

**BIGLOW CANYON WIND FARM: REVEGETATION PLAN**  
**[MARCH 10, 2007]**

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1 **BACKGROUND**

2 This plan describes methods and standards for revegetating areas temporarily disturbed  
3 during the construction of the proposed Biglow Canyon Wind Farm (BCWF), sited about 2.5  
4 miles northeast of Wasco, Oregon.<sup>1</sup> The objective of this plan is to restore temporarily disturbed  
5 areas to pre-construction condition or better. The site certificate for the facility requires  
6 restoration of these areas.

7 The BCWF is located on privately owned agricultural land used primarily for dry wheat  
8 production and, to a lesser extent, cattle grazing. The grazed land is grassland, shrub-steppe  
9 rangeland and/or fallow wheat stubble fields. A few large tracts of land have been enrolled in the  
10 Conservation Reserve Program (CRP).

11 This plan specifies seed mixes, planting methods, and weed control techniques developed  
12 specifically for the BCWF through consultations with the affected agencies (e.g., the Oregon  
13 Department of Fish and Wildlife and the Natural Resources Conservation Service), reviews of  
14 current literature, and site visits by revegetation specialists. This plan also specifies monitoring  
15 procedures to evaluate the success of revegetation efforts, including recommended remedial  
16 action should initial revegetation efforts prove unsuccessful.

17 **REVEGETATION PROCEDURES**

18 The following methods are to be used in areas of temporary ground and/or vegetation  
19 disturbance in cultivated areas and in the Conservation Reserve Program (CRP) grasslands and  
20 native grassland and shrub-steppe upland habitats throughout the BCWF site. Because no  
21 disturbance to wetland habitats is expected, this plan does not specify wetland revegetation  
22 methods.

23 **Cultivated Areas**

24 The site certificate holder shall reseed cultivated agricultural areas. The species  
25 composition, seed and fertilizer application rates, and application method shall be coordinated  
26 with the appropriate landowner and/or farmer.

27 **Seed Mixture**

28 Temporarily disturbed areas in non-cultivated areas are primarily CRP lands, with some  
29 additional grassland and shrub-steppe areas. A seed mixture was developed in consultation with  
30 Mary Beth Smith at the local Natural Resources Conservation Service office based upon  
31 anticipated high value to both big game and non-game wildlife, and the historic vegetative  
32 climax community for the area (Table 1).

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<sup>1</sup> This plan is incorporated by reference in the site certificate for the BCWF and must be understood in that context. It is not a “stand-alone” document. This plan does not contain all mitigation required of the certificate holder.

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1    **Seed Planting Methods**

2           Planting shall occur in February through early April (after the last chance of frost because  
3 forbs are being used in the seed mixture) for disturbance that occurs during the winter and  
4 spring. Planting shall occur in October through November for disturbance that occurs after the  
5 spring seeding window. Disturbed, unseeded ground may require chemical or mechanical weed  
6 control in May or June before weeds have a chance to go to seed. In general, a weed-free  
7 seedbed shall be prepared using conventional tillage equipment, herbicide treatment, or both.  
8 Herbicide shall be sprayed to control weedy and/or noxious species, following the Oregon  
9 Department of Agriculture’s Guidelines. Summer fallowing may be required.

10          Areas to be seeded shall be disked, as needed, in early spring and spot-sprayed on the  
11 ground with an herbicide. In some instances, disking the site may not be needed prior to seeding.  
12 Simply preparing a weed-free site using herbicide treatments may be all that is necessary. These  
13 areas shall then be harrowed prior to seeding. A conventional seed drill shall be used, except in  
14 areas where a rangeland drill is deemed more applicable, with a spacing less than 12 inches and  
15 at a depth of 1/8 to 1/4 inch. A packing type roller shall be used to properly compact the soil over  
16 the planted seed. The prescribed seed mixture (Table 1) shall be drilled at a rate of 12 pounds  
17 pure live seed per acre. If fallowing the area is to be used to increase soil moisture content, then  
18 the same procedure shall be followed, but without seeding. Seeding would then occur the  
19 following spring.

20    **MONITORING**

21          The site certificate holder shall direct a qualified botanist or revegetation specialist,  
22 approved by the Oregon Department of Energy (Department), to conduct monitoring of seeded  
23 grassland, shrub-steppe and CRP areas.

24          In the fall of the year following each seeding, and continuing annually thereafter until the  
25 vegetation success criteria have been met, the qualified investigator shall examine a  
26 representative cross-section of the revegetated sites. At each site, the investigator shall evaluate  
27 the percent cover for the following classes:

- 28           • native forbs and grasses;
- 29           • non-native forbs and grasses;
- 30           • shrubs; and
- 31           • bare ground and rock.

32          After the success criteria have been met, the qualified investigator shall revisit the sites at  
33 least every five years for the life of the facility to ensure that the habitat has not degraded.<sup>2</sup> The  
34 site certificate holder shall report the investigator’s findings and recommendations regarding  
35 revegetation progress and success to the Department on an annual basis as part of the annual  
36 report on BCWF.

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<sup>2</sup> As used in this plan, “life of the facility” means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

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**SUCCESS CRITERIA**

Non-cultivated areas will be deemed successfully revegetated when total canopy cover of all vegetation exceeds 30 percent<sup>3</sup>, and at least 25 percent of the ground surface is covered by native species and species in the seed mixture.

In each monitoring report to the Department, the certificate holder shall provide an assessment of revegetation success in grassland, shrub-steppe and CRP restoration areas. The Department may require reseeding or other corrective measures in those areas that do not meet the success criteria. The Department may exclude small areas from the reseeding requirement, if erosion from construction activities is low, if total vegetative cover (of native and non-native species together) exceeds 30 percent and if weed encroachment has made native seed establishment impossible. Cultivated agricultural areas are successfully revegetated if the replanted areas achieve crop production comparable to adjacent non-disturbed cultivated areas. The certificate holder shall consult with the landowner or farmer to determine whether these areas have been successfully revegetated and shall report to the Department on the success of revegetation in these areas.

**AMENDMENT OF PLAN**

This Revegetation Plan may be amended by agreement of the certificate holder and the Energy Facility Siting Council (Council). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Department.

<b>Table 1. Seed mixture to be used for revegetation of temporarily disturbed areas.</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Pounds of pure live seed/ Acre</b>
Luna pubescent wheatgrass	<i>Thinopyrum intermedium</i>	1
Sherman big bluegrass	<i>Poa ampla</i>	1
Magnar basin wildrye	<i>Leymus cinereus</i>	1
Whitmar beardless wheatgrass	<i>Pseudoroegneria spicata</i> ssp. <i>Inermis</i>	2
Small burnett	<i>Sanguisorba minor</i>	0.5
Alfalfa	<i>Medicago sativa</i>	1
Sanfoin	<i>Psoralea onobrychis</i>	0.5
Sandberg bluegrass	<i>Poa secunda</i>	2
Idaho fescue	<i>Festuca idahoensis</i>	2
Basin big sagebrush	<i>Artemisia tridentata</i> ssp. <i>Tridentate</i>	1
<b>TOTAL</b>		<b>12</b>

<sup>3</sup> NRCS Draft Guidelines for CRP Stand Certification