ESTERSON Sarah * ODOE

From:	Carrie.Konkol@ch2m.com
Sent:	Friday, November 18, 2016 2:49 PM
То:	ESTERSON Sarah * ODOE
Cc:	CORNETT Todd * ODOE; WOODS Maxwell * ODOE; FRANCE Renee M;
	elaine.albrich@stoel.com; rmcgraw@orionrenewables.com; tim.mcmahan@stoel.com;
	Pauline.Sullivan@CH2M.com; Anneke.Solsby@ch2m.com
Subject:	RE: GH1 AMD3 - Request for Updated Property Owner Information with Response to
	ODOE Information Request
Attachments:	GH_RFA_3_Redlined Second Supplement.docx; GH_RFA_3_Third_Supplement_
	11-18-2016.docx; GH_RFA_3_Third_Supplement_11-18-2016.pdf

Hello Sarah – Attached are the following documents:

- Clean Word file of the GH1 AMD3 Third Supplement
- Assembled PDF of Third Supplement text and attachments
- Redlined Second Supplement

We will deliver the updated landowner data after we receive it from the County and have a chance to format it.

Thank you, Carrie

Carrie Konkol | CH2M | desk 503.872.4734 | cell 503.830.8587

From: ESTERSON Sarah * ODOE [mailto:Sarah.Esterson@oregon.gov]

Sent: Wednesday, November 16, 2016 2:56 PM

To: Konkol, Carrie/PDX <Carrie.Konkol@ch2m.com>; rmcgraw@orionrenewables.com

Cc: CORNETT Todd * ODOE <Todd.Cornett@oregon.gov>; WOODS Maxwell * ODOE <Maxwell.Woods@oregon.gov>; FRANCE Renee M <Renee.M.FRANCE@state.or.us>; elaine.albrich@stoel.com

Subject: RE: GH1 AMD3 - Request for Updated Property Owner Information with Response to ODOE Information Request [EXTERNAL]

Hi Carrie,

Thanks so much for the response and schedule update. Keep me posted if there are issued/delays.

-Sarah

Sarah T. Esterson

Energy Facility Siting Analyst Oregon Department of Energy 625 Marion Street N.E. Salem, OR 97301 P:(503) 373-7945 C: (503) 385-6128 Oregon.gov/energy



Leading Oregon to a safe, clean, and sustainable energy future.

From: Carrie.Konkol@ch2m.com [mailto:Carrie.Konkol@ch2m.com]
Sent: Wednesday, November 16, 2016 2:29 PM
To: ESTERSON Sarah * ODOE <<u>Sarah.Esterson@oregon.gov</u>>; rmcgraw@orionrenewables.com
Cc: CORNETT Todd * ODOE <<u>Todd.Cornett@oregon.gov</u>>; WOODS Maxwell * ODOE <<u>Maxwell.Woods@oregon.gov</u>>;
FRANCE Renee M <<u>Renee.M.FRANCE@state.or.us</u>>; elaine.albrich@stoel.com
Subject: RE: GH1 AMD3 - Request for Updated Property Owner Information with Response to ODOE Information
Request

Hello Sarah -

We anticipate delivery of the responses to the Second Supplement Information Request this week. Assuming we can obtain the updated property owner information from the County in the next day (or so), we will submit that along with the responses to the Second Supplement Information Request.

Thank you, Carrie

Carrie Konkol | CH2M | desk 503.872.4734 | cell 503.830.8587

From: ESTERSON Sarah * ODOE [mailto:Sarah.Esterson@oregon.gov]

Sent: Tuesday, November 15, 2016 12:54 PM

To: rmcgraw@orionrenewables.com; Konkol, Carrie/PDX <Carrie.Konkol@ch2m.com>

Cc: CORNETT Todd * ODOE <<u>Todd.Cornett@oregon.gov</u>>; WOODS Maxwell * ODOE <<u>Maxwell.Woods@oregon.gov</u>>; FRANCE Renee M <<u>Renee.M.FRANCE@state.or.us></u>

Subject: GH1 AMD3 - Request for Updated Property Owner Information with Response to ODOE Information Request [EXTERNAL]

Mr. McGraw and Ms. Konkol,

As a follow up to the information request issued on November 10, 2016, the department requests that the property owner information be updated based on the most current tax assessment roll. Please also provide an updated property owner map to allow staff the opportunity to cross reference the name and address of the owner information with the property (general guidance is attached for reference).

Please confirm the anticipated schedule for submittal of the requested information.

Thanks, Sarah

Sarah T. Esterson Energy Facility Siting Analyst Oregon Department of Energy 625 Marion Street N.E. Salem, OR 97301 P:(503) 373-7945 C: (503) 385-6128 Oregon.gov/energy



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Third Supplement to Request for Amendment No. 3 to the Site Certificate for the Golden Hills Wind Project

Prepared for Oregon Energy Facility Siting Council

November 2016

Submitted by Golden Hills Wind Farm LLC

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, Conclusion	5

Attachments

- 1 Natural Resources Conservation Service Nonirrigated Soil Capability Class
- 2 Aerial Reconnaissance
- 3 Natural Resources Conservation Service Irrigated Soil Capability Class
- 4 Transmission Line Siting
- 5 Observed Farm Practices

Third Supplement to Request for Amendment No. 3 to the Site Certificate for the Golden Hills Wind Project

Introduction and Purpose

On December 17, 2015, Golden Hills Wind Farm LLC (Golden Hills or Certificate Holder), a subsidiary of Orion Renewable Energy Group LLC, filed *Request for Amendment No. 3 to the Site Certificate for the Golden Hills Wind Project* (amendment request) with the Oregon Department of Energy¹. The amendment request presented proposed modifications to the approved Golden Hills Wind Project (Facility or project). This third supplement provides information requested from the Department on November 10, 2016.

The Energy Facility Siting Council (EFSC) has previously found the Facility, including the associated transmission lines proposed as part of the Facility, to be compatible with siting in the F-1 exclusive farm use (EFU) zone. The changes proposed in the amendment request would not affect the previous findings. As described below, the Facility except the substation and transmission line is a "commercial utility facility" and as such is a conditionally permitted use in the F-1 zone. The Certificate Holder demonstrated in the original application that under Oregon Revised Statute (ORS) 215.275, the substation and transmission line are utility facilities necessary for public service and must be sited on EFU land in order to provide service.

Under new legislation (House Bill 2704, 2013 Session), associated transmission lines are considered "associated transmission line necessary for public service" rather than a "utility facility necessary for public service." The Facility's proposed transmission line is an associated transmission line and therefore is subject to the provisions of ORS 215.274, *Associated transmission lines necessary for public service.*

Summary of Additional Analysis (ORS 215.274)

In the original site certificate application (and previous two amendments), Golden Hills requested and received EFSC approval to build and construct two transmission lines to connect the Facility to the Bonneville Power Administration (BPA) grid, and two substations associated with each transmission line. One of these transmission lines was to be a 500-kilovolt (kV) transmission line and a substation to connect the Facility to an existing BPA substation north of the site boundary. The current amendment request eliminates the need for the 500-kV transmission line and associated substation. The previously approved 230-kV transmission line would, instead, be extended to a more central location in the site boundary, and connect with a single substation serving the entire Facility.

EFSC previously approved the approximately 11 miles of 500-kV transmission line to the John Day substation, and 0.7 mile of 230-kV transmission line to the Klondike substation, for a total of approximately 11.7 miles of to-be-constructed transmission line route. As modified, the Certificate Holder proposes constructing approximately 5 miles of new 230-kV line and using approximately 3 miles

¹ The project consists of a permitted wind energy generation facility in Sherman County, Oregon, with electrical generating capacity of up to 400 megawatts (MW). On May 15, 2009, the Energy Facility Siting Council (EFSC) issued a site certificate for construction and operation of the project. In 2012 and 2015, respectively, EFSC approved amendments to the site certificate to extend the construction start and completion deadlines.

THIRD SUPPLEMENT TO REQUEST FOR AMENDMENT NO. 3 TO THE SITE CERTIFICATE FOR THE GOLDEN HILLS WIND PROJECT

of existing 230-kV line on the already fully constructed Hay Canyon transmission line, for 8 total miles of associated transmission line. The proposed modification reduces the amount of new transmission line infrastructure by more than half of that which is previously approved by EFSC.

Additional Analysis

This section supplements and supersedes, in part, the ORS 215.274 analysis contained in the *Second Supplement to Request for Amendment No. 3 to the Site Certificate for the Golden Hills Wind Project,* dated October 2016. This supplement is provided in response to the Department's request for additional information. The Facility's associated transmission line cannot satisfy ORS 215.274(3) and therefore must meet ORS 215.274(4).

(4)(a) Except as provided in subsection (3) of this section, the governing body of a county or its designee shall approve an application under this section if, after an evaluation of reasonable alternatives, the applicant demonstrates that the entire route of the associated transmission line meets, subject to paragraphs (b) and (c) of this subsection, two or more of the following factors:

Finding: The Certificate Holder demonstrates that the Facility, specifically the associated transmission line, satisfies ORS 215.274(4) by meeting the factors in subpart (4)(a)(A)-(C). ORS 215.274(4) requires the Certificate Holder to consider reasonable alternatives when evaluating the proposed associated transmission line against the factors in subpart (4)(a)(A)-(C). As shown below, the agricultural land within the site boundary and the larger surrounding area, including the distance between the site boundary and the BPA Klondike substation, is predominately high-value farmland or arable lands.

Attachment 1 shows the Natural Resource Conservation Service (NRCS) nonirrigated soil capability classes for the land within the site boundary and the surrounding area. Using the NRCS nonirrigated soil capability classes for this analysis is proper because, as documented in Exhibit K, the area is not irrigated, and as documented more recently in Attachment 2 (aerial reconnaissance photographs of site boundary and surrounding area), the majority of the land within the site boundary and surrounding area), the majority of the land within the site boundary and surrounding areas is actively cultivated for dryland wheat production. Nonetheless, for completeness of the record, Attachment 3 contains the NRCS irrigated soil capability classes for land within the site boundary and the surrounding area. Whether the land is irrigated or not irrigated is irrelevant for purposes of this analysis. Under either scenario, the analysis remains and supports the Certificate Holder's conclusion that the associated transmission line satisfies two or more of the factors in ORS 215.274(4)(a).

The land within the site boundary and surrounding areas is composed predominately of NRCS Class II and III soils, with some Class IV and VII soils. As shown on the aerial photographs in Attachment 2, the areas comprising Class II and III soils are in dryland wheat production and the areas comprising Class IV and VII soils are limited to ravines and steeper slopes. Accordingly, the site boundary and surrounding area is composed predominately of high-value farmland and arable land, with areas of limited nonarable land on steep slopes. See ORS 195.300(10); OAR 660-033-0130(38)(a)-(d).

(A) Technical and engineering feasibility;

Finding: It is not feasible or technically possible to interconnect the Facility with the BPA Klondike substation without an associated transmission line. Any alternative requires that the Facility be interconnected via an associated transmission line to the BPA Klondike substation for the purpose of distributing power via the electrical grid system. The Certificate Holder, after further technical and engineering study, eliminated the previously approved 11-mile 500-kV transmission line from the project design, thereby reducing the need for a new transmission line corridor by more than half. The proposed 8-mile route includes approximately 5 miles of new transmission line and 3 miles of the existing 230-kV Hay Canyon line (Attachment 4). An alternative route would make it not feasible for the Certificate Holder to use the existing Hay Canyon line, which, as proposed, significantly reduces the amount of impact associated with the Facility's interconnection with the regional grid. An alternative

that does not favor co-locating transmission lines routes when feasible is not a reasonable alternative. The new portions of the associated transmission line are located on flat portions of the site, spanning gullies, ravines and steep slopes. These areas are avoided to construct the straightest route, with the shortest line, with the least impacts. Although these areas may have lower quality soil (as discussed below), siting the proposed line in these areas simply to avoid high-value farmland and arable land increases the technical difficulty of constructing the line. Therefore, it is appropriate to find that the associated transmission line, as proposed, is a reasonable technical and engineering feasible solution for interconnecting the Facility to the regional grid.

(B) The associated transmission line is locationally dependent because the associated transmission line must cross high-value farmland, as defined in ORS 195.300 (Definitions for ORS 195.300 to 195.336), or arable land to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;

Finding: As discussed above, the site boundary and surrounding area are composed predominately of high-value farmland and arable lands. Specifically, the land within the site boundary and surrounding area is composed predominately of NRCS nonirrigated Class II and III soils, with some Class IV and VII soils. As shown on the aerial photographs in Attachment 2, the areas consisting of Class II and III soils are primarily cultivated and the areas composed of Class IV and VII soils are limited to ravines and steeper slopes.

No matter the route from the Facility to the BPA Klondike substation, an associated transmission line must cross high-value farmland or arable land to serve its purpose of conveying energy from the wind farm to the electrical grid system. In fact, the BPA Klondike substation itself is located on land identified as high-value or arable.

The proposed associated transmission line is sited so that it has a reasonably direct route to the BPA interconnection point near the Klondike substation while also utilizing the existing Hay Canyon transmission. The new portion of the line runs from the Facility's centrally-located substation in the shortest route to the interconnection point with the Hay Canyon line and from there, it runs directly to the BPA substation, again utilizing the most direct route. Given that any route would impact high-value and arable land, and the fact that the proposed line offers the most direct route and utilizes existing infrastructure, there is no reasonable alternative to consider under this factor. There is sufficient evidence to support a finding that the proposed line meets this factor.

(C) Lack of an available existing right-of-way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground;

Finding: The project used existing right-of-way to the maximum extent practicable by interconnecting with the existing Hay Canyon transmission line. Because the Facility is in an area with high-value farmland and arable land containing large lots with intermittent steep ravines, the area near the Facility substation lacks well-defined linear right-of-way such as roads that would provide a reasonably direct route for the Facility 230-kV transmission line to connect with the electrical grid system. There is no available existing right-of-way like a road or railroad that the Certificate Holder could use as an alternative route that would offer a reasonable alternative. Trying to route the associated transmission line along existing road right-of-ways would significantly increase the length of the line, require acquisition of numerous new land rights, increase construction costs, and potentially interfere with existing utility infrastructure already located within the right-of-way. Such factors make such an alternative not reasonable. For these reasons, the project meets this factor.

(D) Public health and safety; or

Finding: The Certificate Holder is minimizing health and safety risks from exposure to magnetic fields or shock by limiting the length of transmission line for the project; reducing the new transmission line

corridor from 11 to 5 miles; consolidating the area necessary for energy transmission use by co-locating a portion of the transmission line; and locating the transmission line away from populated areas.

(E) Other requirements of state or federal agencies

Finding: As documented through the site certificate process and subsequent amendment processes, the project complies with other requirements of state and federal agencies.

(4)(b) The applicant shall present findings to the governing body of the county or its designee on how the applicant will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

Finding: The Certificate Holder has designed the 230-kV transmission feeder line to minimize, to the greatest degree practicable, impacts to accepted farming practices within the site boundary and on surrounding lands. The 2007 Farmland Technical Memo included in ASC Exhibit K identified dryland wheat farming as the primary farming practice within the site boundary. The latest census of agriculture conducted by the U.S. Department of Agriculture in 2012 (the census is conducted every 5 years) shows that wheat is, by far, still the top crop for Sherman County, and in fact has grown by 12 percent since 2007. In 2007, 115,237 acres of wheat were farmed and in 2012, 128,582 acres of wheat were farmed.

Field surveys conducted by the Certificate Holder as part of the biological resources investigation documented in Attachment 8 to the First Supplement (March 2016), noted the following: "The only vegetation type identified during the March 4, 2016, site visit was agricultural land consisting of actively farmed wheat fields." In addition, recent aerial photographs (Attachment 2) from site reconnaissance conducted by the Certificate Holder shows that farm field configurations and areas cultivated generally have stayed the same within the site boundary since 2007, confirming the Certificate Holder's position that accepted farm practices have stayed the same within the site boundary. The Certificate Holder also includes a statement addressing observed farm practices within the site boundary and surrounding area. See Attachment 5.

While farm practices within the site boundary have generally stayed the same since 2007, in the surrounding area to the east of the site boundary, wind turbine strings have been constructed and are in operation on high-value farmland and arable lands. Otherwise, accepted farm practices on surrounding lands remain the same as 2007, primarily dryland wheat farming. Aerial imagery indicates that crop patterns and field layout are slightly modified in some areas to account for the wind farm infrastructure, but overall, it appears cultivation practices are largely the same on lots with wind farm facilities compared to those without them.

The amount of new transmission line corridor and therefore impacts to farming practices have been minimized to the greatest extent practicable by minimizing the amount of new transmission line corridor needed and interconnecting to existing transmission line infrastructure. Construction of the 230-kV transmission line pole structures will permanently impact less than an acre of land, thereby in itself removing very little land from agricultural production.

In addition, the transmission line is sited to minimize disturbing typical field cultivation practices by being sited on the edge of fields and minimizing the dividing of lots consistent with Condition (IV.D.10) of the Amendment 2 Site certificate. The accepted farming practices will continue within the site boundary and the surrounding land the associated transmission line crosses. Local farmers will still be able to maneuver their necessary machinery around the associated transmission line infrastructure. There may be minor changes to plowing and harvesting patterns, but none will seriously interfere with accepted farming practices within the site boundary or on adjacent farmland. The Certificate Holder will coordinate with farmers to ensure adequate and timely access to properties during critical periods in the farming cycle such as harvest.

4

As specified in Condition IV.E.4 of the site certificate for Amendment 2, during construction and operation of the facility, the Certificate Holder shall implement a plan, developed in consultation with the Sherman County Weed Control Manager, to control the introduction and spread of noxious weeds.

When construction is completed, lands temporarily affected by construction would be restored to their original condition. Therefore, because the 230-kV transmission line permanent impacts are minimal, especially considering the amount of high-value and arable zoned land in Sherman County, and the transmission line has been sited in consideration of farming practices, it will not force a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

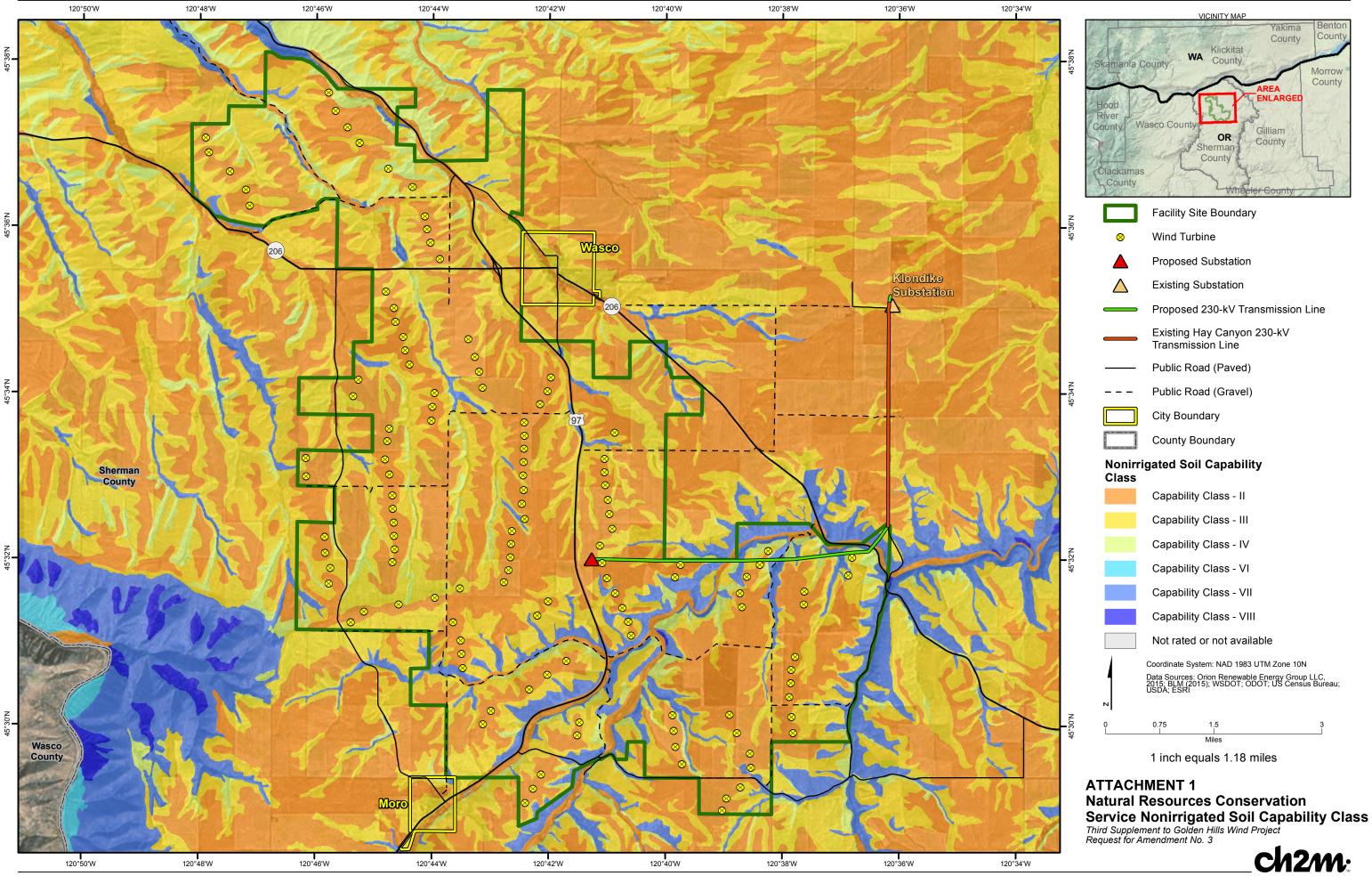
(4)(c) The governing body of a county or its designee may consider costs associated with any of the factors listed in paragraph (a) of this subsection, but consideration of cost may not be the only consideration in determining whether the associated transmission line is necessary for public service. [2013 c.242 §2]

Finding: Land costs were not a significant consideration in determining the location of the transmission line segment. The majority of land in Sherman County is zoned EFU and no alternative location exists, regardless of cost, to locate the Facility 230-kV transmission line on non-EFU land. The location was dependent on providing a connection for the energy generated by the wind facility to the electrical energy grid interconnection point north of the Klondike substation while minimizing impacts to EFU lands by using existing utility rights-of-way.

Conclusion

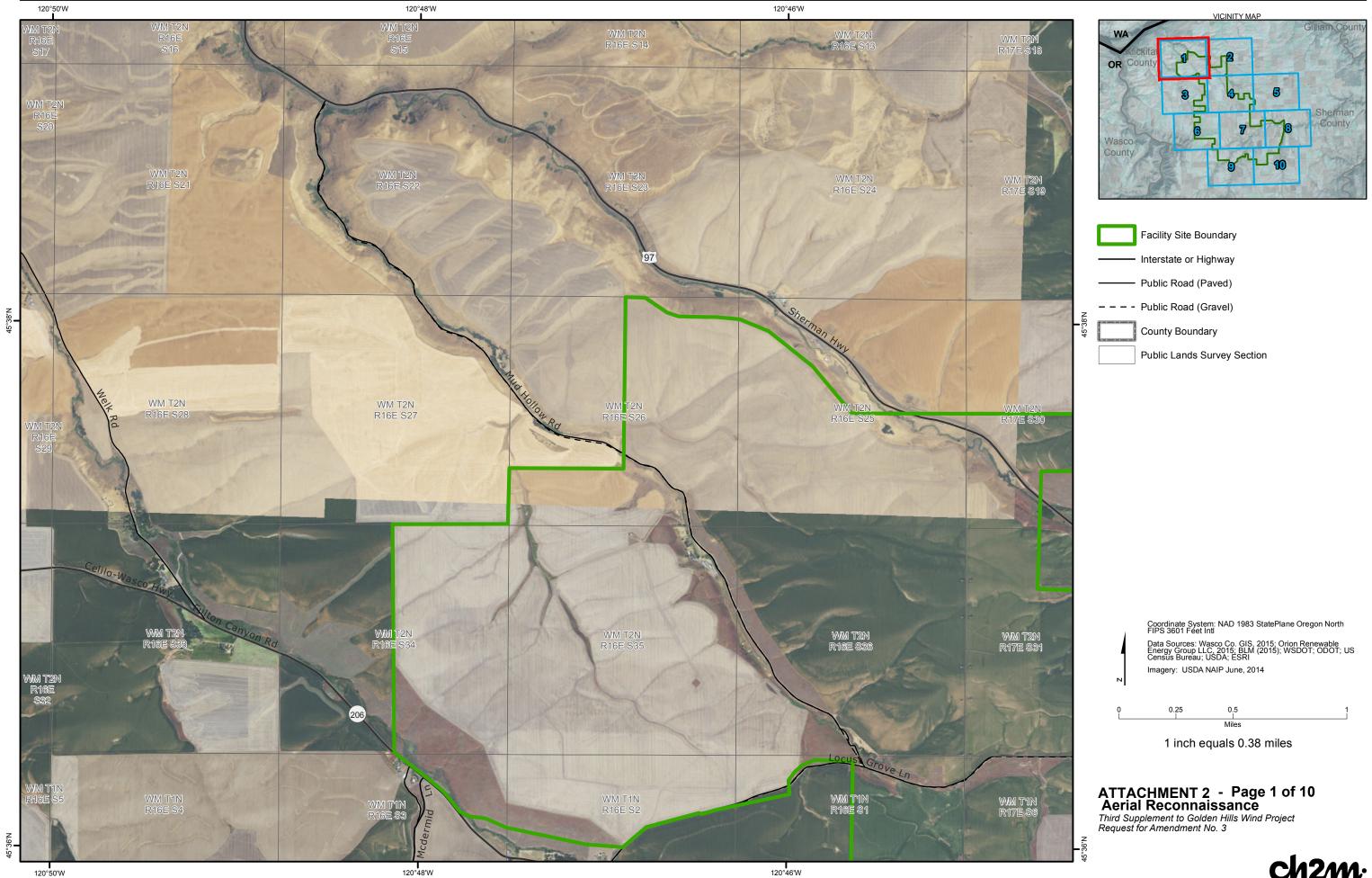
The Facility 230-kV transmission line must be sited on high-value and arable land in order to connect the wind farm with the electrical grid system, both of which are on and surrounded by high-value and arable land. The Certificate Holder has greatly reduced the length of transmission line on high-value and arable land by eliminating the 500-kV transmission line previously approved. In addition, the Certificate Holder is using existing transmission line infrastructure and right-of-way. Consequently, based on the analysis set forth above, the associated transmission line meets the factors required by ORS 215.274.

Attachment 1 Natural Resources Conservation Service Nonirrigated Soil Capability Class



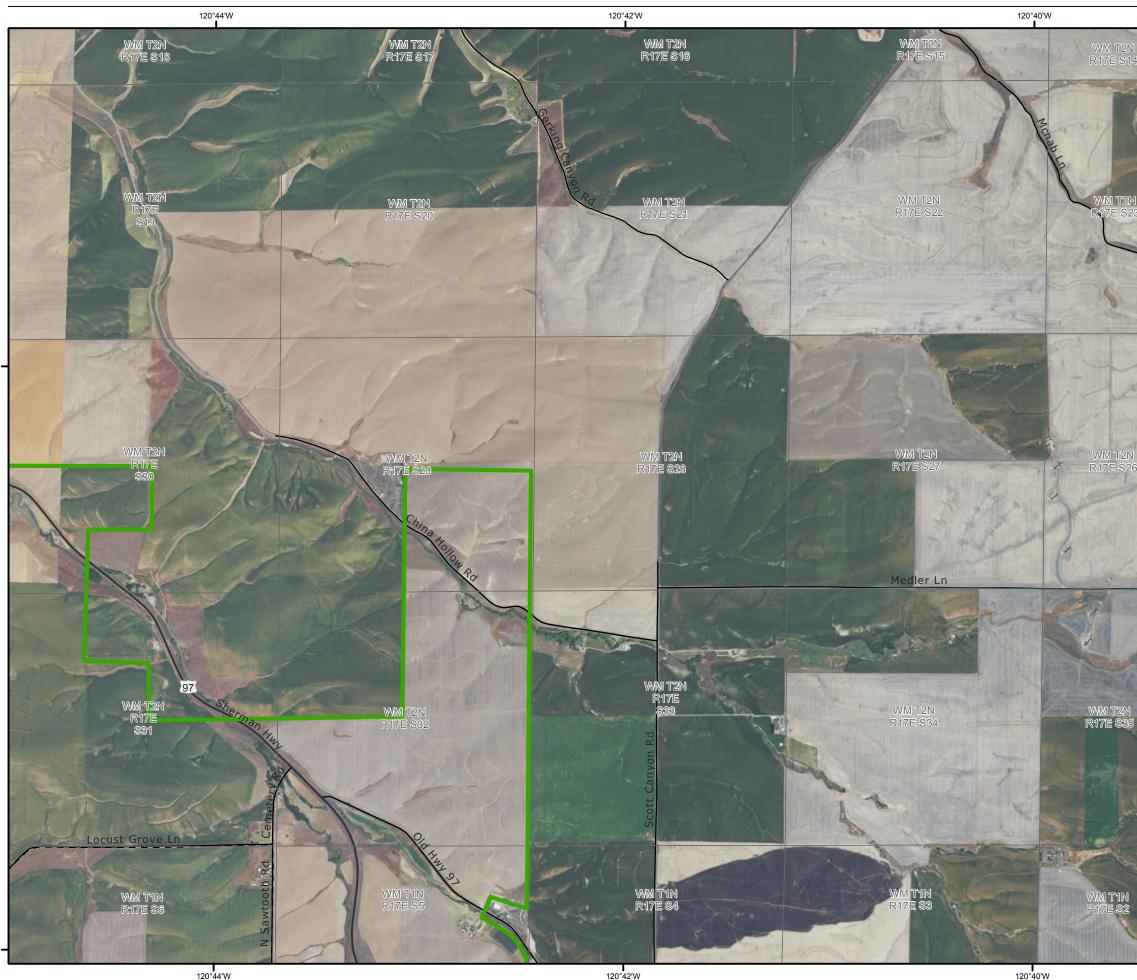
Attachment 2 Aerial Reconnaissance

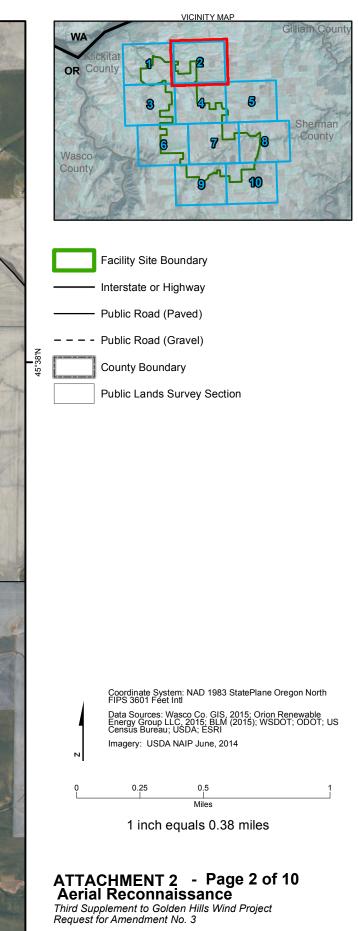




36'N

ch2m:

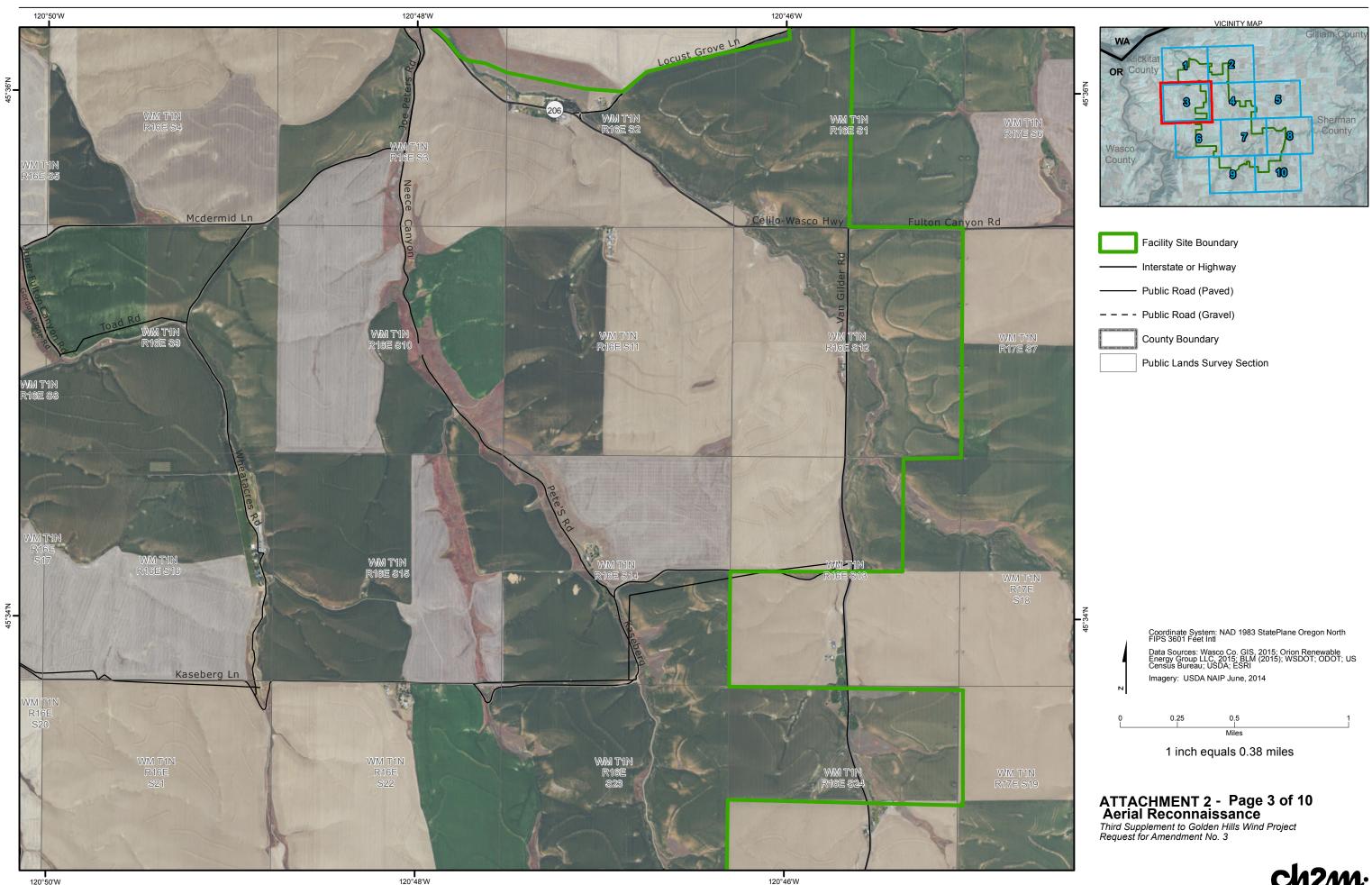




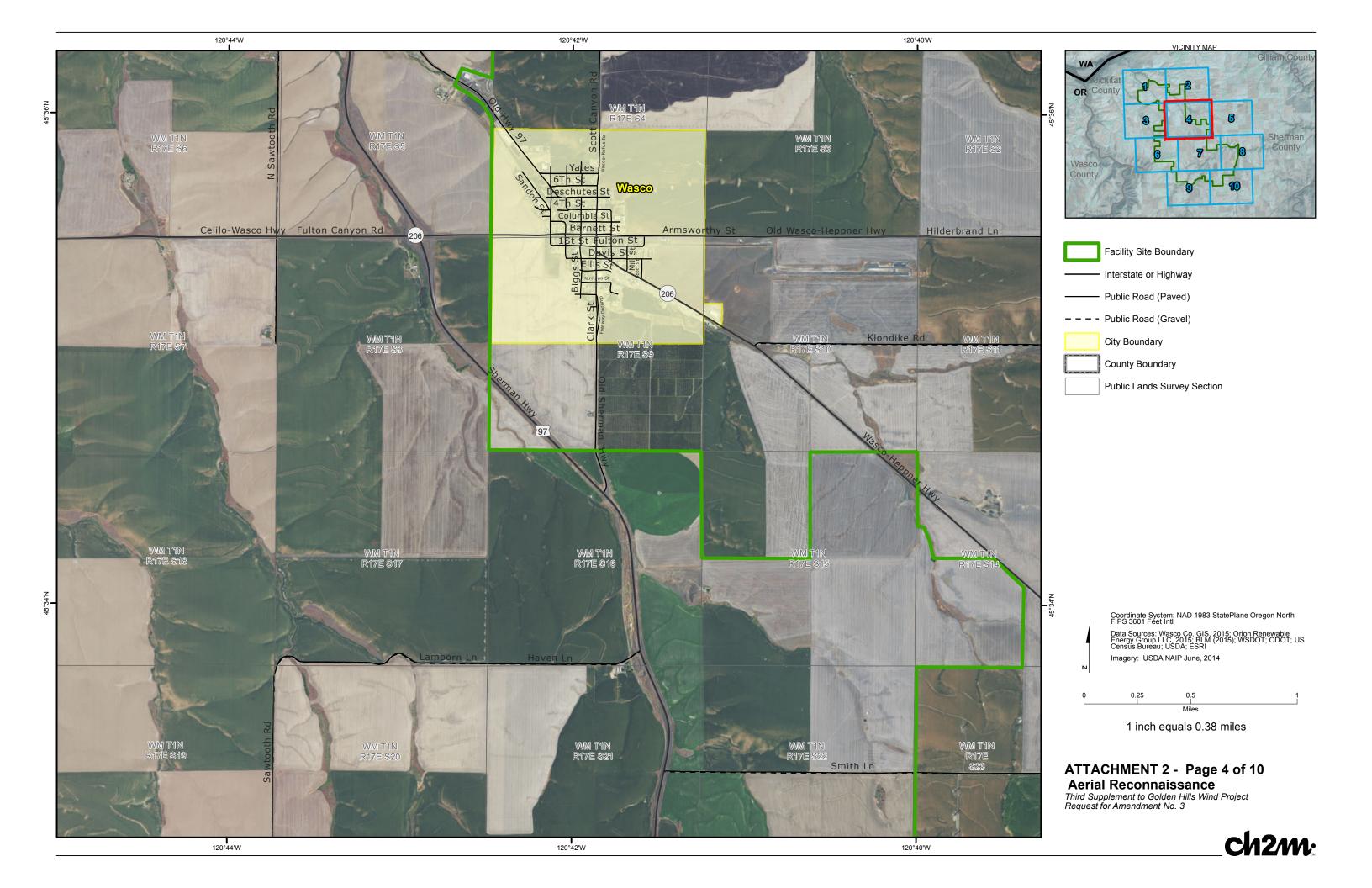




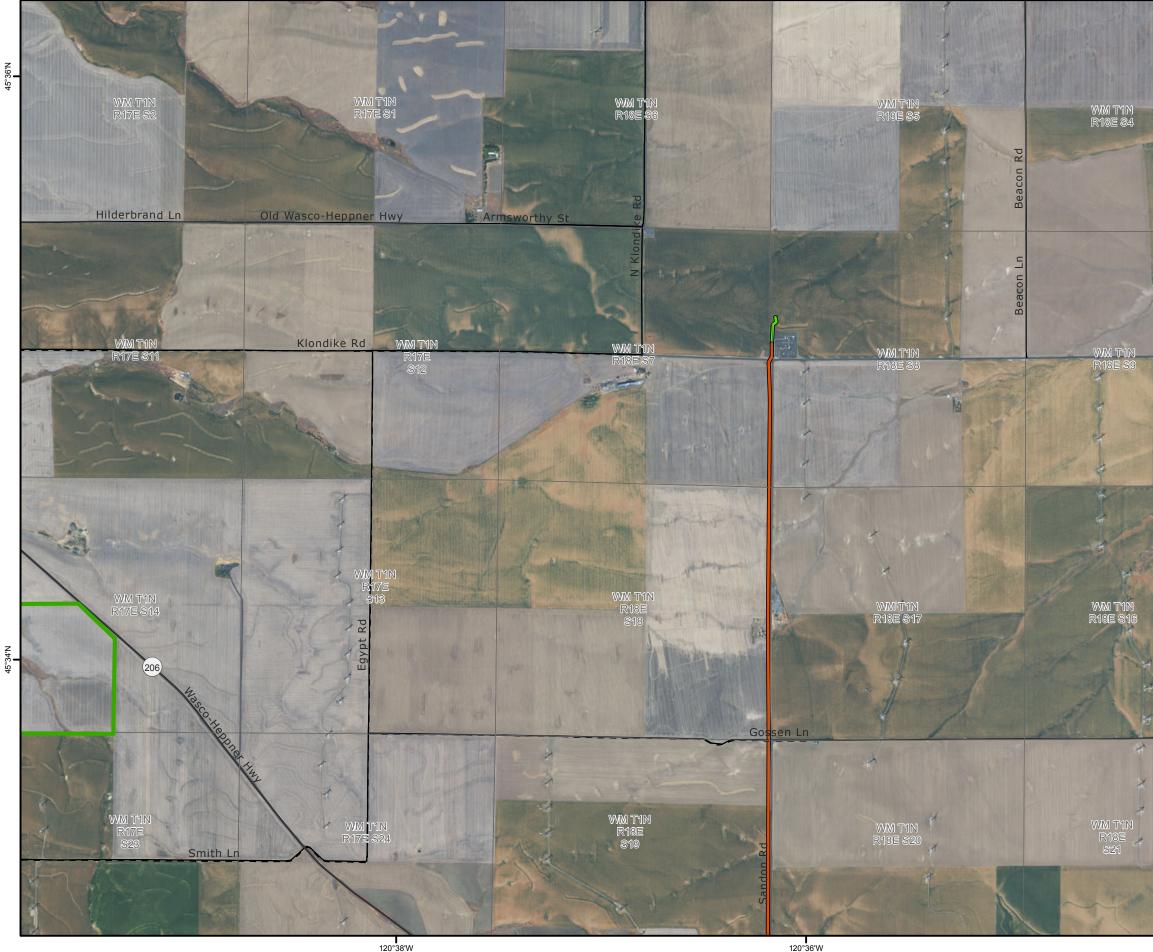
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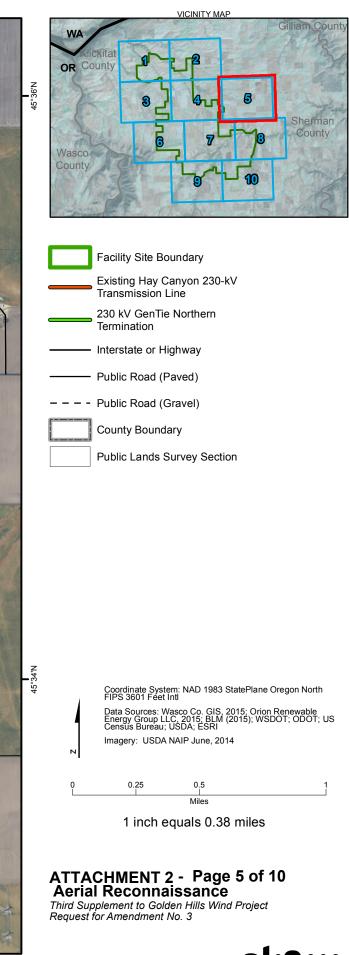


ch2m:



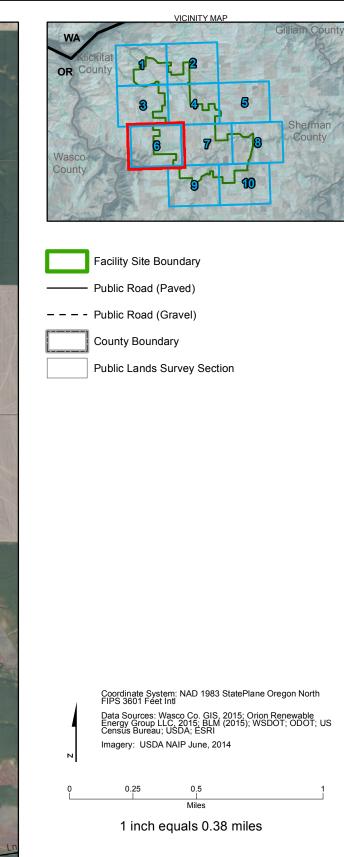








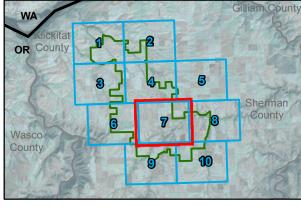




ATTACHMENT 2 - Page 6 of 10 Aerial Reconnaissance Third Supplement to Golden Hills Wind Project Request for Amendment No. 3







Facility Site Boundary
 Proposed 230-kV Transmission Line
 Interstate or Highway
 Public Road (Paved)
 Public Road (Gravel)
County Boundary
Public Lands Survey Section

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Inti Data Sources: Wasco Co. GIS, 2015; Orion Renewable Energy Group LLC, 2015; BLM (2015); WSDOT; ODOT; US Census Bureau; USDA; ESRI Imagery: USDA NAIP June, 2014

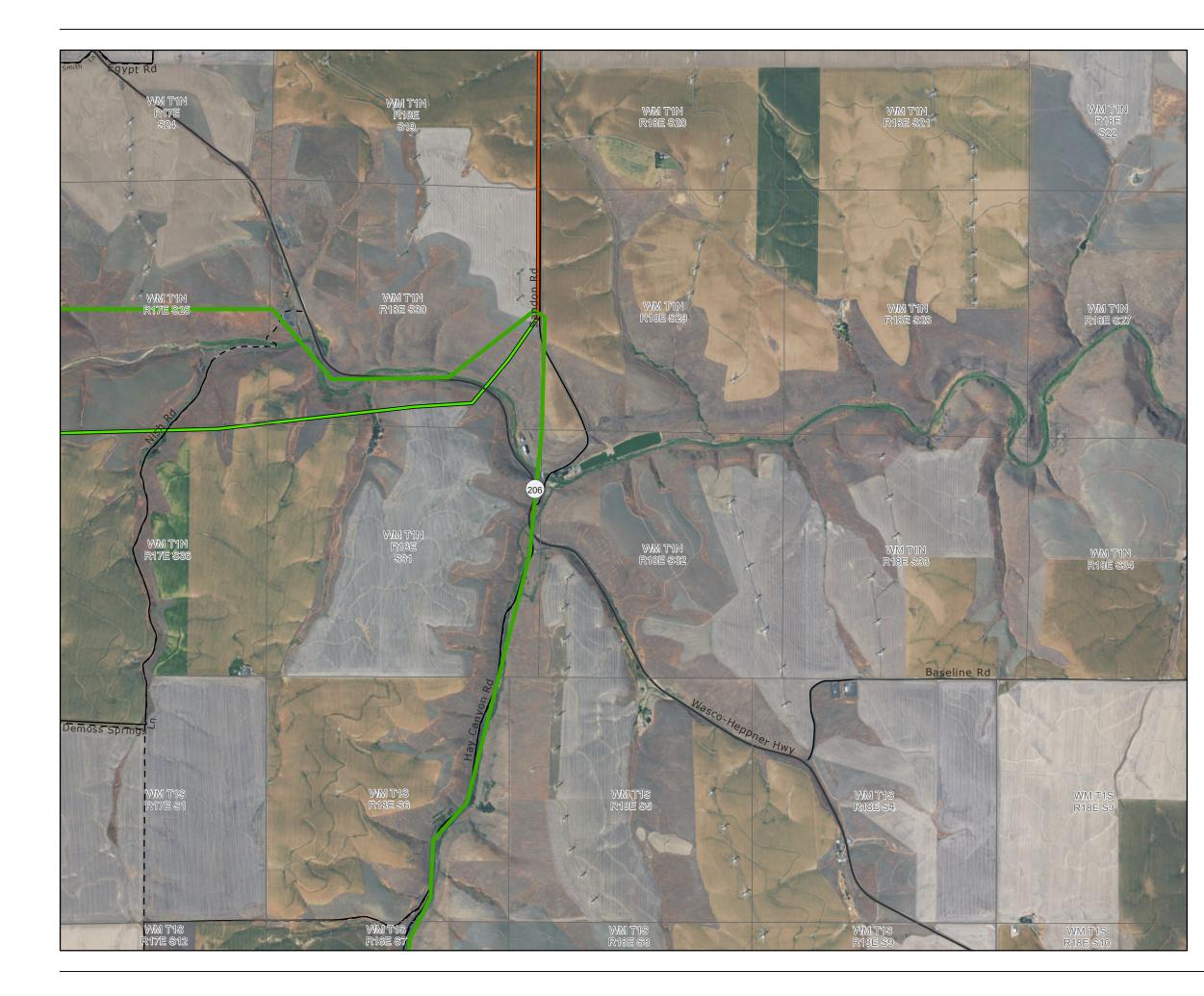
0 0.25 0.5 1 I I Miles

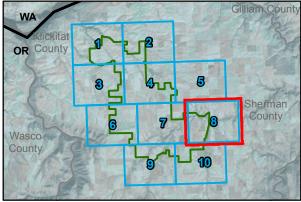
1 inch equals 0.38 miles

ATTACHMENT 2 - Page 7 of 10 Aerial Reconnaissance

Aerial Reconnaissance Third Supplement to Golden Hills Wind Project Request for Amendment No. 3







Facility Site Boundary
Existing Hay Canyon 230-kV Transmission Line
Proposed 230-kV Transmission Line
 Interstate or Highway
 Public Road (Paved)
 Public Road (Gravel)
County Boundary
Public Lands Survey Section

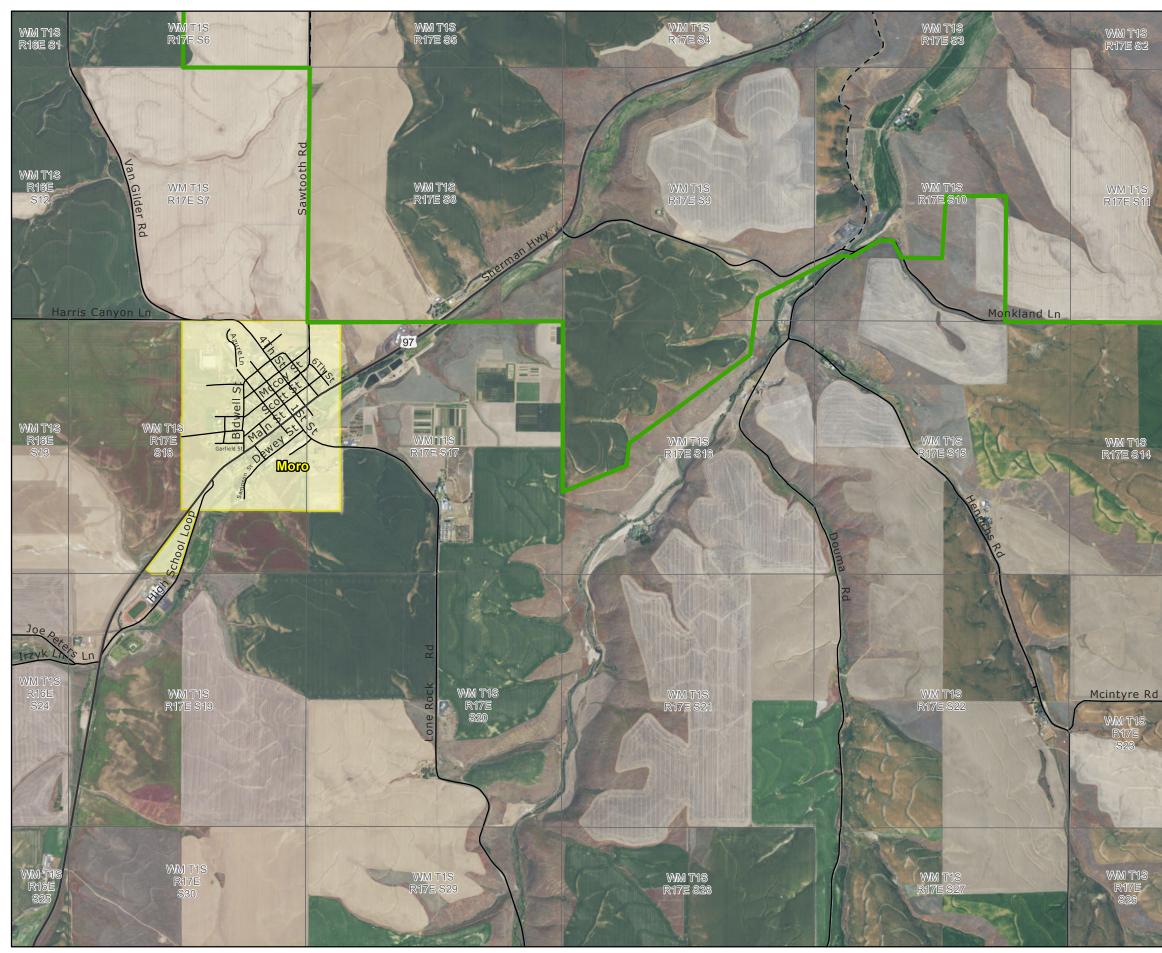
Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl Data Sources: Wasco Co. GIS, 2015; Orion Renewable Energy Group LLC, 2015; BLM (2015); WSDOT; ODOT; US Census Bureau; USDA; ESRI Imagery: USDA NAIP June, 2014

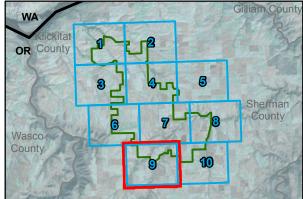
0.5 Miles 0.25

1 inch equals 0.38 miles

ATTACHMENT 2 - Page 8 of 10 Aerial Reconnaissance Third Supplement to Golden Hills Wind Project Request for Amendment No. 3







Facility Site Boundary
Interstate or Highway
Public Road (Paved)
– – – - Public Road (Gravel)
City Boundary
County Boundary
Public Lands Survey Section

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl Data Sources: Wasco Co. GIS, 2015; Orion Renewable Energy Group LLC, 2015; BLM (2015); WSDOT; ODOT; US Census Bureau; USDA; ESRI Imagery: USDA NAIP June, 2014

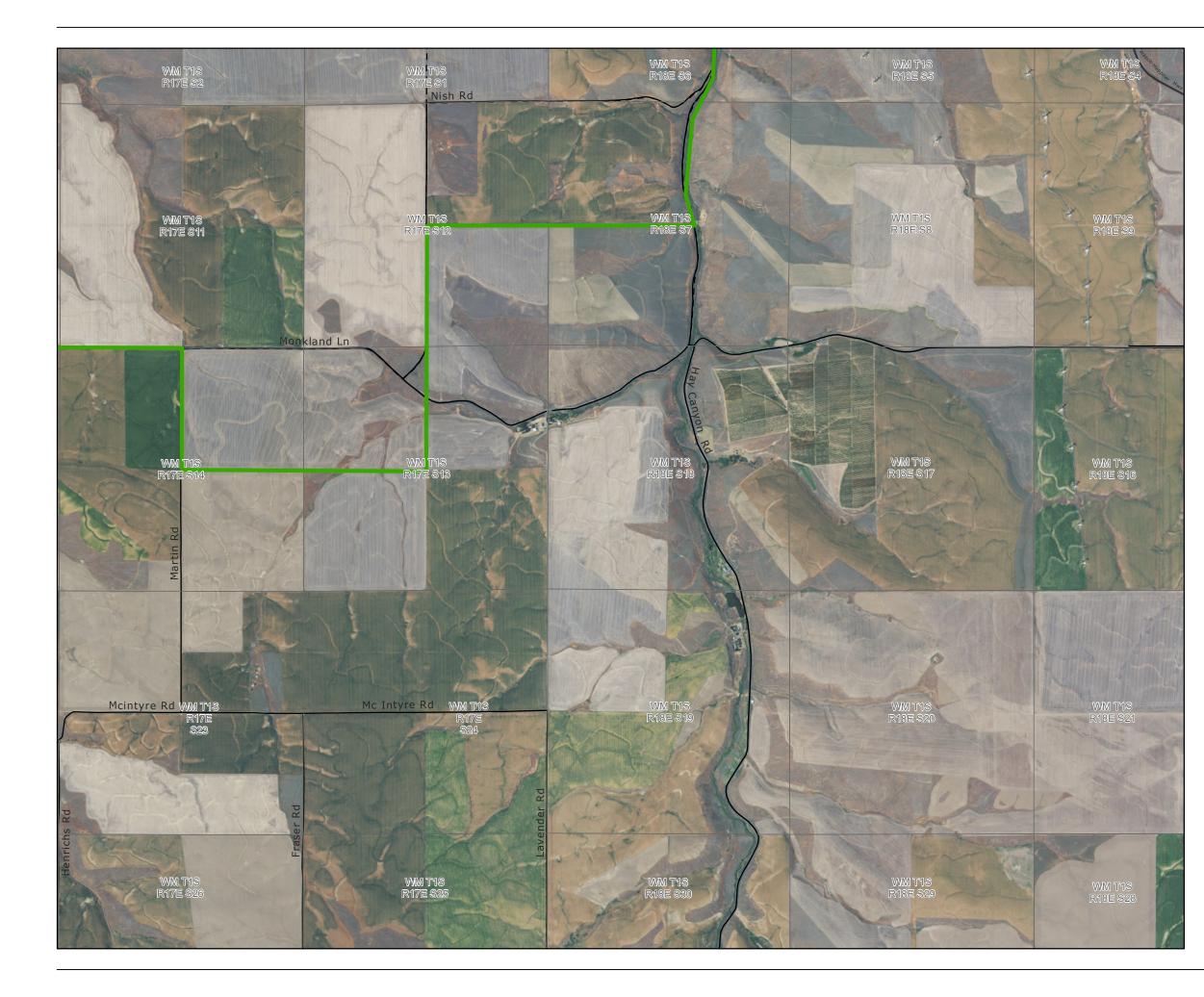
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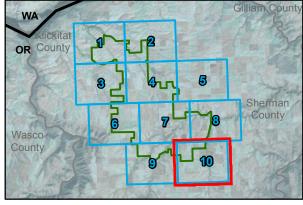
1 inch equals 0.38 miles

ATTACHMENT 2 - Page 9 of 10

Aerial Reconnaissance Third Supplement to Golden Hills Wind Project Request for Amendment No. 3







Facility Site Boundary
 Interstate or Highway
 Public Road (Paved)
 Public Road (Gravel)
County Boundary
Public Lands Survey Section

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl Data Sources: Wasco Co. GIS, 2015; Orion Renewable Energy Group LLC, 2015; BLM (2015); WSDOT; ODOT; US Census Bureau; USDA; ESRI Imagery: USDA NAIP June, 2014

0.5 Miles 0.25

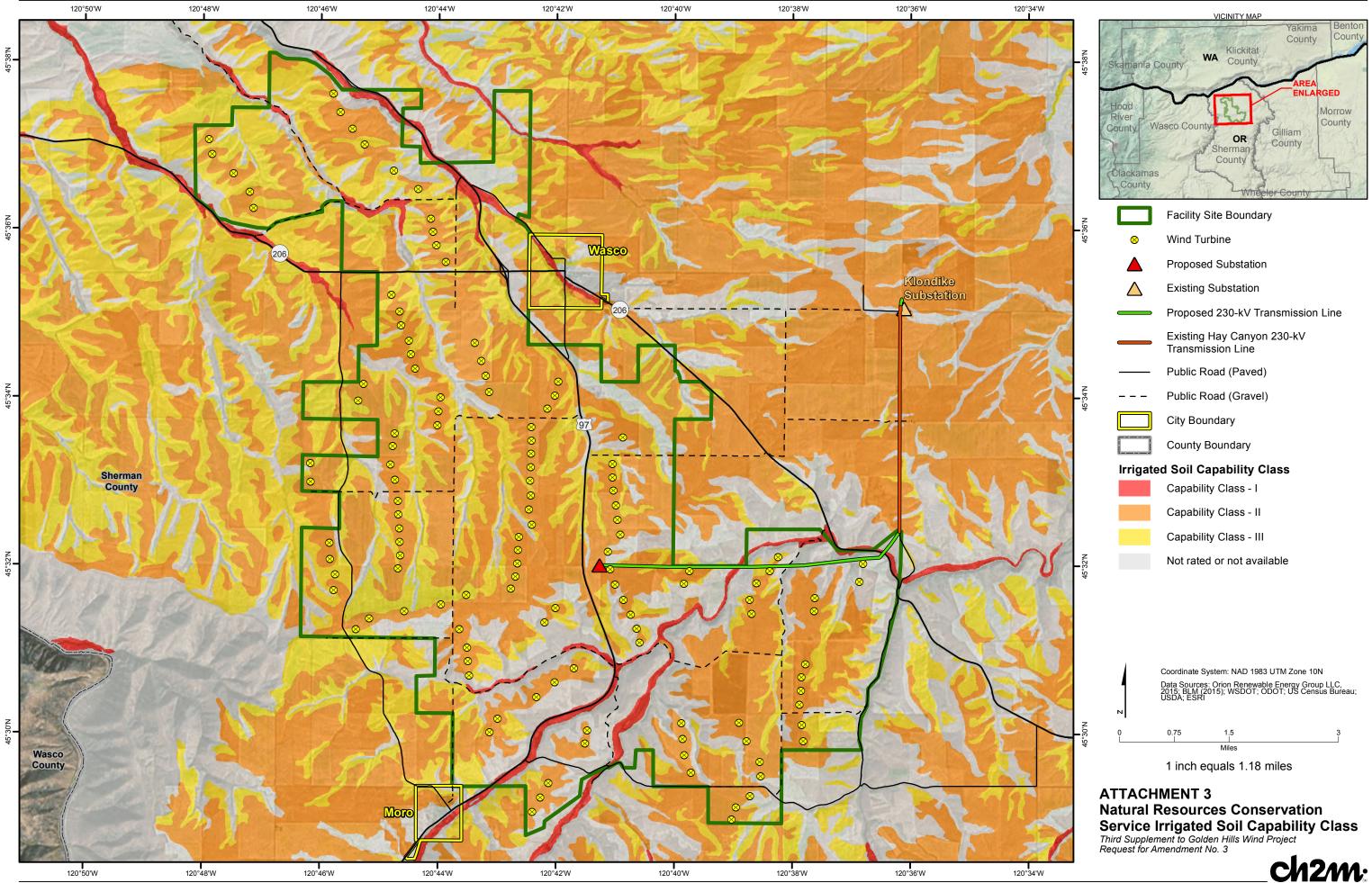
1 inch equals 0.38 miles

ATTACHMENT 2 Page 10 of 10

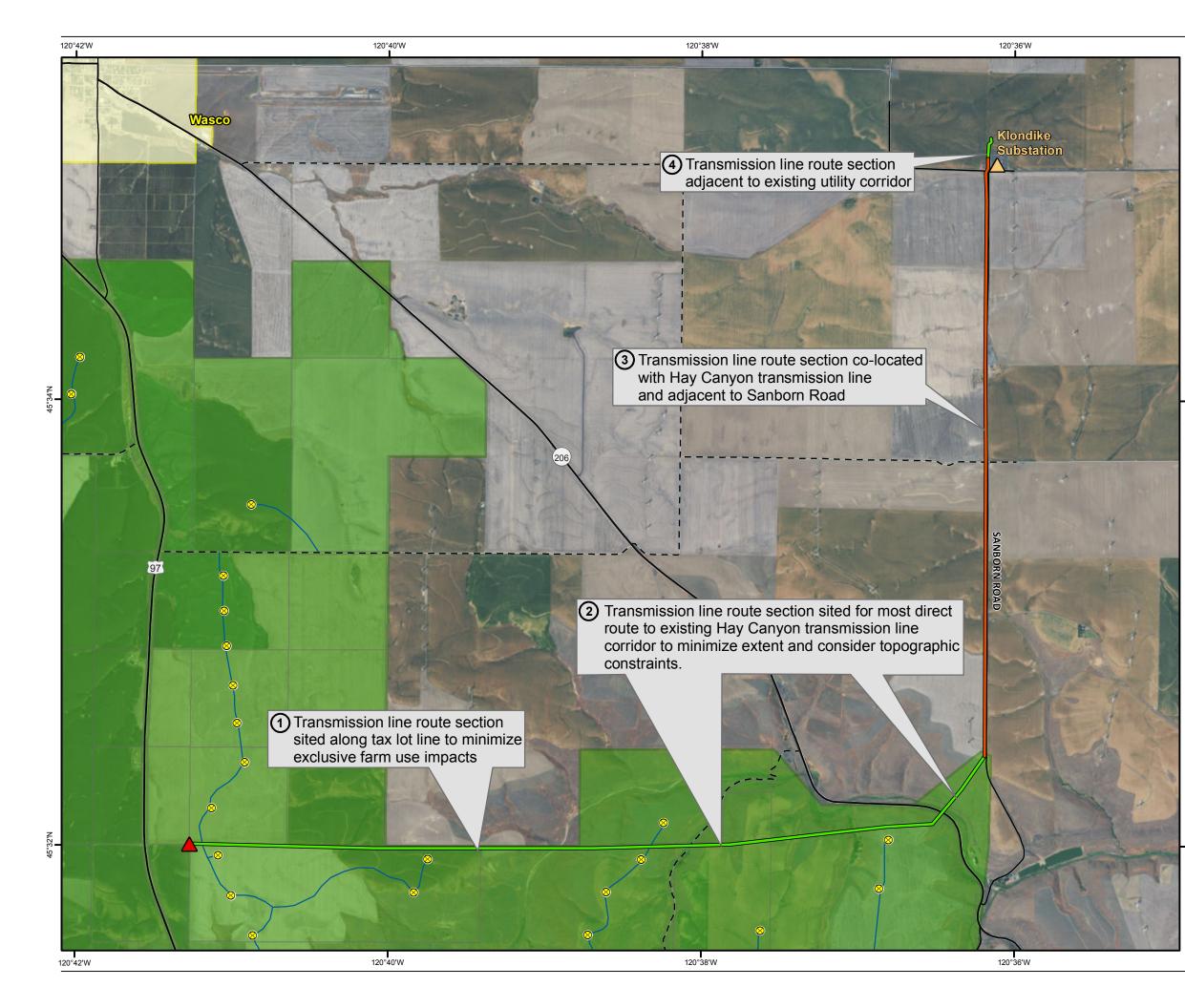
Aerial Reconnaissance Third Supplement to Golden Hills Wind Project Request for Amendment No. 3

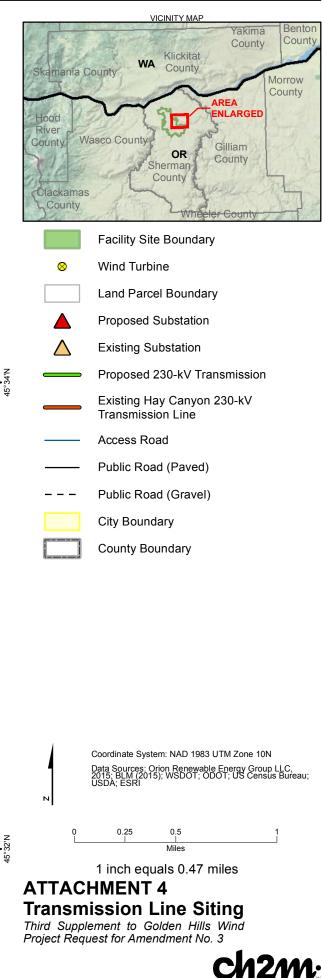


Attachment 3 Natural Resources Conservation Service Irrigated Soil Capability Class



Attachment 4 Transmission Line Siting





Attachment 5 Observed Farm Practices

c/o Orion Renewable Energy Group LLC 155 Grand Avenue, Suite 706 Oakland, CA 94612 Phone: (510) 267-8921 Fax: (510) 267-8911

November 18, 2016

Todd Cornett Siting Division Administrator ODOE 625 Marion Street NE Salem, OR 97301-3737

Re: Response to ODOE Request for Additional Information, Existing Land Uses in Golden Hills Site Boundary and Surrounding Area

Dear Todd:

The Oregon Department of Energy ("ODOE") has requested additional information concerning the current accepted farm practices within the Golden Hills site boundary and the surrounding area. I have visited the site and the surrounding area numerous times, including a site visit as recently as September 2016. This letter confirms my observations of the existing land use practices at the site and area surrounding the project location.

The accepted farm practices in this area are primarily dryland wheat farming with regular fallow intervals. Currently, the land within the site boundary is used primarily for dryland wheat farming of approximately 23,885 acres. The surrounding area, which was described in Exhibit K of the Application for Site Certificate as 0.5 mile from project facilities, is also predominately in dryland wheat production.

Thank you for your consideration and time on this project.

Very truly yours,

tipan NG

Ryan McGraw Head of Asset Management