

# Appendix D

## Revised Plan for Operations, Maintenance, and Emergency Response Gateway West Transmission Line Project

*Prepared by:*



Idaho Power Company  
1221 West Idaho Street  
Boise, ID 83702

*and*



Rocky Mountain Power  
1407 W North Temple  
Salt Lake City, UT 84116

January 2010

**TABLE OF CONTENTS**

1

2

3 **1.0 INTRODUCTION..... 1**

4 **2.0 OPERATION AND MAINTENANCE..... 2**

5     **2.1 Routine Maintenance (Preventative Maintenance)..... 2**

6     **2.2 Corrective Maintenance ..... 4**

7 **3.0 EMERGENCY SITUATIONS ..... 4**

8 **4.0 ENVIRONMENTAL PROTECTION MEASURES..... 5**

9     **4.1 Site Access and Road Management ..... 5**

10    **4.2 Vegetation Management ..... 1**

11    **4.3 Noxious Weed Control ..... 4**

12    **4.4 Protection Measures for Aquatic Resources ..... 4**

13    **4.5 Protection for Threatened, Endangered, and Sensitive Plant and**

14        **Animal Species ..... 5**

15    **4.6 Restoration and Revegetation..... 6**

16    **4.7 Protection Measures for Cultural Resources..... 7**

17    **4.8 Fire Protection ..... 8**

18    **4.9 Emergency Notification Procedures..... 8**

19 **5.0 O&M PLAN HISTORY ..... 9**

20 **6.0 LITERATURE CITED..... 11**

**LIST OF TABLES**

21

22

23

24

25

26 Table 1 Company Proposed Seasonal O&M Restrictions by Time and Location for Big Game

27     Crucial Winter Range..... 7

28 Table 2 IVM Recommended Management Heights in the Wire Zone and Regions..... 9

29 Table 3 O&M Contact List..... 17

30

31

32

**LIST OF FIGURES**

33

34

35

36 Figure 1 Transmission Line Vegetation Management Zones ..... 9

37 Figure 2 Vegetation Management Regions Based on Line Height ..... 10

38

## 1 1.0 INTRODUCTION

2 This document presents the plan proposed by Idaho Power and Rocky Mountain Power (the  
3 Companies) for conducting routine and emergency operation and maintenance (O&M) activities  
4 for the Gateway West Transmission Line Project (Project). This plan is intended to ensure the  
5 following:

- 6 • O&M activities comply with applicable state and federal laws and policies;
- 7 • Consistency across and within federal jurisdictions;
- 8 • The Companies are able to access the transmission line and ancillary facilities and  
9 implement the necessary O&M activities in a timely, cost effective and safe manner;
- 10 • Impacts to the environment are avoided where practicable or are minimized; and
- 11 • The Companies comply with the North American Electric Reliability Corporation (NERC)  
12 and Western Electric Coordinating Council (WECC) reliability and service requirements.

13  
14 NERC's mission is to ensure the reliability of the bulk power system in North America. To  
15 achieve that, NERC develops and enforces reliability standards; assesses adequacy annually  
16 via 10-year and seasonal forecasts; monitors the bulk power system; evaluates users, owners,  
17 and operators users for preparedness; and educates, trains, and certifies industry personnel.  
18 NERC works with eight regional entities to improve the reliability of the bulk power system. The  
19 members of the regional entities come from all segments of the electric industry: investor-owned  
20 utilities; federal power agencies; rural electric cooperatives; state, municipal and provincial  
21 utilities; independent power producers; power marketers; and end-use customers. These  
22 entities account for virtually all the electricity supplied in the United States, Canada, and a  
23 portion of Baja California Norte, Mexico.

24 The Western Systems Coordinating Council (WSCC) was formed with the signing of the WSCC  
25 Agreement on August 14, 1967 by 40 electric power systems. Those "charter members"  
26 represented the electric power systems engaged in bulk power generation and/or transmission  
27 serving all or part of the 14 Western States and British Columbia, Canada. The WECC was  
28 formed on April 18, 2002, by the merger of WSCC, Southwest Regional Transmission  
29 Association (SWRTA), and Western Regional Transmission Association (WRTA). WECC's  
30 interconnection-wide focus is intended to complement current efforts to form Regional  
31 Transmission Organizations (RTO) in various parts of the West.

32 WECC and the nine other regional reliability councils were formed due to national concern  
33 regarding the reliability of the interconnected bulk power systems, the ability to operate these  
34 systems without widespread failures in electric service, and the need to foster the preservation  
35 of reliability through a formal organization.

36 WECC members have long recognized the many benefits of interconnected system operation.  
37 During the mid 1960s, expansion of interconnecting transmission lines among systems in the  
38 western United States and western Canada resulted in the complete interconnection of the  
39 entire WECC region. As this expansion was taking place, systems generally adopted the  
40 Operating Guides of the North American Power Systems Interconnection Committee (NAPSIC)  
41 to promote consistent operating practices within the region. NAPSIC later became the NERC  
42 Operating Committee.

1 The reliability management system (RMS) was created as a way to enforce compliance. This  
2 contract obligates entities to abide by certain critical reliability standards and to provide the data  
3 needed to verify compliance. The contract also imposes sanctions, both monetary and non-  
4 monetary according to a set schedule, for violations of reliability criteria. Currently all control  
5 areas but one are signatories to the RMS agreement, and almost 90% of the customer load in  
6 the Western Interconnection is served under RMS.

7  
8 The Companies submitted the *Revised Proposed Plant and Wildlife Conservation Plan -*  
9 *Construction Activities* (Idaho Power and Rocky Mountain Power 2010) to the Bureau of Land  
10 Management (BLM) in January 2010. That document addressed avoidance and minimization  
11 measures during corridor and route selection and conservation measures, including temporal  
12 and spatial restrictions, to protect plant and wildlife species of concern during construction. The  
13 avoidance and minimization measures implemented during routing will also reduce the potential  
14 for adverse impacts during O&M activities. This Plan addresses routine, corrective and  
15 emergency response activities for operation and maintenance of the transmission line and its  
16 ancillary facilities. This Plan will be reviewed and updated as necessary and as agreed to by the  
17 Companies and the Agencies.

## 20 **2.0 OPERATION AND MAINTENANCE**

21 The Companies perform a number of activities to keep transmission lines operational and in  
22 good repair. Most of these activities, such as those for routine patrols, inspections, or scheduled  
23 maintenance, are planned in advance. However, there will be an occasional need for  
24 emergency response in cases where public safety and property are threatened, to prevent  
25 imminent damage to the transmission line and ancillary facilities, or to restore service in the  
26 event of an outage.

27 Routine, corrective, and emergency response activities will be conducted in accordance with  
28 this O&M Plan without previous notification or approval from the BLM, U.S. Forest Service, and  
29 Bureau of Reclamation (Agencies). Exceptions where prior notification and approval are  
30 required are described in Section 4. Maintenance activities outside of the right-of-way (ROW),  
31 outside of established service and access roads or other Project related ancillary facilities, or  
32 that are not identified in this Plan will not be conducted until approved by the Agencies. An  
33 exception to this would be when emergency action/maintenance is needed which requires some  
34 outside ROW work to be completed to ensure reliable power to customers.

35  
36 Typical schedules and equipment used for the O&M activities are provided below. However,  
37 additional vehicles and equipment may be necessary depending on the terrain, site access, and  
38 necessary maintenance work. Work may also be conducted outside of the typical schedule;  
39 schedule changes may occur as a result of weather, manpower, equipment availability, budgets,  
40 and other factors.

### 42 **2.1 Routine Maintenance (Preventative Maintenance)**

43 Routine maintenance activities are conducted on a regular basis and have been carried out  
44 historically to identify and repair any deficiencies. These activities do not damage vegetation or  
45 soil outside of the ROW, and do not adversely impact sensitive resources — including known  
46 federal and state listed species, waters of the United States, and cultural resources — and do  
47 not require land manager approval. Personnel are generally present in any one area for less  
48 than one day. The following are examples of routine maintenance activities:

- 1 • Routine air patrols from a helicopter to inspect for structural and conductor defects,  
2 conductor clearance problems and hazardous trees.
- 3 • Routine ground patrols to inspect structural and conductor components. Such  
4 inspections generally require either an all-terrain vehicle (ATV) or pickup and possibly  
5 additional support vehicles traveling on access and service roads and may rely on either  
6 direct line-of-sight or binoculars. In some cases, the inspector may walk the ROW.  
7 Patrols are typically conducted in the spring and fall. Follow-up maintenance is  
8 scheduled depending on the severity of the problem — either as soon as possible or as  
9 part of routine scheduled maintenance.
- 10 • Climbing surveys may be necessary to inspect hardware or make repairs. Personnel  
11 generally access these structures by pickup, ATV, or on foot.
- 12 • Structure or conductor maintenance typically occurs from a bucket truck or boom truck.  
13 The maintenance vehicle may be located on or off a road, and no-to-minimal grading is  
14 necessary to create a safe work area.
- 15 • Cathodic protection surveys to check the integrity and functionality of the anodes and  
16 ground beds. These surveys typically require personnel to use an ATV or pickup and  
17 make brief stops.
- 18 • Routine cyclical vegetation clearing to trim or remove tall shrubs and trees to ensure  
19 adequate ground-to-conductor clearances. Vegetation clearing cycles vary from 3 to  
20 10 years or as needed (dependent upon the vegetation present). Personnel generally  
21 access the area by pickup, ATV, or on foot; use chainsaws to clear the vegetation; and  
22 typically spend less than half a day in any one specific area. In some cases vegetation  
23 may be cleared using mechanical means.
- 24 • Removal of individual trees or snags (hazard trees) that pose a risk of falling into  
25 conductors or structures and causing outages or fires. Personnel generally access  
26 hazard trees by truck, ATV, or by foot from an access or service road, and cut them with  
27 a chainsaw or similar tool. Any felled trees or snags are left in place as sources of large  
28 woody debris or as previously directed by the land management agency. Felled green  
29 trees are limbed to reduce fire hazard.
- 30 • Wood poles are periodically treated to retard rotting and structural degradation. Wooden  
31 poles are limited to the distribution lines serving substations and regeneration stations  
32 on this Project. Personnel typically access structures by pickup, ATV, or on foot; inspect  
33 and test (including the subsurface) the poles; and then treat them by injecting  
34 preservatives into the poles if required. Wood pole inspections and treatments generally  
35 occur on a 10-year cycle.
- 36 • Routine road maintenance, such as blading (as needed) the road to improve surface  
37 condition and drainage, or removing minor physical barriers, such as rocks and debris.  
38 All initial road maintenance is performed by field crews which typically use ATVs,  
39 pickups, chainsaws, and hand tools. Trees and brush are cut off at grade to minimize  
40 damage to vehicles. Slash, deadfall, and boulders are placed at the edge of the road or  
41 down slope of the road bed, depending on site topography, to serve as a filtering  
42 windrow to minimize erosion and sedimentation. Smaller vegetation (e.g., grasses) is left  
43 in the road bed unless it is too tall, hinders access, or could be construed as a fire  
44 hazard to O&M vehicles.
- 45 • Vegetation removal may be required on service roads to allow the necessary clearance  
46 for access and provide for worker safety. Field crews access the service roads by pickup

1 or ATV and use chainsaws and hand tools to clear the vegetation. Where practicable  
2 and feasible, mechanical methods may be used.

- 3 • Installation of bird protection devices, bird perch discouragers, and the relocation or  
4 removal of bird problem nests posing imminent fire or outage risk.
- 5 • Noxious weed control and vegetation management activities that includes the use of  
6 herbicides. Herbicide use is based on agreement with the landowner or federal land  
7 management agency for the parcel in question and the chemicals used are agreed to in  
8 advance.

## 10 **2.2 Corrective Maintenance**

11  
12 Corrective maintenance activities are relatively large-scale efforts that occur infrequently, may  
13 result in more extensive vegetation clearing or earth movement, and may include rehabilitation  
14 seeding and associated activities (e.g., measures to control noxious weeds). Personnel are  
15 generally present in any one location or area for a prolonged time, generally more than one day.  
16 The following are examples of corrective maintenance:

- 17 • Non-cyclical vegetation clearing to remove saplings or larger trees in the ROW.
- 18 • Structure or conductor maintenance in which earth must be moved, such as the creation  
19 of a landing pad for construction or maintenance equipment.
- 20 • Structure (e.g., cross-arm, insulator, structure) replacement.
- 21 • Road maintenance involving erosion control, water drainage installation or repair (such  
22 as culverts or rock crossings), road rehabilitation after major disturbances (such as  
23 slumping or a storm event), or other road maintenance requiring heavy equipment (not  
24 including routine grading).
- 25 • Follow-up restoration activities, such as seeding, noxious weed control, and erosion  
26 control.
- 27 • Conductor repair or replacement, which requires the use of several types of trucks and  
28 equipment and grading to create a safe work area to hang and pull the conductor into  
29 place.

## 30 31 **3.0 EMERGENCY SITUATIONS**

32  
33 Emergency situations are those conditions that may result in imminent or direct threats to public  
34 safety or threaten or impair the Companies' ability to provide reliable transmission service to its  
35 customers. Emergency situations may include:

- 36 • Failure of conductor splices.
- 37 • Damage to structures or conductors from wildfire, high winds, ice, or other weather-  
38 related conditions.
- 39 • Line or system outages or fire hazards caused by trees falling into conductors.
- 40 • Breaking or imminent failure of cross-arms or insulators, which could, or does, cause  
41 conductor failure.
- 42 • Damage to structures or conductors from vandalism

1 In the case of an emergency where life or substantial property is at risk or there is a potential or  
2 actual interruption in service, the Companies will promptly respond to the emergency and  
3 conduct any and all activities, including emergency repair requiring heavy equipment access to  
4 the structures or other ancillary facilities, needed to remedy the emergency and will implement  
5 feasible and practicable Environmental Protection Measures (EPMs). Follow-up actions will  
6 follow this Plan.  
7  
8

## 9 **4.0 ENVIRONMENTAL PROTECTION MEASURES**

10 O&M activities are planned to minimize impacts to the environment. The following EMPs will be  
11 implemented by the Companies during routine and corrective O&M activities and, to the extent  
12 possible, during emergency situations.  
13

### 14 **4.1 Site Access and Road Management**

15 The Companies describe roads necessary for the O&M of transmission lines as either access  
16 roads or service roads. The sole purpose of service roads is to provide maintenance crews  
17 access to the transmission lines. These roads would not exist if the transmission lines did not  
18 exist. In contrast, access roads serve a broader purpose, such as contributing to the federal,  
19 county or state road systems. Access roads provide direct or indirect access to the transmission  
20 lines, but that access is not their primary purpose. Public access to service roads is determined  
21 on a case-by-case basis by the appropriate federal land management agency. The Companies  
22 are responsible for maintenance of roads that are closed to the public but accessible to federal  
23 personnel and the Companies for maintenance purposes. Service and access roads are  
24 generally one of the following four types:

- 25 • Public roads, including state highways and county roads—These roads are for public  
26 use, and the appropriate state or county entity maintains them. The Companies consider  
27 these access roads.
- 28 • Open roads on federal land—The appropriate federal agency (typically BLM or Forest  
29 Service) maintains these roads, which are open to the public. These roads, including  
30 drainage features, cuts and fill slopes, must be protected during O&M activities. The  
31 Companies consider these access roads. The federal agency is responsible for  
32 maintenance.
- 33 • Closed federal land roads—These roads are still needed for administrative or  
34 emergency functions, but they have been closed to the public because of management  
35 policies to protect natural resources or reduce maintenance costs. If utilized during O&M  
36 activities, these roads, including drainage features, cuts, and fill slopes, must be  
37 protected. Parties wanting to use these roads for access must obtain approval from the  
38 applicable federal agency. Additionally, parties using these roads will be assigned some  
39 maintenance responsibility proportionate to their use of the closed road. Although these  
40 roads may serve a broader purpose, the Companies agree to maintain them as needed  
41 for O&M activities. These are considered access roads.
- 42 • Transmission line service roads—These roads are necessary for access to, and  
43 maintenance of, transmission lines, structures or ancillary facilities, but they are not part  
44 of the public or federal network of roads. They are generally closed to the public. The  
45 Companies will maintain these roads. They are considered service roads.  
46

1 The Companies typically perform two types of road maintenance activities: (1) vegetation and  
2 debris clearing to maintain safe access and (2) repairs using heavy equipment. Roads are  
3 inspected generally every three to six years and repairs are made as necessary. Typically, a  
4 small crew uses hand tools to cut small brush and trees (greater than 12-inches tall); remove  
5 dead-fall and debris; and repair and replace signs on access and service roads. Crews also  
6 prepare an inventory of road damage that will require ground disturbance (e.g., repair of a failed  
7 bank), and repair work is scheduled accordingly (typically the following year). Inspections and  
8 maintenance are typically conducted from spring through summer, when roads are clear of  
9 snow.

10  
11 The Companies will implement the following EPMs when maintaining roads:

12 OM-1 The Companies will comply with the road maintenance standards of the federal  
13 or state agency controlling the land.

14  
15 OM-2 Roads will be maintained to have crossroad drainage in order to minimize the  
16 amount of channeling or ditches needed. Water bars will be installed at all  
17 alignment changes (curves), significant grade changes, and as requested by the  
18 federal or state agency.

19  
20 OM-3 All existing service road drainage structures will be maintained or repaired by the  
21 Companies during O&M activities or emergency response.

22  
23 OM-4 Although routine and corrective O&M is of limited duration and impact, the  
24 Companies will attempt to adhere to specific closure periods and areas and are  
25 proposing not to conduct any routine and corrective O&M activities during the  
26 timeframes and at the locations identified in **Table 1**. The federal or state  
27 agency will notify the Companies of any spatial or temporal restrictions that are in  
28 effect for the Project area (e.g., fire restrictions).

29  
30 OM-5 Existing improvements (fences, gates, etc.) will be repaired or replaced if they  
31 are damaged by O&M activities, as agreed to by the parties involved.

32  
33 OM-6 The Agencies may restrict general public access to closed federal or state roads  
34 and service roads that the Companies maintain. In cases of restricted access,  
35 the Companies will physically close the road with a gate. Gates will be locked  
36 with both a lock supplied by the Companies, and with a federal agency lock. This  
37 Plan will be updated as necessary to reflect current road closures and gate  
38 locations.

39

1 **Table 1.** Company Proposed Seasonal O&M Restrictions by Time and Location for Big Game Crucial Winter Range

Field Office	Seasonal Timing Description	Segment Proposed & Alternative	Species			
			Mile Marker where Seasonal Restriction is Applicable (mileage)			
			Mule Deer	Elk	Antelope	Moose
BLM Casper Field Office	No surface-disturbing and wildlife-disturbing activities are allowed from November 15 through April 30 on all crucial big game winter ranges.	1E	None	21.2 – 22.2 (1)	3.6 -6.2 (2.6) 7.4 – 8.4 (1)	None
		1Wa	15.7 -21.6 (5.9)	None	3.5 – 6.9 (3.4)	None
		1Wb	15.7 – 22.1 (6.4)	None	3.8 – 6.8 (3)	None
		1Wc	14.8 – 20.2 (5.4)	None	2.4 – 6.6 (4.2)	None
BLM Rawlins Field Office	No surface disturbance and disruptive activities within big game crucial winter range are allowed from November 15 to April 30.	3	23.4 – 46 (21.6)	None	23.4 – 46 (21.6)	None
BLM Rock Springs Field Office	Big game winter ranges and parturition areas would be protected to ensure continued usability by limiting activities during crucial seasons of use and by limiting the amount of habitat disturbed.	4	0 – 1.7 (1.7)	None	0 – 1.7 (1.7)	None
			5.2 – 16.6 (11.4)		6.9 – 16.6 (9.7)	
			19.8 – 20.7 (0.9)		19.8 – 20.7 (0.9)	
			25.4 – 31.7 (6.3)		25.4 – 31.7 (6.3)	

2

1 **Table 1. Continued**

Field Office	Seasonal Timing Description	Segment Proposed & Alternative	Species								
			Mile Marker where Seasonal Restriction is Applicable (mileage)								
			Mule Deer	Elk	Antelope	Moose					
BLM Kemmerer Field Office	Big game crucial winter range closure occurs from January 1 to April 30 in Slate Creek, Rock Creek, and Bridger Creek.	4	121.7 – 128.2 (6.5)	118.9 – 124.2 (5.3)	52.5 – 58.5 (6.0)	105.3 – 107 (1.7)					
				144.1 – 146.9 (2.7)			84.1 – 85.7 (1.6)	119.3 – 122.7 (3.4)			
		4A	0.4 – 6.5 (5.1) 65 – 71.1 (6.1) 82.5 – 85.1 (2.6)	61.6 – 66.8 (5.2)	0.4 – 6.5 (5.1) 32 – 33.6 (1.6)	123.9 – 125.5 (1.6)		53.2 – 54.8 (1.6)			
						4B	0.4 – 5.2 (4.8) 63.7 – 70.4 (6.7) 96.8 – 100.2 (3.5)	66.2 – 70.4 (4.2)	0.4 – 5.2 (4.8) 15.5 – 19.8 (4.3) 20.1 – 23.2 (2.1) 43.5 – 47.5 (4.0) 68.9 – 71.8 (2.9)	None	
											4C
		4D	0.4 – 5.2 (4.8) 64.3 - 71 (6.7) 97.4 – 100.8 (3.4)	66.8 – 71 (2.2)	0.4 – 5.2 (4.8) 15.5 – 19.8 (4.3) 20.1 23.2 (3.2) 43.5 – 47.5 (2.0) 69.5 – 72.4 (2.9)	None					
							4E	0.3 – 5.2 (4.9) 64.3 – 70.7 (6.4) 73.2 – 73.6 (0.4) 78.8 – 84.2 (5.2) 98.7 – 102.2 (3.5)	66.6 – 71.2 (4.6) 71.7 – 80.6 (8.9)	0.3 – 5.2 (4.9) 15.4 – 19.9 (4.4) 20.1 23.2 (3.2) 43.5 – 47.5 (2.0) 69.4 – 71.3 (1.9)	
											7
		7G	0 – 3.2 (3.2)								

## 1 4.2 Vegetation Management

2 The Companies manage vegetation within their ROWs and in access and service roads to  
3 minimize interference with the flow of electricity, to address safety issues, and to facilitate O&M  
4 activities. The vegetation management complies with the National Electric Safety Code, ANSI  
5 A300 Part 7: American Operations Integrated Vegetation Management and Electric Utility  
6 Rights-of-Way and the ISA Best Management Practices. Additionally, the Companies comply  
7 with vegetation management standards required by the NERC and WECC Vegetation  
8 Management guidelines; failure to comply with these requirements can result in substantial  
9 financial penalties.

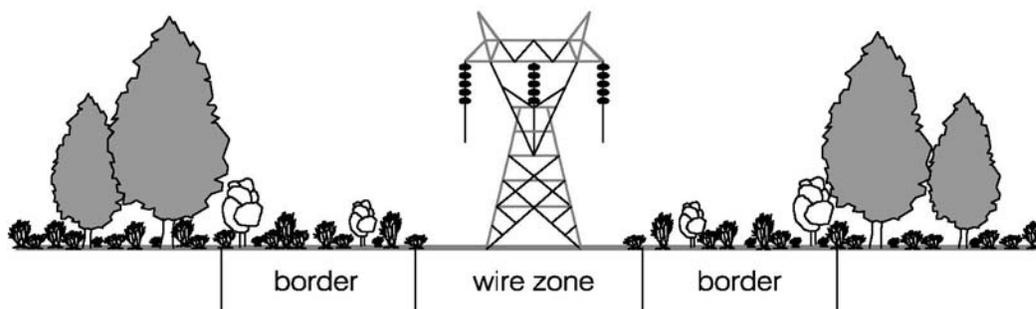
10  
11 Objectives of Integrated Vegetation Management (IVM) on utility rights-of-way are to establish  
12 sustainable plant communities that are compatible with the electric facilities. The intent is to  
13 provide stable, low growing plant ecotypes that reduce fire risk and maintain safe access to the  
14 line and associated facilities. In general, this involves removing tall growing tree species.  
15 Establishment of vegetation will also reduce the potential for noxious weeds to become  
16 established in the ROW.

17  
18 IVM has a series of control methods used to achieve the aforementioned objectives. These  
19 include, but are not limited to:

- 20 • Manual Control Methods: workers with hand-carried tools, including power tools,  
21 used in selective or environmentally sensitive areas.
- 22 • Mechanical Control Methods: conducted with a large variety of different types of  
23 machines that are efficient in clearing dense stands of vegetation.
- 24 • Chemical Control Methods:
  - 25 ○ Tree Growth Regulators that are designed to reduce the natural growth  
26 rates by interfering with natural plant processes.
  - 27 ○ Herbicides: Noxious or invasive weeds along with stumps and saplings of  
28 tall growing species may be controlled with EPA approved herbicides.
- 29 • Biological Control Methods: use of natural processes to control undesirable  
30 vegetation.
- 31 • Cultural Control Methods: take advantage of seed banks of native, compatible  
32 species lying dormant on-site; this encourages the establishment of early  
33 successional plant communities.
- 34

35 For the purposes of IVM, the ROW has been divided into the wire zone and the border zone as  
36 shown in **Figure 1** and as defined below:

- 37 • Wire Zone – The ROW portion directly under the wires and 10 feet beyond the  
38 outside phases.
- 39 • Border Zone – The outside edge of the wire zone to the edge of the ROW.
- 40



**Figure 1:** Transmission Line Vegetation Management Zones.

The IVM control method(s) implemented may be directed by the distance of the conductor to the ground surface (based on maximum calculated sag) as shown on **Table 2** and **Figure 2**, and is defined by region as follows: Region A, where the lines are less than 50 feet off the ground, Region B where the lines are 50 to 100 feet off the ground, and Region C where lines are greater than 100 feet off the ground. **Table 2** indicates the heights at which vegetation will be managed, based on zones and regions.

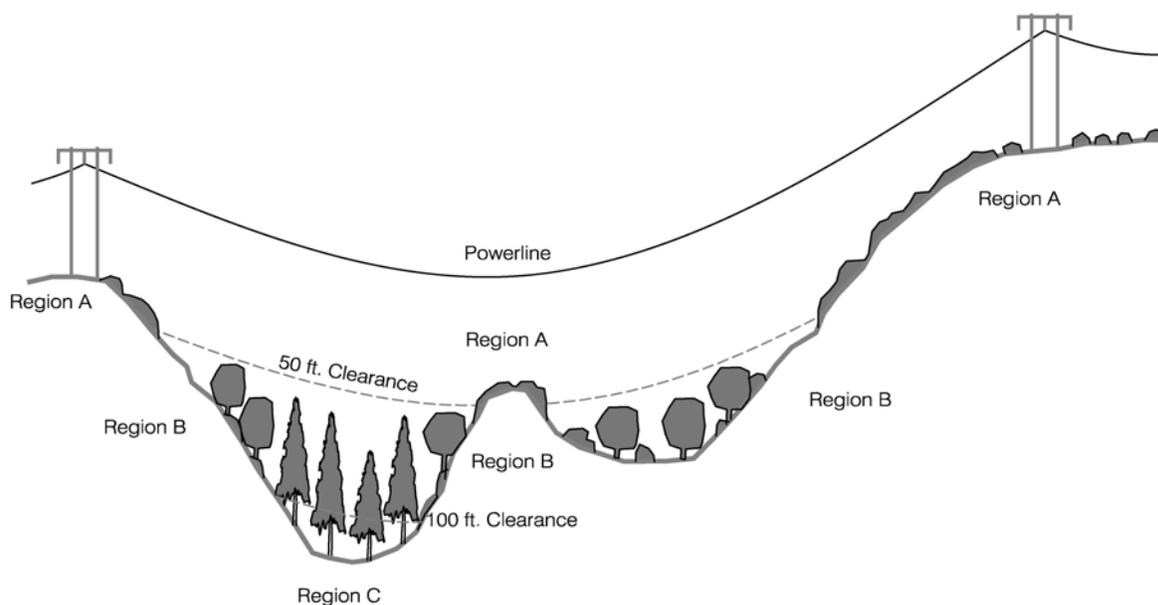
**Table 2.** IVM Recommended Management Heights in the Wire Zone and Regions

Zone	Region		
	Region A	Region B	Region C
Wire Zone	Remove All Trees	Remove all trees if less than 50 feet clearance between top of tree and conductor.	Remove all trees if less than 50 feet clearance between top of tree and conductor.
Border Zone	Remove all trees greater than 25 feet in height.	Removal of any hazard trees*.	Removal of any hazard trees*.

\* Hazard tree is defined as any tree that is structurally unsound that could strike a target (any utility related infrastructure) when it falls. Hazard trees can occur outside of the ROW and are typically removed annually.

Generally, the Companies propose to conduct IVM control methods/activities within the ROW every three to 10 years, depending on a variety of conditions such as topography, vegetation type and growth rates, and the potential for vegetation to interfere with safe operation of the line prior to the next clearing cycle. The Companies propose to use a variety of IVM control methods and have developed the following EPMs for maintaining vegetation within the transmission line ROW.

- OM-8 Any control method may be used to control the growth of trees and tall shrubs where required, as indicated in **Table 2**.
- OM-9 Any control method may be used to control the growth of additional vegetation as necessary to provide clearance and improve access to facilities as identified in **Table 2**.



Region Definitions:

Region A: Where conductor to ground distance is less than 50 feet.

Region B: Where conductor to ground distance is more than 50 feet, but less than 100 feet.

Region C: Where conductor to ground distance is greater than 100 feet.

**Figure 2:** Vegetation Management Regions Based on Line Height.

- OM-10 Where possible, low-growing vegetation and small trees within the ROW that will not grow into the minimum required clearance distance will be left in place; trees may be removed on a subsequent maintenance cycle as they increase in size. Hazard trees are typically those trees or snags within or adjacent to the ROW that are likely to interfere with or fall into transmission lines or associated facilities. Hazard trees and other “hot spots” (high priority areas requiring vegetation management actions) are identified during routine line inspections and removed annually. In addition to hazard trees, other critical conditions that may require immediate attention include trees that interfere with transmission conductors and trees whose growth will not allow safe clearance until the next scheduled maintenance cycle.
- OM-11 Any control method may be used for vegetation maintenance on access and service roads; this is typically scheduled at the same time as vegetation maintenance within the ROW. However, in cases where vegetation grows quickly, removal may occur annually. Vegetation that will not interfere with the safe operation of vehicles and equipment will be left in place.
- OM-12 Slash will be lopped and scattered throughout the surrounding land. Stumps resulting from vegetation treatments will not be over 1 foot tall (unless the tree is not able to be safely cut at or below one foot from the ground surface), and lopped slash will be left as close to the ground as possible. Lopped slash will be a maximum of 18 inches in length for small trees and limb wood. If the federal land managing agency determines that fuel levels are unacceptable, they shall

notify the Companies and develop a mutually agreed upon method to reduce fuels. This may include, but is not limited to, burning or chipping.

- OM-13 Hazard trees will be felled in a direction away from the ROW. Slash and limbs that fall within the ROW will be treated as described above; boles of trees greater than eight inches will be left in place.
- OM-14 Any chemical control will be done in accordance with any applicable local, state and federal rules and regulations. Herbicides or other chemical control will be selected from the BLM and Forest Service's list of previously approved herbicides and in accordance with any herbicide plans. If the federal land managing agency determines that a previously approved herbicide and/or plan is unacceptable, they shall notify the Companies.

### 4.3 Noxious Weed Control

Maintenance vehicles, ATVs, and equipment have the potential to transport weed seeds from one area to another via dirt and debris that inadvertently collects on the equipment. The Companies will implement the following EPMs:

- OM-16 Before beginning an O&M project on federal or state land, the Companies or their subcontractors will clean all equipment that will operate off-road or disturb the ground. Tracks, skid plates, and other parts that can trap soil and debris will be removed for cleaning when feasible, and the entire vehicle and equipment will be cleaned at an off-site location.
- OM-17 To help limit the spread and establishment of noxious weed species in disturbed areas, desired vegetation needs to be established promptly after disturbance. The Companies will rehabilitate significantly disturbed areas as soon as possible after ground-disturbing activities and during the optimal period. Seed and mulch will be certified "noxious weed free" and seed mix will be agreed to in advance by the landowner or land managing agency.

### 4.4 Protection Measures for Aquatic Resources

Streams or watercourses with definable streambeds or stream banks, regardless of whether there is flowing water, are important because they provide habitat for a variety of animal and plant species. The Gateway West transmission lines parallel and cross numerous waterways and riparian areas. Of critical importance is the protection of habitat for sensitive plant and animal species, including aquatic species. The Companies propose the following EPMs to protect aquatic resources while maintaining vegetation in and around important aquatic resources.

- OM-18 Routine and corrective O&M activities in streams with sensitive fish species will occur from July 1 to September 1 in an effort to minimize impact to spawning and migration activities. These activities include, but are not limited to, culvert installation and or replacement, stream bank stabilization. Forging streams at existing crossings on existing roads (e.g., dip, culvert, bridge) will occur as necessary throughout the year.
- OM-19 Woody vegetation management within 50 feet of streams will be conducted by hand crews.

- OM-20 Herbaceous plants and low-growing shrubs will be left in place if they do not interfere with the safe O&M of Project lines and equipment as described in **Table 2**.
- OM-21 The Companies will use existing stream crossings or new, permanent crossings that were approved as part of the Project, and will not create additional crossings without prior agency permitting and approval.
- OM-22 Only herbicides approved by the land managing agency as safe to use in aquatic environments and reviewed by the Companies for effectiveness will be used within 100 feet of sensitive aquatic resources.

#### **4.5 Protection for Threatened, Endangered, and Sensitive Plant and Animal Species**

The Companies have taken a thorough, systematic approach in providing protection for threatened, endangered and sensitive plant and animal species. After taking into consideration wildlife and plant resources as well as other important resources during siting and routing, the Companies recognized the need for additional measures to minimize the impact from construction of the Project and submitted a Wildlife Conservation Measures Plan.

The Companies will implement the following measures to protect plant and animal species during routine and corrective O&M activities:

- OM-23 Prior to the start of O&M activities, all supervisory personnel will be instructed on the protection of natural resources, including sensitive plant and wildlife species and habitats. If a contractor is used, the construction contract will address (a) the sensitive plant species that may be present in a particular area based on previous surveys and literature review; (b) the federal and state laws regarding protection of plants and wildlife; (c) the importance of these resources; (d) the purpose and necessity of protecting them; and (e) methods for protecting sensitive resources (e.g., Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and BLM wildlife policy).
- OM-24 Sensitive plant populations that occur within or near the ROW and work areas will be marked on the ground, where practical, to ensure that they are avoided. If species are discovered during the work, the Companies will establish a spatial buffer zone, will contact the appropriate Agency within 24 hours, and will continue with the O&M activities outside of the established buffer unless otherwise directed. The Agency may evaluate the adequacy of the buffer on a case-by-case basis. Unless the Companies are informed otherwise, work outside of the buffer area will continue. If the Companies need to work within the buffer area, the agencies and Companies will work together to develop a solution that is acceptable to both parties and will allow for the Companies to complete the work in a timely manner or within the scheduled outage window, if applicable. After the project is complete or no longer poses a threat to the plant population, the marking (stakes), if used, will be promptly removed to protect the site's significance and location from unwanted attention. As needed, marking will be reinstated during the land rehabilitation period.
- OM-25 If sensitive wildlife species are discovered during O&M activities, and the animals are not directly within ground disturbance areas, they will be protected by marking the edges of the ROW and service roads in the general vicinity to ensure

that workers do not leave those areas. If the animals are within work areas that have, or will have, ground disturbance, the Companies will establish an appropriate buffer zone and will contact the federal or state land manager immediately. The federal or state agency may evaluate the adequacy of the buffer on a case-by-case basis. Unless the Companies are informed otherwise, work outside of the buffer area will continue. If the Companies need to work within the buffer area, the agencies and Companies will work together to develop a solution that is acceptable to both parties and will allow for the Companies to complete the work in a timely manner or within the scheduled outage window, if applicable. After the O&M activities are completed, or no longer pose a threat to the species, the marking (stakes) will promptly be removed to protect the site's significance and location from unwanted attention. As needed, marking will be reinstated during the land rehabilitation period.

- OM-28 The Companies will provide crews and contractors with maps showing avoidance areas; these maps will include work zones as well as ROW areas where overland travel will be avoided.
- OM-29 In the event any sensitive plants require relocation, permission will be obtained from the federal agency. If avoidance or relocation is not practical, the topsoil surrounding the plants will be salvaged, stored separately from subsoil, and respread during the restoration process.
- OM-30 If sensitive wildlife species are killed or injured due to O&M activities, the appropriate federal agency will be notified.
- OM-31 All on-site personnel will be made aware that all birds of prey are protected by federal and state laws.

Nesting, roosting and perching birds can cause power outages if their feces or nesting materials interfere with conductors, insulators, or air gap. The Companies, in consultation with the U.S Fish and Wildlife Service (USFWS), manage nesting on transmission line structures to reduce conflicts. Such management may include relocating nests, modifying structures, and providing nesting platforms. The Companies will continue to consult with the USFWS, and when a problem nest is located on federal or state lands, the appropriate land management agency.

If an emergency occurs and access is immediately needed, the federal agency will be notified as soon as possible. Depending on the urgency, the agency may not have responded until after the repair work has begun. Timing restrictions may not be adhered to, but the other measures listed above will be followed to the extent possible.

#### **4.6 Restoration and Revegetation**

The Reclamation, Revegetation, and Weed Management Plan to be written by the Companies and approved by the appropriate agency with regulatory authority over lands within the Project area, will include site-specific restoration measures, species to be replanted, and monitoring. It combines the Companies' best management practices (BMPs) with site-specific mitigation developed in consultation with the agencies. After ground-disturbing maintenance activities, the Companies propose to use the following EPMs presented in the Revised Plan of Development (August, 2008) to assure that appropriate reclamation and revegetation is implemented, and to prevent accidental introduction or transport of noxious weeds along the ROW. Summaries of these EPMs are as follows:

RRW-1	Propose to use industry standard practices and BMPs for site stabilization and vegetation restoration.
RRW-2	Identify known occurrences of noxious and invasive weeds.
RRW-7	Employ appropriate interim erosion control measures if seeding cannot take place immediately.
RRW-8	Restore temporarily disturbed areas as closely as practicable to original contours.
RRW-11	Use of certified weed-free cover materials.
RRW-12	Seed mixes will be certified weed free.

#### **4.7 Protection Measures for Cultural Resources**

As part of the EIS preparation, and prior to any construction activities, a 100% pedestrian survey of the ROW and areas proposed for disturbance outside the ROW will have cultural and/or paleontological surveys conducted. All cultural and/or paleontological resources or historic or prehistoric sites or objects discovered by the Companies, or their designated contractor, will be immediately reported. Additional surveys will not be conducted for O&M activities if the work area was previously surveyed prior to construction of the line and ancillary facilities.

If new probable historic, cultural, or paleontological resources are discovered during routine or corrective O&M activities, potentially destructive work within 300 feet of the find will be halted and the appropriate federal or state agency notified. The Companies will also immediately implement the following measures:

- a. Flagging will be erected to prohibit potentially destructive activities.
- b. The Companies' archaeologist or designated archaeologist will make a preliminary assessment of the newly discovered resource.
- c. If the archaeologist determines that the discovery represents a potential new site or an undocumented feature of a documented site, the appropriate federal or state agency will be notified.
- d. O&M will not resume in the identified area until cleared by the appropriate Agency.

Regarding routine and corrective O&M, the Companies propose to use the following EPMS presented in the Revised Plan of Development (August, 2008) to assure that appropriate protection to cultural resources is given. Summaries of these EPMS are as follows:

- |      |  |
|------|--|
| CR-1 | All Company personnel and contractors conducting the O&M activities will be instructed on the protection of cultural resources.                                  |
| CR-2 | Travel will be restricted to designated routes for crew and vehicles.  |
| CR-3 | The Companies or their designated contractor will generically mark the known cultural or paleontological sites as an avoidance area prior to ground disturbance. |

All human interments will be treated with the respect accorded them by state and federal laws applying to human remains. If human remains are discovered during O&M activities, the Companies will stop all work in the immediate area to protect the integrity of the find and notify the appropriate law enforcement agency and the landowner or land management agency as

soon as possible. In addition, the location of the find will be flagged or fenced off to protect it from further impacts. The law enforcement agency or coroner will determine the age of the human remains. If the remains are not modern, then the Companies will work with the federal or state agency to determine what mitigation is necessary and, once the mitigation is complete, resume work in the area.

#### **4.8 Fire Protection**

Fire regulations on federally managed lands are generally in effect between April 1 and October 31 and at other times with unusual weather conditions. O&M activities will follow the requirements and procedures specified by the appropriate federal or state agency when conducted on federal or state lands.

The Companies are responsible for inspecting the transmission lines for fire hazards. When working during fire season, the Companies and/or their contractor will carry the following suppression tools and equipment:

- All power-driven equipment shall be equipped with one (1) fire extinguisher having a UL rating of at least 5 BC and one “D” handled or long handled round point shovel, size “0” or larger;
- Each motor patrol, truck, and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 31/2 pounds or larger; and
- Each internal combustion engine shall be equipped with a spark arrester that meets the federal land managing agency’s standards.

The Companies and the federal or state land manager will work cooperatively to evaluate request for Industrial Fire Precaution Level (IFPL) Waivers that would allow the Companies and/or their contractors to continue working when certain fire restrictions are in place.<sup>3</sup>

Transmission lines in the western United States may be interconnected with the lines of other utilities. Continued operation of these lines provides stability to the entire interconnected Western transmission system. In addition, continuous operation of the transmission lines is necessary for the Companies to supply electric service to their customers. Therefore, the federal or state agency will use its best efforts to avoid using fire suppression techniques that could take the lines out of service. If the federal or state land manager determines that it must use fire suppression techniques, they will notify the Companies of any and all fire suppression efforts that could come into close proximity (2 miles) with the transmission lines prior to initiating those efforts.

The Agencies will notify the Companies if they are planning a prescribed burn within two (2) miles of the transmission line or ancillary facilities.

#### **4.9 Emergency Notification Procedures**

If the Companies become aware of an emergency situation that is caused by a fire on or threatening federal or state land that could damage the transmission lines or their operation, they will notify the appropriate federal contact. Likewise, if the federal or state land manager becomes aware of an emergency situation that is caused by a fire on or threatening federal or state land and that could damage the transmission lines or their operation, it will notify the Companies.

## 5.0 O&M PLAN HISTORY

The O&M Plan is a living document and changes are anticipated after the plan's acceptance. Amendments will include the date on which changes were made, a brief description of those changes, and the signatures of authorized representatives of the Companies and the agency accepting the changes.

This plan and its updates will be distributed to the following BLM and Forest Service field offices (see **Table 3**). Additionally, the Plan will be made available, as appropriate, to Company personnel and their contractors. The Companies will be responsible for distributing updates when they are made. If the federal agencies identify additional parties that require a copy of the Plan, they are responsible for distribution and ensuring that party has the current plan.

In addition, the following items will become part of this section of the O&M plan:

- List of road closures, and gate locations.
- Maps containing known locations of sensitive plant and animal species mapped as "sensitive areas" without specifying the resource.
- Known locations of cultural features mapped as "sensitive areas" without specifying the resource.

**Table 3** O&M Contact List

Department/Role	Contact Name	Telephone	Cell Phone	Email
<b>Idaho BLM</b>				
Boise District Office & Four Rivers Field Office 3948 Development Avenue Boise, ID 83706	John Sullivan	(208) 384-3338	(208) 841-1045	john_sullivan@blm.gov
Twin Falls District 440 W F Street Shoshone, ID 83352	Lori Armstrong	(208) 732-7227	(208) 308-2950	valori_armstrong@blm.gov
Bruneau Field Office 3948 Development Avenue Boise, ID 83706	Cecil Werven	(208) 384-3455	None	cecil_werven@blm.gov
Owyhee Field Office 20 First Avenue West Marsing, ID 83639	Kelley Moore	(208) 896-5917	None	kelly_moore@blm.gov
Jarbridge Field Office 440 W F Street Shoshone, ID 83352	Fred Pence	(208) 736-2360	None	fred_pence@blm.gov
Burley Field Office 15 East 200 South Burley, ID 83318	Scott Barker	(208) 677-6678	None	scott_barker@blm.gov
Shoshone Field Office 440 W F Street Shoshone, ID 83352	Debbie Kovar	(208) 732-7201	None	debra_kovar@blm.gov
Idaho Falls District 4350 Cliffs Drive Pocatello, ID 83204	David Pacioretty	(208) 478-6341	None	david_pacioretty@blm.gov
<b>Wyoming BLM</b>				
Wyoming State Office PO Box 1828 Cheyenne, WY 82003	Tamara Gertsch	(307) 775-6115	None	tamara_gertsch@blm.gov
Rawlins Field Office PO Box 2407 Rawlins, WY 82301	Janelle Wrigley	(307) 328-4279	None	janelle_wrigley@blm.gov
Rock Springs Field Office 280 Highway 191 North Rock Springs, WY 82901	Patricia Hamilton	(307) 352-0334	None	patricia_hamilton@blm.gov
Lander Field Office PO Box 589 Lander, WY 82520	Leta Rinker	(307) 332-8405	None	leta_rinker@blm.gov
Casper Field Office 2987 Prospector Drive Casper, WY 82604	Randy Sorenson	(307) 261-7522	None	randy_sorenson@blm.gov
Kemmerer Field Office 312 Highway 189 North Kemmerer, WY 83101	Kelly Lamborn	(307) 828-4505	None	kelly_lamborn@blm.gov
<b>Forest Service</b>				
Caribou/Targhee NF 1405 Hollipark Dr Idaho Falls, ID 83401	Lisa Klinger	(208) 557-5790	None	None
Medicine Bow NF 2468 Jackson St. Laramie, WY 82070	Tom Florich	(307) 745-2435	None	tflorich@fs.fed.us

## **6.0 LITERATURE CITED**

Avian Power Line Interaction Committee (APLIC). 2006. Suggested practices for raptor protection on power lines: the state of the art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA.

Idaho Power and Rocky Mountain Power. 2008a. Gateway West Transmission Line Project Siting Study.

Idaho Power and Rocky Mountain Power. 2010. Revised Proposed Plant and Wildlife Conservation Plan – Construction Activities. Report dated December 12, 2008