HALEY ALDRICH

Oregon Renewable Energy Siting Assessment (ORESA)

Walter Adams, Senior Technical Expert, Haley & Aldrich

NEBC Business and Environment Conference

December 2024

OREGON DEPARTMENT OF ENERGY

OREGON Department of Land Conservation & Development

INSTITUTE FOR NATURAL RESOURCES

NAS WHIDBEY ISLAND

ORESA

ORESA PROJECT OVERVIEW

- The Oregon Renewable Energy Siting Assessment (ORESA) was funded through a $1.1 million grant from the U.S. Department of Defense, with approval by the Legislature in 2019.

- The grant team included the Oregon Department of Energy, the Department of Land Conservation & Development, and Oregon State University's Institute for Natural Resources.

- The project was completed in June 2022. The key deliverable was the Mapping and Reporting Tool which is maintained on the Oregon Explorer website.

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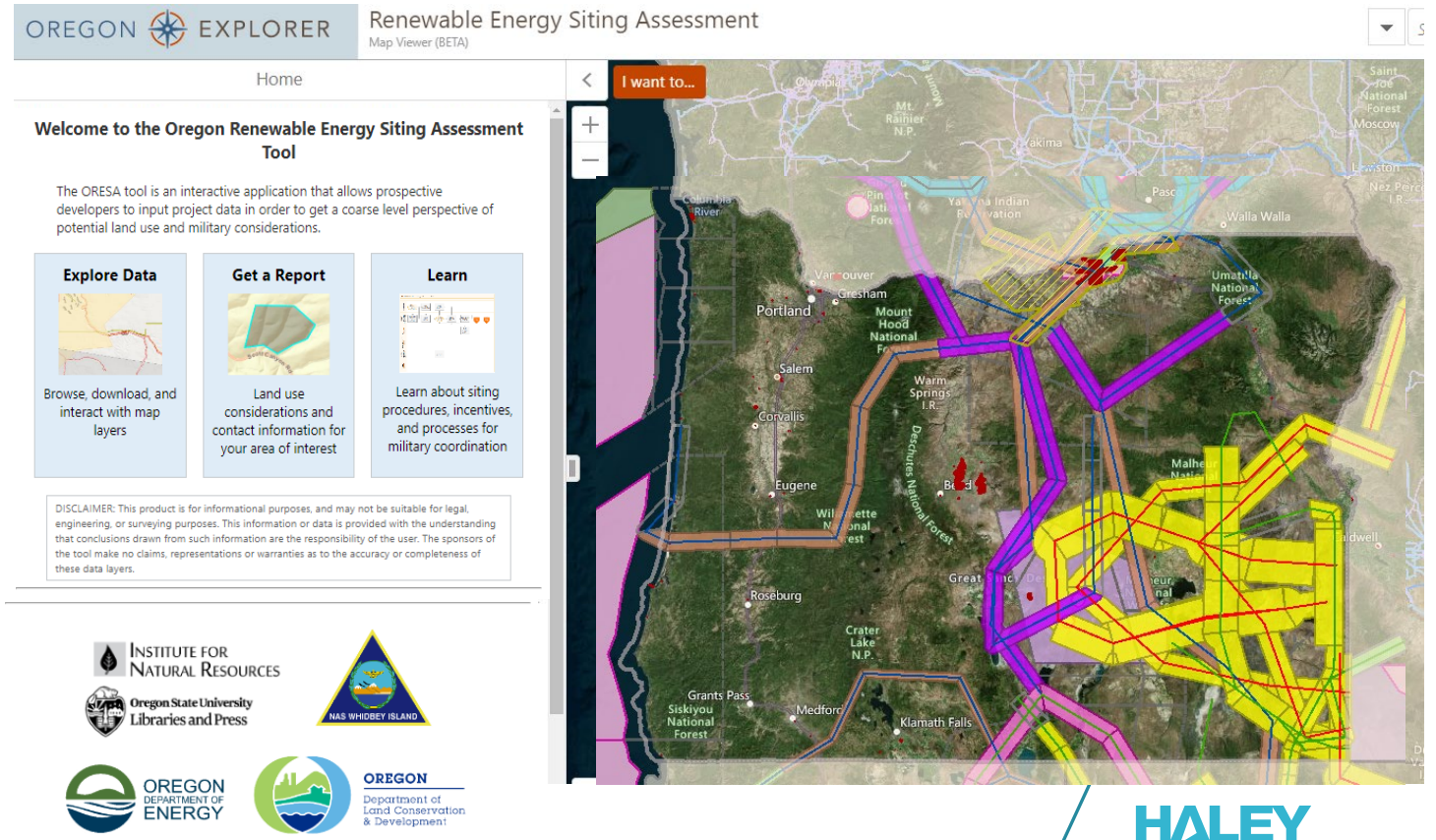
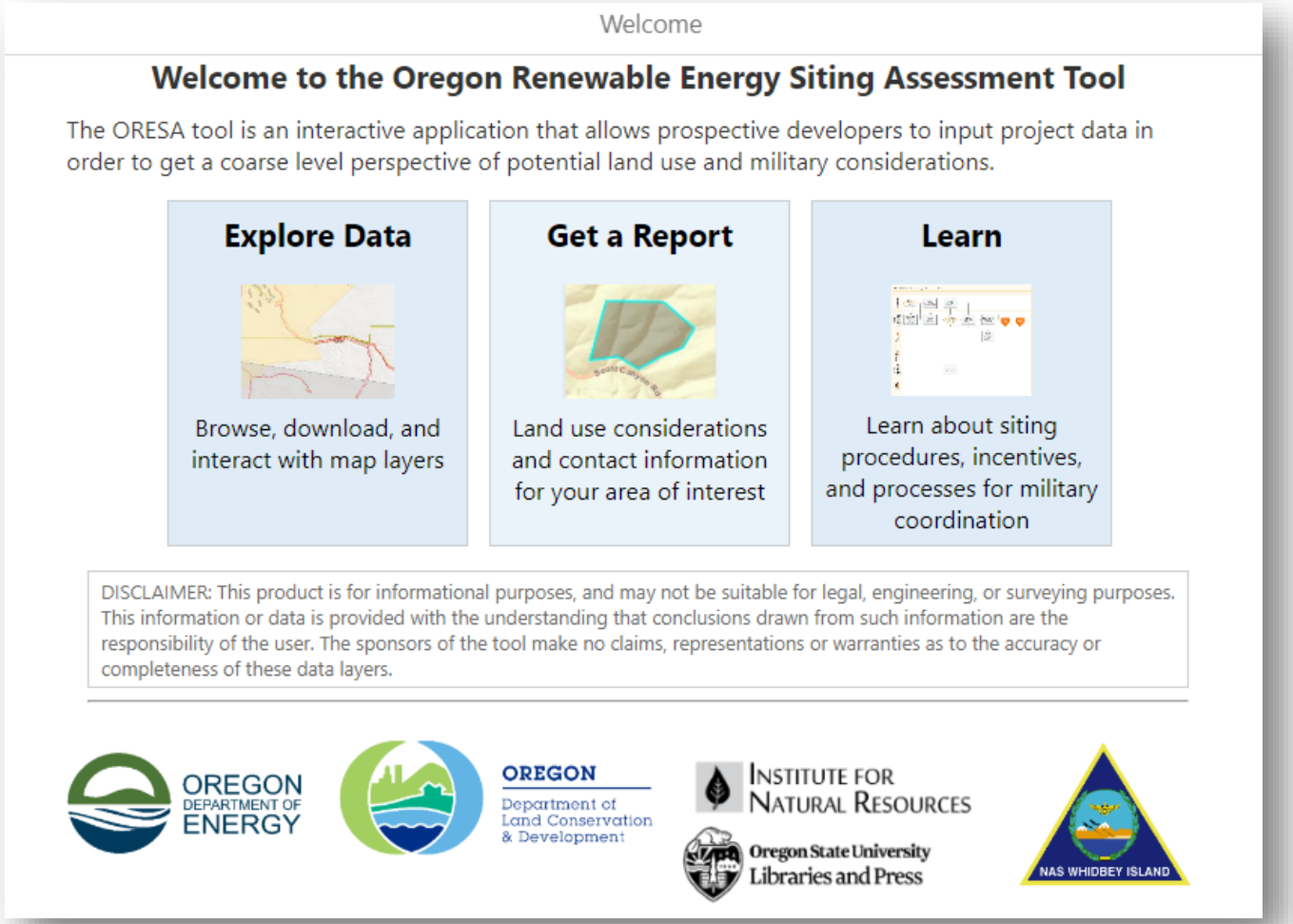
MAPPING AND REPORTING TOOL

- Housed on Oregon Explorer with data related to renewable energy; military; economic development; land use; natural resources; and other regulatory or process considerations.
- Development involved stakeholders to help define use cases, data exploration needs and reporting functionality.
- Tool supports a more comprehensive understanding of renewable energy and supports early notification & coordination with DoD.



Tool Review



https://tools.oregonexplorer.info/OE_HtmlViewer/Index.html?viewer=renewable

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Layers

Add Layers | Upload | Re-Order | Toggle Legend

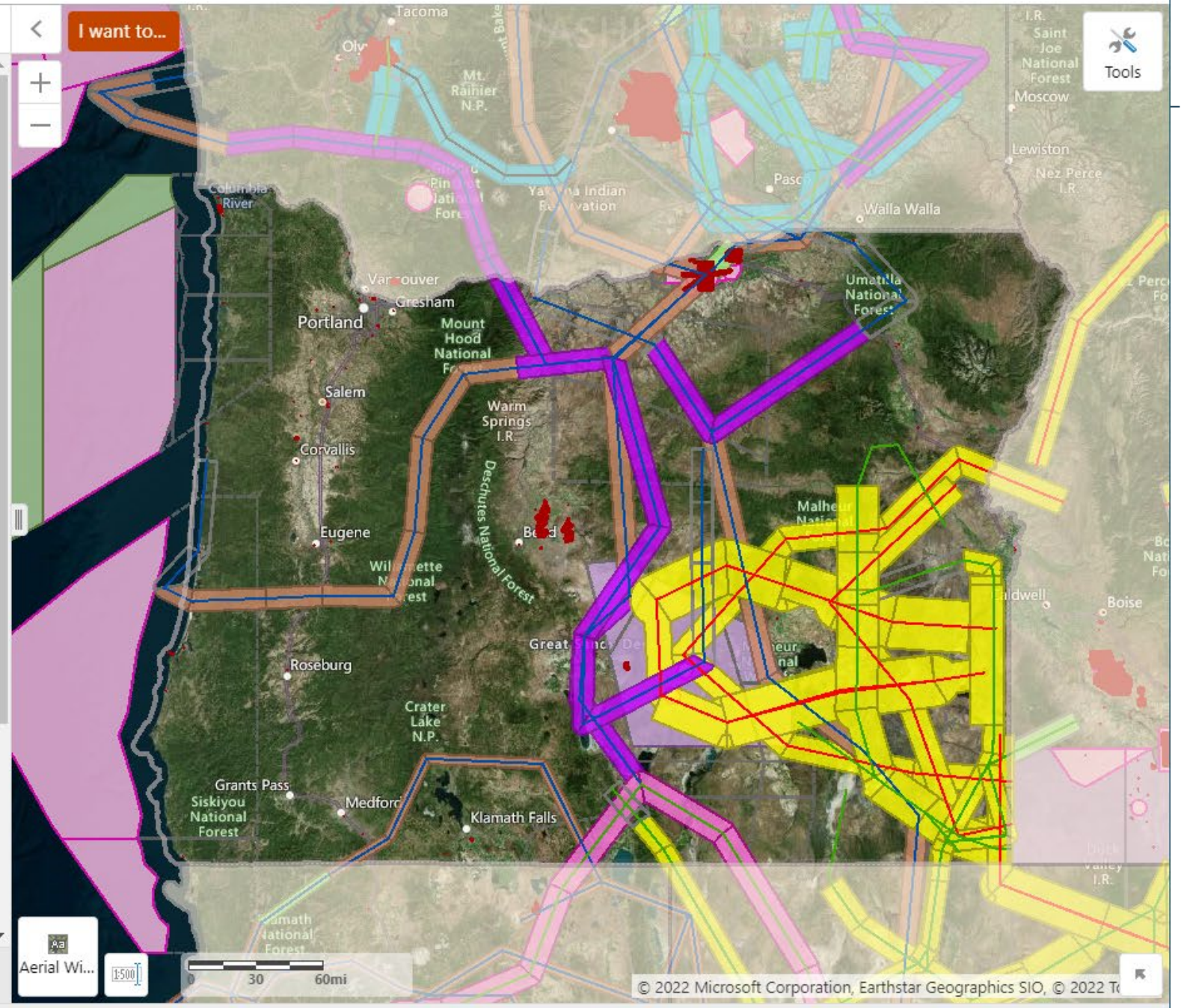
All Available Layers

Filter Layers... | Filter

- Military Training Areas
  - Military Training Routes
    - Military Training Route Centerline
    - Military Training Route Corridor Floor Elevation (AGL)
  - Military Special Use Airspace Floor Elevation (AGL)
    - Military Special Use Airspace Floor Elevation (AGL)
    - Boardman Geographic Area of Concern
    - Installations, Ranges, and Training Areas
  - Other Military Operational Areas
- Energy
- Natural Resource Considerations
- Community Considerations
- National Register of Historic Places
- Administrative Boundaries and Planning

I want to...

Tools



Home | Layers | Renewable Energy Siting...

Layers

- [x] Energy
  - [x] Energy Infrastructure
    - [ ] Substations
    - [x] Transmission Lines
    - [ ] Wind Turbines
    - [x] ODOE Facilities Database
      - [ ] ODOE Facilities Database (Residential)
      - [x] ODOE Facilities Database (Commercial and Utility)
      - [ ] Oregon Energy Facility Siting Council (EFSC) Facilities
      - [ ] Natural Gas Pipelines
  - [ ] Solar
  - [ ] Wind
  - [ ] Geothermal
  - [ ] Biomass
  - [ ] Hydroelectric
  - [ ] Marine and Hydrokinetic
- [ ] Natural Resource Considerations
- [ ] Community Considerations

I want to...

Tools

Aerial Wi...

1:500

0 30 60mi

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Search...

Layers

- [x] Natural Resource Considerations
  - [x] Protected Areas
  - [ ] Wetlands
  - [x] Species and Habitats
  - [x] Farmland
  - [ ] Water Rights by Use
  - [ ] Hazards
  - [ ] Slope
  - [ ] Air Quality Maintenance and Nonattainment Areas
  - [ ] Hydrography and Watersheds
    - [ ] Bathymetric Contours
    - [ ] Rocky Shore Managed Areas
    - [ ] Special Area Viewsheds
    - [ ] Special Area Viewpoints
  - [ ] Oregon Scenic Byways
    - [ ] Oregon State Scenic Waterway Classification Areas
    - [ ] Oregon State Scenic Waterway Water Courses
  - [ ] BLM-Administered Land Wind Energy Development Exclusions and Resource Sensitivities

I want to...

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Home Layers

Report Options

Default Report Sections

- Site Information
- Military Training Areas
- Contacts

Optional Report Sections

Check which sections to include in your report.

All | None

- [x] **Energy Considerations**
- [x] **Natural Resource Considerations**
- [x] **Community Considerations**

Results

- (•) All queries/results
- ( ) Include only intersected/relevant results

<- Back | Next ->

Renewable Energy Siting Assessment Project Information

*Information generated by this report will **only be available to you** and not shared unless you choose to initiate contact to coordinate further exploration and development.*

Site Name

Test

Select Development Type(s)

Select if your project is planned to be onshore or offshore

- (•) Onshore development
- ( ) Offshore development

On-shore development options

- [x] Wind (onshore)
- [x] Solar Photovoltaic
- [ ] Geothermal
- [ ] Other/hybrid (onshore)

Maximum Height (ft)

Anticipated max height of tallest structure in feet.

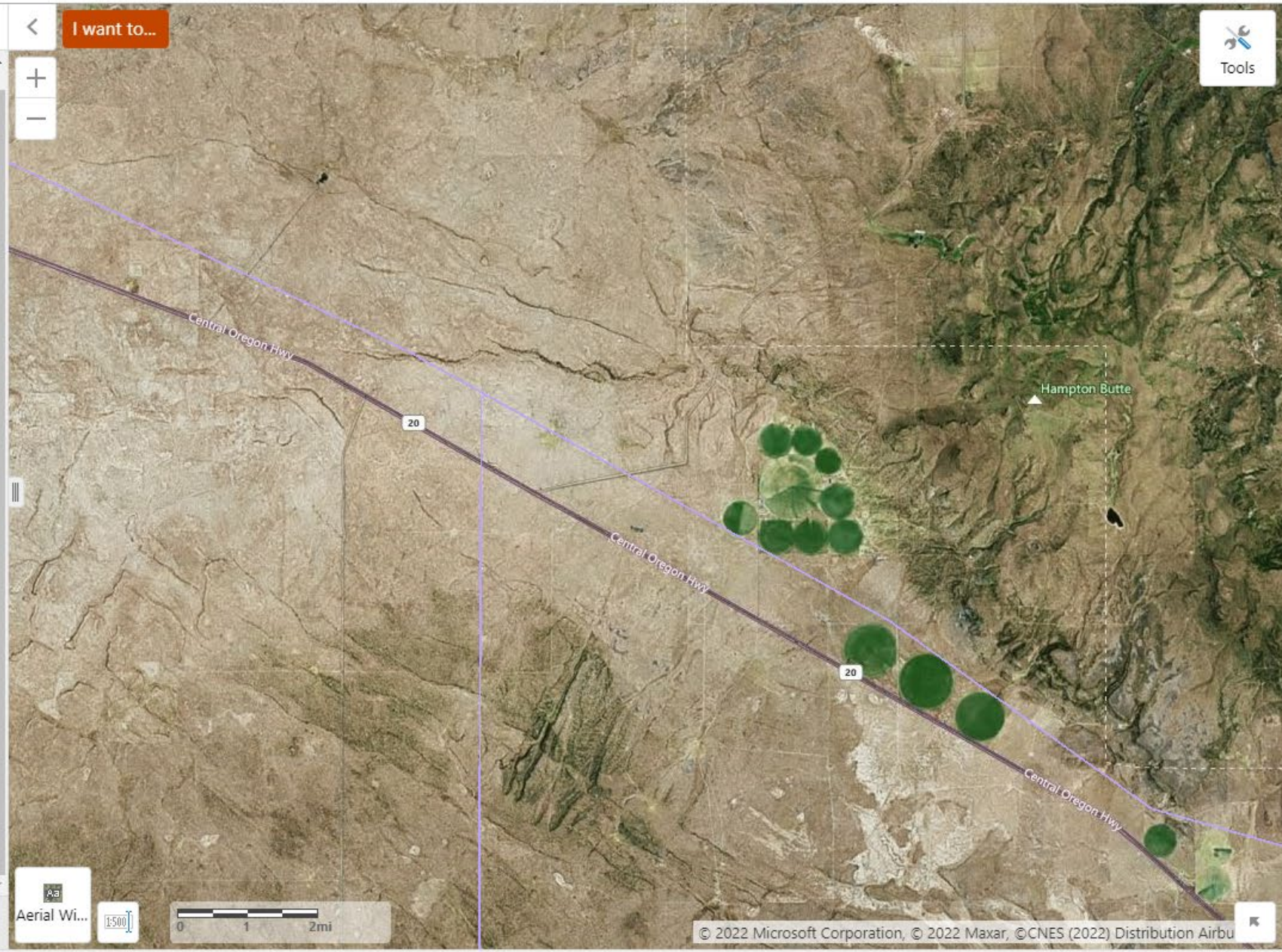
400

MegaWatts

Anticipated production of energy in MegaWatts.

200

Cancel | Next >



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Renewable Energy Siting Assessment

Mapping and Reporting Tool

Search...

Layers

- Energy
- Natural Resource Considerations
- Community Considerations
  - Economic Development Zones
    - Enterprise Zones
    - Opportunity Zones
    - RRED Zones
  - Energy Use Intensity In Residential Housing
  - Affordable Housing Assessment
  - Race and Ethnicity
  - Frontier and Remote (FAR) Zip Code Areas
  - EPA EJScreen
  - EPA RE-Powering Mapper Layers
- National Register of Historic Places
- Administrative Boundaries and Planning
- Land Cover and Ownership
- Transportation
- Unmanned Aircraft Systems (UAS) Flight Restrictions

Home | Layers

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Renewable Energy Siting Assessment

Mapping and Reporting Tool

Search...

Renewable Energy Siting Assessment Project Information

Visible layer(s) | Project Footprint | PDF Report | Help

Report Sections — Show All

Site Information | Military Areas 3 | Energy Considerations

Natural Resources 10 | Community Considerations 1 | Contacts

Site Information

View: All

Site Name:	test
Project Type(s):	Wind (onshore),Solar Photovoltaic
Maximum Height (ft):	400
MegaWatts:	200
Area:	6,036 Acres

Admin Boundaries & Planning

Boundary/Planning Area	Value/Intersects	View
State Land Inventory System	Yes	
In Coastal Zone	No	
USFWS Region	Region 1: Pacific Region	
USFS District(s)	No	
BLM District(s)	Prineville District	
Comprehensive Plan Designation	AGRICULTURE, RURAL NATURAL RESOURCE/OPEN SPACE	

Home | Layers | Renewable Energy Siting...

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Renewable Energy Siting Assessment

Mapping and Reporting Tool

Search...

Home

Welcome to the Oregon Renewable Energy Siting Assessment Tool

The ORESA tool is an interactive application that allows prospective developers to input project data in order to get a coarse level perspective of potential land use and military considerations.

Explore Data

Browse, download, and interact with map layers

Get a Report

Land use considerations and contact information for your area of interest

Learn

Learn about siting procedures, incentives, and processes for military coordination

DISCLAIMER: This product is for informational purposes, and may not be suitable for legal, engineering, or surveying purposes. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user. The sponsors of the tool make no claims, representations or warranties as to the accuracy or completeness of these data layers.

Institute for Natural Resources

Oregon State University Libraries and Press

NAS Whidbey Island

Oregon Department of Energy

Oregon Department of Land Conservation & Development

Home | Layers

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0 30 60mi

Still loading Energy Infrastructure map data...

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Renewable Energy Siting Assessment

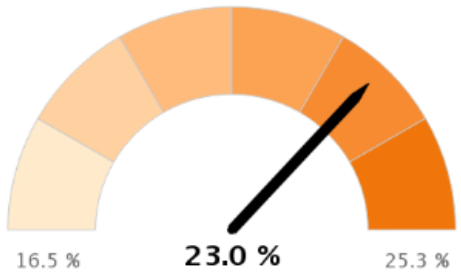
Mapping and Reporting Tool

Search...

Renewable Energy Siting Assessment Project Information

Estimated Utility-Scale Solar

Capacity Factor



Estimated Utility-Scale Solar ⓘ Map

Electric Substations ⓘ

Substation Name	Distance	Pin
HAMPTON	0.0 Miles	
CHRISTMAS VALLEY	0.0 Miles	
TAP203395	0.0 Miles	
TAP203396	0.0 Miles	
SAND SPRINGS	29.1 Miles	

Transmission Lines ⓘ

Owner	Voltage	Distance	Pin
BONNEVILLE POWER ADMINISTRATION	115	0.0 Miles	
BONNEVILLE POWER ADMINISTRATION	115	0.0 Miles	

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1:500

0 0.5 1mi

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Renewable Energy Siting Assessment

Mapping and Reporting Tool

Search...

Renewable Energy Siting Assessment Project Information

Natural Resource Considerations

View: All

Show results (10) Show all queries (47)

PROTECTED AREAS

Layer	Value/Intersects	View
BLM Visual Resource Management	VRM 3	

FARMLAND

Layer	Value/Intersects	View
Non-Irrigated Soil Capability Class	6	
Farm Soil Class	NA	

SPECIES AND HABITATS

Layer	Value/Intersects	View
Pronghorn Essential and Limited Habitat	Yes	
Eastern Oregon Elk Winter Range	Yes	
Sage Grouse Core Areas	Yes	
Conservation Opportunity Areas	Brothers-North Wagontire	

WETLANDS

Layer	Value/Intersects	View
NHD Waterbody		
NHD Streams and Rivers	Yes	
Statewide Wetlands Inventory (NWI)	Yes	

Home Layers Renewable Energy Siting...

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Tools

VRM 4 - Modification of the character of the landscape is allowed

VRM 3 - Partially retain the existing character of the landscape

VRM 2 - Largely retain the existing character of the landscape

Van Lake Rd

Central Oregon Hwy

20

Aerial Wi...

0 0.5 1mi

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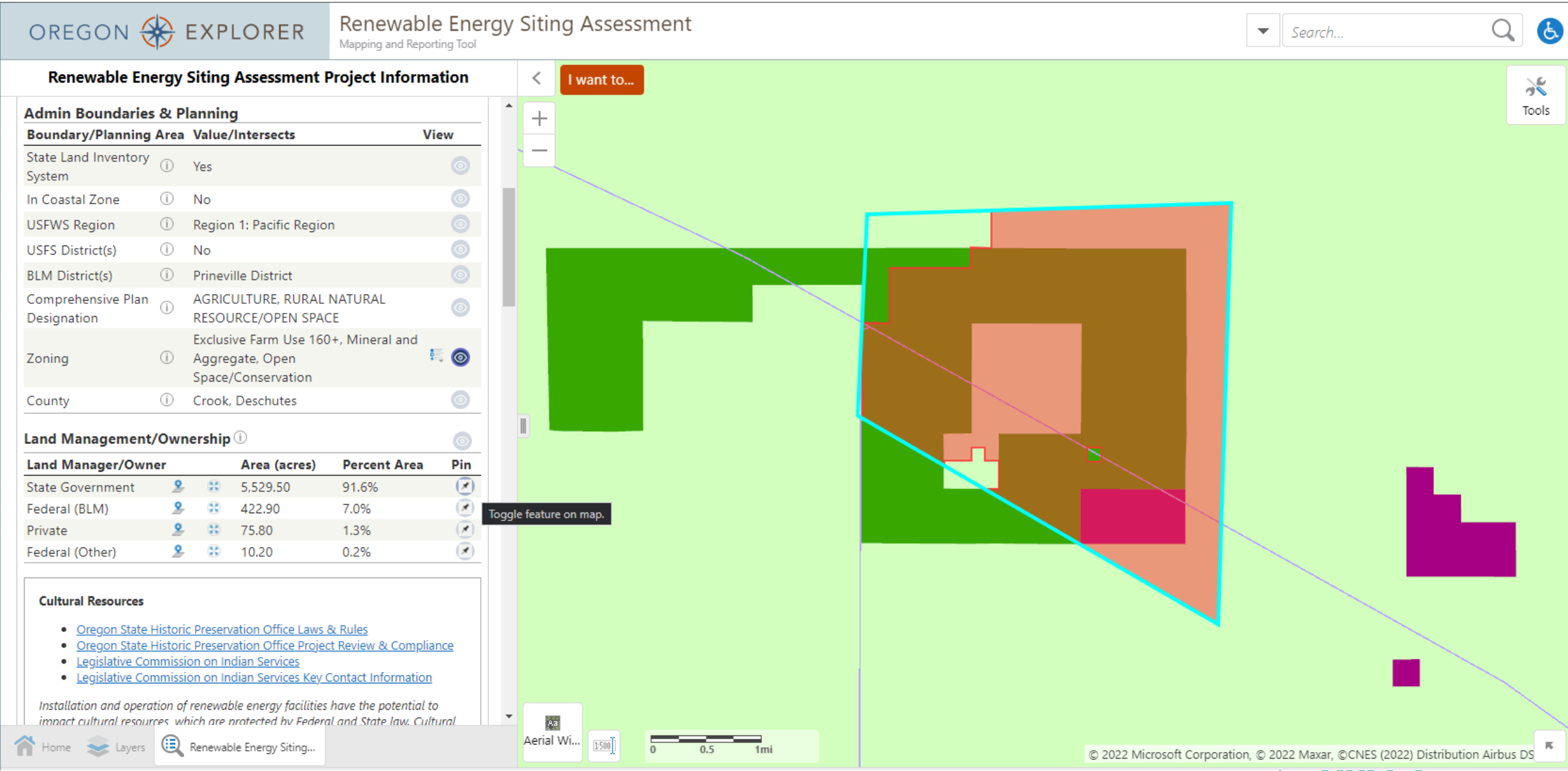
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Mapping and Reporting Tool
Search...
Renewable Energy Siting Assessment Project Information
I want to...
Tools
Admin Boundaries & Planning
Boundary/Planning Area
Value/Intersects
View
State Land Inventory System
Yes
In Coastal Zone
No
USFWS Region
Region 1: Pacific Region
USFS District(s)
No
BLM District(s)
Prineville District
Comprehensive Plan Designation
AGRICULTURE, RURAL NATURAL RESOURCE/OPEN SPACE
Zoning
Exclusive Farm Use 160+, Mineral and Aggregate, Open Space/Conservation
County
Crook, Deschutes
Land Management/Ownership
Land Manager/Owner
Area (acres)
Percent Area
Pin
State Government
5,529.50
91.6%
Federal (BLM)
422.90
7.0%
Private
75.80
1.3%
Federal (Other)
10.20
0.2%
Toggle feature on map.
Cultural Resources
Oregon State Historic Preservation Office Laws & Rules
Oregon State Historic Preservation Office Project Review & Compliance
Legislative Commission on Indian Services
Legislative Commission on Indian Services Key Contact Information
Installation and operation of renewable energy facilities have the potential to
Home
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0.5
1mi
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Renewable Energy Siting Assessment Project Information

Natural Resources (10) | Community Considerations (1) | Contacts

Community Considerations

Layer		Value/Intersects	View
RRED Zones	ⓘ	Yes	
Opportunity Zones	ⓘ	No	
Enterprise Zones	ⓘ	No	

Additional Resources

- Oregon Department of Energy Incentives information
- Business Oregon Rural Renewable Energy Development (RRED) Zone Program
- Business Oregon Oregon Investment Advantage
- Business Oregon, Oregon Prospector Tool
- U.S. Energy Information Administration Renewable Energy Incentives information

Equity and Environmental Justice Resources

Oregon passed HB 4077 (2022) to develop a statewide equity mapping tool. Until that work is completed below are additional national scale resources to understand equity and environmental justice further.

- EJScreen EPA's Environmental Justice Screening and Mapping Tool
- Energy Justice Dashboard (BETA)
- Climate & Economic Justice Screening Tool
- Low-Income Energy Affordability Data (LEAD) Tool

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Tools

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Renewable Energy Siting Assessment Project Information

Custom Area

Area: : 6,036 Acres

Introduction

The Oregon Renewable Energy Siting Assessment (ORESA) project was funded through a $1.1 million U.S. Department of Defense Office of Local Defense Community Cooperation grant awarded to the Oregon Department of Energy, working with the Department of Land Conservation & Development and Oregon State University's Institute for Natural Resources.

The project sought to support military compatibility through coordination with local, regional, and state agencies, and raise awareness about the military through the ORESA project. The objective for the Oregon Renewable Energy Siting Assessment Map Viewer and Reporting Tool was to assemble baseline data to create a transparent, consistent collection of trusted, accurate information, without recommendations or endorsements

This tool is for illustrative and administrative purposes only. The map viewer and reports generated by it are not meant to replace the formal permitting process in the state of Oregon. The tool provides the approximate physical, environmental, management, and jurisdictional conditions of a selected area within Oregon. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user. The sponsors of the tool make no claims, representations or warranties as to the accuracy or completeness of these data layers.

Military Coordination

Since your specified area of interest for a possible development is near or intersects a military training area, installation, special use airspace, or geographic area of concern, it is important to coordinate AS EARLY AS POSSIBLE DURING the exploration of any projects with the military to ADDRESS possible issues in the future.

U.S. Navy
Kimberly Peacher
Email: kimberly.n.peacher.civ@us.navy.mil

Initiate Contact

NW DoD Regional Coordination Team Representitives
Kimberly Peacher
Email: kimberly.n.peacher.civ@us.navy.mil

Initiate Contact

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Renewable Energy Siting Assessment Project Information

Custom Area

Area: : 6,036 Acres

BLM District(s)

Prineville District
3050 N.E. 3rd Street Prineville, OR 97754
541-416-6700
BLM_OR_PR_Mail@blm.gov
https://www.blm.gov/office/prineville-district-office

US Fish & Wildlife

U.S. Fish and Wildlife Service (Pacific Region, Oregon Office)
911 NE 11th Ave. Portland, Oregon 97232
(503) 231-6120
null
https://www.fws.gov/pacific/

State Contacts

Oregon Department of Energy
550 Capitol St. NE, 1st Floor Salem, OR 97301
(503) 378-4040
https://www.oregon.gov/energy/Pages/index.aspx

Oregon Department of Land Conservation and Development
635 Capitol Street NE, Suite 150, Salem, OR 97301
(503) 373-0050
dlcd.info@state.or.us
https://www.oregon.gov/LCD/pages/index.aspx

Oregon Military Department
1776 Militia Way SE, Salem, OR 97309-5047
(503) 584-3980
https://www.oregon.gov/OMD/Pages/Home.aspx

Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive SE Salem, OR 97302
(503) 947-6000
odfw.info@state.or.us
https://www.dfw.state.or.us/

Oregon Parks and Recreation Department State Historic Preservation Office
725 Summer Street NE, Suite C Salem, OR 97301
(503) 986-0707
oregon.heritage@oregon.gov
https://www.oregon.gov/oprd/OH/Pages/default.aspx

Legislative Commission on Indian Services
900 Court St. NE, Room 167, Salem, OR 97301
(503) 986-1067
LCIS@oregonlegislature.gov
https://www.oregonlegislature.gov/cis

Oregon Department of State Lands
775 Summer St. NE, Suite 100 Salem, OR 97301-1279
(503) 986-5200
https://www.oregon.gov/dsl/Pages/index.aspx

Oregon Department of Aviation
3040 25th Street SE, Salem, OR 97302
(503) 378-4880
aviation.mail@aviation.state.or.us
https://www.oregon.gov/aviation/Pages/index.aspx

Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600 Portland, OR 97232-4100
503-229-5696
https://www.oregon.gov/DEQ/Pages/index.aspx

Oregon Water Resources Department
725 Summer Street NE, Suite A Salem, OR 97301
503-986-0900
https://www.oregon.gov/owrd/Pages/index.aspx

Oregon Department of Forestry
2600 State Street, Salem, Oregon 97310
503-945-7200
forestryinformation@oregon.gov
https://www.oregon.gov/odf/Pages/index.aspx

Public Utility Commission of Oregon
201 High Street SE, Suite 100, Salem, OR 97301-3398
503-373-7394
https://www.oregon.gov/PUC/Pages/default.aspx

Renewable Energy Siting Assessment Project Information

Military Training Areas

View: All

Your project may pose a safety concern, physical and/or visual obstruction, or interfere with operations.

Your proposed site intersects with:

- Military Training Route Corridor Floor Elevation (AGL)
- Military Special Use Airspace Floor Elevation (AGL)

Initiate Contact

Military Training Route Corridor

Areas with minimum flight floor elevation of 500ft or less above ground level

Elevation (ft)	Service	Area (Acres)	Percent Area	Pin
500	U.S. Navy	5,944.10	98.4%	
200	U.S. Navy	6,038.60	100.0%	

Military Special Use Airspace

Areas with minimum flight floor elevation of 500ft or less above ground level

Elevation (ft)	Agency	Area (Acres)	Percent Area	Pin
500	FAA, SEATTLE ARTCC	6,038.60	100.0%	

Boardman Geographic Area of Concern

No data intersected your area.

Home | Layers | Renewable Energy Siting...

Lat: 43.74555° N

Links

- Oregon Explorer Landing Page: https://oregonexplorer.info/
- ORESA Mapping and Reporting Tool: https://tools.oregonexplorer.info/OE_HtmlViewer/Index.html?viewer=renewable
- Washington CESA Tool Landing Page: https://cesa-wacommerce.hub.arcgis.com/
- Washington CESA Mapping Tool (prototype): https://fortress.wa.gov/com/cesa/

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