



Community Development Department

Planning Division Building Safety Division Environmental Soils Division

P.O. Box 6005 117 NW Lafayette Avenue Bend, Oregon 97708-6005
(541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

STAFF REPORT

FILE NUMBERS: 247-15-000170-CU / 171-SP / 172-LM

HEARING DATE: June 30, 2015, 6:30 p.m.
Barnes & Sawyer Rooms
Deschutes Services Center
1300 NW Wall Street
Bend, OR 97701

APPLICANT: Oregon Solar Land Holdings
3519 NE 15th Ave., Ste 325
Portland, OR 97212

OWNERS: M. Thomas Collier
PO Box 5609
Bend, OR 97708

ATTORNEY FOR APPLICANT: Laura Craska Cooper
15 SW Colorado Avenue, Suite 3
Bend, OR 97702

PROPOSAL: The applicant requests approval of a conditional use permit and site plan review to allow the development of a solar voltaic array (solar farm) on property zoned Exclusive Farm Use-Tumalo/Redmond/Bend (EFU-TRB) subzone. Landscape Management (LM) Site Plan Review is also proposed as the development would be visible from Highway 20, the LM feature.

STAFF REVIEWER: Chris Schmoyer, Associate Planner

I. STANDARDS AND APPLICABLE CRITERIA:

Title 18, Deschutes County Zoning Ordinance
Chapter 18.16, Exclusive Farm Use
Section 18.16.030, Conditional Uses Permitted – High Value and Non High Value
Farmland

Subsection (DD) Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale, subject to OAR 660-03300130.

Section 18.16.040, Limitations on Conditional Uses

Chapter 18.80, Airport Safety Combining Zone

Section 18.80.028, Height Limitations

Section 18.80.044, Land Use Compatibility

Chapter 18.84, Landscape Management (LM) Combining Zone

18.84.080, Design Review Standards

Chapter 18.124, Site Plan Review

Section 18.124.060 Approval Criteria

Section 18.124.070, Required Minimum Standards

Chapter 18.128, Conditional Uses

Section 18.128.015, General Standards Governing Conditional Uses

Title 22, Deschutes County Development Procedures Ordinance

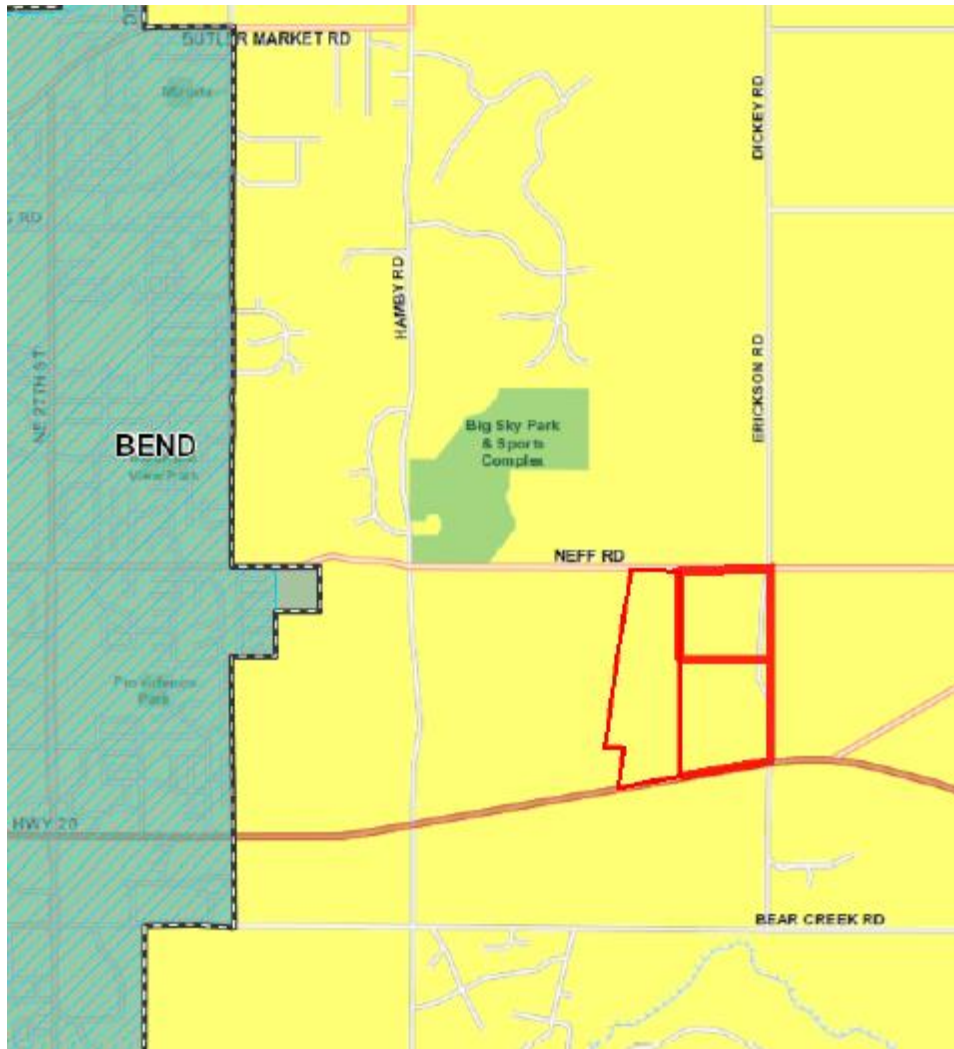
Oregon Administrative Rules (OAR)

660-033-0130, Minimum standards applicable to the schedule of permitted and conditional uses

660-033-0130 (38), Provisions for siting of a photovoltaic solar power generation facility

I. BASIC FINDINGS:

- A. LOCATION:** The subject property has an assigned property address of 21850 Highway 20, Bend and is also identified as Tax Lots 100, 300 and 400 on Deschutes County Assessor's Map 17-12-36.



Source: Deschutes County Geographic Information System

- B. ZONING:** The subject property is zoned Exclusive Farm Use – Tumalo/Redmond/Bend subzone (EFU-TRB) and is designated Agriculture by the Deschutes County Comprehensive Plan. The property is also within the Airport Safety (AS) Combining Zone associated with the Bend Municipal Airport and within the Landscape Management Combining Zone associated with Highway 20.
- C. PROPOSAL:** The applicant requests approval of a conditional use permit and site plan review to allow the development of a solar voltaic array (solar farm) on property zoned Exclusive Farm Use-Tumalo/Redmond/Bend (EFU-TRB) subzone. Landscape Management (LM) Site Plan Review is also proposed as the development would be visible from Highway 20, the LM feature.

The applicant describes the proposal in their initial and supplemental burden of proof statement as follows:

Initial Burden of Proof Statement:

The Applicant proposes to develop a solar power generation facility on two adjacent parcels of property. Concurrently herewith, Applicant is submitting a separate application for the portion of the facility to be located on adjacent property. This application is on property zoned exclusive farm use (EFU), with a portion being within the airport safety combining zone (AS). While the land on which the use is proposed includes some area zoned MUA, no portion of the proposed use will be located on such land.

The facilities to be installed include a solar array, racking, inverters, overhead poles and lines and related fencing.

Supplemental Burden of Proof Statement:

The Applicant and another party which whom it is cooperating propose to develop solar power generation facilities on two adjacent parcels of property. The Applicant and that cooperating party have submitted applications for the facilities. This application is on property zoned exclusive farm use (EFU), with a portion being within the airport safety combining zone (AS) and a portion being within the Landscape Management (LM) zone.

The facilities to be installed include a solar array, racking, inverters, overhead poles and lines and related fencing.

This Supplemental Burden of Proof supplements the application filed April 1, 2015, and is offered pursuant to that certain "incomplete" letter dated April 21, 2015, from Deschutes County Association Planner Chris Schmoyer.

The applicant has submitted an application form, burden of proof and supplemental materials, which are incorporated herein by reference.

- D. SITE DESCRIPTION:** The subject property is approximately 156.84 acres in size, is currently vacant and appears to have a very mild northeastern and eastern facing slope to the topography. The property is bounded by Erickson Road to the east, Neff Road to the north and Highway 20 to the south. The property is located approximately .86 of a mile east of the Bend City Limits Boundary and approximately one mile from the Bend Urban Growth Boundary (UGB). The property supports a native vegetative cover consisting primarily of juniper trees, sage brush, bunch grass and other native shrubs and grasses. An electric power transmission line traverses the property in a roughly north-south fashion near along the west property line. The proposed use will be located on the east side of the power line easement.



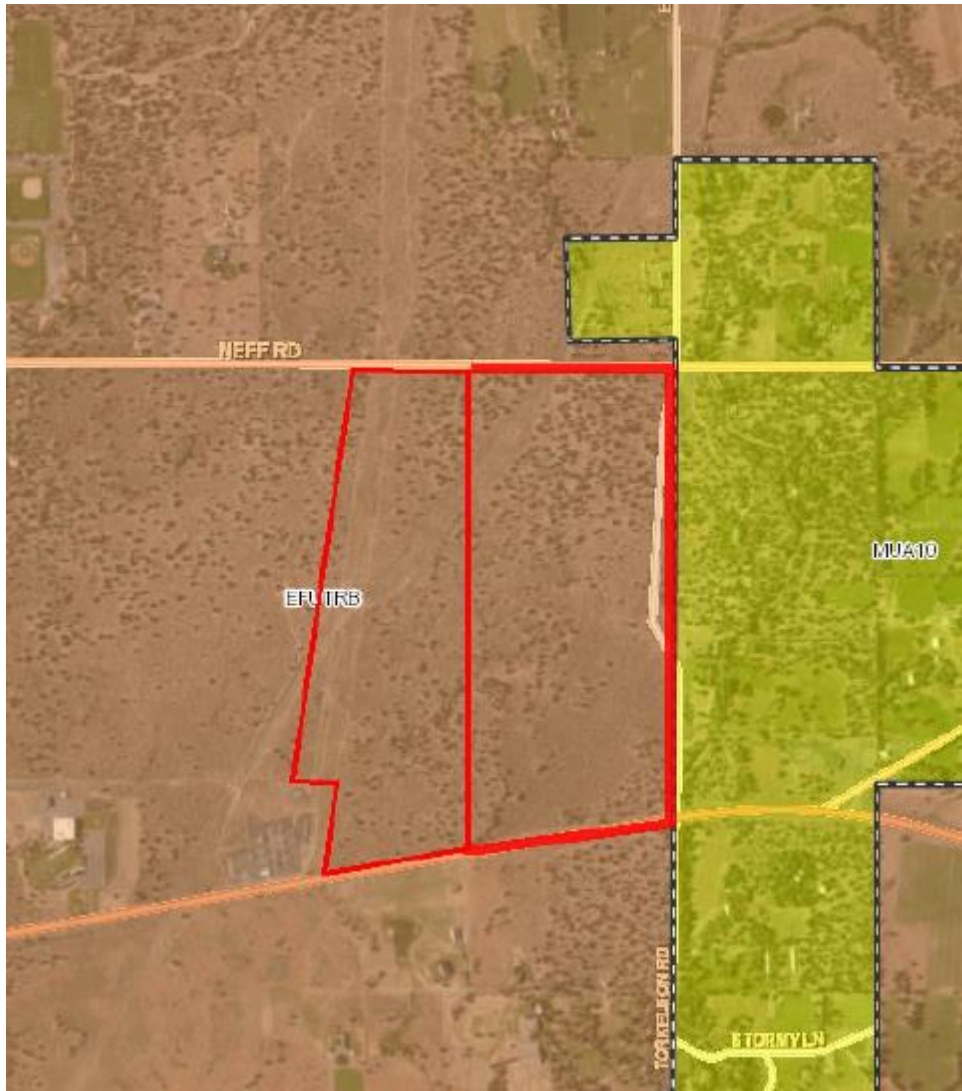
Source: Google Maps 2015

- E. SURROUNDING ZONING AND USES:** Zoning surrounding the property consists of Exclusive Farm Use, Tumalo-Redmond-Bend subzone with MUA-10 zoning to the east, across Erickson Road, and to the south and southeast across Highway 20. Uses surrounding the subject site consist of a mixture of small-scale or hobby farms with residences, developed rural residential lots, electric substations, a sports park and two churches. Most of the adjacent and nearby EFU-zoned properties developed with houses were established under conditional use permits for nonfarm dwellings.

To the north of the subject property, across Neff Road, is an approximate 118 acres parcel that is developed with a dwelling and has pending land use applications for a solar farm (Files 247-15-000168-CU and 247-15-000169-SP). To the northwest of the site, across Neff Road, are two approximate 20 acre parcels developed with home sites established under nonfarm dwelling approvals, as well as Big Sky Sports Park. To the west of the subject property, abutting Highway 20 is an approximate 27 acre EFU-zoned parcel owned by Pacific Power and Light that is developed with an electric substation. West of the substation lot, is property developed with a church, The Christian Life Center. Also abutting the subject property are two vacant EFU-zoned parcels that are 83.40 and 51.57 acres in size.

To the south, across Highway 20, are four smaller EFU-zoned properties two of which are developed with dwellings established under conditional use permits for nonfarm dwellings. To the southwest is a vacant, 57 acre, EFU-zoned parcel that does not appear to be currently devoted to a farm use. To the east of the property, across Erickson Road, are MUA-10 zoned parcels, many of which support dwellings. Also to the east, at the southeast corner of the intersection of Neff Road and Erickson Road, is an

approximate .58 acre parcel that supports a small electrical substation. To the southeast, across Highway 20 and east of Torkelson Road, are MUA-10 zoned properties most of which are developed with dwellings.



Source: Deschutes County Geographic Information System

F. PUBLIC AGENCY COMMENTS: The Planning Division provided notice of the land use applications to several public agencies, on April 10, 2015, and received the following responses:

County Transportation Planner: Peter Russell, Senior Transportation Planner, provided the following comment:

I have reviewed the transmittal materials for 247-15-000170-CU/171-SP/172-LM to develop a solar voltaic array (solar farm) in Exclusive Farm Use (EFU) zone at 21850 US 20, aka 17-12-36, TL 100, 300, and 400.

The Institute of Traffic Engineers (ITE) Trip Generation does not have a category for solar farm. However, based on the application materials, it is obvious that the site will not generate more than 50 new weekday trips and thus the site will not meet the

County's minimum threshold of 50 new weekday trips as set by DCC 18.116.310(C)(3). No traffic analysis is required.

As no new trips will be generated, under BOCC Resolution 2013-020, no transportation system development charges (SDCs) will be assessed, either, as the proposed land use will not consume any road capacity.

Bend Municipal Airport: Gary Judd, Airport Manager, provided the following comment, via email on April 16, 2015, regarding the proposal:

Thank you for sending along the materials. I don't see any issues with the airport. It looks like they submitted the necessary FAA 7460 notification and the FAA responded that it was not an issue so I think it's covered from the aviation perspective.

In years past the reflective properties came up but it's my understanding that the new panels are not highly reflective.

Oregon Department of Aviation (ODA): Jeff Caines, Aviation Planner with ODA, provided the following comment received, June 15, 2015 (referenced excerpts are provided under the Airport Safety Combining Zone section of this Staff Report):

This letter is in response to Deschutes County's notice of application for a solar voltaic array project; specifically located at 21850 Highway 20, Bend, OR; Tax Lots 100, 300 and 400 on Deschutes County Assessor's Map 17-12-36.

The Oregon Department of Aviation looks for guidance from the Federal Aviation Administration (FAA). The FAA has a document entitled "Technical Guidance for Evaluating Selected Solar Technologies on Airports." (November 2010). In that document Section 3.3 (page 45) entitled "Off-Airport" the document states that there are "no defined thresholds for project size, type, or distance from the airport are available that automatically trigger FAA airspace review." The document also states that "it is the responsibility of local governments, solar developers, and other stakeholders in the vicinity of an airport to check with the airport sponsor and the FAA to ensure there are no potential safety or navigational problems with a proposed solar facility, especially if it is a large facility."

The Oregon Department of Aviation has adopted rules addressing Hazards to Air Navigation (OAR 738-070). These rules establish the standards and procedures to identify potential hazards to air navigation. Since details of this project are still in its preliminary state, it is incumbent upon the applicant to design a project that will not violate OAR 738-070.

After a preliminary review of the proposed application the Oregon Department of Aviation has the following comments and recommendations:

- *Design the project as not to violate OAR 738-070.*

County Road Department: Provided a response of no comment.

County Assessor's Office: Provided a response of no comment.

Avion Water Company: Provided a response of no comment.

County Sherriff's Office: Provided a response of no comment.

Oregon Department of Fish and Wildlife (ODFW): Nancy Breuner, Deschutes District Wildlife Habitat Biologist with ODFW, submitted the following comment received via email on 6/11/15:

ODFW's Deschutes Watershed District office has reviewed Oregon Solar Land Holdings' conditional use permit and site plan application and a landscape management site plan (247-15-000170-CU and 247-15-000171-SP and 247-15-000172) located at 21850 Highway 20, Bend, OR. The proposed solar voltaic array (solar farm) development is not located in a Wildlife Area Combining Zone.

Per Division of Land Conservation and Development's Oregon Administrative Rule (OAR) 660-033-0130 (38) paragraph (E), regarding Goal 5 resource protection in Deschutes County's Comprehensive Plan, ODFW finds no information in this application to suggest that special status species or wildlife habitats will be impacted. OAR 660-033-0130(38) paragraph (F) stipulates that ODFW determine if there is potential for solar power generation facility proposals to adversely affect state or federal status species or habitats or big game winter range or migration corridors, golden eagle or prairie falcon nest sites or pigeon springs. ODFW Wildlife staff has reviewed the application and our preliminary findings are that there would be no potential for adverse effects to the species or habitats listed above.

Therefore, ODFW Deschutes Watershed District has no further comments. This is based on the understanding that Deschutes County will implement the relevant provisions in the Comprehensive Plan such that impacts to natural resources will be minimized. Please provide detailed information to ODFW if this project is anticipated to adversely impact wetlands, riparian habitats, big game habitat, sensitive bird and mammal species or involves large acreages.

If Deschutes County requires habitat mitigation for permit approval, ODFW will work with the County and the project developer, using ODFW's Fish and Wildlife Habitat Mitigation policy as guidance to develop and implement a mitigation plan.

No responses were received from: U.S. Fish & Wildlife, DEQ, Pacific Power and Light, Bend Fire Department, Central Oregon Irrigation District, Watermaster District 11, Bend Parks and Recreation, Deschutes County Sheriff and the County Building Division.

- G. PUBLIC COMMENTS:** On April 10, 2015, the Planning Division sent notice of the proposed land use application to all property owners within 750 feet of the subject property. Dozens of letters and emails were received, mostly in opposition to the proposed request, with some not opposed but desiring a greater setback/buffer from property lines such as 100 foot setback with buffering and screening. Following the comment period, staff decided to send the matter to a Deschutes County Hearings Officer for a decision.

In the incomplete application letter, dated and mailed April 22, 2015, Staff indicated that comments from neighbors suggest the mass and scale of the proposed solar array to be inappropriate for the area considering proximity to residential development. In the letter, staff attempted to capture negative impacts and concerns identified by the public as listed below:

- Visual impacts due to mass/scale, height, colors materials
- Noise generated from inverters and motors
- Heat generated by the solar panels and its impact on airplanes, birds, Big Sky Park users and neighbors
- Dust generation and proposed method of dust control
- Negative impacts on native vegetation and possible surviving of invasive weeds
- Negative impacts on wildlife in the area
- Decreased property values
- Views as seen from surrounding properties and residences
- Minimum 100 foot setbacks with additional landscaping to buffer visual impacts
- Proximity to Bend Urban Growth Boundary (UGB) and future increased residential densities surrounding the project in the future as the UGB expands
- Provisions and plans for restoration/reclamation and removal of all structures related to solar array upon termination of use
- Safety of airplanes passing overhead due to glare and the proximity of the Bend Airport

In response to the incomplete application letter from Staff, the applicant submitted a supplemental burden of proof, exhibits and revised plans to address these concerns expressed by the public. These materials, submitted by the applicant, are reviewed against the applicable criteria and standards in this staff report.

- H. NOTICE REQUIREMENT:** The applicant complied with the posted notice requirements of Section 22.23.030(B) of Deschutes County Code (DCC) Title 22. The applicant submitted a Land Use Action Sign Affidavit, dated April 14, 2015, indicating the applicant posted notice of the land use action on the property on April 13, 2015. Notice of the public hearing was sent to all property owners within 750 of the subject property on May 28, 2015. And the notice of public hearing was published in the Bend Bulletin on Sunday, May 31, 2015.
- I. REVIEW PERIOD:** The conditional use and site plan applications were submitted on April 1, 2015. Because the submitted application materials were lacking information, staff mailed a letter to the applicant's attorney on April 22, 2015 informing her that the application was incomplete and additional information is needed. On May 13, 2015, the requested materials and information was received by the Planning Division at which time the application was deemed complete. The 150th day on which the County must take final action on these applications is currently October 10, 2015.
- J. LOT OF RECORD:** The subject property consists of three legal lots of record pursuant to a letter from staff, dated December 17, 1998 that corrected the determination made under Land use File Nos. LR-91-54 and LR-91-55. The December 17, 1998 letter determined that Tax Lots 100 and 300 are separate legal lots of record and that Tax Lot 400, together with Tax Lot 1100, constitutes one legal lot of record. **Note: Because Tax Lots 400 and 1100 are one legal lot of record, Tax lot 1100 should be included and referenced as part of the subject property for this application.**
- K. PREVIOUS LAND USE HISTORY:** Land Use File Nos. LR-91-54 and LR-91-55.

III. CONCLUSIONARY FINDINGS:

Title 18, Deschutes County Zoning Ordinance

A. CHAPTER 18.16. EXCLUSIVE FARM USE ZONE

1. Section 18.16.030. Conditional Uses Permitted.

18.16.030. Conditional Uses Permitted -High Value and Non-high Value Farmland. The following uses may be allowed in the Exclusive Farm Use zones on either high value farmland or nonhigh value farmland subject to applicable provisions of the Comprehensive Plan, DCC 18.16.040 and 18.16.050, and other applicable sections of DCC Title 18.

DD. Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale, subject to OAR 660-033-0130.

FINDING: The subject property proposed for solar array usage and related facilities is zoned exclusive farm use. The proposed use is a conditional use, and therefore is subject to a conditional use permit. Compliance with the applicable conditional use criteria is addressed below. Subsection (DD) above, references Oregon Administrative Rule (OAR) 660-033-0130. Relevant provisions of the OAR are reviewed in detail below.

18.16.040. Limitations on Conditional Uses. A. Conditional uses permitted by DCC 18.16.030 may be established subject to ORS 215.296 and applicable provisions in DCC 18.128 and upon a finding by the Planning Director or Hearings Body that the proposed use:

1. Will not force a significant change in accepted farm or forest practices as defined in ORS 215.203(2)(c) on surrounding lands devoted to farm or forest uses; and

2. Will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use; and

3. That the actual site on which the use is to be located is the least suitable for the production of farm crops or livestock.

FINDING: In response to this criterion, the applicant's burden of proof statement provides the following response:

The proposed use will not force a significant change in accepted farm or forest practices on surrounding farm land. Nor will it significantly increase the cost of accepted farm practices on surrounding farm land. In fact, the proposed use should have virtually no impact on any adjacent property. The proposed use will generate less traffic than farm uses because the only vehicles to the site will be occasional maintenance vehicles. It will generate no noise, dust or odors. The proposed use will not create a conflicting use that could complain about adjacent farm practices. The proposed use will remain contained on the subject property and should have no impact on surrounding properties. The proposed location is least suitable for the production of farm crops and livestock because it comprised of Class VII with no irrigation rights. As nonarable land, it is not

suited to crop cultivation or grazing. Furthermore, its close proximity to a road (Erickson Road) means that livestock or crops would be negatively impacted by noise and dust from the road. The proposed location makes logical sense from both aesthetic and functional perspectives. The location is very close to existing overhead power transmission lines and extremely close to an existing Pacific Power substation.

There are some farm uses occurring in the area, but it does not appear that forest uses occur nearby. Staff agrees with the applicant that impacts from the proposed use are virtually nonexistent as they pertain to farm and forest uses on surrounding lands.

The proposed use is one that, following the construction phase, would not generate dust, noise or odors, nor would it increase traffic in the area. The proposed use is one that would not create impacts causing surrounding farm uses or any future forest uses to alter their resource practices or increase the cost of carrying out such activities. Therefore, staff believes that criterion 1 and 2 above are satisfied by the proposal.

Approximately 114 acres or 73% of the property is comprised of Unit 58C, Gosney-Rock Outcrop-Deskamp complex. Approximately 35.84 acres or 23% of the property is comprised of Unit 36A, Deskamp loamy sand. Approximately seven (7) acres or 4% of the property is comprised of Soil Unit 36B, Deskamp loamy sand. Approximately 73 percent of the property consists of soil unit 58C, which has a soil rating between class 6 and 8, depending on the which portion of the soil complex is represented, and is not considered high value farmland. Soil units 36A and 36B are considered high value farmland where irrigated. However, due to the absence of water rights for irrigation, Units 36A and 36B have an NRCS agricultural classification rating of class 6, thus is not considered high value farmland. The solar array and related structures are proposed for a location that would place them on portions of all three soils. Staff is uncertain if criterion 3 is satisfied as soil Unit 58C has a range forage productivity listed by the NRCS of 558 pounds of forage per year while soil Units 36A and 36B have range forage productivities of 900 pounds of forage per year. Staff recommends the Hearings Officer request additional information prior to a determination that each soil is equally unsuitable under this criterion.

2. Section 18.16.060, Dimensional Standards.

D. Building Height. No building or structure shall be erected or enlarged to exceed 30 feet, except as allowed in DCC 18.120.040.

FINDING: The submitted plans identify the height of the solar panels at 12 feet and the supplemental burden of proof indicates the no structure other than the proposed power poles would exceed 12 feet in height. Staff was unable to locate a reference to the height of the proposed power poles in the submitted plans and application materials. Therefore, staff is uncertain if the power poles or other portions of the facility will exceed 30 feet in height. Staff recommends the Hearings Officer request additional information on this topic.

Staff notes that vertical support structures for telephone and power transmission lines may receive an exception to EFU height requirements.

18.120.040. Building Height Exceptions.

A. The following structures or structural parts are not subject to the building height limitations of DCC Title 18:

1. Chimneys, not more than three feet six inches above the highest point of the roof, vertical support structures for

telephone and power transmission lines in utility easements or public rights-of-way, not requiring a site plan review as defined in DCC 18.124.060, flagpoles not exceeding 40 feet, agricultural structures as defined in DCC 18.04.030 not exceeding 36 feet, and amateur radio facilities as outlined in DCC Title 18.116.290. This exception does not apply to an Airport Development Zone, Airport Safety Combining Zone or Landscape Management Combining Zone.

Staff notes that, as defined above, “Photovoltaic solar power generation facility” includes electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line and all necessary grid integration equipment. Staff therefore believes that new utility poles are part of the facility subject to site plan review and are not eligible for an exception under this criterion.

- B. The following structures or structural parts may receive exceptions to the building height limitations of DCC Title 18 if approved as part of a Site Plan Review, as defined in DCC 18.124.060 and subject to the criteria contained therein: non-commercial wind energy systems generating less than 100 kW of electricity, public schools, vertical support structures for telephone and power transmission lines requiring a site plan, structures that are necessary for public safety and flagpoles. This exception does not supersede the more restrictive requirements that are found in the Airport Safety Combining Zone or Landscape Management Combining Zone.**

Staff believes that approval of any poles over 30 feet in height would require a height exception under this criterion. Staff notes that any such height exception requires a separate application fee and is subject to the criteria under 18.120.040(C).

3. Section 18.16.070, Yards.

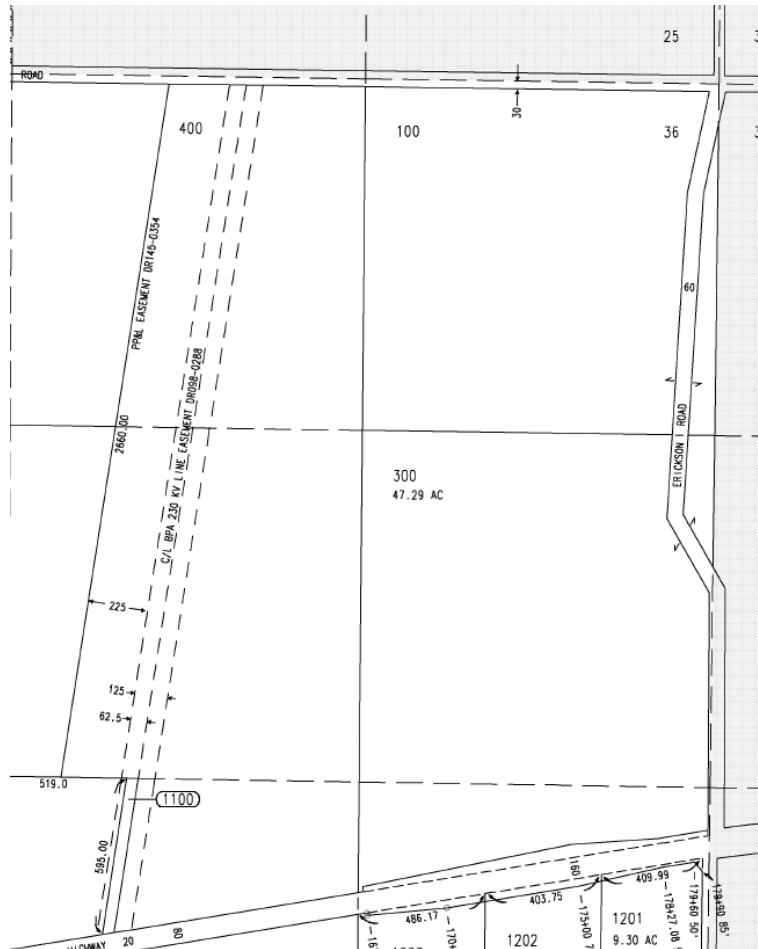
- A. The front yard shall be a minimum of: 40 feet from a property line fronting on a local street, 60 feet from a property line fronting on a collector street, and 100 feet from a property line fronting on an arterial street.**

FINDING: The property has three front yards as it abuts Erickson Road to the east, Highway 20 to the south and Neff Road to the north. Erickson Road is classified as a Rural Collector street on the County’s Transportation System Plan (TSP), thus, requires a setback of 60 feet. Neff Road is classified as a Rural Arterial street on the County’s Transportation System Plan (TSP), requiring a 100 foot setback. State Highway 20 is classified as a Primary Arterial on the County Transportation System Plan (TSP), thus requires a setback of 100 feet.

Based on the revised site plans, received May 13, 2015, the proposal complies with the front yard requirements of this subsection as the solar panels are shown to be setback approximately 150 feet from Neff Road, 570 feet or farther from the property line associated with the right-of-way of Highway 20 and 100 feet or farther from the property line associated with the right-of-way of Erickson Road, satisfying the requirements of this section.

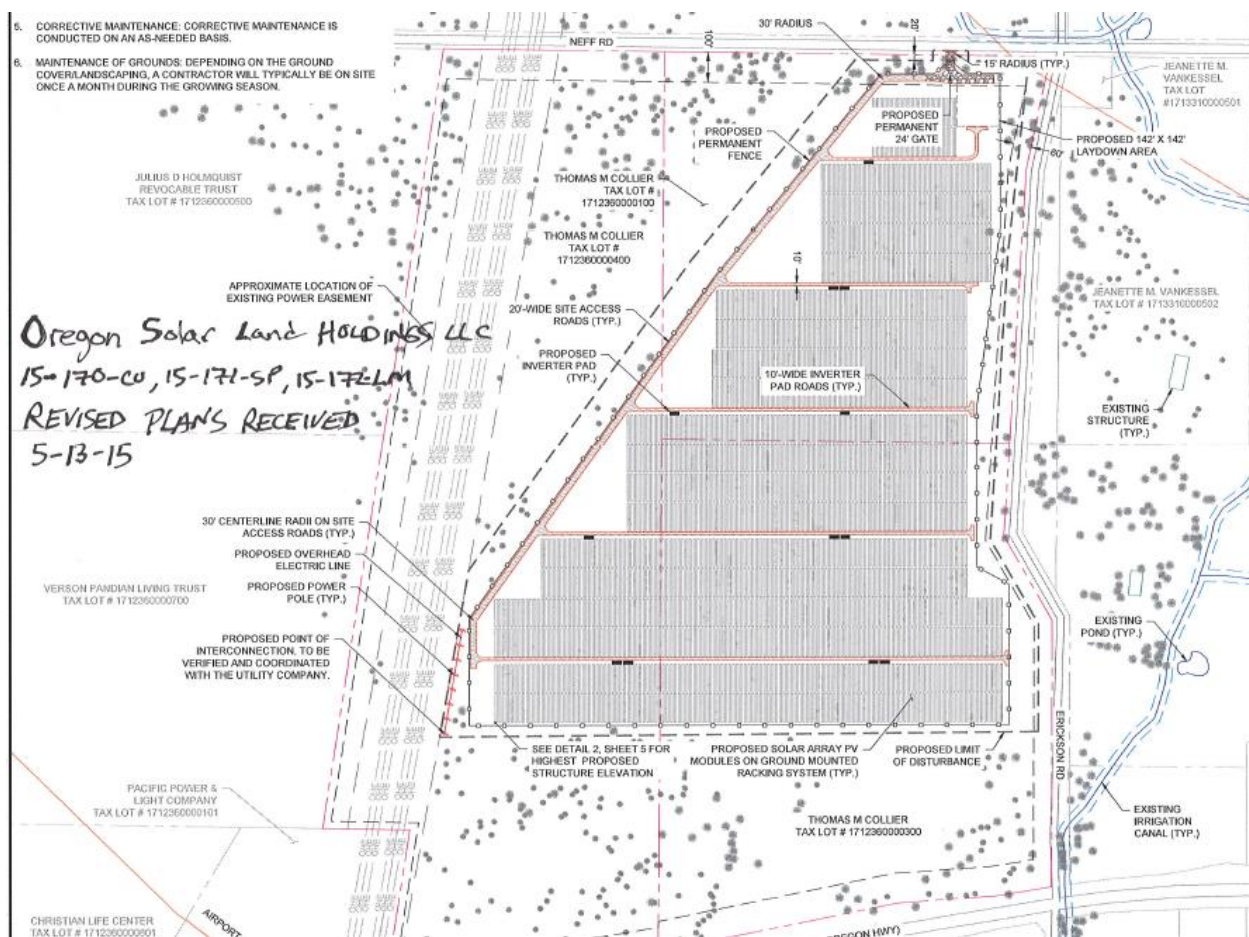
- B. Each side yard shall be a minimum of 25 feet, except that for a nonfarm dwelling proposed on property with side yards adjacent to property currently employed in farm use, and receiving special assessment for farm use, the side yard shall be a minimum of 100 feet.**
- C. Rear yards shall be a minimum of 25 feet, except that for a nonfarm dwelling proposed on property with a rear yard adjacent to property currently employed in farm use, and receiving special assessment for farm use, the rear yard shall be a minimum of 100 feet. Chapter 18.16 32 (04/2014)**
- D. In addition to the setbacks set forth herein, any greater setbacks required by applicable building or structural codes adopted by the State of Oregon and/or the County under DCC 15.04 shall be met.**

FINDING: As described under the Basic Findings Section of this Staff Report, the subject property consists of three legal lots of record pursuant to a letter from staff, dated December 17, 1998 that corrected the determination made under Land use File Nos. LR-91-54 and LR-91-55. The December 17, 1998 letter determined that Tax Lots 100 and 300 are separate individual legal lots of record and that Tax Lot 400, together with Tax Lot 1100, constitutes one legal lot of record. Because the common tax lot lines between Tax Lots 100, 300 and 400 are legal lot lines (rear and side property lines), the applicable setbacks need to be observed, including the solar setback from the north property line of the Tax Lot 300. Below is an excerpt from Deschutes County Assessor Map for 17-12-36 depicting the tax lots:



Observing setbacks from these property lines would require a revision to the submitted plans and possibly submittal of a land use permit for a modification of application. Alternatively, the applicant could place the applications on hold to process a lot consolidation unless it could be imposed as a condition of approval.

If the legal lots of record were to be consolidated, the proposal would with (B) and (C) above, as the proposed solar panels are shown on the revised plans to be set back at least 450 feet or farther from the from the western (rear and side) property lines and comply with solar setback requirements. Staff is unaware of any other setbacks imposed by building or structural codes adopted by the State of Oregon or the County, but those requirements would be reviewed by the County Building Division upon submittal of required permits. An excerpt of the revised site plan (Sheet 3 of the May 13, 2015 submittal) is depicted below:



Until the lots are consolidated or the submitted plans modified to comply with the 25 foot side and rear yard setbacks and solar requirements, Staff finds that the current proposal does not comply with the yard requirements of this section.

Chapter 18.116, SUPPLEMENTARY PROVISIONS

1. 18.116.030 Off Street Parking and Loading.

- A. Compliance. No building or other permit shall be issued until plans and evidence are presented to show how the off street parking and loading requirements are to be met and that property is and will be available for exclusive use as off-street parking and loading. The subsequent use of the property for which the permit is issued shall be conditional upon the unqualified continuance and availability of the amount of parking and loading space required by DCC Title 18.**

FINDING: Staff finds that the unmanned facility will not require a developed parking area and is not subject to the requirements of this section. This proposal does not include buildings for employees and only involves occasional traffic from maintenance and service technicians that will park in the internal road as driving throughout the site while conducting and providing service and maintenance.

Chapter 18.124, Site Plan Review

1. Section 18.124.010. Purpose

DCC 18.124.010 provides for administrative review of the design of certain developments and improvements in order to facilitate safe, innovative and attractive site development compatible with the natural and man-made environment.

2. Section 18.124.020. Elements of Site Plan

The elements of a site plan are: The layout and design of all existing and proposed improvements, including, but not limited to, buildings, structures, parking, circulation areas, outdoor storage areas, bicycle parking, landscape areas, service and delivery areas, outdoor recreation areas, retaining walls, signs and graphics, cut and fill sections, accessways, pedestrian walkways, buffering and screening measures and street furniture.

FINDING: Staff believes that the May 13th submittal of additional application materials by the applicant provided the required and relevant elements of site plan review.

3. Section 18.124.030. Approval Required

- A. No building, grading, parking, land use, sign or other required permit shall be issued for a use subject to DCC 18.124.030, nor shall such a use be commenced, enlarged, altered or changed until a final site plan is approved according to DCC Title 22, the Uniform Development Procedures Ordinance.**

- B. The provisions of DCC 18.124.030 shall apply to the following:**

- 1. All conditional use permits where a site plan is a condition of approval;**

2. ***Multiple-family dwellings with more than three units;***
3. ***All commercial uses that require parking facilities;***
4. ***All industrial uses;***
5. ***All other uses that serve the general public or that otherwise require parking facilities, including, but not limited to, landfills, schools, utility facilities, churches, community buildings, cemeteries, mausoleums, crematories, airports, parks and recreation facilities and livestock sales yards; and***
6. ***As specified for Flood Plain Zones (FP) and Surface Mining Impact Area Combining Zones (SMIA).***

D. Noncompliance with a final approved site plan shall be a zoning ordinance violation.

E. As a condition of approval of any action not included in DCC 18.124.030(B), the Planning Director or Hearings Body may require site plan approval prior to issuance of any permits.

FINDING: The proposed use is a photovoltaic solar power generation facility, as a commercial utility facility, for the purpose of generating power for public use and as such requires a land use permit. Therefore, site plan review is required under B(5) above.

4. Section 18.124.060, Approval Criteria

Approval of a site plan shall be based on the following criteria:

- A. ***The proposed development shall relate harmoniously to the natural environment and existing development, minimizing visual impacts and preserving natural features including views and topographical features.***

FINDING: The property supports a native vegetative cover consisting primarily of juniper trees, sage brush, bunch grass and other native shrubs and grasses and has a very mild northeastern and eastern facing slope to the topography. The property is bounded by Erickson Road to the east, Neff Road to the north and Highway 20 to the south. The subject property is currently vacant.

Uses surrounding the subject site consist of a mixture of small-scale or hobby farms with residences, developed rural residential lots, electric substations, a public sports park and two churches. Most of the adjacent and nearby EFU-zoned properties developed with houses were established under conditional use permits for nonfarm dwellings. To the north of the subject property, across Neff Road, is an approximate 118 acres parcel that is developed with a dwelling and has pending land use applications for a solar farm (Files 247-15-000168-CU and 247-15-000169-SP). To the northwest of the site, across Neff Road, are two approximate 20 acre parcels developed with home sites established under nonfarm dwelling approvals, as well as Big Sky Sports Park. To the west of the subject property, abutting Highway 20 is an approximate 27 acre EFU-zoned parcel owned by Pacific Power and Light that is developed with an electric substation. West of the substation lot, is property developed with a church, The Christian Life Center. Also abutting the subject property are two vacant EFU-zoned parcels that are 83.40 and 51.57 acres in size. To the south, across Highway 20, are four smaller EFU-zoned properties two of which are developed with dwellings established under conditional use permits for nonfarm dwellings. To the southwest is a vacant, 57 acre, EFU-zoned parcel that does not appear to be currently devoted to a farm use. To the east of the property, across

Erickson Road, are MUA-10 zoned parcels, many of which support dwellings. Also to the east, at the southeast corner of the intersection of Neff Road and Erickson Road, is an approximate .58 acre parcel that supports a small electrical substation. To the southeast, across Highway 20 and east of Torkelson Road, are MUA-10 zoned properties most of which are developed with dwellings. Views of the Cascade Mountains to the west can be seen in various locations in the area.

In response to this criterion the applicant's burden of proof statement provides:

As noted on the site plan, the proposed array and related facilities will be no taller than 12 feet from grade and will be non-reflective. There will be virtually no grading necessary for the installation. Recognizing that the southern part of the array must be shielded from view along Highway 20, a Landscape Management corridor, the applicant is proposing a landscape buffer as further described herein. As reflected in the attached site plan drawings, the applicant proposes to retain existing, native vegetation where it doesn't have to be removed for the installation of the array and related facilities. That generally means that there will be an undisturbed native around surrounding the array. However, as the attached site plan drawings reflect, although the existing vegetation, including juniper and sage, is rather dense in some areas, it is less so in others. Accordingly, the applicant proposes a landscape buffer along the critical viewshed, i.e., between Highway 20 and the array. The buffer would be as follows:

- 1. At least one strip of trees and shrubs along the southern boundary of the proposed site;*
- 2. Such trees and shrubs would be a minimum of four (4) feet in height and not further than sixteen (16) feet distance from any one tree or shrub to the next;*
- 3. Such trees would be maintained for the life of the array; and would be grown to a maximum height of twelve (12) feet;*
- 4. To the extent that the native vegetation remaining after installation of the array and related facilities doesn't meet these minimum standards, the applicant would be required to install additional trees and shrubs of a minimum four (4) feet in height;*
- 5. To the extent that a tree or shrub necessary to maintain the density specified in no. 2 above dies, the applicant would be obligated to replace it with a shrub tree that meets the requirements specified in this finding.*

In the incomplete application letter, dated April 22, 2015, staff provided the following comment:

STAFF COMMENT: Please provide information as to how the proposed development relates harmoniously to the natural environment and existing development, minimizing visual impacts and preserving natural features, views and topographical features. Many neighbors/public have stated both verbally and in writing how they believe the proposed use will be unsightly, adversely affecting their livability and views and drastically changing the character of the neighborhood and surrounding area. Other comments from the public express concern for potential adverse impacts to wildlife in the area. How do the design, scale/size, setbacks, fencing/screening, colors and materials of the proposed development assist in complying with this criterion?

In response, the applicant provided the following response in their supplemental burden of proof statement:

Applicant Response: As shown on the attached landscaping plan, the applicant is proposing to retain significant existing vegetation around the entire periphery of the proposed installation. Many of the trees to remain are well over ten (10) feet in height. In addition, the applicant is proposing a perimeter ring of new trees to be spaced not further than ten (10) feet apart. The trees shall be a minimum of four (4) feet in height when planted. They will be permitted to grow to a height of twelve (12) feet. The existing and propose vegetation shall assure that the project is significantly screened from surrounding properties and roads. The existing trees are generally juniper, and the proposed trees will be moon glow juniper (or an equivalent approved by the County Planning Department). This will assure that the site relates harmoniously to the natural environment since the landscaping will blend in with the surrounding landscaping. In addition, the six (6) foot (7, if the barbed wire is retained) perimeter fence will be covered with a mesh screen that is tan colored (a photograph sample is enclosed with this application), which will blend in with the surrounding high desert landscape, thereby further buffering views from surrounding properties and roads.

A majority of the installation will be relatively low to the ground, further minimizing the view impact on surrounding properties. The panels on average will be between 5 and 7 feet in height from the ground (depending upon the time of day, as the panels tilt with the position of the sun to capture the maximum amount of light possible). The inverters will be a maximum of ten feet from grade. Importantly, the panels will constitute 99.9% of the array, while inverters will constitute 0.1% of the array. Additionally, only one of the inverters is near the edge of the proposed array.

Nothing, except the power poles, will exceed twelve (12) feet in height from grade. As the site is very near the existing BPA transmission lines and the existing Pacific Power substation, the proposed power poles will be consistent with these existing improvements and should create minimal additional visual impacts.

The applicant proposes very minimal changes to the existing topography. The panels are designed to absorb light rather than to reflect it. See the attached "Figure 16: Reflectivity Produced by Different Surfaces" from the "Technical Guidance for Evaluating Selected Solar Technologies on Airports" prepared by the Federal Aviation Administration and dated November 2010, attached as **Exhibit D**. As demonstrated by that figure, solar panels reflect significantly less sunlight than many natural features in this area, including bare soil and vegetation.

The applicant's supplemental burden of proof statement also provides the following regarding proposed mitigation measures for addressing visual impacts of the facility as seen from surrounding properties the abutting roads:

Applicant Response: The applicant proposes surround the facility with a six (6)-foot (7, if the barbed wire is retained) chain-link fence covered with a tan-colored mesh screening, which should blend into the surrounding landscaping and provide additional screening of the solar array. A depiction of this fencing material is shown in the attached **Exhibit B**. Photo examples of the inverters, including specification, is attached as **Exhibit C**. A photo showing what the panels, racking and inverters will look like is attached as **Exhibit C**. In general, the panels are non-reflective and made of polycrystalline cells with a front cover of tempered glass and aluminum frame. The polycrystalline cells are a dark blue and the frame is matte silver. All materials are recyclable and non-toxic (basically refined sand, glass and aluminum). The racking is constructed primarily of galvanized steel and is also a matte silver/grey color. The racking consists primarily of galvanized piles that are driven into the ground as the foundation for the system. There is also a motor on each sub-array that rotates the panels.

Staff believes that this criterion would not be met where a proposal did not minimize visual impacts, preserve views, or relate harmoniously to the natural environment and existing development.

Staff also believes that the proposed use would not relate harmoniously to the natural environment and existing development where a use adversely impacts nearby natural environments.

The applicant has proposed measures to reduce visual impacts through the proposed tan colored mesh screens on fencing, removal of the previously proposed 3-strand barbed wire at the top of the fence, and proposed glow tree hedging. Staff understands neighbors to argue that these measures are insufficient to minimize visual impacts or cause the facility to relate harmoniously to nearby residences. Staff requests that the Hearings Officer evaluate and determine if this proposal minimizes visual impacts and relates harmoniously to the natural environment and existing development.

Staff believes that the only views protected under this criterion would be limited views of the Cascades to the west. Due to the low height of the solar panels and inverters (not to exceed 12 feet in height), Staff does not believe the proposed facility would hinder views of the Cascade Mountain range and other natural features as seen from properties east of the site. Sheet 6 of the revised plans identifies solar panels that would reach a maximum height of 12 feet. The supplemental burden of proof statement, quoted above, indicates the height of the solar panels will vary between 4 and 7 feet and the inverters would be a maximum of ten (10) feet above grade. The applicants should clarify this for the Hearings Officer.

To the extent the Hearings Officer finds that compliance with this criterion is dependent on applicant-proposed screening or planting, staff recommends the Hearings Officer condition any approval on the installation and perpetual maintenance of required screening and plantings.

Suggested Condition of Approval:

All required screening shall be continuously maintained and all plantings shall be kept alive and attractive. The applicant shall replace all dead, dying or diseased screening vegetation within 90 days.

- B. The landscape and existing topography shall be preserved to the greatest extent possible, considering development constraints and suitability of the landscape and topography. Preserved trees and shrubs shall be protected.***

FINDING: The applicant indicates that the installation of the solar array would prevent maintenance of existing landscaping where the array is placed, but that strips of land, of varying width, around the proposed array would remain untouched. The applicant also indicates that the topography of the property would remain virtually unchanged as only minor grading around the twelve (12) inverter areas/pads would require grading.

The applicant states that the solar array should pose no risk to the trees and shrubs that are to remain undisturbed. Staff understands this criterion to require preservation of existing landscaping and topography to the greatest extent possible and still allow certain permitted and conditional uses to occur. That is, trees and vegetation that do not need to be removed to

accommodate the proposed use, should be retained. Likewise, topography of the property that does not need to be graded to accommodate the use should remain as such.

Staff suggests that, if the applicant's request is approved, a condition of approval be imposed to comply with this criterion.

Suggested Condition of Approval:

Existing vegetation and topography shall be preserved to the greatest extent possible, considering development constraints and suitability of the landscape and topography. Preserved trees and shrubs, located outside of the development footprint, shall be protected.

- C. *The site plan shall be designed to provide a safe environment, while offering appropriate opportunities for privacy and transition from public to private spaces.***

FINDING: The design of the proposed facility appears to provide a safe environment. The applicant proposes a permanent 6-foot high cyclone fence with tan colored mesh screening and a shrub hedge around the perimeter of the array to limit access and provide a safe and secure environment. The applicant proposes to retain natural landscaping surrounding the fenced areas, as well as in areas of the site between the facility and abutting roads. The project site is not staffed and it is not open to the public. Access to the site is limited to periodic visits by employees for monitoring and maintenance of the facility. Staff believes this criterion is met.

- D. *When appropriate, the site plan shall provide for the special needs of disabled persons, such as ramps for wheelchairs and Braille signs.***

FINDING: There is no need for people, other than an occasional maintenance person, to access the site. The proposed use is one that is not open to the general public, thus staff does not believe that this criterion is applicable to the proposed use. However, the Building Division will review all plans for conformance with ADA standards when building permits are submitted. For these reasons, staff believes that if applicable, this criterion can be satisfied.

- E. *The location and number of points of access to the site, interior circulation patterns, separations between pedestrians and moving and parked vehicles, and the arrangement of parking areas in relation to buildings and structures shall be harmonious with proposed and neighboring buildings and structures.***

FINDING: In response to this criterion, the applicant's revised burden of proof provided the following:

Applicant Response: The revised site plan does identify proposed vehicular circulation roads and maneuvering areas. The proposed drive aisles will provide easy access to the maintenance technician during quarterly inspections. As no public access to the site or interaction/connectivity with adjacent property is planned, no road connections need to be made. The appearance of the roads will be screened from view via native vegetation, the perimeter ring of trees proposed and the tan-colored mesh over the perimeter fence.

Access aisles will be compacted prior to construction to reduce rutting. Gravel will be used in high traffic or poorly drained areas during construction. Soil access aisles will be scarified, aerated and re-seeded after construction. Only one entryway is proposed.

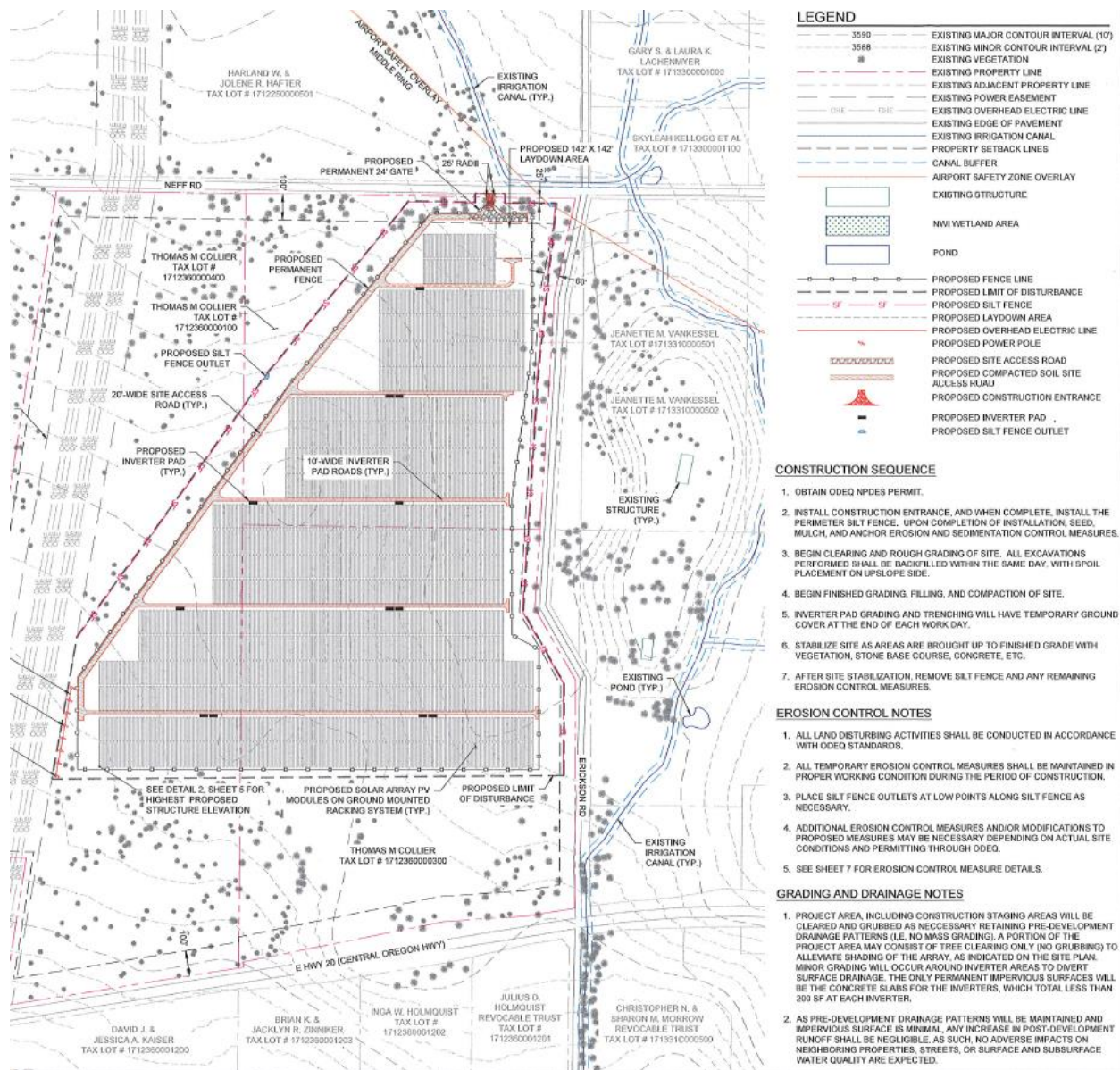
With infrequent usage of the internal roads, during occasional maintenance, one point of access to the facility on the north side of the property off of Neff Road, coupled with screened fencing, a hedge, and perimeter trees, staff believes this criterion is met.

F. Surface drainage systems shall be designed to prevent adverse impacts on neighboring properties, streets, or surface and subsurface water quality.

FINDING: No existing drainage problems have been identified for the site. Drainage problems typically result from significant changes in the grade of the site or increase in impervious areas on the site. In response to the incomplete application letter, mailed April 22, 2015, the applicant submitted a drainage plan and stated in the supplemental burden of proof statement:

“The revised site plan includes a drainage plan. The panels will be cleaned by the maintenance technician as needed, but no more often than once a year, using only water. No chemicals are used. The drainage plan will assure that water stays on site. No automatic cleaning mechanisms are proposed.

Submitted as Sheet 4 of the revised plans, received on May 13, 2015, is a Grading, Drainage and Erosion Control Plan. In addition to depicting elevation contours, at 2 foot intervals, Sheet 4 identifies a Silt Fence that is proposed for select portions of the site as depicted below:



As indicated above, the perimeter silt fence would be installed following Oregon Department of Environmental Quality (DEQ) National Pollutant Discharge Elimination (NPDES) permit and construction of the entrance (items 1 and 2 under the construction sequence). Item 7 indicates the silt fence would be removed following site stabilization and any other remaining control measures.

In addition to drainage control measures, the soils on the property are described by NRCS as being somewhat rapidly drained to rapidly drained with rapid permeability. More specifically, according to NRCS data, Gosney soils are somewhat excessively drained with rapid permeability with an available water capacity is about 1 inch and the Deskamp soils are somewhat excessively drained with a rapid over moderate permeability and available water capacity of 3 to 5 inches. Additionally, the internal access roads will remain a dirt surface to allow for effective drainage. Further, the proposed perimeter shrub hedge and existing native trees and vegetation should assist in absorbing any excessive drainage. Since no significant

changes in grade or increases in impervious surface area are proposed. Staff believes that this criterion will be met.

No comments were received from Oregon Department of Environmental Quality (DEQ) in response to this proposal, however, the applicant's grading, drainage and erosion control plan, received on May 13, 2015, indicates that the applicant will be required to obtain an Oregon DEQ National Pollutant Discharge Elimination (NPDES) Permit from DEQ for the use. Staff finds that this permitting process will ensure that surface and subsurface water quality will not be adversely impacted and recommends the Hearings Officer condition any approval of this application on the applicant obtaining this permit.

Suggested Condition of Approval:

Prior to initiation of the use, the applicant shall provide evidence of DEQ National Pollutant Discharge Elimination (NPDES) Permit approval for the proposed use to the Planning Division.

- G. Areas, structures and facilities for storage, machinery and equipment, services (mail, refuse, utility wires, and the like), loading and parking and similar accessory areas and structures shall be designed, located and buffered or screened to minimize adverse impacts on the site and neighboring properties.**

FINDING: In the incomplete application letter, dated April 22, 2015, staff provided the following comment:

STAFF COMMENT: Submitted details plan (Sheet 5) identifies a cyclone fence with 3-strand barbed wire. According to the submitted Landscape Plan, and recent aerial photographs, existing trees appear to be quite sparse in many areas outside the proposed fencing. Also, setbacks from property lines appear to be minimal and arguably inadequate, to effectively minimize impacts on neighboring properties. Please describe how the site plan/project is designed, located and buffered/screened to minimize adverse impacts on neighboring properties.

In response, the applicant's supplemental burden of proof statement provides the following:

Applicant Response: As described above, the applicant is proposing to retain existing vegetation around the entire periphery of the proposed installation. Many of the trees to remain are well over ten (10) feet in height. In addition, the applicant is proposing a perimeter ring of new trees to be spaced not further than ten (10) feet apart. The trees shall be a minimum of four (4) feet in height when planted. They will be permitted to grow to a height of twelve (12) feet. The existing and propose vegetation shall assure that the project is significantly screened from surrounding properties and roads. The existing trees are generally juniper, and the proposed trees will be moon glow juniper (or an equivalent approved by the County Planning Department). This will assure that the site relates harmoniously to the natural environment since the landscaping will blend in with the surrounding landscaping. In addition, the six (6) foot (7, if the barbed wire is retained) perimeter chain-link fence will be covered with a mesh screen that is tan colored (a photograph sample is enclosed with this application), which will blend in with the surrounding high desert landscape, thereby further buffering views from surrounding properties and roads. Although the revised site plan shows a one-foot barbed wire along

the top of the fence, the applicant is open to removing it if the County believes it will negatively impact views from surrounding properties.

A majority of the installation will be relatively low to the ground, further minimizing the view impact on surrounding properties. The highest points on the panels will be between 5 and 7 feet in height from the ground (depending upon the time of day, as the panels tilt with the position of the sun to capture the maximum amount of light possible). The top of the inverters will be a maximum of ten (10) feet from grade. Importantly, the panels will constitute 99.9% of the array, while inverters will constitute 0.1% of the array. Additionally, only one of the inverters is near the edge of the proposed array.

The tan-colored fence mesh, together with the existing vegetation to be retained, the new trees to be installed and the relatively low height of the improvements should all serve to minimize any impacts of the proposed development on adjacent properties.

Only the power poles (which are very limited, as shown on the site plan), will exceed ten (10) feet in height from grade. As the site is very near the existing BPA transmission lines and the existing Pacific Power substation, the proposed power poles will be consistent with these existing improvements and should create minimal additional visual impacts.

Staff believes that the majority of the facility falls under the categories described in this criterion [Areas, structures and facilities for storage, machinery and equipment, services (mail, refuse, utility wires, and the like), loading and parking and similar accessory areas and structures] and that the facility must be designed, located and buffered or screened to minimize adverse impacts on neighboring properties. The applicant has proposed to screen the facility with tan colored mesh for fencing and a shrub hedge at a ten foot spacing surrounding the perimeter of the facility. Staff notes that Exhibit B of the Applicant's supplemental burden of proof indicates the mesh screening only has a one year warranty, therefore, a condition of approval should require maintenance of the screen.

The applicant indicates that the Moonglow Juniper shrubs would be a minimum of four (4) feet at the time of planting, however, staff suggests this height be increased to a minimum of six (6) feet to help mitigate visual impacts more immediately. Staff suggests that if approved, the following condition of approval be imposed:

Suggested Condition of Approval:

Prior to initiation of the use, the applicant shall complete the following:

- a) Install the 6 foot cyclone fence with tan colored mesh screening.
- b) Plant the shrubs in the locations shown on the approved Landscape Plan. The shrubs shall be a minimum of 6 feet at the time of planting.
- c) Mesh screening shall be installed along the perimeter fence.

At all times, the mesh screening shall be maintained in good condition and shall be promptly repaired if ripped or torn.

H. All above-ground utility installations shall be located to minimize adverse visual impacts on the site and neighboring properties.

FINDING: The applicant's burden of proof statement provides the following in response to this criterion:

As shown on the attached site plan drawings, the applicant is proposing a relatively short above-ground power line, which is necessary for transporting the electricity generated on-site from the facility to the nearby Pacific Power substation. The applicant has arranged such line to be parallel to the existing, much-larger power lines so that the additional impact on view will be minimal. In addition, the proposed lines would run perpendicular to the critical view corridor along Highway 20, thereby further minimizing the impact on views.

The property currently supports multiple power poles and transmission lines that traverse the west property line extending from the Pacific Power substation situated to the west of the site. Power poles/lines run along both sides of Neff Road and the east side of Erickson Road. The submitted site plan identifies the eight (8) proposed poles for a location at the southwest corner of the facility, approximately 900 feet north of Highway 20, and adjacent and to the east of the existing transmission line. The proposed power poles are a necessary element of the proposed facility and to be placed in a location that is not only practical, but approximately 1,500 feet or farther from the nearest residence (which is located to the south across Highway 20). As proposed by the applicant, this criterion appears to be met.

- I. Specific criteria are outlined for each zone and shall be a required part of the site plan (e.g. lot setbacks, etc.).***

FINDING: The applicable criteria in the EFU zone have been addressed above.

- J. All exterior lighting shall be shielded so that direct light does not project off-site.***

FINDING: The applicant indicates that exterior lighting is not proposed.

- K. Transportation access to the site shall be adequate for the use.***
- 1. Where applicable, issues including, but not limited to, sight distance, turn and acceleration/deceleration lanes, right-of-way, roadway surfacing and widening, and bicycle and pedestrian connections, shall be identified.***
 - 2. Mitigation for transportation-related impacts shall be required.***
 - 3. Mitigation shall meet applicable County standards in DCC 17.16 and DCC 17.48, applicable Oregon Department of Transportation (ODOT) mobility and access standards, and applicable American Association of State Highway and Transportation Officials (AASHTO) standards.***

FINDING: The applicant's burden of proof statement provides the following in response to this criterion:

No improvements or new roads are proposed. The only trips to the site will be an occasional maintenance person. Accordingly, no new traffic will be generated to or on the site, and there will be no real impact on existing transportation systems and no need for any additional improvements. As noted on the site plan drawings, the site will generally be monitored remotely. A maintenance person will inspect the site quarterly and as needed. During the growing season for any installed landscaping, a contractor will be on site once a month to care for the trees and related landscaping. In short,

except for the installation and decommissioning of the site, there will be very little traffic generated by the propose use.

The applicant's revised site plan depicts one proposed gravel access road onto the site is proposed from Neff Road, a county paved Major Arterial Road. The County Road Department provided a response of "no comment" in regards to notification of the proposal. The County Transportation Planner provided comments that the use will result in less than 50 new weekday trips and, thus, no traffic analysis is required. Additionally, the County Transportation Planner also indicates that SDCs are not required for the use. For these reasons, staff believes that access is adequate for the use.

5. Section 18.124.070, Required Minimum Standards

B. Required Landscaped Areas

1. ***The following landscape requirements are established for multi-family, commercial and industrial developments, subject to site plan approval:***
 - a. ***A minimum of 15 percent of the lot area shall be landscaped.***
 - b. ***All areas subject to the final site plan and not otherwise improved shall be landscaped.***

FINDING: It is staff's opinion that these criteria do not apply because the proposed use is not a multi-family, commercial or industrial development.

2. ***In addition to the requirement of DCC 18.124.070(B)(1)(a), the following landscape requirements shall apply to parking or loading areas:***
 - a. ***A parking or loading area shall be required to be improved with defined landscape areas totaling no less than 25 square feet per parking space.***
 - b. ***In addition to the landscaping required by DCC 18.124.070(B)(2)(a), a parking or loading area shall be separated from any lot line adjacent to a roadway by a landscaped strip at least 10 feet in width, and from any other lot line by a landscape strip at least five feet in width.***
 - c. ***A landscaped strip separating a parking or loading area from a street shall contain:***
 - 1) ***Trees spaced as appropriate to the species, not to exceed 35 feet apart on the average.***
 - 2) ***Low shrubs not to reach a height greater than three feet zero inches spaced no more than eight feet apart on the average.***
 - 3) ***Vegetative ground cover.***
 - d. ***Landscaping in a parking or loading area shall be located in defined landscape areas which are uniformly distributed throughout the parking or loading area.***
 - e. ***The landscaping in a parking area shall have a width of not less than five feet.***

- f. Provision shall be made for watering planting areas where such care is required.*
- g. Required landscaping shall be continuously maintained and kept alive and attractive.*
- h. Maximum height of tree species shall be considered when planting under overhead utility lines.*

FINDING: It is staff's opinion that these criteria do not apply because parking and loading areas are not required. Additionally, staff does not believe that the parking requirements of Section 18.116.030 of the Deschutes County Zoning Ordinance apply to the proposal as the use is not open to the general public, does not include buildings for employees and only involves occasional traffic from maintenance and service technicians that will park in the internal road as driving throughout the site while conducting and providing service and maintenance.

C. Nonmotorized Access.

- 1. Bicycle Parking. The development shall provide the number and type of bicycle parking facilities as required in DCC 18.116.031 and 18.116.035. The location and design of bicycle parking facilities shall be indicated on the site plan.*

FINDING: Staff finds that bicycle parking is only required under DCC 18.116.031 and 18.116.035 where vehicular parking is required. Since no vehicular parking spaces are required, no bicycle parking spaces are required.

- 2. Pedestrian Access and Circulation*
 - a. Internal pedestrian circulation shall be provided in new commercial, office and multi-family residential developments through the clustering of buildings, construction of hard surface pedestrian walkways, and similar techniques.*
 - b. Pedestrian walkways shall connect building entrances to one another and from building entrances to public streets and existing or planned transit facilities. On-site walkways shall connect with walkways, sidewalks, bikeways, and other pedestrian or bicycle connections on adjacent properties planned or used for commercial, multi-family, public or park use.*
 - c. Walkways shall be at least five feet in paved unobstructed width. Walkways which border parking spaces shall be at least seven feet wide unless concrete bumpers or curbing and landscaping or other similar improvements are provided which prevent parked vehicles from obstructing the walkway. Walkways shall be as direct as possible.*
 - d. Driveway crossings by walkways shall be minimized. Where the walkway system crosses driveways, parking areas and loading areas, the walkway must be clearly identifiable through the use of elevation changes, speed bumps, a different paving material or other similar method.*
 - e. To comply with the Americans with Disabilities Act, the primary building entrance and any walkway that connects a transit stop to building entrances shall have a maximum*

slope of five percent. Walkways up to eight percent are permitted, but are treated as ramps with special standards for railings and landings.

FINDING: It is staff's opinion that this section does not apply because the project is not a commercial, office or multi-family residential use and there are no buildings to connect with walkways.

CHAPTER 18.128, CONDITIONAL USES

1. Section 18.128.015, General Standards Governing Conditional Uses

Except for those conditional uses permitting individual single-family dwellings, conditional uses shall comply with the following standards in addition to the standards of the zone in which the conditional use is located and any other applicable standards of the chapter:

A. *The site under consideration shall be determined to be suitable for the proposed use based on the following factors:*

1. *Site, design and operating characteristics of the use;*

FINDING: The applicant's burden of proof statement provides the following in response to this criterion:

The site is well-suited for its intended purpose – generation of solar power. The site has convenient access to a Pacific Power substation, which will allow the generated power to be transmitted where needed. The relatively flat topography of the site is ideally suited to a solar array. The lack of large buildings or other structures that could shade the array makes this a desirable location for a solar array.

The operating characteristics include the initial construction activity, and after completion, periodic inspection of the site, with maintenance and possible repair, if it becomes necessary. The applicant indicates that a technician will visit the site quarterly or as needed and a landscape contractor will visit the site monthly during the growing season to provide care and maintenance to the landscaping. The site will be monitored remotely. Staff concurs that site is suitable for a solar power generation facility, given the site, design and operating characteristics of the use.

2. *Adequacy of transportation access to the site; and*

FINDING: The applicant's burden of proof statement provides the following in response to this criterion:

There is little need of transportation access or facilities because after the array is installed, the only access will be an occasional maintenance person and an infrequent landscaping contractor until decommissioning.

Regarding factor (A)(2) above, the site is also suitable for the proposed use as transportation to the site is adequate. The applicant's revised site plan depicts one (1) gravel access road onto the site extending from Neff Road, a county paved Major Arterial Road. With infrequent usage of the internal roads, during occasional maintenance, one point of access to the facility is proposed. Based on responses provided by the Deschutes County Road Department and Transportation Planner, staff concurs that the transportation is adequate to the site for the use.

3. ***The natural and physical features of the site, including, but not limited to, general topography, natural hazards and natural resource values.***

FINDING: The applicant's supplemental burden of proof statement provides the following in response to this criterion:

*The applicant notes that some neighbors have raised concerns about impacts on wildlife. The applicant conducted a Level 1 Environmental Assessment and as part of that consulted with the U.S. Fish and Wildlife Services. Based upon that Assessment and the correspondence form U.S. Fish and Wildlife, the proposed use will "not likely affect listed or existing protected species or critical habitats." See attached **Exhibit F**.*

Staff believes that the subject site is suitable for the use based on factor (A)(3) above as the natural and physical features of the site and topography appear to be conducive for the proposed use. The topography of the portion of the property proposed for the facility appears to have a very mild northeastern and eastern facing slope to it with a vegetative cover of juniper trees and natural shrubs and grasses. Sheet 4 of the May 13th revised plan submittal identifies an elevation of 3,594 feet at the southwest corner and 3,572 and the northwest corners of the solar array. Staff was unable to locate any information identifying the history of natural hazards occurring on the subject property. The property is not likely to be subject to an increased chance of occurrence of a natural hazard due to the presence of the proposed use.

Regarding factor (A)(3), Staff notes that the property is not identified as being located within a Wildlife Area Combining zone and is not within a Sensitive Bird and Mammal Habitat Combining Zone. The applicant's supplemental burden of proof acknowledges that some neighbors have raised concerns about the impacts the proposed use may have on wildlife.

As quoted above, the applicant indicates that they have conducted a Level 1 Environmental Assessment and as part of that consulted with the U.S. Fish and Wildlife Services. The "Revised Phase 1 Environmental Site Assessment", prepared by Terracon Consultants, Inc. of Portland, Oregon, has been included as Exhibit "F" of the applicant's supplemental burden of proof statement received May 13, 2015. The applicant establishes that *...based on the Assessment and the correspondence form U.S. Fish and Wildlife, the proposed use will "not likely affect listed or existing protected species or critical habitats."*

Although the applicant provided quotes from the Environmental Assessment, submitted as Exhibit "F", a specific page reference is not provided for these quotes contained within this technical 147 page environmental assessment document. The Conclusions subsection of the Executive Summary section of the Environmental Site Assessment in Exhibit "F" of the applicant's supplemental burden of proof statement states:

Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527-13 at 62435 Erickson Road, Bend, Deschutes County, Oregon, the site. Terracon did not identify any recognized environmental conditions (RECs) in connection with the site.

Following the Environmental Assessment, Exhibit "F" of the applicant's supplemental burden of proof, also includes an email, dated January 09, 2015, from Jerry Cordova, Fish and Wildlife Biologist with U.S. Fish and Wildlife Services to Todd Baker and Cally Podd, applicant's consultants. This email is titled: "Proposed Solar Installation Sites in Central Oregon". Mr. Cordova's email, as with the Environmental Assessment of Exhibit "F", addresses five (5) sites within central Oregon, one of which is the subject property. Below is an excerpt of Mr. Cordova's email:

copy given to applicant's consultant **EXHIBIT F**

Podd, Cally M

From: Cordova, Jerry <jerry_cordova@fws.gov>
Sent: Friday, January 09, 2015 4:26 PM
To: Baker, Todd; Podd, Cally M
Subject: Proposed Solar Installation Sites in Central Oregon
Attachments: GEarthMap of H and E sites.pdf

Todd/Calanetta

Terracon Consultants, Inc. on behalf of Cyress Creek Renewables, LLC. requested comment from the U.S. Fish and Wildlife Service (Service) on December 12, 2014, regarding five proposed solar installation sites within central Oregon. The Service has determined that the proposed activities at the following five sites - Terracon Project No. 82147828 (B), (C), (E), (H) and (I) "will not affect ESA listed or proposed species". The Service has no information that would counter your determination of No Effect/no adverse modification to ESA listed species resulting from the construction and use of these proposed solar sites.

The Service also evaluated the sites with respect to the Bald and Golden Eagle Protection Act. Two of the proposed sites - Terracon Project No. 82147828 (E) [aka Culver] and (H) [aka Kirkwood] have the potential, during construction, to impact the golden eagle during the nesting period. Seasonal restrictions or mitigation may be required to protect eagles at these two locations. Both of these proposed solar sites are within 1 mile of a golden eagle territory.

Nancy Breuner, Deschutes District Wildlife Habitat Biologist with ODFW, submitted the following comment received via email on 6/11/15:

ODFW's Deschutes Watershed District office has reviewed Oregon Solar Land Holdings' conditional use permit and site plan application and a landscape management site plan (247-15-000170-CU and 247-15-000171-SP and 247-15-000172) located at 21850 Highway 20, Bend, OR. The proposed solar voltaic array (solar farm) development is not located in a Wildlife Area Combining Zone.

Per Division of Land Conservation and Development's Oregon Administrative Rule (OAR) 660-033-0130 (38) paragraph (E), regarding Goal 5 resource protection in Deschutes County's Comprehensive Plan, ODFW finds no information in this application to suggest that special status species or wildlife habitats will be impacted. OAR 660-

033-0130(38) paragraph (F) stipulates that ODFW determine if there is potential for solar power generation facility proposals to adversely affect state or federal status species or habitats or big game winter range or migration corridors, golden eagle or prairie falcon nest sites or pigeon springs. ODFW Wildlife staff has reviewed the application and our preliminary findings are that there would be no potential for adverse effects to the species or habitats listed above.

Therefore, ODFW Deschutes Watershed District has no further comments. This is based on the understanding that Deschutes County will implement the relevant provisions in the Comprehensive Plan such that impacts to natural resources will be minimized. Please provide detailed information to ODFW if this project is anticipated to adversely impact wetlands, riparian habitats, big game habitat, sensitive bird and mammal species or involves large acreages.

If Deschutes County requires habitat mitigation for permit approval, ODFW will work with the County and the project developer, using ODFW's Fish and Wildlife Habitat Mitigation policy as guidance to develop and implement a mitigation plan.

Based on the conclusions of the applicant's Environmental Site Assessment Report, comments from ODFW and the comments provided from Jerry Cordova of U.S. Department of Fish & Wildlife provided in Exhibit "F" of the applicant's supplemental burden of proof statement, it appears to Staff that the site is suitable for the proposed use considering natural resource values (including wildlife habitat) as stipulated in factor (A)(3) above. It is Staff's opinion that compliance with the criteria of this section has been demonstrated by the applicant.

B. The proposed use shall be compatible with existing and projected uses on surrounding properties based on the factors listed in DCC 18.128.015(A).

FINDING: Uses surrounding the subject site consist of a mixture of small-scale or hobby farms with residences, developed rural residential lots, electric substations, a sports park and two churches. Most of the adjacent and nearby EFU-zoned properties developed with houses were established under conditional use permits for nonfarm dwellings. To the north of the subject property, across Neff Road, is an approximate 118 acres parcel that is developed with a dwelling and has pending land use applications for a solar farm (Files 247-15-000168-CU and 247-15-000169-SP). To the northwest of the site, across Neff Road, are two approximate 20 acre parcels developed with home sites established under nonfarm dwelling approvals, as well as Big Sky Sports Park. To the west of the subject property, abutting Highway 20 is an approximate 27 acre EFU-zoned parcel owned by Pacific Power and Light that is developed with an electric substation. West of the substation lot, is property developed with a church, The Christian Life Center. Also abutting the subject property are two vacant EFU-zoned parcels that are 83.40 and 51.57 acres in size.

To the south, across Highway 20, are four smaller EFU-zoned properties two of which are developed with dwellings established under conditional use permits for nonfarm dwellings. To the southwest is a vacant, 57 acre, EFU-zoned parcel that does not appear to be currently devoted to a farm use. To the east of the property, across Erickson Road, are MUA-10 zoned parcels, many of which support dwellings. Also to the east, at the southeast corner of the intersection of Neff Road and Erickson Road, is an approximate .58 acre parcel that supports a small electrical substation. To the southeast, across Highway 20 and east of Torkelson Road, are MUA-10 zoned properties most of which are developed with dwellings.

The nearest residence to the west is on Tax Lot 600, 17-12-36 (21695 Neff Road, Bend) and is sited approximately 2,000 feet west of the west property line of the subject property and about 3,150 feet from the nearest solar panels. The nearest residence to the northwest is on Tax Lot 400, 17-12-25 (21700 Neff Road, Bend), is on the north side of Neff Road and approximately 2,300 feet from the nearest solar panels. The nearest residence to the north is on Tax Lot 501, 17-12-25 (62435 Erickson Road, Bend) and is approximately 430 feet from the north property line of the subject property and roughly 570 feet from the nearest proposed solar panel. Tax Lot 501 is the site with the pending land use applications for the NorWest Energy 2, LLC solar farm.

The nearest residence to the northeast is on Tax Lot 1100, 17-13-30 (62410 Erickson Road, Bend) and located at the northeast corner of the intersection of Neff Road and Erickson Road. The dwelling on Tax Lot 1100 is located approximately 690 feet from the nearest proposed solar panels. The nearest residence to the east is on Tax Lot 600, 17-13-31 (62260 Erickson Road). This appears to be the closest residence to any solar panel at an estimated 370 feet from the nearest solar panels. The closest residence to the south appears to be on Tax Lot 1203, 17-12-36 (62091 Torkelson Road, Bend). The residence on Tax Lot 1203 is on the south side of Highway 20 and sited an estimated 1,600 feet south of the nearest proposed solar panels. The closest residence to the southeast appears to be on Tax Lot 500, 17-13-31C (22025 Highway 20, Bend) and is located at the southwest intersection of Highway 20 and Torkelson Road. The residence on Tax Lot 500 appears to be approximately 1,285 feet from the nearest solar panel.

This section requires the proposed Solar Farm to be compatible with existing and projected uses on surrounding properties based on the factors of 18.128.015 (A), which are as follows:

1. Site, design and operating characteristics of the use;

FINDING: Staff finds that there is no evidence in the record that proposed facility will adversely impact surrounding agricultural activities. Staff is uncertain if public concerns regarding potential impacts to aviation use can be considered under this criterion, as the airport may not be regarded as a surrounding property, as it is over 1.5 miles away. Staff requests that the Hearings Officer evaluate if potential aviation use impacts can be considered under this criterion.

Public comments have identified potential adverse impacts to residential and recreational use.

Identified potential impacts to surrounding residential use include noise, visual, and decreases in property value. Regarding noise, the applicant's burden of proof statement, quoted above, states:

The site will produce little, if any, noise that is audible off-site (see the enclosed report from the Massachusetts Department of Energy Resources noting that the noise from a solar array is generated by the inverters and it is inaudible at between 50 and 150 feet. No inverter is proposed to be located within less than 150 feet of the boundary of the property.).

Based on this, it appears that noise generated from the use (inverters) will not impact residences on surrounding properties. Regarding visual impacts, the applicant has proposed fenced screening, plantings, and retention of existing vegetation where possible. Staff incorporates herein by reference the detailed description of these screening, plantings, and retention of existing vegetation provided above. The Hearings Officer will need to determine if

the proposed screening measures are sufficient to prevent significant adverse impacts to the residential use of surrounding properties.

Some comments received from neighbors, express concern for potential decrease in property values resulting from the solar facility. Although the affect a use has upon property values in the area does not appear to be a specifically stated criterion of review, staff notes this as a legitimate concern to neighbors in regards to the proposed project. Regarding potential decreases in property values, staff notes that prior decisions by Hearings Officers have found that potential property value impacts must be substantiated with evidence in the record in order to be considered. Additionally, staff is uncertain if potential property value impacts would adversely impact the site, design or operating characteristics or nearby residential uses under this criterion.

If the Hearings Officer believes that the potential for decreased property values should be considered in evaluating compliance with this criterion, perhaps the submittal of expert testimony from a licensed real estate appraiser can be provided by the applicant and/or interested parties for consideration and review.

2. Adequacy of transportation access to the site; and

FINDING: Regarding factor (A)(2) above, as referenced through 18.128.015 (B), for the reasons discussed in the finding for (A)(1) regarding factor (A) (2), staff believes that transportation to the site as proposed is adequate and will not adversely impact transportation to existing and projected uses on surrounding properties.

3. The natural and physical features of the site, including, but not limited to, general topography, natural hazards and natural resource values.

FINDING: There is no evidence in the record that the facility will impact off-site topography or increase the risk of natural hazards on surrounding properties. Based on the comments provided by the US Fish and Wildlife Service and Oregon Department of Fish and Wildlife, staff believes the facility will not adversely impact the natural resource values (farm, forestry, or wildlife habitat) of surrounding properties.

2. Section 18.128.040, Specific Use Standards

A conditional use shall comply with the standards of the zone in which it is located and with the standards and conditions set forth in DCC 18.128.045 through 18.128.370.

FINDING: Staff believes that the proposed photovoltaic array is subject to the standards addressed in this staff report. Deschutes County Code (DCC) 18.128.045 through DCC 18.128.370 are not relevant, however, as those sections deal with uses unrelated to the proposed use.

3. Section 18.128.380. Procedure for Taking Action on Conditional Use Application

The procedure for taking action on a conditional use application shall be as follows:

- A. ***A property owner may initiate a request for a conditional use by filing an application on forms provided by the Planning Department.***
- B. ***Review of the application shall be conducted according to the terms of DCC Title 22, the Uniform Development Procedures Ordinance.***

FINDING: The applicant has submitted the required application form for a conditional use permit. The conditional use permit application is being processed in accordance with DCC Title 22.

CHAPTER 18.80, AIRPORT SAFETY COMBINING ZONE

1. *Section 18.80.028, Height Limitations*

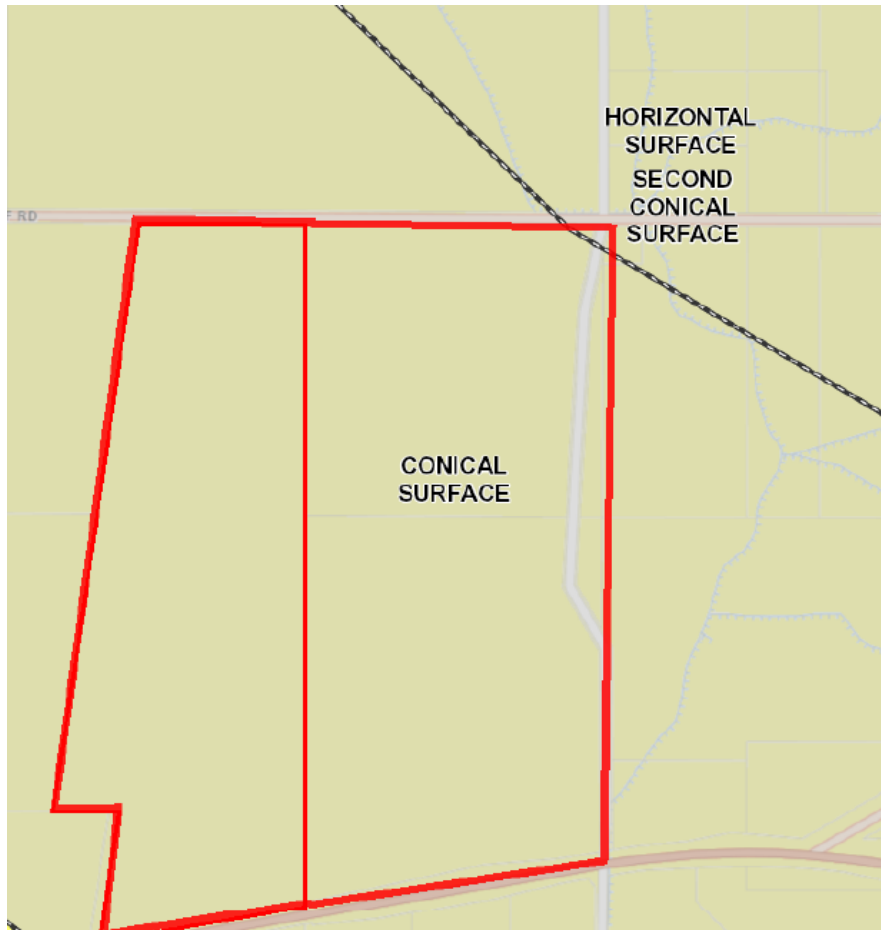
All uses permitted by the underlying zone shall comply with the height limitation in DCC 18.80.028. When height limitations of the underlying zone are more restrictive than those of this overlay zone, the underlying zone height limitations shall control.

- A. ***Except as provided in DCC 18.80.028(B) and (C), no structure or tree, plan or other object of natural growth shall penetrate an airport imaginary surface.***
- B. ***For areas within airport imaginary surfaces but outside the approach and transition surfaces, where the terrain is at higher elevations than the airport runway surfaces such that existing structure and permitted development penetrate or would penetrate the airport imaginary surfaces, a local government may authorize structures of up to 35 feet in height.***

....

FINDING: The property is within the Airport Safety (AS) Combining Zone of the Bend Municipal Airport and is sited approximately 10,200 feet from the airport runway. The property is outside the approach and transition surfaces, but within the horizontal surface of the Bend Municipal Airport. The site is mostly within the conical and partially within the secondary conical surfaces. The applicant indicates that except for the eight (8) proposed power poles, the proposed array and related facilities will be a maximum of twelve (12) feet in height, well under 35 feet.

Staff was unable to locate a reference to the height of the proposed power poles in the submitted plans and application materials. However, it is staff's opinion, that the proposed power poles are accessory to the proposed solar panels and inverters, thus included in the conditional use permit review. As long as these poles are below a height of 200 feet, they are exempt from the height requirements of the EFU zone. However, at a possible height of over 35 feet, FAA regulations may impose design standards and other requirements. Staff recommends that the applicant provide the Hearings Officer with information and drawings for the proposed power poles to verify the height and also provide written evidence that the height and design of the power poles complies with FAA requirements.



Source: Deschutes County GIS

2. 18.80.044. Land Use Compatibility.

Applications for land use or building permits for properties within the boundaries of this overlay zone shall comply with the requirements of DCC 18.80 as provided herein. When compatibility issues arise, the Planning Director or Hearings Body is required to take actions that eliminate or minimize the incompatibility by choosing the most compatible location or design for the boundary or use. Where compatibility issues persist, despite actions or conditions intended to eliminate or minimize the incompatibility, the Planning Director or Hearings Body may disallow the use or expansion, except where the action results in loss of current operational levels and/or the ability of the airport to grow to meet future community needs. Reasonable conditions to protect the public safety may be imposed by the Planning Director or Hearings Body.

A. Noise. Within airport noise impact boundaries, land uses shall be established consistent with the levels identified in OAR 660, Division 13, Exhibit 5 (Table 2 of DCC 18.80). Applicants for any subdivision or partition approval or other land use approval or building permit affecting land within airport noise impact boundaries, shall sign and record in the Deschutes County Book of Records, a Declaration of Anticipated Noise declaring that the

applicant and his successors will not now, or in the future complain about the allowed airport activities at the adjacent airport. In areas where the noise level is anticipated to be at or above 55 Ldn, prior to issuance of a building permit for construction of a noise sensitive land use (real property normally used for sleeping or as a school, church, hospital, public library or similar use), the permit applicant shall be required to demonstrate that a noise abatement strategy will be incorporated into the building design that will achieve an indoor noise level equal to or less than 55 Ldn. [NOTE: FAA Order 5100.38A, Chapter 7 provides that interior noise levels should not exceed 45 decibels in all habitable zones.]

FINDING: The proposed use is not one that is noise-sensitive and is not located within the noise impact boundary associated with the Bend Airport.

B. Outdoor lighting. *No new or expanded industrial, commercial or recreational use shall project lighting directly onto an existing runway or taxiway or into existing airport approach surfaces except where necessary for safe and convenient air travel. Lighting for these uses shall incorporate shielding in their designs to reflect light away from airport approach surfaces. No use shall imitate airport lighting or impede the ability of pilots to distinguish between airport lighting and other lighting.*

FINDING: The applicant indicates that exterior lighting not proposed.

C. Glare. *No glare producing material, including but not limited to unpainted metal or reflective glass, shall be used on the exterior of structures located within an approach surface or on nearby lands where glare could impede a pilot's vision.*

FINDING: In the incomplete application letter, dated April 22, 2015, staff provided the following comment:

STAFF COMMENT: The submitted burden of proof statement states: “*The subject property is not within the approach surface for the airport. Additionally, no reflective materials shall be used.*” The site is outside of an approach surface, however, it could be interpreted that the site is “...on nearby lands where glare could impede a pilots vision”. Please provide a detailed response, and any supporting evidence, as to how the design and materials of the proposed solar array complies with this criterion. What materials and finishes would be used for the panels, frame and inverters? What are their reflective qualities? Can you provide samples, color photographs and cut-sheets for the solar array to clarify this?

The applicant provided the following response to Staff's comment above in their supplemental burden of proof statement:

Applicant Response: *As described above, the proposed materials are non-reflective. Photographs are enclosed as **Exhibit C**. As noted in the FAA Technical Guidance for Evaluating Selected Solar Technologies on Airports referenced above and attached as **Exhibit D**, the panels are designed to absorb rather than reflect light. The reflectivity of the panels is significantly lower than that of bare soil or vegetation. As noted by the FAA*

letters the applicant submitted, the FAA has no concerns about the proposed array posing any risk to aircraft.

Submitted with the application is an FAA letter, issued March 26, 2015, concluding that aeronautical study no. 2015-ANM-165-OE, associated with the site, is determined to have no aeronautical hazard to air aviation. Additionally, comments from Gary Judd, Manager for Bend Municipal Airport, indicate he does not see any issues with the proposal.

The applicant contends that the solar panels used for the project will not produce significant reflection or glare as it will utilize photovoltaic (PV) modules using “non-reflective” glass. The applicant refers to the photos in Exhibit C of the supplemental burden of proof as visual evidence to verify that the surface material of the solar panels is not reflective. Additionally, the applicant also refers to the FAA Technical Guidance for Evaluating Selected Solar Technologies on Airports for evidence that the proposed panels are designed to absorb rather than reflect light and that the reflectivity of the panels is significantly lower than that of bare soil or vegetation.

The applicant also references the Study of the Hazardous Glare Potential to Aviators from Utility-Scale Flat-Plate Photovoltaic Systems, published by the International Scholarly Research Network (ISRN) and included as Exhibit D to the applicant’s supplemental burden of proof statement. The applicant provides a quote from this ISRN paper concluding that “*the potential for hazardous glare from flat-plate PV systems is similar to that of smooth water and not expected to be a hazard to air navigation*”.

A specific page reference was not provided by the applicant and staff believes it would be helpful for the Hearing’s Officer in efficiently reviewing the large volume of supplemental materials submitted with this application. Staff suggests the applicant also provide a page reference for these quotes and all future quotes, as well as a written summary of any reference to future supplemental materials or exhibits, which could address specifically how it pertains to their request and to clarify why they believe it is important. Staff sent an email to the applicant’s attorney on June 2, 2015 and requested summaries and references for all submitted exhibits.

Staff does not possess the expertise to effectively evaluate and assess the reflective qualities or glare potential of solar panels as described in the above referenced publications. Unless the Hearings Officer is comfortable reviewing and interpreting the submitted materials, Staff suggests that the Hearings Officer request the applicant to provide written expert testimony to effectively evaluate the effect of glare and reflectivity of the specific solar panels on aircraft and pilots.

Such an expert, retained by the applicant, should provide a written summary with specific references to pages, tables, figures, etc... regarding the glare and reflective qualities of the proposed panels, to the Hearings Officer for consideration.

As discussed above, it is unclear to staff that the proposed panels would consist of a material that would not produce glare “...on nearby lands where glare could impede a pilot’s vision”. As such, staff finds this criterion is not satisfied.

D. Industrial emissions. No new industrial, mining or similar use, or expansion of an existing industrial, mining or similar use, shall, as part of its regular operations, cause emissions of smoke, dust or steam that could obscure visibility within airport approach surfaces, except upon

demonstration, supported by substantial evidence, that mitigation measures imposed as approval conditions will reduce the potential for safety risk or incompatibility with airport operations to an insignificant level. The review authority shall impose such conditions as necessary to ensure that the use does not obscure visibility.

FINDING: The proposed use will not generate any emissions of smoke, dust or steam.

E. *Communications Facilities and Electrical Interference. No use shall cause or create electrical interference with navigational signals or radio communications between an airport and aircraft. Proposals for the location of new or expanded radio, radiotelephone, and television transmission facilities and electrical transmission lines within this overlay zone shall be coordinated with the Department of Aviation and the FAA prior to approval. Approval of cellular and other telephone or radio communication towers on leased property located within airport imaginary surfaces shall be conditioned to require their removal within 90 days following the expiration of the lease agreement. A bond or other security shall be required to ensure this result.*

FINDING: The propose use should not cause or create any electrical interference with navigational signals or radio communications between the Bend airport and aircraft.

F. *Limitations and Restrictions on Allowed Uses in the RPZ, Approach Surface, and Airport Direct and Secondary Impact Areas. For the Redmond, Bend, Sunriver, and Sisters airports, the land uses identified in DCC 18.80 Table I, and their accessory uses, are permitted, permitted under limited circumstances, or prohibited in the manner therein described. In the event of conflict with the underlying zone, the more restrictive provisions shall control. As used in DCC 18.80.044, a limited use means a use that is allowed subject to special standards specific to that use.*

FINDING: The proposed use listed as “Utility” DCC 18.80 Table I. The subject property is located in a secondary impact area where note L(5) specifies, “the proposed height of utilities shall be coordinated with the airport sponsor and the Department of Aviation.” Comments received from the Bend Municipal Airport Manager express no concerns for the proposed use.

3. Section 18.80.054, Conditional Uses.

Uses permitted conditionally shall be those identified as conditional uses in the underlying zone with which the AS Zone is combined, and shall be subject to all conditions of the underlying zone except as provided in DCC 18.80.044.

FINDING: The proposed use is permitted conditionally in the underlying zone, which is Exclusive Farm Use.

4. Section 18.80.064, Procedures

An applicant seeking a land use or limited land use approval in an area within this overlay zone shall provide the following information in addition to any other information required in the permit application:

A map or drawing showing the location of the property in relation to the airport imaginary surfaces. The Community Development Department shall provide the applicant with appropriate base maps upon which to locate the property.

Elevation profiles and a site plan, both drawn to scale, including the location and height of all existing and proposed structures, measured in feet above mean sea level.

....

FINDING: The submitted site plan drawings comply with these criteria.

5. Section 18.80.078, FAA Notification (Form 7460-1).

A. ***Federal and State Notice.***

Federal Aviation Regulation (FAR) Part 77 requires that anyone proposing to construct anything which may obstruct the use of airspace by aircraft to provide a notice to that effect to the FAA. In addition, OAR 738.070.0060 requires notice also be sent to the Oregon Department of Aviation. Generally, construction proposals in the vicinity of airports may obstruct airspace. Notice to the FAA and Oregon Department of Aviation is required for anything which may affect landing areas, either existing or planned, which are open to the public, or are operated by one of the armed forces.

...

FINDING: The applicant submitted form 7460-1 with the application.

CHAPTER 18.84. LANDSCAPE MANAGEMENT COMBINING ZONE

1. Section 18.84.020. Application of provisions.

The provisions of this chapter shall apply to all areas within one-fourth mile of roads identified as landscape management corridors in the Comprehensive Plan and the County Zoning Map. The provisions of this chapter shall also apply to all areas within the boundaries of a State scenic waterway or Federal wild and scenic river corridor and all areas within 660 feet of rivers and streams otherwise identified a landscape management corridors in the comprehensive plan and the County Zoning Map. The distance specified above shall be measured horizontally from the centerline of designated landscape management roadways or from the nearest ordinary high water mark of a designated landscape management river or stream. The limitation in this section shall not unduly restrict accepted agricultural practices.

FINDING: Highway 20 is identified on the County Zoning Map as the landscape management feature. Because the subject property fronts along Highway 20, approximately 1,320 feet of the

property is within the LM Combining Zone. A portion of the proposed solar farm facility is within the LM Combining Zone, therefore, the provisions of this chapter are applicable.

2. Section 18.84.030. Uses Permitted Outright.

Uses permitted conditionally in the underlying zone with which the LM Zone is combined shall be permitted as conditional uses in the LM Zone, subject to the provisions in DCC 18.84.

FINDING: The proposed use is listed as a conditional use in the underlying zone, thus is permitted as a conditional use in the LM zone, subject to the requirements of this section.

3. Section 18.84.050. Use Limitations.

A. Any new structure or substantial alteration of a structure requiring a building permit, or an agricultural structure, within an LM Zone shall obtain site plan approval in accordance with DCC 18.84 prior to construction. As used in DCC 18.84 substantial alteration consists of an alteration which exceeds 25 percent in the size or 25 percent of the assessed value of the structure.

FINDING: The proposed use involves new structures that require building permits, thus is subject to landscape management review.

4. Section 18.84.080. Design review standards.

A. Except as necessary for construction of access roads, building pads, septic drainfields, public utility easements, parking areas, etc., the existing tree and shrub cover screening the development from the designated road, river or stream shall be retained. This provision does not prohibit maintenance of existing lawns, removal of dead, diseased or hazardous vegetation; the commercial harvest of forest products in accordance with the Oregon Forest Practices Act or agricultural use of the land.

FINDING: In response to this criterion, the applicant's burden of proof statement provides the following:

Proposed Finding: *As shown on the attached site plan drawings, the applicant proposes retaining existing tree and shrub cover surrounding the proposed use, and where necessary, to install additional trees and shrubs, in order to provide a buffer from Highway 20.*

There is a fair amount of mature juniper trees, shrubs and natural grasses and vegetation between the Highway 20 and the proposed facility that provide some screening and help mitigate impacts as seen from Highway 20. If approved, it should be made a condition of approval that existing trees and vegetation between the facility and Highway 20 be retained.

Suggested Condition of Approval:

Trees and shrubs shall be retained on site in all areas where they serve to screen he additions from Highway 20. This condition does not prohibit removal of dead, diseased or hazardous vegetation. Removal of dead, diseased or hazardous vegetation shall be replaced with a native species within 90 days.

B. It is recommended that new structures and additions to existing structures be finished in muted earth tones that blend with and reduce contrast with the surrounding vegetation and landscape of the building site.

FINDING: The applicant provided the following response in the submitted burden of proof statement:

Proposed Finding: The applicant is not proposing to construct any buildings. The solar array and related facilities will be non-reflective. Photos of similar arrays are included in the accompanying materials. To minimize impacts on surrounding properties and views from Highway 20, the applicant is proposing a buffer of existing landscaping surrounding the proposed use. As discussed above, if after installation of the array, the density of vegetation along the south boundary of the array (i.e., the area facing Highway 20) does not provide at least one row of trees and shrubs of at least four (4) feet in height no further than sixteen (16) feet apart, the applicant will install additional trees and shrubs of at least four (4) feet in height to meet this standard.

In the incomplete application letter, dated April 22, 2015, staff provided the following comment:

STAFF COMMENT: Subsection (B) recommends that new structures be finished in muted earth tones that blend with and reduce contrast with the surrounding vegetation and landscape of the proposed site. The burden of proof statement indicates that the solar array and related facilities will be non-reflective and that photos of similar arrays are included with the application, but the photos were not included. In addition to a detailed written response, please submit the color photos of similar arrays along with color and material samples of the solar array and associated structures.

In response, the applicant's supplemental burden of proof statement provides the following:

*Applicant Response: The applicant is enclosing photos of a similar array as **Exhibit C**. As described above, the applicant is submitting photos of the various components of the array as well. It is not feasible to install panels or inverters that are finished in muted earth tones because the panels and inverters are not available in such colors. However, as explained above, the applicant is proposing to use a mesh wrap over the perimeter fence that will be tan colored and should blend well with the surrounding vegetation and landscape. Additionally, the applicant has proposed surrounding the site with a perimeter ring of juniper trees, as described above. Together, the fencing, the existing vegetation that is to be retained and the proposed new trees should serve to provide a very good buffer from surrounding properties and for travelers along Highway 20.*

As quoted above, the applicant indicates that it is not feasible to install panels or inverters that are finished in muted earth tones because the panels and inverters are not available in such colors. Although it may be accurate that the inverters and racking and other equipment associated with the solar array is not provided from the manufacturer in muted earth tone colors,

they must comply with applicable criteria. Additionally, although use of a tan colored mesh screen covering the perimeter fence would likely blend well with the surrounding vegetation and landscape, at a height of 6 feet, it may not provide enough screening to mitigate visual impacts of the 10 foot high inverters and 12 foot high solar panels with associated racking and equipment. As a potential remedy, perhaps the applicant can have the inverters, racking, and other related equipment painted a flat earth tone color before installation to attain compliance with this criterion.

The applicant indicates that the panels are to be dark blue in color and non-reflective. The photos in Exhibit "C" of the applicant's supplemental burden of proof, appears to show the inverters to be white or silver and the frames and racking to be a matte silver. Based on submitted photos, and the applicant's supplemental burden of proof statement, the proposed solar panels, frames, supports, motors and inverters are not proposed to be finished in muted earth tones that blend with and reduce contrast (e.g. glare) with surrounding vegetation and landscaping on site. Staff notes that this criterion is phrased as a recommendation and is uncertain if the applicant's proposal complies with this criterion. Staff requests that the Hearings Officer make specific findings on these issues.

- C. *No large areas, including roofs, shall be finished with white, bright or reflective materials. Metal roofing material is permitted if it is non-reflective and of a color which blends with the surrounding vegetation and landscape. This subsection shall not apply to attached additions to structures lawfully in existence on April 8, 1992, unless substantial improvement to the roof of the existing structure occurs.***

FINDING: In response to this criterion, the burden of proof statement provides the following:

As the applicant is proposing no buildings, there will be no roofs. The applicant is not proposing any structures with large areas.

In the incomplete application letter, dated April 22, 2015, staff provided the following comment:

STAFF COMMENT: Because the solar array meets the definition of structure that is large in area, it must comply with this criterion. In addition to a detailed written response to this criterion, please provide color and material samples of all structural and surface elements related to the solar array (including fencing and poles), color photographs and any other evidence or materials you feel would help clarify compliance with this criterion.

In response, the applicant's supplemental burden of proof statement provides the following:

Applicant Response: None of the array will be finished with bright or reflective materials, as shown in the various attached photos. The inverters are white, but there are a limited number of them and they do not qualify as "large areas". They are approximately 7.5 feet in height (on an approximately two-foot high pad), 3 feet in depth and 8 feet in width (90 inches x 38 inches x 101 inches). As noted above, the applicant is using vegetation and fencing to provide buffering from surrounding view corridors, including residences and Highway 20.

This criterion requires that a large area, which includes the proposed solar array, not be finished with white, bright or reflective materials. Section 18.04.030 provides the following definition for a

structure: “Structure means something constructed or built having a fixed base on, or fixed connection to, the ground or another structure”.

Staff believes that the solar farm constitutes a large area, thus shall not be finished with white, bright or reflective materials. As with the criterion (B) above, the applicant could have the inverters, racking, and other related equipment painted a flat earth tone color that is not white, bright or reflective, before installation to help attain compliance with this criterion.

However, the glass surface of the proposed solar panels may produce glare, therefore may be reflective and bright. As mentioned above, the photos in Exhibit “C” of the applicant’s supplemental burden of proof, appears to show the inverters to be white or silver and the frames and racking to be a matte silver. As discussed in the finding for 18.80.044 (C) regarding glare, staff does not possess the expertise to effectively evaluate and assess the reflective qualities or glare potential of solar panels as described in the above referenced publications. For these reasons stated above, staff is uncertain if the applicant has complied with this criterion and requests that the Hearings Officer make specific findings on these issues.

- D. Subject to applicable rimrock setback requirements or rimrock setback exception standards in Section 18.84.090, all structures shall be sited to take advantage of existing vegetation, trees and topographic features in order to reduce visual impact as seen from the designated road, river or stream.***

FINDING: In response to this criterion, the applicant’s burden of proof provides the following:

Proposed Finding: The applicant is not proposing any buildings. The array and all related facilities will be no taller than an average one-story barn or other outbuilding. The highest point above natural grade will not exceed twelve (12) feet. As noted in the attached site plan drawings and as discussed above, the applicant is proposing to retain native vegetation surrounding the proposed array.

The subject property does not contain rimrock. According to the revised plans, the proposed solar panels and inverters are set back 550 feet or farther from the front property line/right-of-way of Highway 20. On the west end of the facility, abutting the transmission line, the solar panels are sited approximately 900 feet from the front property line. Based on elevations on Sheet 4 of the May 13th submittal, the topography of that portion of the property proposed for the solar array, racking and inverters within the LM Combining Zone boundary varies between 8 and 12 feet lower in elevation than Highway 20. It appears that the applicant has sited the proposed facility in a location to take advantage of existing vegetation, trees and topography in compliance with this criterion.

- E. Structures shall not exceed 30 feet in height measured from the natural grade on the side(s) facing the road, river or stream. Within the LM zone along a state scenic waterway or federal wild and scenic river, the height of a structure shall include chimneys, antennas, flagpoles or other projections from the roof of the structure. This section shall not apply to agricultural structures located at least 50 feet from a rimrock.***

FINDING: The applicant indicates that the proposed array will not exceed twelve (12) feet in height from natural grade. Based on the revised plans, the applicant proposes eight (8) power

poles that would be located within the LM Combining Zone. The northern most power pole is sited approximately 1,250 feet north of the centerline of Highway 20. Therefore, the requirements of this section limit the height of the power poles to 30 feet. If approved, Staff recommends the following condition of approval.

Suggested Condition of Approval:

The height of the proposed power poles shall not exceed a height of 30 feet if sited within the Landscape Management Combining Zone

- F. New residential or commercial driveway access to designated landscape management roads shall be consolidated wherever possible.***

FINDING: Access to Highway 20 is not proposed.

- G. New residential exterior lighting, including security lighting, shall be sited and shielded so that it is directed downward and is not directly visible from the designated road, river or stream.***

FINDING: The applicant indicates that new exterior lighting is not proposed.

- H. The Planning Director or Hearings Body may require the establishment of introduced landscape material to screen the development, assure compatibility with existing vegetation, reduce glare, direct automobile and pedestrian circulation or enhance the overall appearance of the development while not interfering with the views of oncoming traffic at access points of views of mountains, forests and other open and scenic areas as seen from the designated landscape management road, river or stream. Use of native species shall be encouraged.***

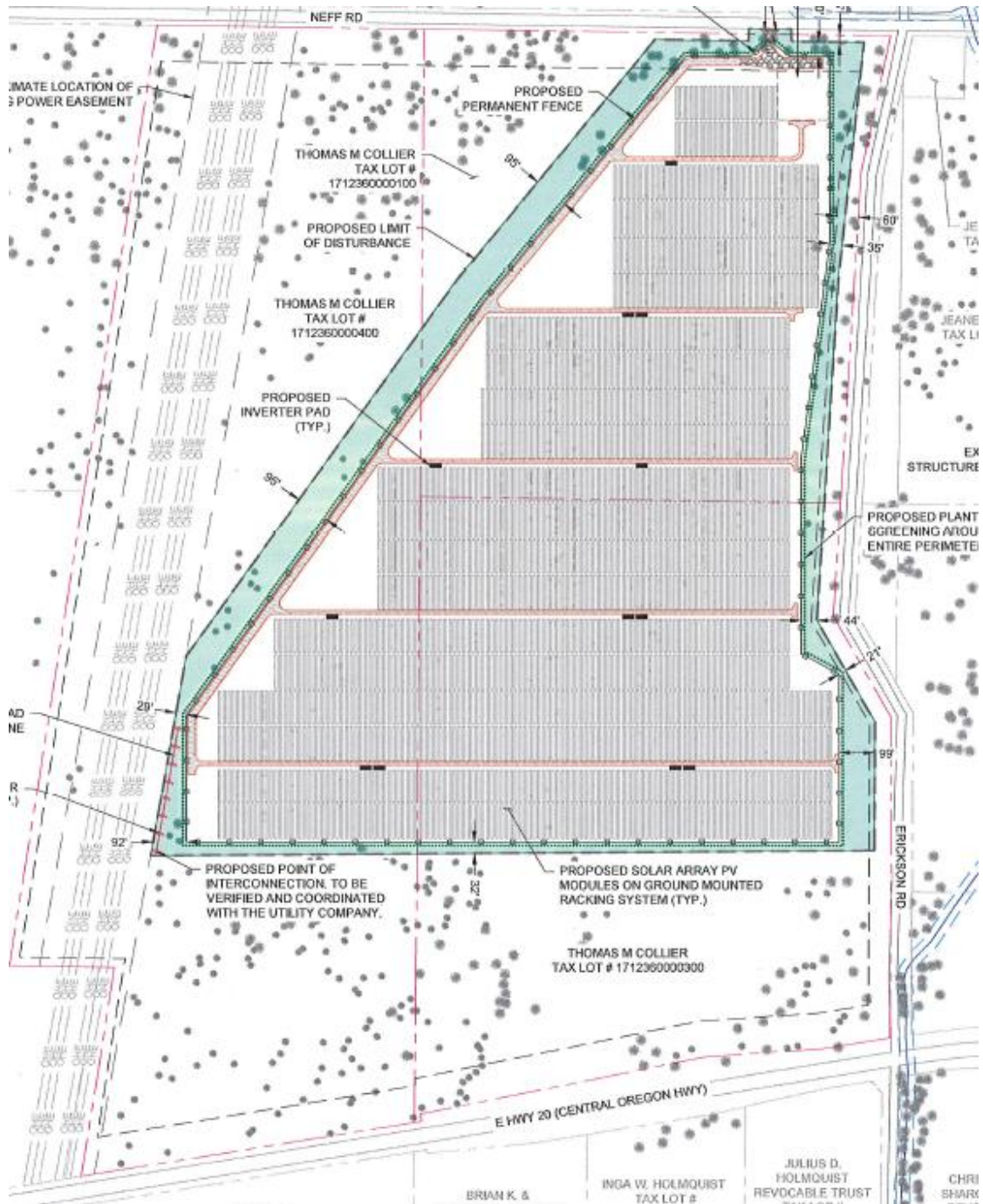
FINDING: In the incomplete application letter, dated April 22, 2015, staff provided the following comment:

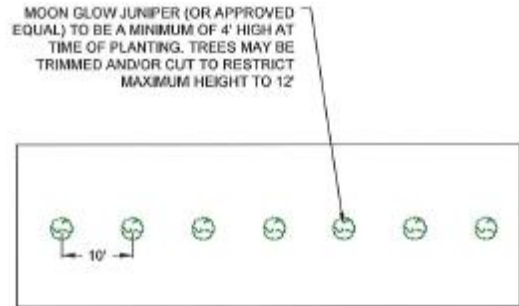
STAFF COMMENT: The submitted burden of proof statement, and Landscape Plan, suggests introduction of evergreen trees between Highway 20 and the proposed development, but the submitted Landscape Plan does not identify the location of these trees. Please provide location of the proposed trees on the Landscape Plan.

The applicant provided the following response to Staff's comment above in their supplemental burden of proof statement:

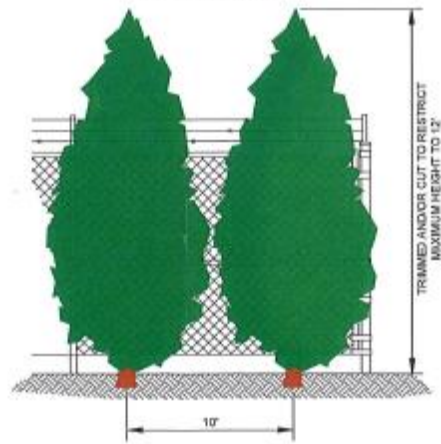
Applicant Response: The applicant is now proposing juniper trees, which are native to this area, and more likely to blend into the existing landscape. The proposed location, which will be a perimeter ring of trees no more than ten (10) feet apart, is shown on the attached, revised site plan.

Sheet 5 of the May 13th submittal is the Landscape Plan. Below are excerpts of Sheet 5 identifying proposed shrubs and their locations:





PLANTED SCREENING DETAIL
NOT TO SCALE



PLANTED SCREENING DETAIL SECTION VIEW
NOT TO SCALE

LANDSCAPING NOTES

1. MOON GLOW JUNIPER (OR APPROVED EQUAL) MAY BE TRIMMED AND/OR CUT TO RESTRICT MAXIMUM HEIGHT TO 12'.

It appears to staff that the proposed landscaping (shrubs), assuming a height of 6 feet at the time of planting as recommended in findings above, in the proposed locations screened perimeter fencing, coupled with preservation of existing trees and vegetation, would help the facility to be compatible with existing vegetation and provide partial screening as seen from Highway 20. However, with a 6-foot high fence and a proposed height of 10 feet for the inverters and 12 feet for the solar panels and racking, Staff is uncertain that the proposed mitigation measures would be enough to comply with the screening, compatibility and viewshed protection requirements of this criterion. The white or silver colored inverters and matte silver color of framing and racking does not appear to comply with this criterion. Further, Staff is uncertain as to whether the solar panels would produce glare that may adversely affect automobile and pedestrians traveling along Highway 20. Perhaps the fencing and the shrubs could be increased in height for the portion of the facility that is within the LM Combining Zone. In addition, staff is concerned that the topographic difference between Highway 20 and the portions of the facility may reduce the effectiveness of on-site screening. Staff recommends the Hearings Officer consider if the establishment of additional introduced landscape material is required to screen the development, assure compatibility with existing vegetation, reduce glare or enhance the overall appearance of the development.

I. No signs or other forms of outdoor advertising that are visible from a designated landscape management river or stream shall be

permitted. Property protection signs (no trespassing, no hunting, etc.) are permitted.

FINDING: The applicant is not proposing signs with this landscape management application. This criterion is met.

J. A conservation easement as defined in Section 18.04.280 "Conservation Easement" and specified in Section 18.116.220 shall be required as a condition of approval for all landscape management site plans involving property adjacent to the Deschutes River, Crooked River, Fall River, Little Deschutes River, Spring River, Squaw Creek and Tumalo Creek. Conservation easements required as a condition of landscape management site plans shall not require public access."

FINDING: The subject property is not adjacent to any of the waterways listed above. Therefore, this criterion does not apply to the subject property.

5. Section 18.84.090. Setbacks.

A. Except as provided in DCC 18.84.090, minimum setbacks shall be those established in the underlying zone with which the LM Zone is combined.

FINDING: The underlying zone for this site is Exclusive Farm Use (EFU), which has been addressed in foregoing findings.

B. Road Setbacks. All new structures or additions to existing structures on lots fronting a designated landscape management road shall be set back at least 100 feet from the edge of the designated road right-of-way unless the Planning Director or Hearings Body finds that:

FINDING: The submitted site plan shows the solar array and associated fencing to be set back 550 feet or farther from the right-of-way associated with Highway 20 in compliance with this setback standard.

DESCHUTES COUNTY COMPREHENSIVE PLAN

Although not typically addressed in a quasi-judicial land use permit, in addition to addressing the applicable criteria of the Deschutes County Zoning Ordinance, in the supplemental burden of proof statement, the applicant provides the following regarding the Deschutes County Comprehensive Plan:

Deschutes County Policies

The applicant notes that some of the opponents to the proposal claim to be in favor of renewable energy and favoring proposals such as the proposed array, but they believe that the project should be sited somewhere else. The problem with "somewhere else" is that somewhere else will not work as well operationally and will risk greater impacts on surrounding properties or wildlife. It is not feasible to place a large solar farm within a city's limits because of the high cost of land and the limits on expanding urban growth

boundaries in Oregon. It is not feasible to place a large solar farm in a more rural area because in those areas, there would be significant impacts on wildlife. Locating the solar farm in this proposed location is the best way to balance impacts with our collective, societal need – and desire – for renewable energy.

The County’s (relatively; adopted in 2011) new comprehensive plan embraces renewable energy as an important goal/priority for the County. Under Section 3.4, Rural Economy Policies, Goal 1 seeks a “stable and sustainable rural economy, compatible with rural lifestyles and a healthy environment.” Policy 3.4.5 under that Goal specifically states that the County seeks to “[s]upport renewable energy generation as an important economic development initiative.”

Under Section 2.8, Energy Policies, Goal 3 seeks to “[p]romote affordable, efficient, reliable and environmentally sound commercial energy facilities.” Policy 2.8.9

OREGON ADMINISTRATIVE RULES:

OAR 660-033-0120

Uses Authorized on Agricultural Lands

The uses listed in the table adopted and referenced by this rule may be allowed on agricultural land in areas that meet the applicable requirements of this division, statewide goals and applicable laws. All uses are subject to the requirements, special conditions, additional restrictions and exceptions set forth in ORS Chapter 215, Goal 3 and this division. The abbreviations used within the table shall have the following meanings:

(1) “A” — The use is allowed. Authorization of some uses may require notice and the opportunity for a hearing because the authorization qualifies as a land use decision pursuant to ORS Chapter 197. Minimum standards for uses in the table that include a numerical reference are specified in OAR 660-033-0130. Counties may prescribe additional limitations and requirements to meet local concerns only to the extent authorized by law.

(2) “R” — The use may be allowed, after required review. The use requires notice and the opportunity for a hearing. Minimum standards for uses in the table that include a numerical reference are specified in OAR 660-033-0130. Counties may prescribe additional limitations and requirements to address local concerns.

(3) “*” — The use is not allowed.

(4) “#” — Numerical references for specific uses shown in the table refer to the corresponding section of OAR 660-033-0130. Where no numerical reference is noted for a use in the table, this rule does not establish criteria for the use.

<u>HV</u>	<u>All</u>	
<u>Farmland</u>	<u>Other</u>	<u>USES</u>

...

Utility/Solid Waste Disposal Facilities

...

R5,38	R5,38	Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale.
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...

(The numbers in the table above refer to the section numbers in OAR 660-033-0130)

OAR 660-033-0130

(5) Approval requires review by the governing body or its designate under ORS 215.296. Uses may be approved only where such uses:

- (a) Will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; and**
- (b) Will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.**

FINDING: Subsections (a) and (b) above, are incorporated in Title 18 of the Deschutes County Code in Section 18.16.040 and are addressed in this staff report above.

(38) A proposal to site a photovoltaic solar power generation facility shall be subject to the following definitions and provisions:

(a) "Arable land" means land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils.

(b) "Arable soils" means soils that are suitable for cultivation as determined by the governing body or its designate based on substantial evidence in the record of a local land use application, but "arable soils" does not include high-value farmland soils described at ORS 195.300(10) unless otherwise stated.

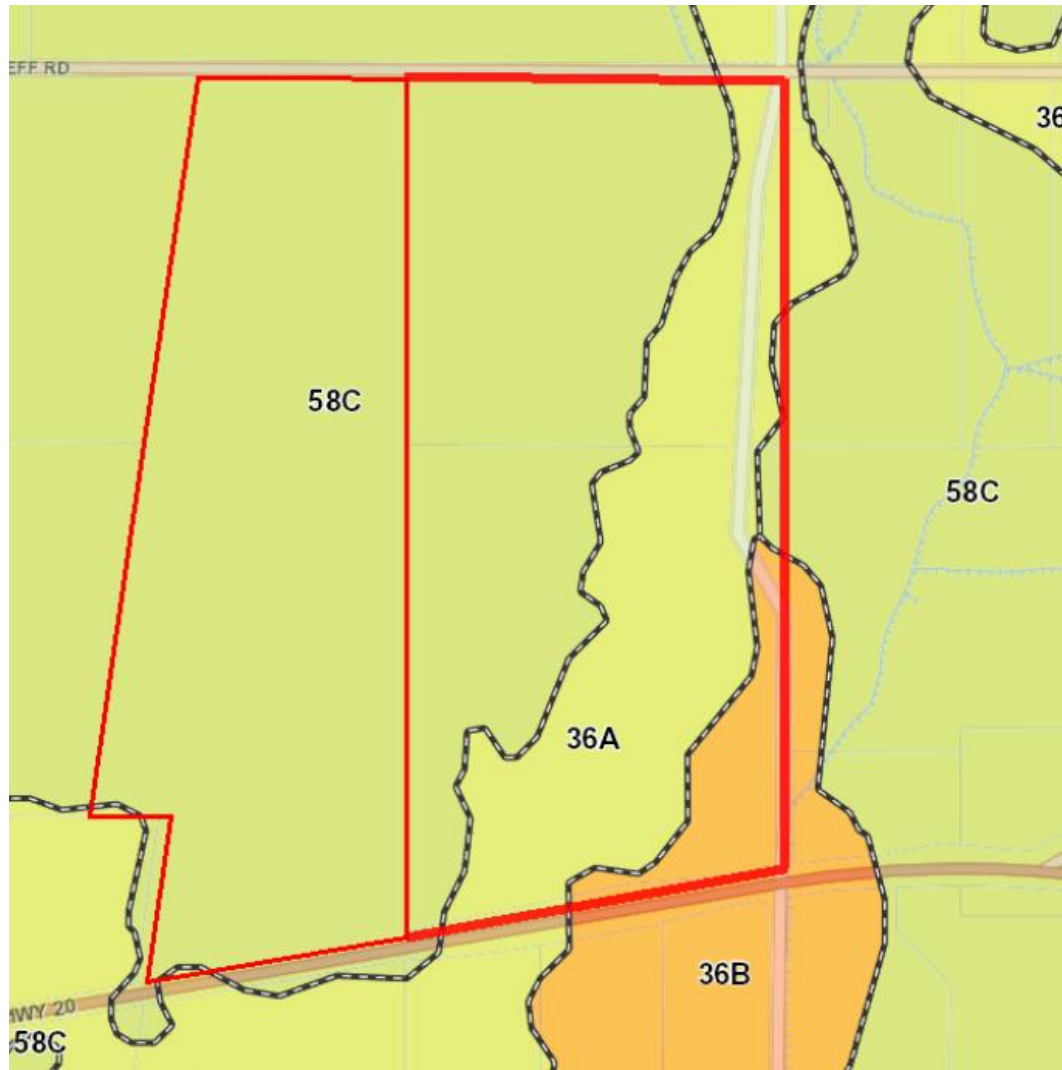
(c) "Nonarable land" means land in a tract that is predominantly not cultivated and predominantly comprised of nonarable soils.

(d) "Nonarable soils" means soils that are not suitable for cultivation. Soils with an NRCS agricultural capability class V–VIII and no history of irrigation shall be considered nonarable in all cases. The governing body or its designate may determine other soils, including soils with a past history of irrigation, to be nonarable based on substantial evidence in the record of a local land use application.

...

FINDING: It appears that the rule defines three classifications of land and imposes different regulations for each: high value farm land, arable land and nonarable land. The applicant contends, and staff agrees, that based on Natural Resource Conservation Service (NRCS) data, water rights data, absence of current and historical farm use, the property is considered nonarable land.

The map below depicts the soil units that are on the property:



Source: Deschutes County GIS based on NRCS data

The soil composition of the property consists of the following soils:

58C, Gosney-Rock Outcrop-Deskamp complex, 0 to 15 percent slopes. This soil type is comprised of 50 percent Gosney soil and similar inclusions, 25 percent rock outcrop, 20 percent Deskamp soil and similar inclusions, and 5 percent contrasting inclusions. Gosney soils are somewhat excessively drained with rapid permeability. The available water capacity is about 1 inch. Deskamp soils are somewhat excessively drained with rapid permeability. Available water capacity is about 3 inches. Major use for this soil type is livestock grazing. The Gosney soils have a rating of 7E, with or without irrigation. The rock outcrop has a rating of 8S, with or without irrigation. The Deskamp soils have ratings of 6E when unirrigated, and 4E when irrigated. Approximately 114 acres or 73% of the property is comprised of this soil type.

36A, Deskamp loamy sand, 0 to 3 percent slopes. This soil complex is composed of 85 percent Deskamp soil and similar inclusions, and 15 percent contrasting inclusions. The Deskamp soils are somewhat excessively drained with a rapid over moderate permeability, and about 5 inches of available water capacity. Major uses of this soil type

are irrigated cropland and livestock grazing. The agricultural capability ratings for 36A soils are 3S when irrigated, and 6S when not irrigated. This soil is high-value when irrigated. Unit 36A is located on eastern portion of the site. Approximately 35.84 acres or 23% of the property is comprised of this soil type.

36B, Deskamp loamy sand, 3 to 8 percent slopes: This soil is composed of 85 percent Deskamp soil and similar inclusions, and 15 percent contrasting inclusions. This soil is somewhat excessively drained, with rapid permeability and an available water capacity of approximately 3 inches. The major uses of this soil are irrigated cropland and livestock grazing. This Deskamp soils have a capability rating of 6E when unirrigated, and 3E when irrigated. This soil type is considered high-value when irrigated. The 36B soils are limited to the southeast corner of the property at the intersection of Highway 20 and Erickson Road. Approximately seven (7) acres or 4% of the property is comprised of this soil type.

Approximately 73 percent of the property consists of soil unit 58C, which has a soil rating between class 6 and 8 and is not considered high value farmland. Soil units 36A and 36B are considered high value farmland where irrigated. However, due to the absence of water rights for irrigation, Units 36A and 36B have an NRCS agricultural classification rating of class 6, thus is not considered high value farmland.

As evident in Exhibit A of the applicant's supplemental Burden of Proof Statement, received May 13, 2015, the subject parcel has no water rights and no history of irrigation. Thus, the property is not currently cultivated and is not predominantly comprised of arable soils.

(e) "Photovoltaic solar power generation facility" includes, but is not limited to, an assembly of equipment that converts sunlight into electricity and then stores, transfers, or both, that electricity. This includes photovoltaic modules, mounting and solar tracking equipment, foundations, inverters, wiring, storage devices and other components. Photovoltaic solar power generation facilities also include electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, all necessary grid integration equipment, new or expanded private roads constructed to serve the photovoltaic solar power generation facility, office, operation and maintenance buildings, staging areas and all other necessary appurtenances. For purposes of applying the acreage standards of this section, a photovoltaic solar power generation facility includes all existing and proposed facilities on a single tract, as well as any existing and proposed facilities determined to be under common ownership on lands with fewer than 1320 feet of separation from the tract on which the new facility is proposed to be sited. Projects connected to the same parent company or individuals shall be considered to be in common ownership, regardless of the operating business structure. A photovoltaic solar power generation facility does not include a net metering project established consistent with ORS 757.300 and OAR chapter 860, division 39 or a Feed-in-Tariff project established consistent with ORS 757.365 and OAR chapter 860, division 84.

FINDING: The subject proposal is a request to establish a Photovoltaic solar power generation facility, or solar farm, on the subject property that would not exceed 80 acres in size. The property to the north, owned by Harland Hafter and Jolene Hafter, has a pending proposal for a solar farm, applicant: NorWest Energy 2, LLC, which would also not exceed 80 acres in size. These two proposed solar farm projects, under ownership by the same parent company

Cypress Creek Renewables, would establish a combined acreage of no more than 160 acres toward a Photovoltaic solar power generation facility or solar farm. Based on the requirements of this definition, the combined acreage for the two solar farm projects, as opposed to the 80 acres proposed by this application, shall be considered when applying the acreage standards of this section as addressed below.

Staff notes that, as described in this criterion the “Photovoltaic solar power generation facility” includes photovoltaic modules, mounting and solar tracking equipment, foundations, inverters, wiring, storage devices and other components. Photovoltaic solar power generation facilities also include electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line and all necessary grid integration equipment.

(f) For high-value farmland described at ORS 195.300(10), a photovoltaic solar power generation facility shall not preclude more than 12 acres from use as a commercial agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4. The governing body or its designate must find that:

...

FINDING: As described above, the property is predominantly comprised Soil Unit 58C, Gosney Rock-Outcrop, Deskamp complex, Soil Unit 36A, Deskamp loamy sand, Soil Unit 36B, Deskamp loamy sand, with no water rights for irrigation, thus is not considered high-value farmland.

(h) For nonarable lands, a photovoltaic solar power generation facility shall not preclude more than 320 acres from use as a commercial agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4. The governing body or its designate must find that:

FINDING: As demonstrated above, the proposed use would not be sited on high value farmland nor arable lands with arable soils, rather, it is proposed for property that not predominantly cultivated and predominantly comprised of nonarable soils, thus constitutes non-arable land. OAR 660-033-0020 (2)(a) provides the following definition for Commercial Agricultural Enterprise:

"Commercial Agricultural Enterprise" consists of farm operations that will: (A) Contribute in a substantial way to the area's existing agricultural economy; and (B) Help maintain agricultural processors and established farm markets. (b) When determining whether a farm is part of the commercial agricultural enterprise, not only what is produced, but how much and how it is marketed shall be considered. These are important factors because of the intent of Goal 3 to maintain the agricultural economy of the state.

It is Staff's opinion that the subject property does not constitute a commercial agricultural enterprise as defined above, thus it is presumed that the proposal is not subject to the 320 acre size limit. The applicant indicates that the subject parcel has no water rights and, to the best of the applicant's knowledge, has no history of irrigation and included a copy of a water rights map as Exhibit A to their supplemental burden of proof. In addition, historical aerial photos are also included as part of Exhibit A. It does not appear that the property currently or historically been a commercial agricultural enterprise.

As previously discussed, because this proposal is under common ownership by the parent company, Cypress Creek Renewables, as that of NorWest Energy 2, LLC project, adjacent and to the north, the combined acreage for the two solar farm projects, as opposed to the 80 acres proposed by this application, shall be considered when applying the acreage standards of this section.

A total of 80 acres of photovoltaic array and related facilities is proposed for the subject application and 80 acres is proposed for the abutting project, for a total of 160 acres of photovoltaic array in the tract. This is well below the maximum size allowed by this section of 320 acres. This criterion is met.

(A) The project is not located on high-value farmland soils or arable soils unless it can be demonstrated that:

...

FINDING: The project is not located on high-value farmland soils or arable soils.

(B) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);

FINDING: The project is not located on high-value farmland soils or arable soils.

(C) No more than 20 acres of the project will be sited on arable soils unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4;

FINDING: The project is not located on high-value farmland soils or arable soils.

(D) The requirements of OAR 660-033-0130(38)(f)(D) are satisfied;

FINDING: Staff believes that (38)(f)(D) only applies to project located on high-value farmland.

(E) If a photovoltaic solar power generation facility is proposed to be developed on lands that contain a Goal 5 resource protected under the county's comprehensive plan, and the plan does not address conflicts between energy facility development and the resource, the applicant and the county, together with any state or federal agency responsible for protecting the resource or habitat supporting the resource, will cooperatively develop a specific resource management plan to mitigate potential development conflicts. If there is no program present to protect the listed Goal 5 resource(s) present in the local comprehensive plan or implementing ordinances and the applicant and the appropriate resource management agency(ies) cannot successfully agree on a cooperative resource management plan, the county is responsible for determining appropriate mitigation measures; and

FINDING: No Goal 5 resource protected under the county's comprehensive plan is located on the subject property.

(F) If a proposed photovoltaic solar power generation facility is located on lands where, after site specific consultation with an Oregon Department of Fish and Wildlife biologist, it is determined that the potential exists for adverse effects to state or federal special status species (threatened, endangered, candidate, or

sensitive) or habitat or to big game winter range or migration corridors, golden eagle or prairie falcon nest sites or pigeon springs, the applicant shall conduct a site-specific assessment of the subject property in consultation with all appropriate state, federal, and tribal wildlife management agencies. A professional biologist shall conduct the site-specific assessment by using methodologies accepted by the appropriate wildlife management agency and shall determine whether adverse effects to special status species or wildlife habitats are anticipated. Based on the results of the biologist's report, the site shall be designed to avoid adverse effects to state or federal special status species or to wildlife habitats as described above. If the applicant's site-specific assessment shows that adverse effects cannot be avoided, the applicant and the appropriate wildlife management agency will cooperatively develop an agreement for project-specific mitigation to offset the potential adverse effects of the facility. 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.

(G) The provisions of paragraph (F) are repealed on January 1, 2022.

FINDING: Based on comments from Nancy Breuner, Deschutes District Wildlife Habitat Biologist with ODFW, and an email, dated January 09, 2015, from Jerry Cordova, Fish and Wildlife Biologist with U.S. Fish and Wildlife Services, both quoted above, staff believes the requirements of this rule have been met.

(i) The county governing body or its designate shall require as a condition of approval for a photovoltaic solar power generation facility, that the project owner sign and record in the deed records for the county a document binding the project owner and the project owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).

FINDING: Staff recommends the Hearings Officer include this requirement as a condition of any approval.

(j) Nothing in this section shall prevent a county from requiring a bond or other security from a developer or otherwise imposing on a developer the responsibility for retiring the photovoltaic solar power generation facility.

FINDING: Staff finds that the Hearings Officer must consider the future retirement of the facility as part of the current proposal. Without a retirement plan, unmaintained screening could result in significant adverse visual impacts to surrounding properties, as described above. Staff recommends the Hearings Officer consider requiring a bond or other security from the developer or otherwise imposing on a developer the responsibility for retiring the photovoltaic solar power generation facility as a condition of any approval.

IV. CONCLUSION AND RECOMMENDATION:

This staff report identifies applicable zoning ordinances and evaluates compliance with the criteria and standards of those ordinances. Staff has identified criteria where staff believes the applicant has not demonstrated compliance with the criteria or compliance with the criteria is

in dispute. Staff recommends the Hearings Officer resolve these issues prior to any approval of this application. It is staff's opinion that the applicant needs to address the following issues prior to any approval of this application:

- A) Determination as to whether a potential decrease in property values on surrounding properties is tied to the criterion under Section 18.124.060 (A): *The proposed development shall relate harmoniously to the natural environment and existing development, minimizing visual impacts and preserving natural features including views and topographical features.*
- B) Determination as to whether potential glare from the solar panels complies with Section 18.80.044 (C): Glare. *No glare producing material, including but not limited to unpainted metal or reflective glass, shall be used on the exterior of structures located within an approach surface or on nearby lands where glare could impede a pilot's vision.*
- C) How would reclamation be handled? What measures are put in place to ensure property reclamation and removal of structures related to the facility?
- D) What provision for irrigation of the proposed shrub hedge is proposed?
- E) Sheet 6 of the revised plans identifies solar panels that would reach a maximum height of 12 feet. The supplemental burden of proof statement, quoted above, indicates the height of the solar panels will vary between 4 and 7 feet and the inverters would be a maximum of ten (10) feet above grade. The applicants should clarify this for the Hearings Officer.
- F) Applicant should provide the Hearings Officer with information and drawings for the proposed power poles to verify the height and also provide written evidence that the height and design of the power poles complies with FAA requirements.
- G) Staff recommends the Hearings Officer consider requiring a bond or other security from the developer or otherwise imposing on a developer the responsibility for retiring the photovoltaic solar power generation facility as a condition of any approval.
- H) Do the proposed solar panels, framing, racking and inverters comply with Section 18.84.080 (C)? Do the solar panels consist of a finish that is considered to be of a white, bright or reflective material?
- I) Do the proposed solar panels, framing, racking and inverters comply with Section 18.84.080 (B)? Are they considered to be finished in muted earth tones that blend with and reduce contrast (e.g. glare) with surrounding vegetation and landscaping on site.
- J) Do the proposed solar panels, framing, racking and inverters comply with Section 18.84.080 (H)? At a maximum height of 12 feet, and without knowing the reflective quality of the surface material for the solar panels, will existing and proposed vegetation/landscaping be sufficient to prevent glare and possible adverse effects on automobiles and pedestrians traveling along Highway 20?

- K) The subject property consists of three legal lots of record. Tax Lots 100 and 300 are separate legal lots of record and Tax Lot 400, together with Tax Lot 1100, constitutes one legal lot of record. Due to this, staff suggests the following:
- a) Because Tax Lots 400 and 1100 are one legal lot of record, Tax lot 1100 should be included and referenced as part of the subject property for this application.
 - b) Because the common tax lot lines between Tax Lots 100, 300 and 400 are legal lot lines (rear and side property lines), the applicable setbacks need to be observed, including the solar setback from the north property line of the Tax Lot 300. Observing setbacks would require a revision to the submitted plans and possibly submittal of a land use permit for a modification of application. Alternatively, the applicant could place the applications on hold to process a lot consolidation unless it could be imposed as a condition of approval.

If the applicant addresses the above or any other concerns to the satisfaction of the hearings officer, staff recommends the following conditions of approval:

1. This approval is based upon the application, site plan, specifications, and supporting documentation submitted by the applicant. Any substantial change in this approved use will require review through a new land use application.
2. The applicants shall meet all requirements of the Deschutes County Building Safety and Environmental Soils Divisions.
3. Prior to initiation of the use, the applicant shall provide evidence of DEQ National Pollutant Discharge Elimination (NPDES) Permit approval for the proposed use to the Planning Division.
4. The applicant shall obtain all necessary state and federal permits for the project.
5. Prior to initiation of the use, the applicant shall complete the following:
 - a) Install the 6 foot cyclone fence with tan colored mesh screening.
 - b) Plant the shrubs in the locations shown on the approved Landscape Plan. The shrubs shall be a minimum of 6 feet at the time of planting.
 - c) Mesh screening shall be installed along the perimeter fence.

At all times, the mesh screening shall be maintained in good condition and shall be promptly repaired if ripped or torn.

6. All required screening shall be continuously maintained and all plantings shall be kept alive and attractive. The applicant shall replace all dead, dying or diseased screening vegetation within 90 days.
7. Existing Landscape and topography shall be preserved to the greatest extent possible, considering development constraints and suitability of the landscape and topography. Preserved trees and shrubs shall be protected.

8. Trees and shrubs shall be retained on site in all areas where they serve to screen he additions from Highway 20. This condition does not prohibit removal of dead, diseased or hazardous vegetation. Removal of dead, diseased or hazardous vegetation shall be replaced with a native species within 90 days.
9. Prior to initiation of the use, the applicant/owner shall sign and record with the County Clerk a document binding the landowner, and the landowner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forestry practices for which no action or claim is allowed under ORS 30.936 to 90.937.
10. The height of the proposed power poles shall not exceed a height of 30 feet if sited within the Landscape Management Combining Zone.

Dated this 18th day of June, 2015

Mailed this 18th day of June, 2015