slopes, or dry desert soils. These areas will be identified during pre-construction surveys and will not be re-seeded. Where appropriate, other reclamation activities (e.g., restoring pre-construction contours) will be conducted. Reclamation of temporarily disturbed areas by re-establishing vegetation will mostly not be feasible in areas with tall-growing vegetation such as forested areas as conductor clearances must be maintained for safe operation of the Project.

C1.4.1 Seedbed Preparation

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

Soil amendments are intended to minimize soil erosion and subsequent sedimentation, conserve soil moisture, provide cover, and moderate temperatures to facilitate the germination of seeds.

C1.4.1.1 Seeding Methods

Unless otherwise directed, following seedbed preparation, seed will be applied using a broadcast spreader, drill, and/or hydroseeder depending on site conditions and seed mix. Seeding will be done after ground-disturbing activities are complete and at the appropriate time of year (preferably in the fall or, if fall is not an option, the spring). If there is a lag time between the end of ground-disturbing activities and seeding, best-management practices from the SWPPP will be implemented.

C1.4.1.2 Seed Mixes

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

IPC will re-seed some permanently disturbed areas as well. Roads created for the Project that are necessary for the long-term operation and maintenance of the transmission line are considered a permanent impact; however, IPC will re-seed these areas where appropriate. The intent of this re-seeding is to reduce the potential for erosion of the road surface and reduce visual impact of the road to potential viewers. The intent of re-seeding of permeant Project roads differs from the long-term objective of establishing plant communities and habitat. Therefore, the final Reclamation Plan will also include one or more seed mixes that will be used as a best-management practice for permanently disturbed areas.

C1.5 Post-Construction Monitoring and Reporting

Reclamation monitoring typically occurs over a 3- to 5-year period. When it is determined that an area of the Project has been successfully restored at any point during the first 5 years of monitoring, by satisfying all success criteria, IPC will request concurrence from the BLM, USFS, and Oregon Department of Energy (ODOE). If BLM, USFS, and ODOE concur, IPC will conclude that it has no further obligation to perform reclamation activities in that area of the Project. Where this is the case, the monitoring effort may require fewer than 5 years. If after 5 years of monitoring (and reclamation actions) some sites have not attained the success criteria, IPC will coordinate with BLM, USFS, and ODOE regarding appropriate steps forward. At this point IPC may suggest additional reclamation techniques or strategies, or IPC may request a waiver from further reclamation obligations at these sites.

C1.5.1 Monitoring Activities

Successful revegetation will be determined by monitoring reclaimed areas against existing conditions. Species and relative density will be assessed annually and compared to baseline data collected prior to the start of ground-disturbing activities. Reclamation will be determined successful if the seeded areas have germinated and are demonstrating that they will, over time, achieve a distribution and diversity similar to pre-construction conditions. If after a second growing season problem areas have been identified (e.g., seed germination is lower than expected; prevalence of noxious-weed species), the area will be treated and re-seeded. Treatment may include additional seedbed preparation, control of noxious weeds, use of

soil amendments, and/or use of another appropriate seed mix. Monitoring reclamation activities and remedial measures on private lands will be up to the landowner and agreements they negotiate with IPC.

C1.5.2 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.

C1.6 Literature Cited

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Attachment A
Invasive and Noxious Plants in Project Area

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Table A-1 Noxious Weeds with the Potential to Occur within the Project Area				
Scientific Name (Synonym Name)	**Common Name**	**Oregon State Noxious Weed Category[1]**	**Oregon County Noxious Weed Category[2]**	**Project Counties in Which Known to Occur**
Acroptilon repens (Centaurea repens)	Russian knapweed	B	A (Union) B (Baker, Malheur[3], Morrow, Umatilla)	Baker, Malheur, Morrow, Umatilla, Union
Aegilops cylindrica	Jointed goatgrass	B	A (Baker, Malheur) B (Morrow, Umatilla, Union)	Baker, Malheur, Morrow, Union
Ailanthus altissima	Tree of heaven	B	–	Umatilla
Alhagi pseudalhagi	Camelthorn	A	A (Malheur, Umatilla)	Umatilla
Alliaria petiolata	Garlic mustard	B, T	–	Umatilla
Ambrosia artemisiifolia	Common ragweed	B	B (Umatilla) C (Malheur)	Malheur, Umatilla
Amorpha fruticosa	False indigo bush	B	–	Baker, Malheur, Umatilla
Anchusa officinalis	Common bugloss	B, T	A (Union) Watch List[4] (Baker)	Umatilla, Union
Avena fatua	Wild oat	–	C (Union)	Union
Bassia scoparia (Kochia scoparia)	Kochia; burning bush	B	B (Morrow, Umatilla) Agricultural Class B[5] (Union) C (Baker, Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Bromus tectorum	Cheatgrass	–	C (Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Cannabis sativa	Marijuana	–	A (Umatilla)	Malheur
Cardaria chalepensis (Lepidium chalepensis)	Lenspod whitetop	B	–	Malheur
Cardaria draba (Lepidium draba)	Whitetop; hoary cress	B	A (Baker[6], Morrow, Union) B (Baker[6], Malheur, Umatilla)	Baker, Malheur, Morrow, Umatilla, Union
Carduus nutans	Musk thistle	B	A (Morrow) B (Malheur, Umatilla) Watch List (Baker)	Baker, Malheur, Morrow, Umatilla, Union
Centaurea calcitrapa	Purple starthistle	A, T	A (Malheur, Umatilla)	Umatilla
Centaurea diffusa	Diffuse knapweed	B	A (Baker, Malheur) B (Morrow, Umatilla, Union)	Baker, Malheur, Morrow, Umatilla, Union
Centaurea nigrescens (C. debeauxii; C. jacea x nigra; C. pratensis)	Short-fringe knapweed; Meadow knapweed	B	A (Malheur, Union)	Union
Centaurea solstitialis	Yellow starthistle	B	A (Baker, Malheur, Morrow, Union) B (Umatilla)	Baker, Malheur, Morrow, Umatilla, Union

Table A-1 Noxious Weeds with the Potential to Occur within the Project Area				
Scientific Name (Synonym Name)	**Common Name**	**Oregon State Noxious Weed Category[1]**	**Oregon County Noxious Weed Category[2]**	**Project Counties in Which Known to Occur**
Centaurea stoebe subsp. micranthos (C. maculosa)	Spotted knapweed	B, T	A (Baker, Malheur, Umatilla) B (Morrow, Union)	Baker, Malheur, Morrow, Umatilla, Union
Centaurea virgata (C. triumfetti)	Squarrose knapweed	A, T	A (Malheur)	Baker, Malheur, Union
Centromadia pungens subsp. pungens[7] (Hemizonia pungens)	Spikeweed; common tarweed	B	A (Morrow)	Morrow, Umatilla
Ceratocephala testiculata (Ranunculus testiculatus)	Bur buttercup	–	C (Baker)	Baker, Malheur, Morrow, Umatilla, Union
Chondrilla juncea	Rush skeletonweed	B, T	A (Baker, Malheur, Morrow, Umatilla, Union)	Baker, Malheur, Morrow, Umatilla, Union
Cichorium intybus	Chickory	–	B (Baker)	Morrow, Union
Cicuta douglasii[8]	Water hemlock	–	B (Morrow) C (Baker)	Malheur, Morrow, Umatilla, Union
Cirsium arvense	Canada thistle	B	B (Malheur, Morrow, Umatilla, Union)	Baker, Malheur, Morrow, Umatilla, Union
Cirsium vulgare	Bull thistle	B	B (Baker) Agricultural Class B[5] (Union) C (Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Conium maculatum	Poison hemlock	B	B (Morrow) Agricultural Class B[5] (Union) C (Baker, Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Convolvulus arvensis	Field bindweed	B, T	B (Morrow) C (Baker, Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Conyza canadensis[8]	Horseweed; mares tail	–	Agricultural Class B[5] (Union)	Malheur, Union
Crupina vulgaris	Common crupina	B	A (Malheur, Morrow)	Umatilla
Cuscuta spp.	Dodder	B	B (Baker, Morrow, Umatilla) C (Malheur)	Baker, Malheur
Cynoglossum officinale	Houndstongue	B	A (Morrow) Agricultural Class B[5] (Union) B (Malheur)	Baker, Malheur, Morrow, Umatilla, Union

Table A-1 Noxious Weeds with the Potential to Occur within the Project Area				
Scientific Name (Synonym Name)	**Common Name**	**Oregon State Noxious Weed Category[1]**	**Oregon County Noxious Weed Category[2]**	**Project Counties in Which Known to Occur**
Cyperus esculentus	Yellow nutsedge	B	C (Malheur)	Malheur, Morrow
Cytisus scoparius	Scotch broom	B	A (Union)	Baker, Umatilla, Union
Datura stramonium	Jimsonweed	–	A (Malheur)	Morrow, Union
Dipsacus fullonum	Fuller's teasel	–	B (Baker)	Baker, Morrow, Umatilla, Union
Elymus repens (Agropyron repens)	Quackgrass	–	B (Umatilla) Agricultural Class B[5] (Union) C (Malheur)	Malheur, Umatilla
Equisetum arvense[8]	Western horsetail	–	C (Malheur)	Baker, Malheur, Umatilla, Union
Euphorbia esula	Leafy spurge	B, T	A (Baker, Malheur, Morrow, Umatilla, Union)	Baker, Malheur, Morrow, Umatilla, Union
Euphorbia myrsinites	Myrtle spurge	B	B (Baker, Morrow)	Baker, Malheur, Morrow, Umatilla, Union
Galium aparine[8]	Catchweed bedstraw	–	Agricultural Class B[5] (Union)	Baker, Malheur, Morrow, Umatilla, Union
Halogeton glomeratus	Halogeton	B	C (Malheur)	Malheur
Hedera helix	English ivy	B	–	Union
Hibiscus trionum	Venice mallow	–	B (Baker)	Malheur
Hieracium aurantiacum	Orange hawkweed	A	A (Union)	Morrow
Hieracium caespitosum (H. pratense; Pilosella caespitosa)	Meadow hawkweed	B, T	A (Union)	Umatilla, Union
Hieracium piloselloides	Tall hawkweed; king-devil hawkweed	A	A (Union)	Umatilla
Hyoscyamus niger	Black henbane	–	A (Baker)	Baker, Morrow, Umatilla
Hypericum perforatum	Klamathweed (St. Johnswort)	B	A (Malheur) Agricultural Class B[5] (Union) B (Baker, Morrow, Umatilla)	Baker, Morrow, Umatilla, Union
Iris pseudacorus	Yellow flag iris	B	A (Baker, Union)	Baker, Malheur, Umatilla, Union
Isatis tinctoria	Dyers woad	B	A (Malheur) Watch List[4] (Baker)	Baker, Malheur, Umatilla, Union
Lathyrus latifolius	Perennial peavine	B	–	Umatilla
Lepidium latifolium	Perennial pepperweed	B, T	A (Baker, Malheur[9], Union) B (Malheur[9], Morrow, Umatilla)	Baker, Malheur, Morrow, Umatilla, Union
Linaria dalmatica	Dalmation toadflax	B, T	A (Baker, Malheur, Morrow) B (Umatilla, Union)	Baker, Malheur, Morrow, Umatilla, Union

Table A-1 Noxious Weeds with the Potential to Occur within the Project Area				
Scientific Name (Synonym Name)	**Common Name**	**Oregon State Noxious Weed Category[1]**	**Oregon County Noxious Weed Category[2]**	**Project Counties in Which Known to Occur**
Linaria vulgaris	Yellow toadflax	B	A (Malheur, Morrow) B (Baker)	Baker, Morrow, Umatilla, Union
Lythrum salicaria	Purple loosestrife	B	A (Baker, Morrow, Umatilla) B (Malheur, Union)	Baker, Malheur, Morrow, Umatilla, Union
Melilotus officinalis	Sweet clover	–	C (Malheur)	Baker, Malheur, Umatilla, Union
Myriophyllum spicatum	Eurasian watermilfoil	B	-	Union
Onopordum acanthium	Scotch thistle	B	A (Baker, Morrow) B (Malheur, Umatilla, Union)	Baker, Malheur, Morrow, Umatilla, Union
Orobanche minor	Small broomrape	B	–	Baker
Panicum miliaceum	Wild proso millet	–	A (Malheur)	Baker
Phalaris arundinacea	Reed canarygrass; ribbongrass	B, T	–	Malheur, Morrow, Union
Phragmites australis	Common reed	B	B (Malheur)	Malheur, Morrow, Union
Polygonum cuspidatum (Fallopia japonica)	Japanese knotweed	B	A (Baker, Union)	Baker, Morrow, Union
Polygonum sachalinensis (Fallopia sachalinense)	Giant knotweed	B	A (Union)	Morrow, Umatilla
Potentilla recta	Sulfur cinquefoil	B	A (Malheur, Union[10]) B (Baker, Union[10])	Baker, Malheur, Morrow, Umatilla, Union
Rorippa sylvestris	Creeping yellow cress	B	A (Umatilla)	Union
Rubus armeniacus	Himalayan blackberry	B	–	Umatilla
Salsola tragus (S. iberica; S. kali)	Russian thistle	–	Agricultural Class B[5] (Union) C (Baker, Malheur)	Malheur, Morrow, Umatilla
Salvia aethiopis	Mediterranean sage	B	A (Malheur, Morrow) Watch List (Baker)	Baker, Malheur, Morrow, Umatilla Union
Secale cereal	Cereal rye	–	B (Morrow, Umatilla)	Union
Senecio jacobaea	Tansy ragwort	B, T	A (Baker, Malheur, Morrow, Umatilla, Union)	Baker, Morrow, Umatilla, Union
Silybum marianum	Milk thistle	B	A (Malheur)	Umatilla
Solanum elaeagnifolium	Silverleaf nightshade	A	A (Malheur)	Baker, Umatilla
Solanum rostratum	Buffalobur	B	A (Baker, Malheur)	Baker, Malheur, Union
Sonchus arvensis	Perennial sowthistle	–	B (Morrow)	Baker, Morrow, Umatilla

Table A-1 Noxious Weeds with the Potential to Occur within the Project Area				
Scientific Name (Synonym Name)	**Common Name**	**Oregon State Noxious Weed Category[1]**	**Oregon County Noxious Weed Category[2]**	**Project Counties in Which Known to Occur**
Sorghum halepense	Johnsongrass	B	A (Malheur) B (Morrow, Umatilla)	Morrow, Umatilla
Sphaerophysa salsula	Alkali swainsonpea	B	A (Malheur) B (Umatilla)	Morrow, Umatilla
Taeniatherum caput-medusae	Medusahead	B	A (Union) B (Morrow) C (Baker, Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Tamarix ramosissima	Saltcedar	B, T	A (Baker) C (Malheur)	Baker, Malheur, Umatilla
Tanacetum vulgare	Common tansy	–	B (Baker)	Baker, Umatilla
Tribulus terrestris	Punctureviné	B	B (Baker, Morrow, Umatilla, Union) C (Malheur)	Baker, Malheur, Morrow, Umatilla, Union
Ventenata dubia	Ventenata; North Africa grass	–	B (Malheur, Morrow)	Umatilla, Union
Verbascum blattaria	Moth mullein	–	C (Baker)	Baker, Malheur, Umatilla, Union
Verbascum thapsus	Common mullein	–	C (Baker)	Baker, Umatilla, Union
Xanthium spinosum	Spiny cocklebur	B	A (Malheur)	Baker, Malheur, Morrow, Umatilla, Union

[1] – = not applicable

[2] This column includes county listed noxious weeds for the five counties in Oregon crossed by the Project.

[3] Owners or occupants in Malheur County with Russian knapweed infestations are required to control a minimum 20 percent of their annual infestation per discreet parcel of land per year. This includes a 50-foot buffer plus additional amounts that total 20 percent of the infestation.

[4] Watch List – Few known sites; controlled by Weed Supervisor county-wide (Baker County).

[5] Agricultural Class B is defined as "…a weed of economic importance, specifically in Union county agriculture, which is both locally abundant and abundant in neighboring counties."

[6] *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.

[7] Considered native in California, but introduced in Oregon (Baldwin and Strother 2006; OFP 2015).

[8] This species is native to Oregon.

[9] 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.

[10] This species is listed on both the Class A and Class B lists in Union County.

Table A-2 Idaho Noxious Weeds Known to Occur or with the Potential to Occur within Owyhee County			
Scientific Name (Synonym Name)	**Common Name**	**Idaho State Noxious Weed Category**	**Known to Occur In Owyhee County**
Egeria densa	Brazilian Elodea	Statewide EDRR	No
Hydrcharis morsus-ranae	Common/European Frogbit	Statewide EDRR	No
Cobomba caroliniana	Fanwort	Statewide EDRR	No
Azolla pinnata	Feathered Mosquito Fern	Statewide EDRR	No
Heracleum mantegazzianum	Giant Hogweed	Statewide EDRR	No
Salvinia molesta	Giant Salvinia	Statewide EDRR	No
Centaurea iberica	Iberian Starthistle	Statewide EDRR	No
Hydrilla verticillata	Hydrilla	Statewide EDRR	Yes
Impatiens glandulifera	Policeman's Helmet	Statewide EDRR	No
Centaurea calcitrapa	Purple Starthistle	Statewide EDRR	No
Centaurea triumfetti	Squarrose Knapweed	Statewide EDRR	No
Zygophyllum fabago	Syrian Beancaper	Statewide EDRR	No
Hieracium piloselloides	Tall Hawkweed	Statewide EDRR	No
Myriophyllum heterophyllum	Variable-Leaf-Milfoil	Statewide EDRR	No
Trapa natans	Water Chestnut	Statewide EDRR	No
Eichhornia crassipes	Water Hyacinth	Statewide EDRR	No
Hieracium glomeratum	Yellow Devil Hawkweed	Statewide EDRR	No
Nymphoides pelata	Yellow Floating Heart	Statewide EDRR	No
Hyoscyamus niger	Black Henbane	Statewide Control List	Yes
Polygonum bohemicum	Bohemian Knotweed	Statewide Control List	No
Solanum rostratum	Buffalobur	Statewide Control List	Yes
Crupina vulgaris	Common Crupina	Statewide Control List	No
Phragmites australis	Common Reed (Phragmites)	Statewide Control List	Yes
Isatis Tinctoria	Dyer's Woad	Statewide Control List	Yes
Myriophyllum spicatum	Eurasian Watermilfoil	Statewide Control List	Yes
Polygonum sachalinense	Giant Knotweed	Statewide Control List	No
Polygonum cuspidatum	Japanese Knotweed	Statewide Control List	No
Sorghum halepense	Johnsongrass	Statewide Control List	No
Nardus stricta	Matgrass	Statewide Control List	No
Centaurea debeauxii	Meadow Knapweed	Statewide Control List	No
Salvia aethiopis	Mediterranean Sage	Statewide Control List	No
Carduus nutans	Musk Thistle	Statewide Control List	Yes
Hieracium aurantiacum	Orange Hawkweed	Statewide Control List	No
Myriophyllum aquaticum	Parrotfeather Milfoil	Statewide Control List	No
Sonchus arvensis	Perennial Sowthistle	Statewide Control List	No
Acroptilon repens	Russian Knapweed	Statewide Control List	Yes
Cytisus scoparius	Scotch Broom	Statewide Control List	No
Anchusa arvensis	Small Bugloss	Statewide Control List	No
Echium vulgare	Vipers Bugloss	Statewide Control List	No
Hieracium caespitosum	Yellow Hawkweed	Statewide Control	No
Cirsium arvense	Canada Thistle	Statewide Containment	Yes
Potamogeton crispus	Curlyleaf Pondweed	Statewide Containment	Yes
Linaria dalmatica ssp. dalmatica	Dalmatian Toadflax	Statewide Containment	Yes
Centaurea diffusa	Diffuse Knapweed	Statewide Containment	Yes
Convolvulus arvensis	Field Bindweed	Statewide Containment	Yes

Table A-2 Idaho Noxious Weeds Known to Occur or with the Potential to Occur within Owyhee County			
Scientific Name (Synonym Name)	**Common Name**	**Idaho State Noxious Weed Category**	**Known to Occur In Owyhee County**
Butomus umbelltus	Flowering Rush	Statewide Containment	No
Berteroa incana	Hoary Alyssum	Statewide Containment	No
Cynoglossum officinale	Houndstongue	Statewide Containment	Yes
Aegilpos cylindrica	Jointed Goatgrass	Statewide Containment	No
Euphorbia esula	Leafy Spurge	Statewide Containment	Yes
Milium vernale	Milium	Statewide Containment	No
Leucanthemum vulgare	Oxeye Daisy	Statewide Containment	No
Lepidium latifolium	Perennial Pepperweed	Statewide Containment	Yes
Carduus acanthoides	Plumeless Thistle	Statewide Containment	No
Conium maculatum	Poison Hemlock	Statewide Containment	Yes
Tribulus terrestris	Puncturevine	Statewide Containment	Yes
Lythrum salicaria	Purple Loosestrife	Statewide Containment	Yes
Chondrilla juncea	Rush Skeletonweed	Statewide Containment	Yes
Tamarix sp.	Saltcedar	Statewide Containment	Yes
Onopordum acanthium	Scotch Thistle	Statewide Containment	Yes
Centaurea stoebe	Spotted Knapweed	Statewide Containment	Yes
Senecio jacobaea	Tansy Ragwort	Statewide Containment	No
Bryonia alba	White Bryony	Statewide Containment	No
Cardaria draba	Whitetop	Statewide Containment	Yes
Iris psudocorus	Yellow Flag Iris	Statewide Containment	Yes
Centaurea solstitialis	Yellow Starthistle	Statewide Containment	No
Linaria vulgaris	Yellow Toadflax	Statewide Containment	No

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Attachment B
Species Abundance Ratings

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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.

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