

West Prineville Solar Farm LLC Wildlife Conservation Plan



Submitted to

Crook County Planning Department and
Oregon Department of Fish and Wildlife
(ODFW)

By

West Prineville Solar Farm LLC

V2 — May 6, 2020

INTRODUCTION

Project Description

West Prineville Solar Farm LLC (Applicant) proposes to construct, develop and operate a solar photovoltaic (PV) Facility to be called the West Prineville Solar Farm (Project) in Crook County, Oregon. The Project is located within the Crook County Exclusive Farm Use-3 (EFU-3) zone on private land owned by Bryan Sproat on tax lots 1515000002900 and 1515000003000. The Applicant applied for and received a Conditional Use Permit (CUP) from Crook County (217-19-000029-PLNG, April, 2019) for up to 320 acres on the site. The Applicant has subsequently requested to modify this permit within the same property boundary to up to 654 acres rather than 320 acres.

The proposed facility will consist of photovoltaic panels, inverters, mounting infrastructure using fixed tilt or single axis tracker system, an electrical collection system, a substation, an energy storage system, operation and maintenance facility, private access roads, fencing, and associated transmission lines to connect to the utility facility. Electricity generated by the facility will be transmitted to a facility substation, where it will be increased to appropriate transmission line voltage levels per utility requirements. The project will also include Associated Transmission Lines (ATL) to connect the facility to the power grid. The primary proposed connection would be to the substation immediately adjacent to the site.

The Project property consists of approximately 654 acres of private lands composed of juniper uplands, agricultural fields, an area with offices and outbuildings where a septic effluent land treatment business occurs, and fields used for effluent spreading, alternating with cattle grazing. Steep juniper forested areas are present on the southwest and northeast of the site. An area of port-a-potties, aboveground tanks, and heavy machinery is located on the southern portion of the site, east of the office area. Powerlines are aligned across the site from north to south, and an electrical substation is present adjacent to the southeast of the site.

The majority of site soils are classified as Class 6 or 7 (non-arable). Approximately 9 acres along the western edge are classified as Class 4 (arable) non-irrigated, as well as 35 acres in the southwest corner of Lot 3000.

Plan Purpose and Goals

The purpose of this Wildlife Conservation Plan (WCP) is to provide clear methods to minimize impacts on wildlife and their habitats, to the maximum extent practicable. The goals of the biological mitigation measures are to:

1. Avoid or minimize impacts on habitat and native wildlife to the maximum extent practicable during construction and operation of the Project
2. Specifically avoid potential impacts on special-status plant and wildlife species from construction and operation of the Project

3. For unavoidable impacts, develop a comprehensive mitigation approach in coordination with the Oregon Department of Fish and Wildlife (ODFW) and the United States Fish and Wildlife Service (USFWS)

The Applicant and its contractors will be responsible for implementing the measures described in this WCP. This WCP is applicable to the preconstruction, construction, operations, and future decommissioning phases of the Project.

Agency Consultation

The Applicant contacted Greg Jackle, District Wildlife Biologist with ODFW, on March 2, 2020 to discuss the proposed project, wildlife standards and potential mitigation approaches and offer to visit the site. ODFW suggested a discussion of the project site and proposed mitigation strategies would be more productive than a site visit. The applicant shared project information with ODFW and held a meeting by conference call with Greg Jackle, Sarah Reif, and Sara Gregory of ODFW to discuss the project in detail on March 19, 2020. In the meeting, ODFW provided guidance and stated that their recommendations for mitigation for other recent solar developments in the area would apply to this project and other proposed solar developments in the County. The Applicant submitted a site-specific habitat assessment and wildlife and sensitive plant review ("Wildlife Report") to ODFW and the County on April 30, 2020. On May 5, 2020 the Applicant and ODFW (Greg Jackle and Sara Gregory) held a telephone call to discuss the findings in the Wildlife Report and to discuss a mutually agreeable mitigation approach. ODFW concurred that the site was not located within any mapped big game winter range however stated that they disagreed with the consultant's finding that the site was comprised of Category 6 Habitat. They stated that they would like to see some form of mitigation for the non-previously permitted incremental acres that are impacted by the final project. They felt the site was more likely a combination of some Class 5 and Class 4 habitat.

A juniper treatment mitigation project or a one-time payment mitigation strategy or an alternative mitigation project agreeable to ODFW was agreed to in concept with ODFW. Any one-time payment would need to be coordinated through a third party, such as the Deschutes Land Trust (DLT), or be coordinated by the Applicant. The Applicant and ODFW agreed in principle that mitigation would be at a ratio of 1:1 based on the non-previously permitted incremental acres, that are impacted by the final project.

MITIGATION MEASURES

Approximately 200 non-previously permitted incremental acres of the Project site will be permanently impacted by construction and operation of the Project (note the final calculated acreage will depend on the final site design of the PV facilities). The goal of these measures is to avoid or minimize impacts on plants and wildlife and their habitats. The following mitigation measures are proposed based on consultation with USFWS, ODFW, and Crook County.

General Avoidance and Minimization Measures

- **Access Roads:** The Applicant will use existing public and private roads to access the construction and staging areas. In the event that new access roads are required, roads will be decommissioned

after construction is completed, unless the road is required for safe access during operations and maintenance of the Project, or at the request of the landowner.

- **Waste Management:** To avoid attracting predators to bird nests and other wildlife resources, the Applicant will instruct the contractor to store waste in closed containers at all times.
- **Speed Limit:** To help avoid injury to wildlife that may be present in the Project area, the Applicant will enforce a 15 miles per hour speed limit during construction and restoration activities.

Migratory Bird Conservation Measures

The site-specific habitat assessment found that no ground nests were observed onsite during the site visit. Large portions of the site are currently used for septic effluent land treatment and some cattle grazing which negatively impacts ground nesting birds, should they exist on the site. A red-tailed hawk nest located in dense juniper in the northeast part of the site was observed. The site does provide some suitable nesting habitat for non-ground nesting birds, as a few larger trees are present, which are also suitable for perching. However, this type of habitat is not limited in the area.

If possible, the Applicant will aim to conduct vegetation removal and construction outside the nesting season to avoid impacts to any active nest sites (March 1 to August 1). If clearing and/or construction does take place during the nesting season, a pre-construction survey will be conducted between late spring through summer by a qualified observer to confirm that no active nests will likely be impacted within the project area. If such active nests are located within the project area, and are otherwise unavoidable, such nests should be left undisturbed and monitored until a qualified biologist determines that the nest is no longer occupied.

Big Game Avoidance and Minimization Measures

Mitigation measures developed for the Project in response to permanent impacts to big game include the following:

- **Construction Impact Reductions.**
- **Wildlife Impact Avoidance Measures** (e.g., exclusionary fencing).
- **Compensatory Mitigation** as discussed below.
- **Exclusionary Fencing:** The Applicant will install exclusionary fencing around the Project site. Fencing will be 8 feet tall at a minimum (mule deer are able to clear lower heights).
- **Gates** will be installed in or near the corners of the fenced perimeter of the facility where reasonably practical to allow removal of any large game that inadvertently get inside the fenced area.
- **Restoration:** To reduce Project impacts on wildlife habitat, the Applicant will restore and revegetate temporary disturbance areas. Revegetation efforts will include re-seeding with native and desired species as approved by county weedmaster and in compliance with the county approved weed plan.
- **Access for big game** to the man-made pond on the site will be maintained, or the pond will be relocated or the Applicant will provide a comparable water resource.

Compensatory Mitigation

As part of the site-specific habitat assessment (study) conducted by the Applicant's wildlife biologist (PBS), a Crucial Habitat Assessment for habitats occurring within the study area was mapped using the ODFW COMPASS mapping tool (ODFW 2020). The entirety of the area within the project boundary was listed as "Habitat Category 6," defined as habitat that has low potential to become essential or important habitat for fish and wildlife. No irreplaceable habitats appear to be present.

The site is not in the ODFW deer or elk winter range, nor in the Crook County deer or elk general range. Nor is the site mapped to be within the Crook County pronghorn antelope range or listed as a Goal 5 resource area as inventoried by the County in the Comprehensive Plan.

In addition to the ongoing spreading of septic effluent by spreader trucks on the site, heavy livestock grazing, as evident on the site, is known to reduce grass and forb cover, the preferred forage for pronghorn (USFWS 1994, Kindschy et al. 1982). Elk have also been shown to avoid areas where livestock are grazing (ODFW 2003). In addition to the high human and vehicle usage of the study area from the business onsite, Highway 126 is adjacent to the north of the study area, and the Prineville Airport is approximately 2.75 miles northeast of the study area. Elk, deer, and pronghorn have a preference against habitat adjacent to roads and/or near areas of human disturbance (Rost and Bailey 1979, Kindschy et al. 1982, Innes 2011).

PBS concludes that based on the conditions of the study area observed during the site visit and analysis following the Fish and Wildlife Habitat Mitigation Policy flowchart, that the study area would be classified as "Habitat Category 6" for big game. "Habitat Category 6" is defined as habitat that has low potential to become essential or important habitat for fish and wildlife with no irreplaceable habitats present. The Site is impacted by historical and ongoing human activities. In practice, this means that Habitat Category 6 habitat impacts that may occur as a result of the project can be mitigated according to ODFW's mitigation strategy described in OAR 635-415-0025 Fish and Wildlife Habitat Mitigation Policy. The mitigation goal for Category 6 habitat is to minimize direct impacts and avoid off-site impacts.

Despite the above assessment of low habitat quality by the Applicant's wildlife consultants, the Applicant, after consultation with ODFW, has agreed to mitigate impacts to big game habitat on non-previously permitted incremental acres that are impacted by the final project not to exceed 200 acres, by either one of three options presented below such that there is no net loss of habitat quantity:

OPTION 1: JUNIPER TREATMENT MITIGATION PROJECT IN CROOK COUNTY

Backdrop for Juniper Removal as Habitat Improvement: Strong evidence indicates that western juniper has significantly expanded its range since the late 1800s by encroaching into landscapes once dominated by shrubs and herbaceous vegetation. Woodland expansion affects soil resources, plant community structure and composition, water, nutrient and fire cycles, forage production, wildlife habitat, and biodiversity.

Goals of juniper management include an attempt to restore ecosystem function and a more balanced plant community that includes shrubs, grasses, and forbs, and to increase ecosystem resilience to

disturbances.¹ Cutting encroaching juniper would restore forage production and improve habitat for big game, thereby causing “uplift” and providing the “net benefit” goal of ODFW policy.

Juniper Treatment Habitat Improvement consists of treating areas of sagebrush/bitterbrush habitat next to juniper stands where the foraging habitat previously available for big game grazing is experiencing juniper encroachment which reduces forage available to such species, such that a juniper removal program would improve the grazing habitat by facilitating the re-growth of vegetation that would provide forage for big game, thereby causing “uplift” and overall habitat improvement.

Scale: Per consultation with ODFW and in keeping with ODFW’s rule base directives, ODFW’s direction for mitigation project scale is that there be “no net loss and a net benefit” for these habitat areas.² Maximum development impact to non-previously permitted incremental acres of existing habitat of up to 200 acres for the Application if fully developed defines the maximum scale of impact for which the project must mitigate its permanent impacts through one or more of the following measures. The total amount of land to be mitigated will be assessed prior to construction (or other disturbances) based on the proposed layout and associated impacted acres of that final facility design (and impact area), using that acreage as the calculated habitat disturbed. This mitigation requirement would also apply to the extent that fencing or other disturbance of access to habitat by big game winter range was occurring (and materially adverse), even if prior to actual full facility construction, as applicable at the time of the impact, as well as taking into account the quality of the habitat lost (or otherwise adversely impacted) due to project impacts. Conservation protections (per durability requirements below) applied to equal acreage of the disturbance or development area will meet the 1:1 “no net loss” requirement. Additional action to achieve “uplift” or “...and a benefit” requires further actions (such as appending juniper removal treatment to the conservation area to achieve such uplift).

For a juniper removal habitat enhancement, a mitigation site acreage ratio of 1:1, plus a reasonable failure buffer, as compared to impacted acreage, would meet or exceed the standard of no net loss and a net benefit. Buffering for juniper removal projects may be achieved by extra mitigation project acreage ranging from 1-3% for a high quality mitigation project site and not to exceed 30% for a low quality project site.³ For the sake of clarity, ODFW agrees if 200 acres of habitat were developed, 200 acres of juniper mitigation project (plus applicable buffer and subject to other criteria herein) meets

¹ Miller, R.F., Bates, J.D., Svejcar, T.J., Peirson, F.B., and Eddleman, L.E., 2007. Western Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions: U.S. Geological Survey Circular 1321

² ODFW’s rule obligation for advising on mitigation levels it will request for (among other things) solar conditional use permits in county permitting processes is per OAR 635-415. However, statutory decision authority on the amount of mitigation which shall be required for applications of this Application type, pursuant to OAR 660-033-0130(38)(h)(G) “Where the applicant and the resource management agency cannot agree on what mitigation will be carried out, the county is responsible for determining appropriate mitigation, if any, required for the facility.”

³ This is consistent with ODFW’s feedback on other similar projects that for a high quality mitigation site, 5-10 acres of additional ground would be sufficient buffering (on a 320 acre site), and relative to ODFW’s perspective that juniper mitigation projects (which often are not of high quality) has a failure rate on average on the order of 20%. It was agreed with ODFW then that 30% additional project area would be a reasonable maximum buffer to assume then as relates to the mitigation measure permit conditions.

or exceeds the required mitigation *scale*. (If lesser development occurred, this mitigation amount would scale down proportionally.)

Excess Eligible for Banking: If the Applicant conducts juniper removal mitigation in excess of the scale required to mitigate the effects at this site, the Applicant reserves the right to propose that excess mitigation be applied as credit toward mitigation requirements at other sites that the Applicant may propose to develop in the future.

Location Criteria: Any mitigation project(s) related to impacts from the Application will be implemented within Crook County, selecting a specific final habitat mitigation area (HMA) therefrom to benefit big game associated with the area of impact (unless otherwise reasonably approved by ODFW) and will satisfy ODFW's request the mitigation satisfy "proximity" criteria applicable to its recommendation standards

Habitat type: For juniper removal mitigation, the final HMA site selected will be habitat which is (or was previously) sagebrush and/or bitterbrush dominant (or would be expected to restored to such state after mitigation efforts) but suffering from juniper encroachment, such that juniper removal would improve habitat by facilitating the re-growth of vegetation that would provide forage for big game. For the sake of clarity, acceptable sites for juniper removal mitigation projects would not include different habitat types, such as removal of juniper from lodge pole pine stands, as this would not meet the "in kind" criteria applicable to ODFW's recommendation standards.

Alternative locations: The Applicant will undertake commercially reasonable efforts to secure a mitigation location with the above-specified habitat characteristics in Crook County. If despite such efforts a suitable mitigation project cannot be realized in the County, a mitigation project in another location reasonably approved by ODFW shall be implemented; however Applicant understands that more scrutiny of such alternate locations would occur by ODFW relative to mitigating impacts in the project vicinity and be subject to ODFW's reasonable consent and approval absent with the alternative location would not be acceptable for a mitigation project.

Durability: Durability, or measures which function to facilitate and attempt to assure the survival of the beneficial aspects of the mitigation measures over the term of the facility developed, requires two aspects: (1) Protection of the treatment action site (where applicable) for the term of the facility, to prevent subsequent destruction of the treatment site (i.e. development); and (2) Maintenance, or actions such that (where applicable) revisit from time to time the treatment area to mitigate deterioration of the mitigation treatment or project;

(1) Site Protection: Prior to construction (or other disturbances to habitat or big game wildlife's access thereto) at the site by Applicant, Applicant or third party will provide mechanisms of durability assurance such that the survival and beneficial impacts of the mitigation measures are reasonably expectable to be substantially commensurate with the expected operating life of the facilities or disturbance.

This durability requirement may be accomplished by means of an outright purchase of the mitigation area, a conservation easement, a working lands agreement, or other materially similar restriction, reasonably expected to prevent development or other substantial adverse impacts to the site habitat by the landowner. Actions may include other durability measures reasonably approved by ODFW to implement the intent of this durability requirement. Facility life for the project shall be presumed to be 40 years unless reasonably demonstrated otherwise by Applicant. Thus, the term for any

durability restriction or agreement described above will be for a minimum of 40 years unless reasonably demonstrated otherwise by Applicant.

(2) *Maintenance*: The maintenance aspect of a mitigation project may be achieved by either:

a) Retreatment Actions: Actions which examine the success and failures of the treatment and take reasonable remedial actions at such time, at one or more intervals during the target durability term; or

b) Extra Buffering: Enlargement of the treatment project such that over time, assuming a reasonable failure or degradation rate, the cumulative net criteria of "no net loss" (commensurate with applicable permit conditions and this plan) is reasonably expected to be met net of cumulative degradation of the project over time; for juniper removal this could be met by adding extra acres (per elsewhere in Plan); or

c) Other measures: Other measures reasonably likely to have comparable effects as reasonably approved by ODFW.

(An example of such degradation to be maintained against would be juniper encroachment slowly invading back into the treatment area.)

For Juniper removal mitigation, by way of example not limitation, the durability requirements for the Application could be met as follows: The treatment area is subject to a working lands agreement preventing future development, and the treatment is either revisited and refreshed after 20 years (or suitably enlarged to offset future juniper encroachment back into the treatment area) with extra acres (for a high quality site) of 10 acres.

Final Mitigation Plan

Prior to construction of the proposed facilities (or other applicable habitat disturbance), a final mitigation plan will be prepared, defining the specific mitigation project(s) being implemented for the applicable habitat disturbance, including documenting how such final mitigation plan addresses the criteria herein and applicable permit conditions, such as the specific land/site where the mitigation project will occur (including a map), quantitative and qualitative success criteria, project timeline (including evaluation of applicable goals and standards, along with monitoring and evaluation methods and frequency), durability measures being implemented, and reporting schedule (including a reasonable timeline after the execution of the mitigation agreements, such as with the landowner) by which time the mitigation measures will initially be completed:

Applicant will provide a copy of the final mitigation plan and related documentation to the Crook County Planning Department at such time. To the extent variations from the above criteria (and as otherwise noted above) are part of the final plan at the time of implementation (and not later than timing criteria above), Applicant shall seek ODFW's reasonable concurrence with such deviations, and document the status of the same to the Crook County Planning Department.

Specific Treatment Actions: Juniper cutting under this mitigation plan will occur within a larger HMA mitigation project site in which juniper encroachment has occurred, and ideally occur in and target Phase 1 and 2 stands to reduce competition with shrubs, grasses and forbs in order to improve grazing habitat by facilitating the re-growth of sagebrush/bitterbrush and/or other vegetation that would improve forage for big game, including through use of qualified contractors, or other

previously experienced or appropriately instructed and supervised parties (including by parties previously utilized by Applicant affiliates, such as Wildlife Consultant). Areas where juniper to be cut will be identified and divided into cut units.

Some Phase 2 and all Phase 3 stands will be retained for their cover value. All pre-settlement aged juniper will be saved.

Cut units will be established to improve habitat for wintering big game. A mitigation site acreage ratio of 1:1, plus a reasonable failure buffer (as described elsewhere in this plan), as compared to impacted acreage will be treated, to achieve the mitigation goal of no net loss plus net benefit. To act as a contingency for a failure rate of the juniper treatment over the duration of the treatment project, the amount of buffer will be determined by the condition of the mitigation site. For example, older Phase 3 juniper has been known to have higher failure rates than Phase 2 juniper and may require more of a buffer to allow for the higher failure rate. Buffering may be achieved by extra treatment acreage ranging from 1-3% for a high-quality project (1.5-5 acres per 200 acres of mitigation project site, for a high quality project) and not to exceed 30% for a low quality project.

Treatment would comply with other criteria listed above and per Application permit conditions.

For clarity, required treatment related to Application shall not exceed 200 acres (assuming total Application site development) plus a buffer, which maximum requirement shall be proportionally reduced for lesser development and disturbance levels. If such a juniper treatment project were to be implemented through Deschutes Land Trust (DLT) on the Aspen Valley Ranch (or some other comparable project) on up to 200 acres, that would be acceptable.

OPTION 2: ONE-TIME PAYMENT

This mitigation approach has been the option used at other recently developed similar solar PV facilities in the area including Gala Solar and Millican Solar. It would involve making a one-time contribution to the Deschutes Land Trust (DLT) (or similar land trust) for wildlife enhancement on the Aspen Valley Ranch (or some other comparable project) in Crook County. The contribution amount will be determined by the following ODFW formula utilized for other similar solar energy projects within the surrounding area:

$$\text{Payment per Acre} = M * (R + L + V + P + S)$$

where

- **'M'** is the mitigation ratio to use as a multiplier on cost per acre. Despite the above assessment of low habitat quality by the Applicant's wildlife consultants, the Applicant, after consultation with ODFW, has agreed to mitigate impacts to big game habitat such that there will be no loss in habitat quantity. With this in mind, the Applicant agrees to a mitigation ratio of 1:1.
- **'R'** is the cost of restoring habitat including the administrative costs of design, contracting, implementation, and monitoring. Based on recent ODFW and DLT input, R is \$120.00.
- **'L'** is the cost of long-term maintenance of the habitat restoration investment, (i.e. regular re-entry intervals for juniper thinning, regular invasive weed treatments). Based on recent ODFW and DLT input, L is \$90.00.

- 'V' is the land value per acre where habitat improvements may be taken. Based on a recent appraisal received by DLT for the Aspen Valley Ranch, V is \$194.24.
- 'P' is the project development and transaction cost of processing the easement transaction. Based on DLT input, P is \$15.77.
- 'S' is the stewardship endowment cost. Based on DLT input, S is \$22.33.

An example of how this formula would be applied to the Project in Crook County is as follows:

$$M = 1.5:1$$

$$R = \$120/\text{acre} \quad (120+90+194.24+15.77+22.33) = \$442.24/\text{acre} * M$$

$$L = \$90/\text{acre}$$

$$V = \$194.24/\text{acre}$$

$$P = \$15.77/\text{acre}$$

$$S = \$22.33/\text{acre}$$

This example utilizes values that have been used recently on other solar projects in the area on a mitigation site managed by DLT. The Applicant will make this one-time payment to DLT or other similar land conservation organization prior to operation.

OPTION 3: ALTERNATIVE MITIGATION MEASURES AGREED TO BY ODFW

As an alternative to the two options described above, other mitigation measures shall be permitted by Applicant to mitigate wildlife impacts as per herein, so long as they will meet the criteria provided herein and satisfy related permit conditions. Such alternative may be developed in consultation with ODFW, which shall reasonably approve such mitigation projects satisfying these criteria.

In combination with conservation components of alternative mitigation projects (i.e. protecting like/in-kind, in proximity habitat, juniper treatment, fencing upgrades, examples of other potentially acceptable alternative mitigation uplift measures (i.e. to create "net benefit") could be wildfire suppression measures, weed treatment, water supply improvements, etc., as per discussion with ODFW representation during consultations, and subject to reasonable approval by ODFW at the time such are proposed.

For the sake of clarity, if any alternative mitigation measures, other than options 1 and 2 stated above, are proposed in the future to satisfy permit wildlife mitigation criteria, it shall be subject to the same criteria as applicable to a permit application and subject to ODFW's (*not the County's*) reasonable consent to the proposal (to confirm if such has been met), and must meet the no loss and in-kind standard. If no such alternative mitigation proposal meeting these criteria is identified by Applicant, approved by ODFW, and implemented by Applicant, then mitigation shall be required to be either juniper removal or a one-time payment as described above.

SUMMARY

By implementing either (1) a juniper treatment program on lands in Crook county or, (2) the one-time payment plan outlined above, or (3) other (ODFW-approved) mitigation measures as provided herein and subject to the mitigation project criteria outlines in the above plan for all project types, the Applicant will meet ODFW's stated Habitat Mitigation Policy.