

# Yakima County

Siting of Solar Power Production Facilities

# Background Information

- There has been an influx of solar facilities trying to locate moderate to large-scale solar and wind power production facilities in the rural and agricultural areas of Eastern Washington.

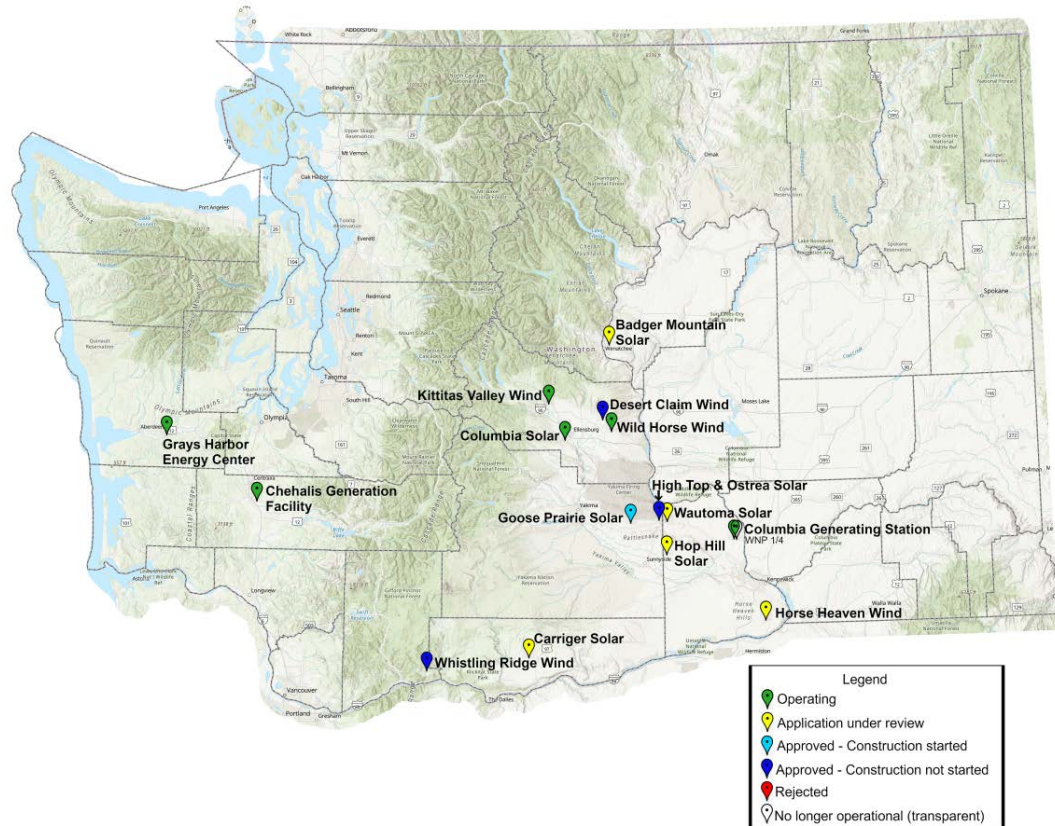


Image Source - EFSEC

# Background Information

- ▶ Solar companies can seek approval from the Washington State Energy Facility Siting Evaluation Council (EFSEC) or through the local jurisdiction (i.e., county or city planning department) for which the facility is located.
- ▶ Most counties and cities in Eastern Washington lack the necessary development regulations or siting criteria to effectively address the state's alternative energy agenda.
- ▶ EFSEC has approved three of the four large solar facilities in Yakima County with little to no regard to impacts to agriculture, fire protection or loss of water rights.

# Background Information

- ▶ One of the four current large-scale solar facility choose not utilize the EFSEC approval process and applied directly with Yakima County for approval.
- ▶ Yakima County lacked the necessary development regulations or siting criteria to evaluate the solar facility, thus the facility was able to get approval by the Yakima County Hearing Examiner.
- ▶ Yakima County adopted a land use moratorium on solar facilities until new development standards could be developed to adequately locate and regulate the siting of solar facilities.
- ▶ In the process of developing new development regulations and siting criteria for solar facilities a number of key issues arose.

# Solar Facility Siting Issues

- ▶ Conflicts with the Washington State Growth Management Act (GMA).
- ▶ Lack of Available Fire Protection
- ▶ Potential Loss of Water Rights

# Conflicts with the GMA

## EFSEC vs. Local Jurisdictions

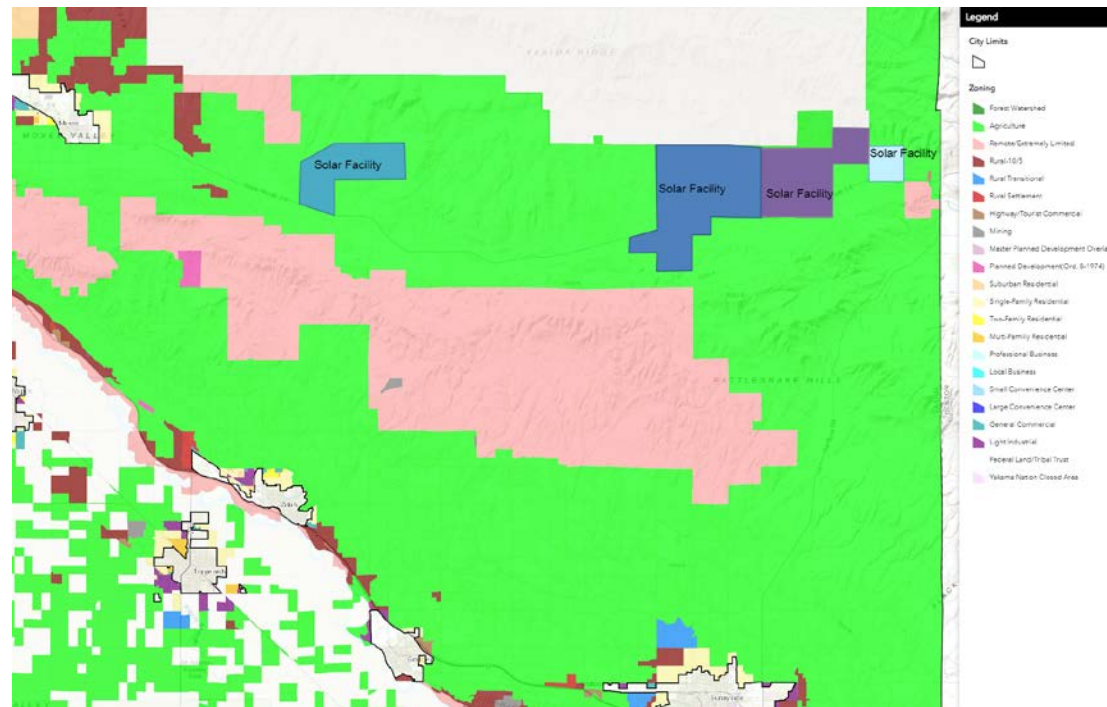
- ▶ The Washington State Legislature amended RCW 36.70A, the Washington State Growth Management Act to specifically exempt EFSEC from having to meet the requirements of the Act when evaluating energy facilities for approval.
- ▶ In contrast, GMA does not exempt counties or cities from having to meet the requirements of the Act when evaluating energy facilities for approval.
- ▶ Approvals and/or denials made by local planning departments are subject to appeal for potential violations of GMA, where EFSEC is not. This places an extraordinary burden on local jurisdictions to defend its decision, whether for approval or denial.

# Conflicts with the GMA

## EFSEC vs. Local Jurisdictions

### ► WHY IS THIS CONFLICT SO IMPORTANT?

- To date all solar facilities that have been approved by EFSEC in Yakima County are in the Agricultural Zoning District.



# Conflicts with the GMA

## EFSEC vs. Local Jurisdictions

### ► WHY IS THIS CONFLICT SO IMPORTANT?

- Those approvals converted over 5000 acres from agricultural uses to non-agricultural uses.
- Yakima County ranks 1<sup>st</sup> in the state for agricultural sales (roughly \$2 billion annually) and ranks 9<sup>th</sup> in the nation. Agriculture is the primary economic engine for most, if not all Eastern Washington counties.
- Under GMA, counties must identify, designate and protect agricultural lands of long-term commercial significance from conversion to non-agricultural uses. There is no exemption available to counties from that requirement, agriculture must be protected.



# Growth Management Act

## Goal #8 - Natural Resource Industries

### **RCW 36.70A.020**

#### **Planning goals.**

The following goals are adopted to guide the development and adoption of comprehensive plans and development regulations of those counties and cities that are required or choose to plan under RCW 36.70A.040.

(8) Natural resource industries. Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands and productive agricultural lands and discourage incompatible uses.

# Growth Management Act

## Designating Natural Resource Lands

### **RCW 36.70A.170**

#### **Natural resource lands and critical areas—Designations.**

(1) On or before September 1, 1991, each county, and each city, shall designate where appropriate:

(a) Agricultural lands that are not already characterized by urban growth and that have long-term significance for the commercial production of food or other agricultural products;

# Growth Management Act

## Classifying Natural Resource Lands

### **RCW 36.70A.050**

**Guidelines to classify agriculture, forest, and mineral lands and critical areas.**

(1) Subject to the definitions provided in RCW 36.70A.030, the department shall adopt guidelines, under chapter 34.05 RCW, no later than September 1, 1990, to guide the classification of: (a) Agricultural lands; (b) forestlands; (c) mineral resource lands; and (d) critical areas.

(3) The guidelines under subsection (1) of this section shall be minimum guidelines that apply to all jurisdictions, but also shall allow for regional differences that exist in Washington state. The intent of these guidelines is to assist counties and cities in designating the classification of agricultural lands, forestlands, mineral resource lands, and critical areas under RCW 36.70A.170.

# Growth Management Act

## Classifying Natural Resource Lands

**(3) Lands should be considered for designation as agricultural resource lands based on three factors:**

**(a) The land is not already characterized by urban growth.**

**(b) The land is used or capable of being used for agricultural production.**

**(i) Lands that are currently used for agricultural production and lands that are capable of such use must be evaluated for designation.**

**(ii) In determining whether lands are used or capable of being used for agricultural production, counties and cities shall use the land-capability classification system of the United States Department of Agriculture Natural Resources Conservation Service..**

**(c) The land has long-term commercial significance for agriculture. In determining this factor, counties and cities should consider the following nonexclusive criteria, as applicable:**

# Growth Management Act

## Classifying Natural Resource Lands – Long Term Commercial Significance

**(c) The land has long-term commercial significance for agriculture. In determining this factor, counties and cities should consider the following nonexclusive criteria, as applicable:**

- ▶ Prime and unique soils
- ▶ Availability of public services – roads
- ▶ Tax status – Ag exemption
- ▶ Proximity to UGAs
- ▶ Parcel size
- ▶ Land use pattern in area – compatibility with agricultural practices
- ▶ Land Values
- ▶ Proximity to markets

# Growth Management Act

## Classifying Natural Resource Lands – Long Term Commercial Significance

Notice what was missing from the list on the previous slide?

► The availability of Water.

Whether a property has or doesn't have irrigation has no bearing on whether a County should or shouldn't designate and protect the property as long-term commercial significance.

Why? – If the soil/topography/climate and the use of best management practices will allow a non-irrigated property to grow a crop of value or need, then the property is considered agriculture of long-term commercial significance.

***Again, irrigation is not a determining factor.***

# Growth Management Act

## Development Regulations - Natural Resource Lands

### **RCW 36.70A.060**

#### **Natural resource lands and critical areas—Development regulations.**

(1)(a) Each county that is required or chooses to plan under RCW 36.70A.040, and each city within such county, shall adopt development regulations on or before September 1, 1991, to assure the conservation of agricultural, forest, and mineral resource lands designated under RCW 36.70A.170.

# Growth Management Act

## Development Regulations - Natural Resource Lands

### ► **RCW 36.70A.177**

**Agricultural lands—Innovative zoning techniques—Accessory uses.**

(3) Accessory uses allowed under subsection (2)(a) of this section shall comply with the following:

(a) Accessory uses shall be located, designed, and operated **so as to not interfere with, and to support the continuation of, the overall agricultural use of the property** and neighboring properties, and shall comply with the requirements of this chapter;

(b) Accessory uses may include:

(i) Agricultural accessory uses and activities, including but not limited to the storage, distribution, and marketing of regional agricultural products from one or more producers, agriculturally related experiences, or the production, marketing, and distribution of value-added agricultural products, including support services that facilitate these activities; and

(ii) Nonagricultural accessory uses and activities as long as they are consistent with the size, scale, and intensity of the existing agricultural use of the property and the existing buildings on the site. Nonagricultural accessory uses and activities, including new buildings, parking, or supportive uses, shall not be located outside the general area already developed for buildings and residential uses and **shall not otherwise convert more than one acre of agricultural land to nonagricultural uses**; and

***Keep in mind, a solar facility is NOT an accessory use to Ag, it would be considered a non-accessory use, thus limited to only one acre conversion.***



# Conflicts with the GMA

## Summary

- ▶ GMA is very clear, natural resource lands must be identified, designated and protected by GMA counties. As it relates to agriculture, counties are required to create development regulations to specifically limit non-agricultural uses from negatively impacting agricultural lands of long-term commercial significance.
- ▶ GMA requires counties must maintain compliance with the Act.
- ▶ Solar facilities at the size and scale as those recently approved by EFSEC are resulting in the conversion of ag land to non-agricultural land uses at industrial levels.
- ▶ EFSEC does not have the same standard to meet as GMA counties do, nor are they taking into consideration the economic viability of Eastern Washington counties that rely on agriculture for their livelihood.
- ▶ Yakima County does not have the same GMA exemption the Legislature gave EFSEC. Every decision a county makes involving moderate to large-scale solar facilities when locating in designated agricultural areas could be challenged as a direct violation of the Growth Management Act.

# Solar Facility Siting Issues

- ▶ Conflicts with the Washington State Growth Management Act (GMA).
- ▶ **Lack of Available Fire Protection**
- ▶ Potential Loss of Water Rights

# Lack of Available Fire Protection

- ▶ Obviously, if a large-scale fire were to occur at a solar facility, millions of dollars in panels, batteries and equipment could be destroyed in a matter of minutes. Add that with the potential for loss of life, rangeland wildfires, and other environmental impacts, and the dangers become much more apparent. This is especially true for moderate to large-scale solar facilities located in agricultural or rural areas where emergency responders are either miles away or not available at all.
- ▶ There are two types of fire dangers involving solar facilities in Eastern Washington.
  - ▶ A fire originating within the facility itself.
  - ▶ A fire originating from outside the facility that overtakes the solar facility.

# Lack of Available Fire Protection

A fire originating within the facility itself.

- ▶ What usually causes fire within solar facilities?
  - ▶ Faulty products
  - ▶ Damage to equipment from animals, debris, inclement weather events
  - ▶ Poor installation of equipment
  - ▶ Irregular or non-existent maintenance
  - ▶ System design flaws
  - ▶ Excessively hot temperatures
  - ▶ Deep freezes, humidity, flooding.

# Lack of Available Fire Protection

A fire originating outside the facility itself.

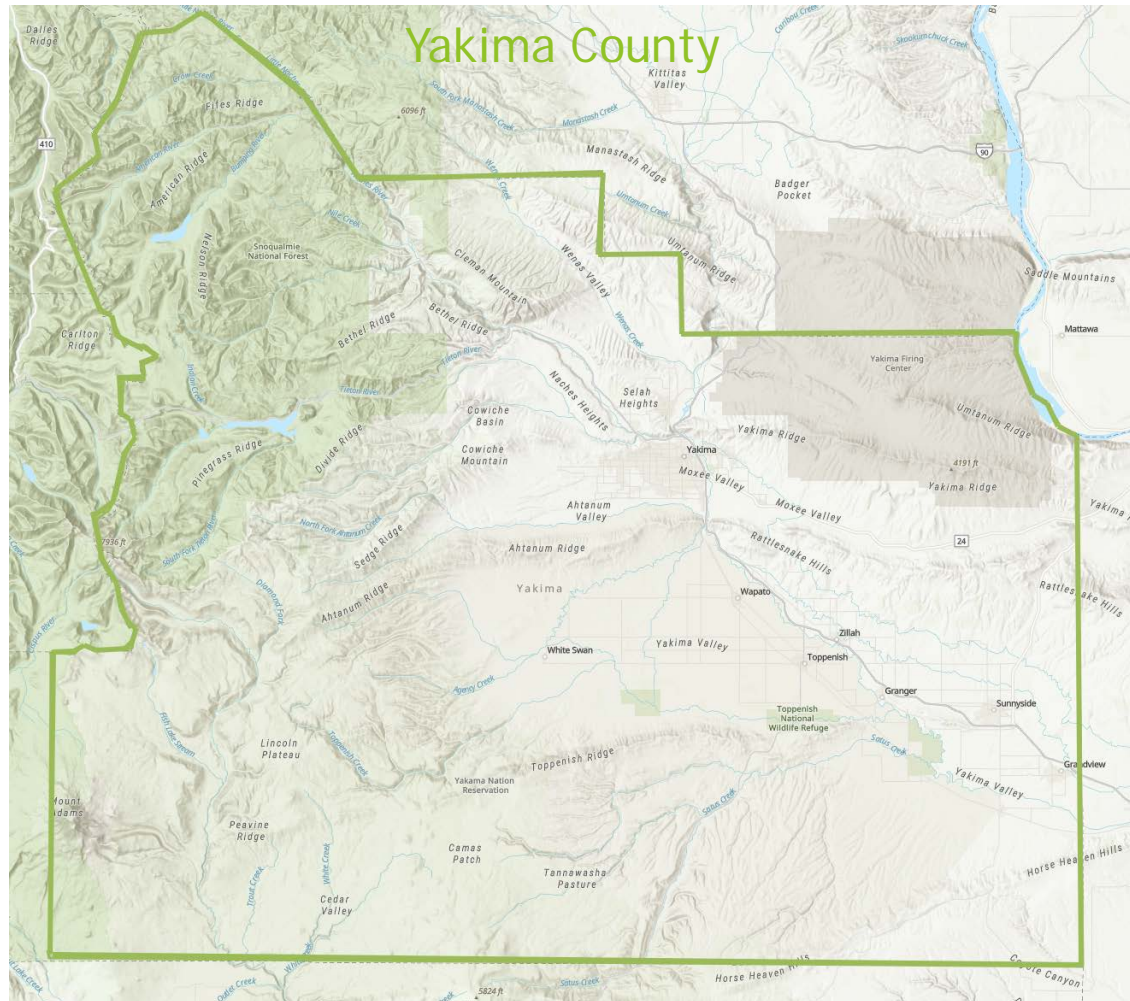
- ▶ In Eastern Washington wildfires are becoming more prevalent and more difficult to fight. Extreme heat, lack of rain and dry rangeland provide ample fuel for a wildfire and all it takes is a lighting strike in the foothills and much of Yakima County's rural and agricultural areas would be at risk.

What are a few of the wildfire issues potentially impacting solar facilities?

- ▶ Wildfires burn fast and travel long distances.
- ▶ Wildfires are often left to burn themselves out, thus limited to no actual attempt to put out (only to contain).
- ▶ Remote areas outside fire districts lack fire support.
- ▶ Local fire responders may lack the necessary protective equipment to fight a fire within a solar facility.
- ▶ Yakima County's rural and agricultural areas are intertwined with publicly owned lands.

# Lack of Available Fire Protection

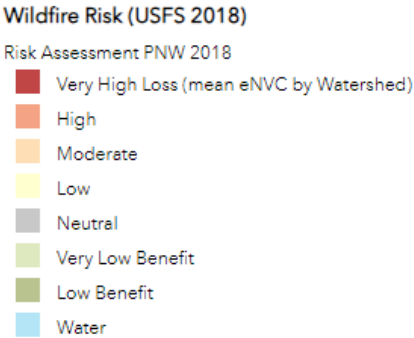
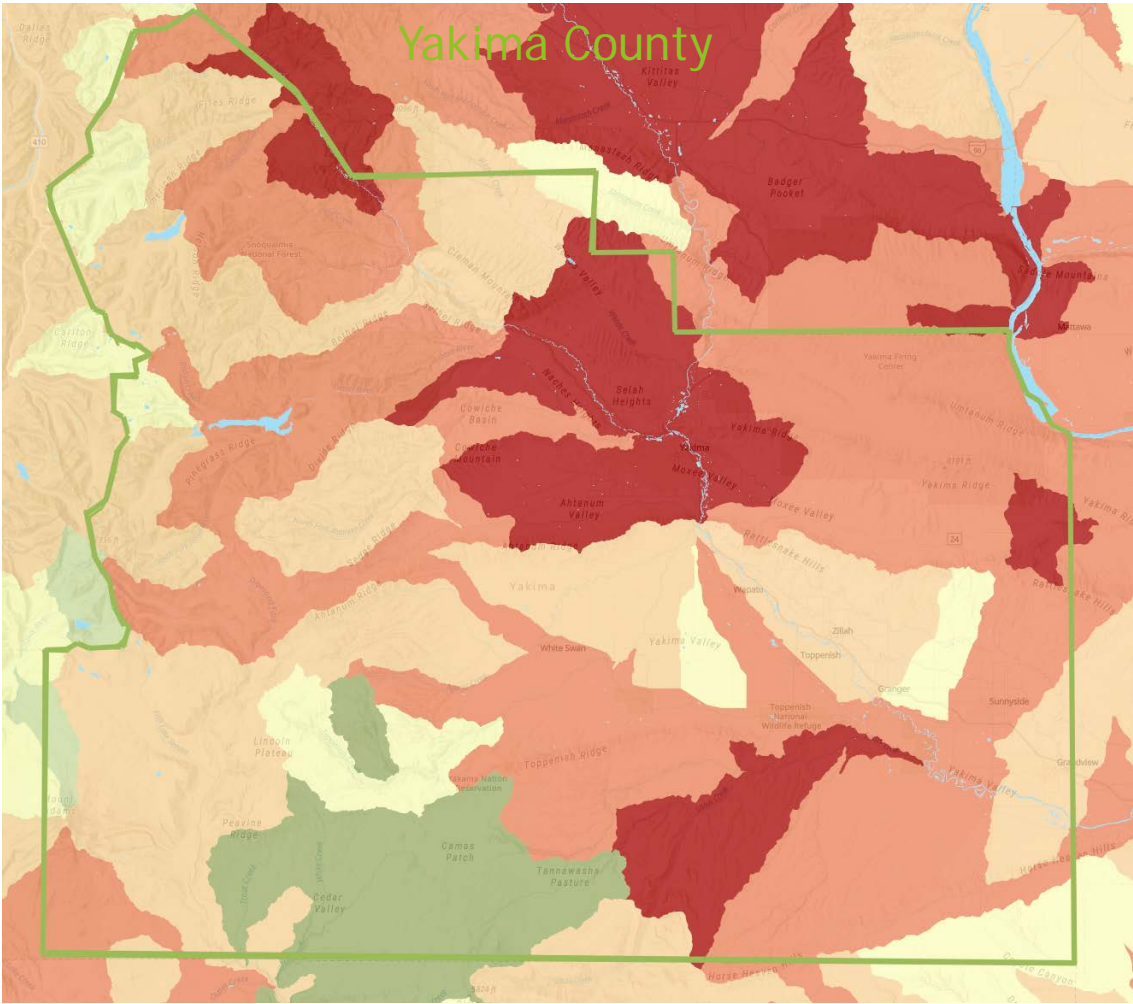
## Fire Risks In Yakima County





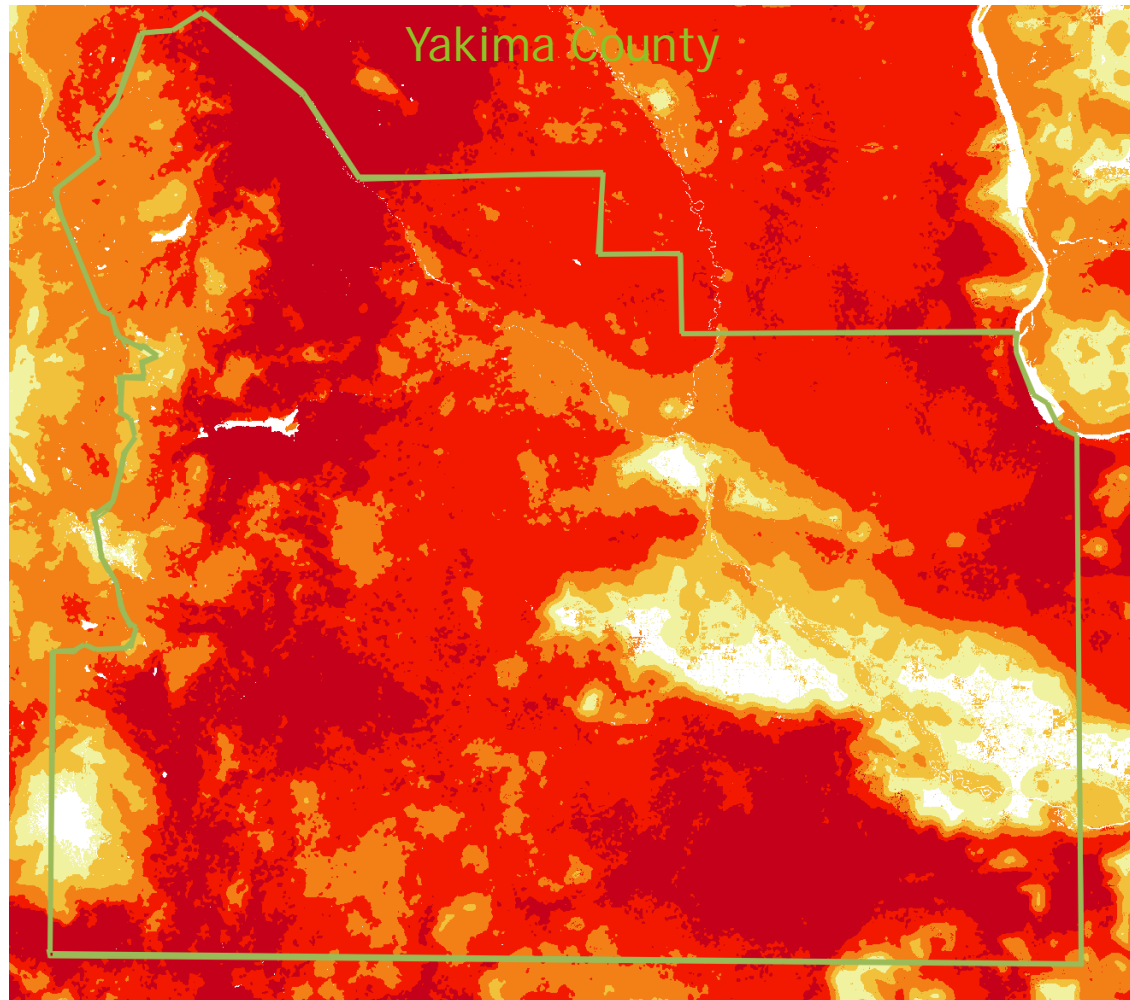
# Lack of Available Fire Protection

## Fire Risks In Yakima County

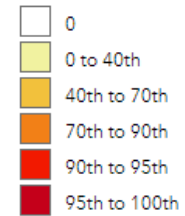


# Lack of Available Fire Protection

## Fire Risks In Yakima County



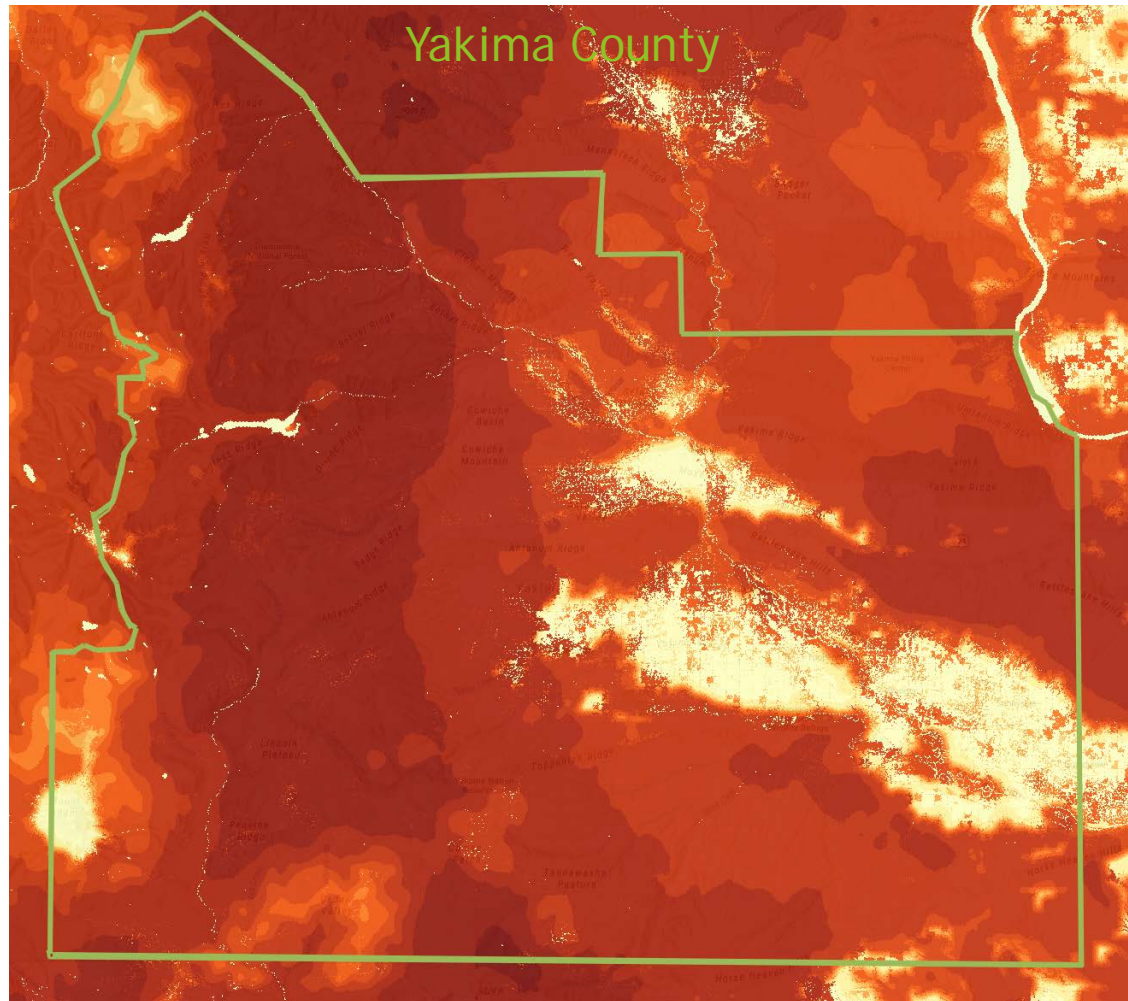
Wildfire Risk to Communities (USDA Forest Service)



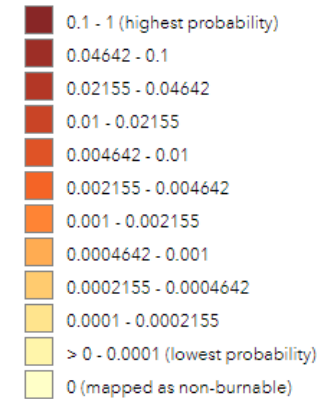


# Lack of Available Fire Protection

## Fire Risks In Yakima County

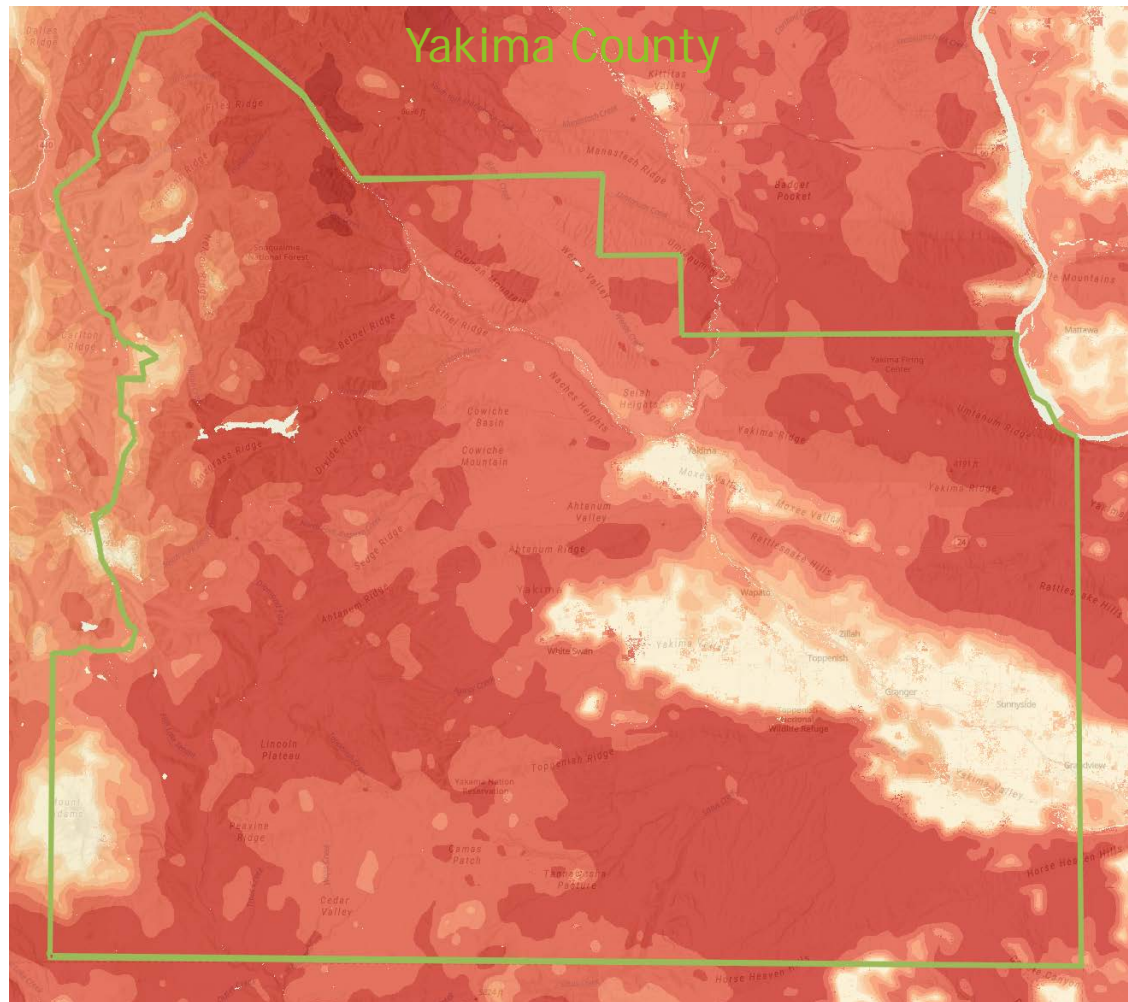


National Burn Probability (USDA Forest Service)

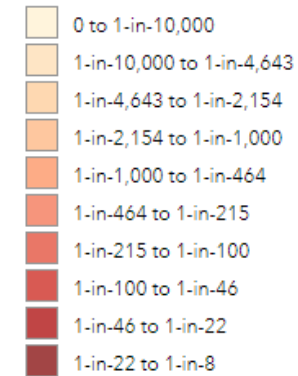


# Lack of Available Fire Protection

## Fire Risks In Yakima County



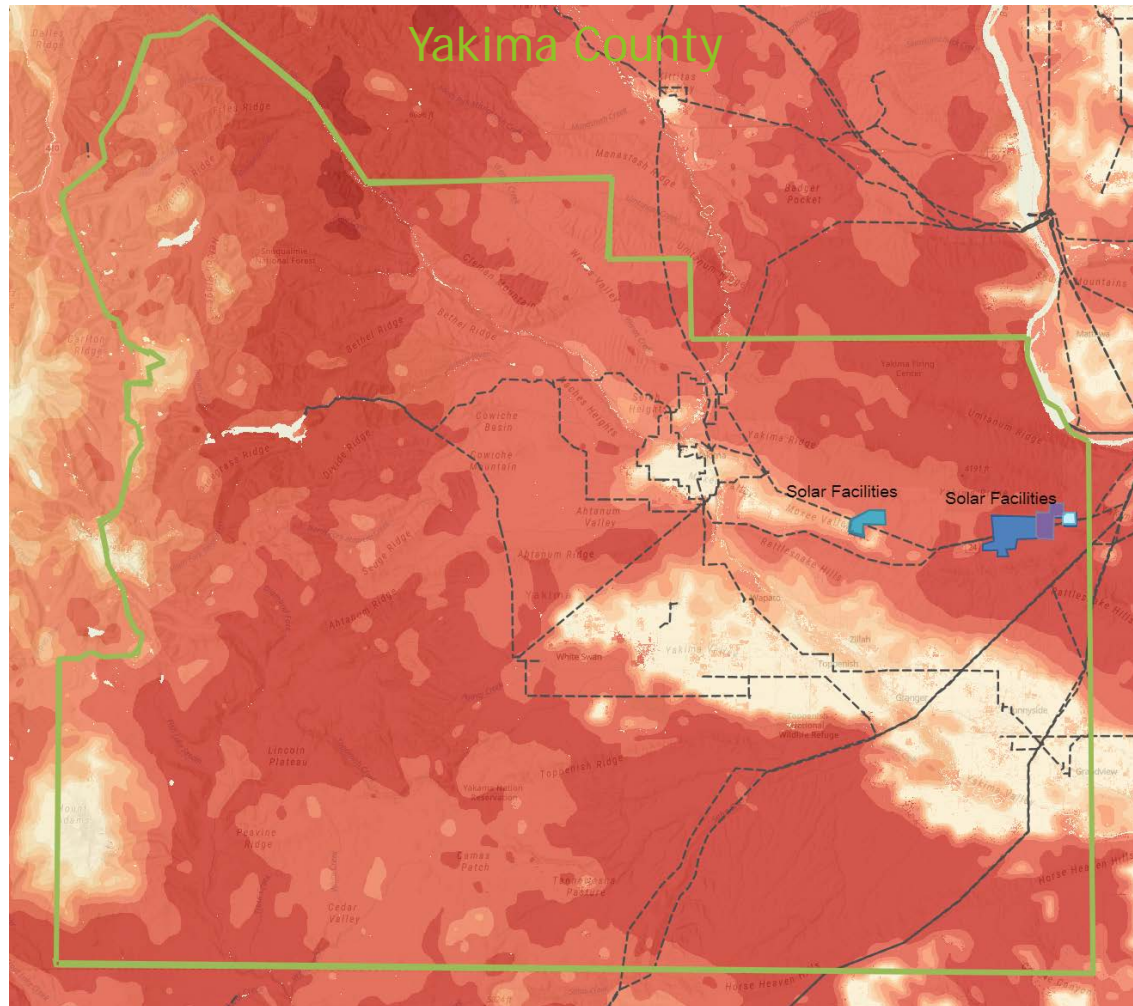
Wildfire Likelihood (USDA Forest Service)





# Lack of Available Fire Protection

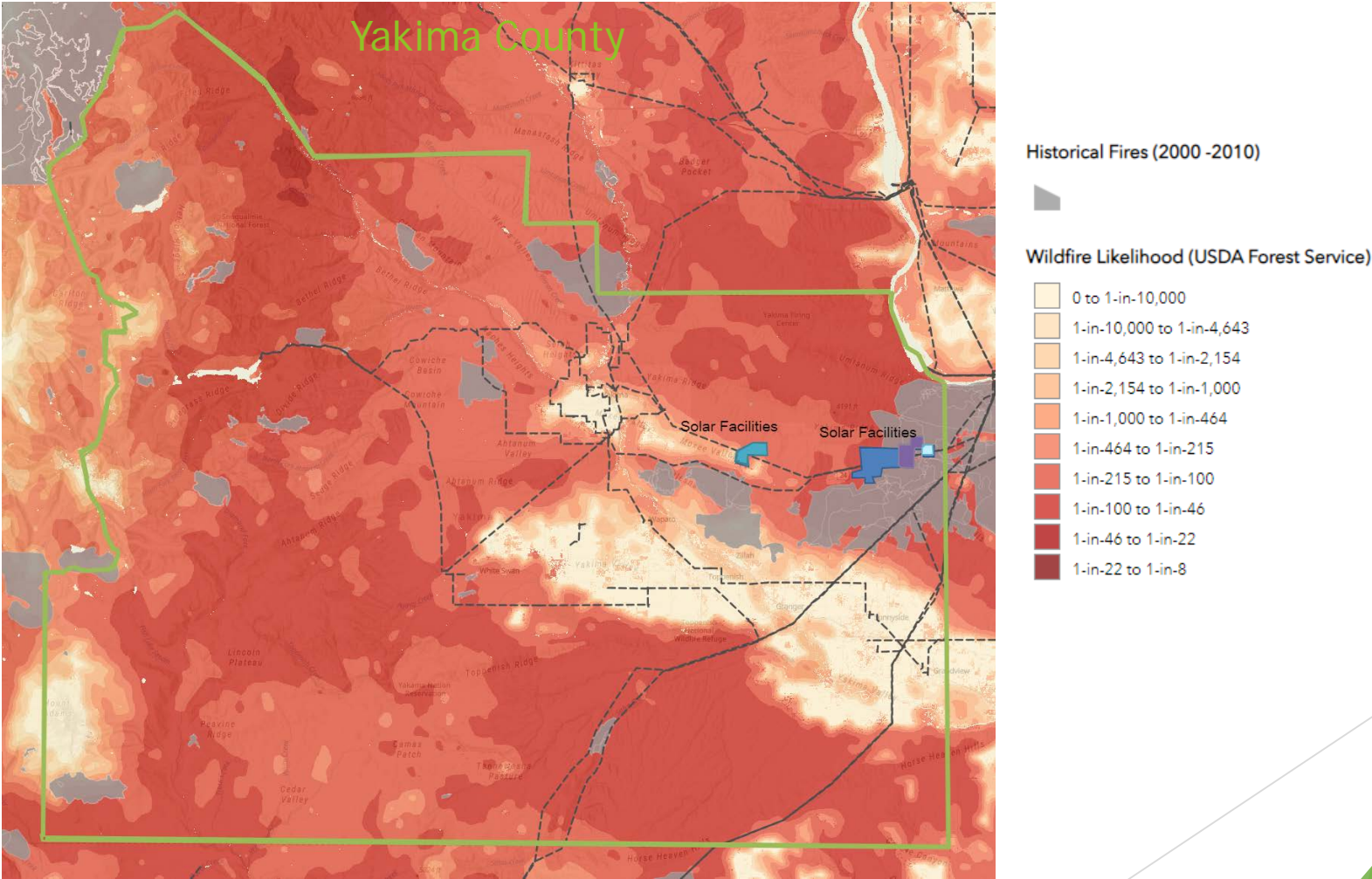
## Fire Risks In Yakima County



Yakima County  
Solar Facilities  
And Electric Power  
Transmission Lines  
(High Voltage)

# Lack of Available Fire Protection

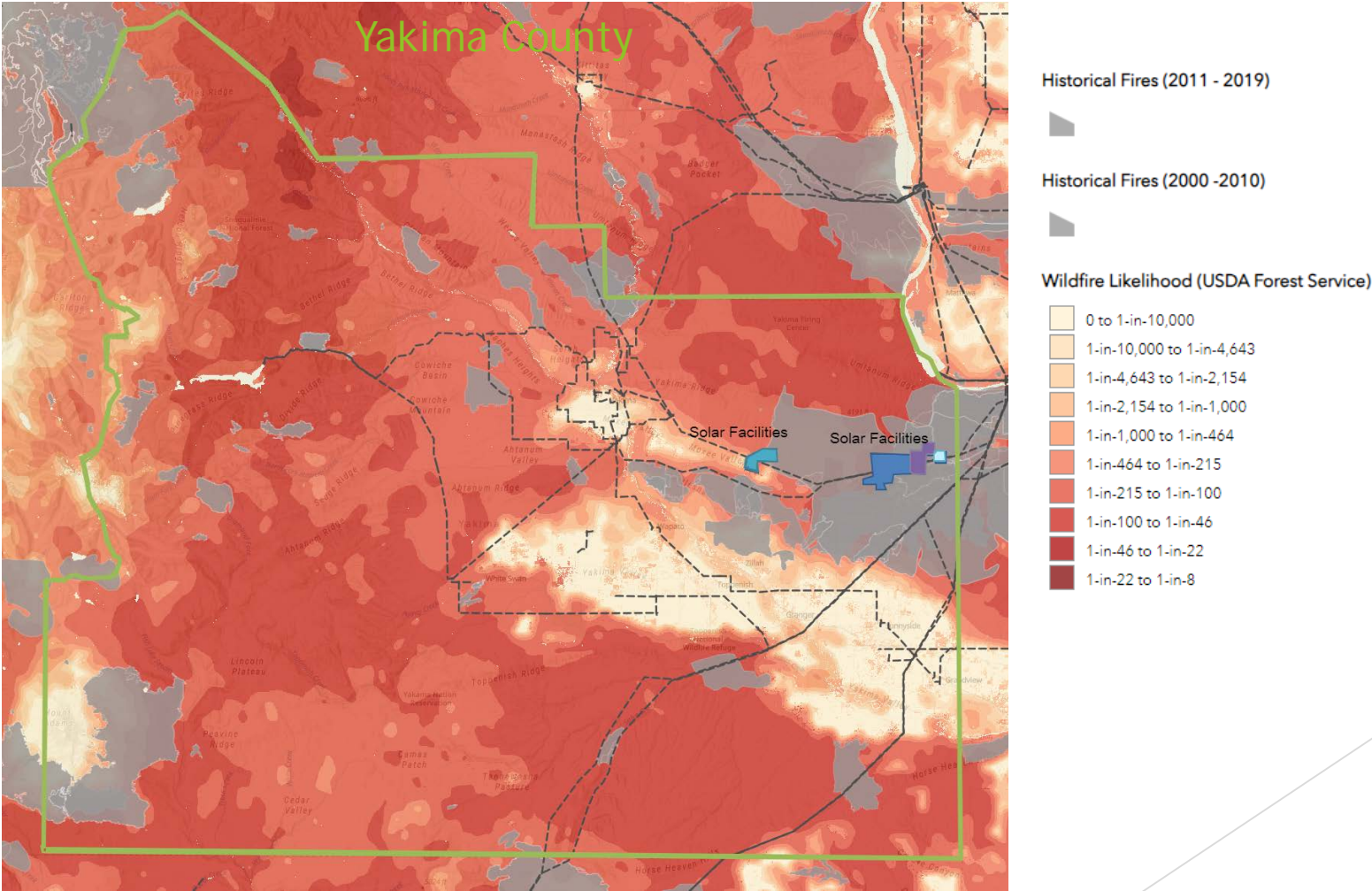
## Fire Risks In Yakima County





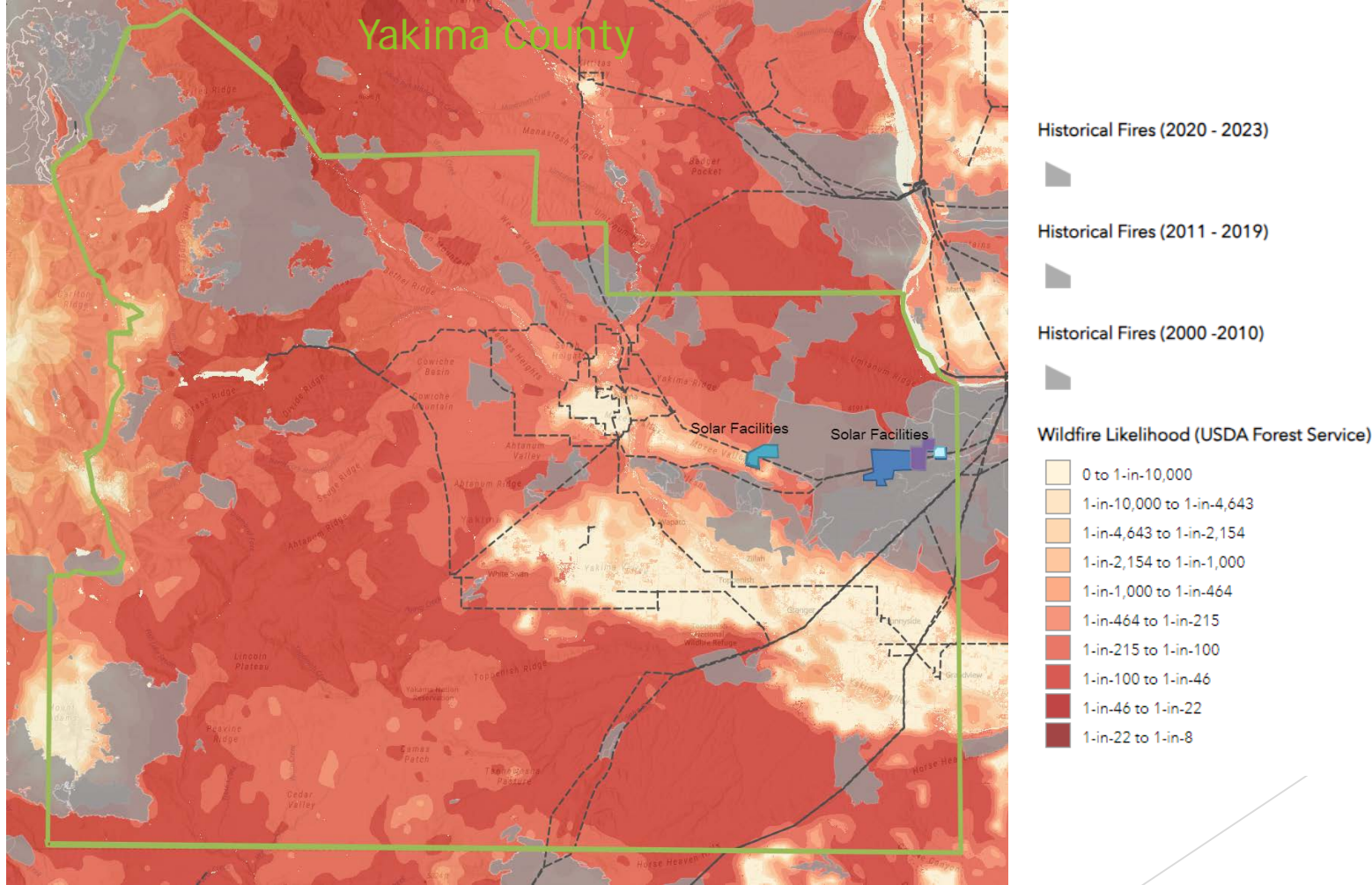
# Lack of Available Fire Protection

## Fire Risks In Yakima County



# Lack of Available Fire Protection

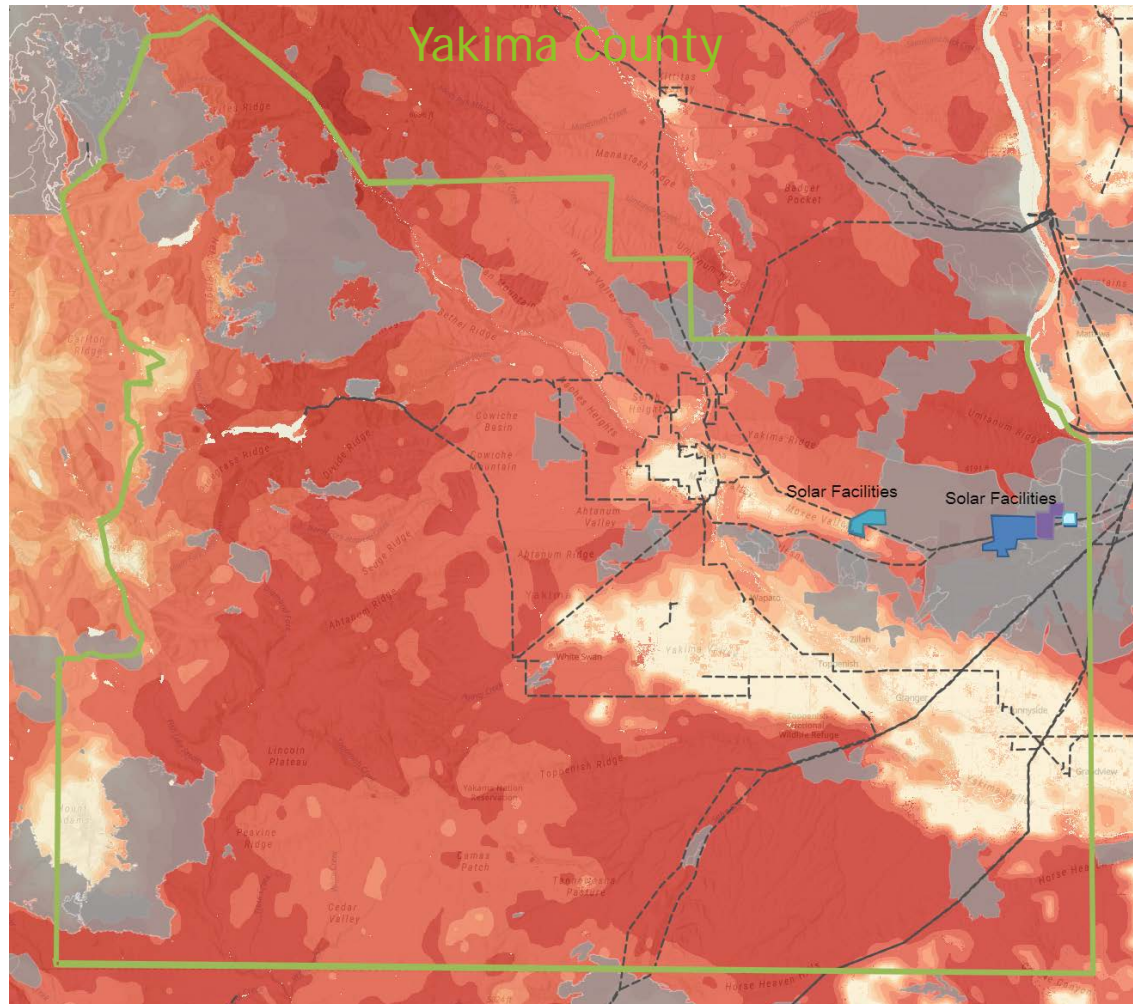
## Fire Risks In Yakima County





# Lack of Available Fire Protection

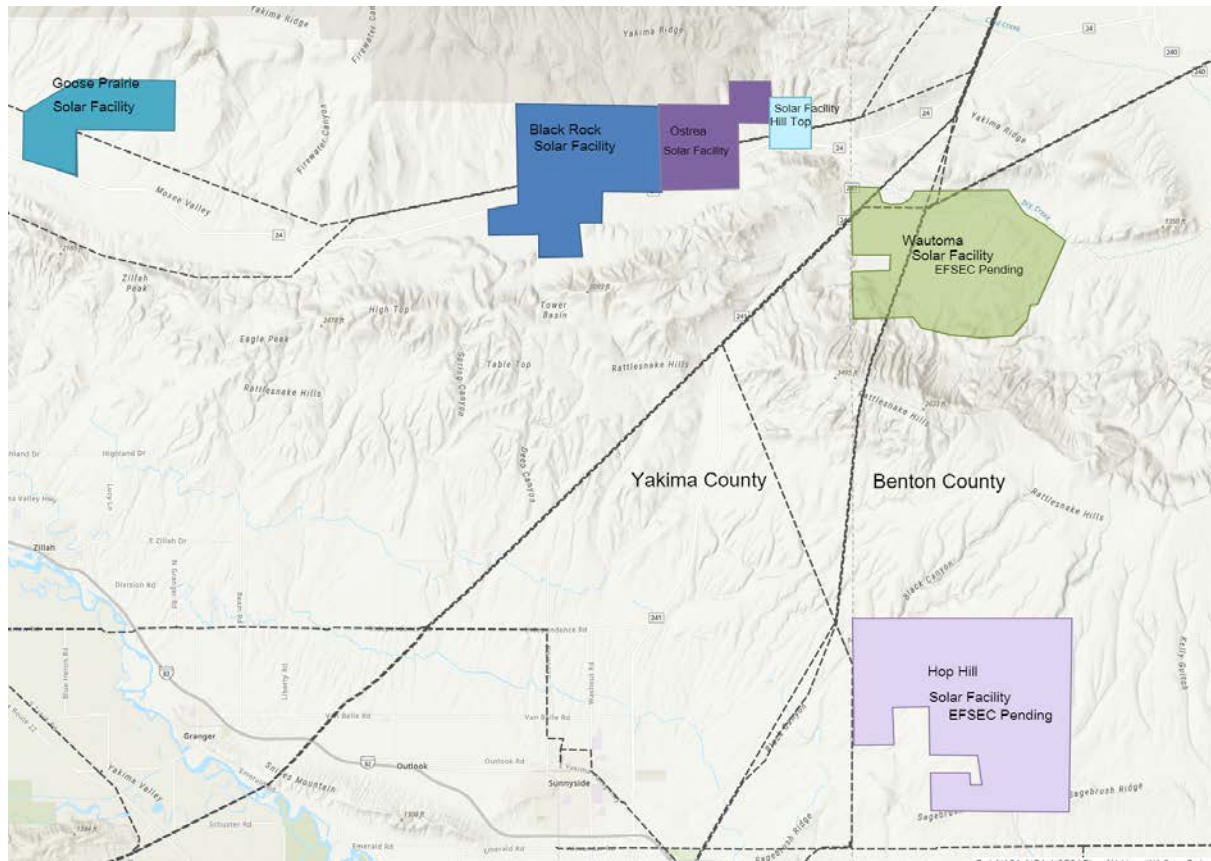
## Fire Risks In Yakima County



All four Yakima County Solar Facilities are in areas with a high risk of wildfire and in areas that have had a wildfire in the past 23 years.

# Lack of Available Fire Protection

## Fire Risks In Yakima County

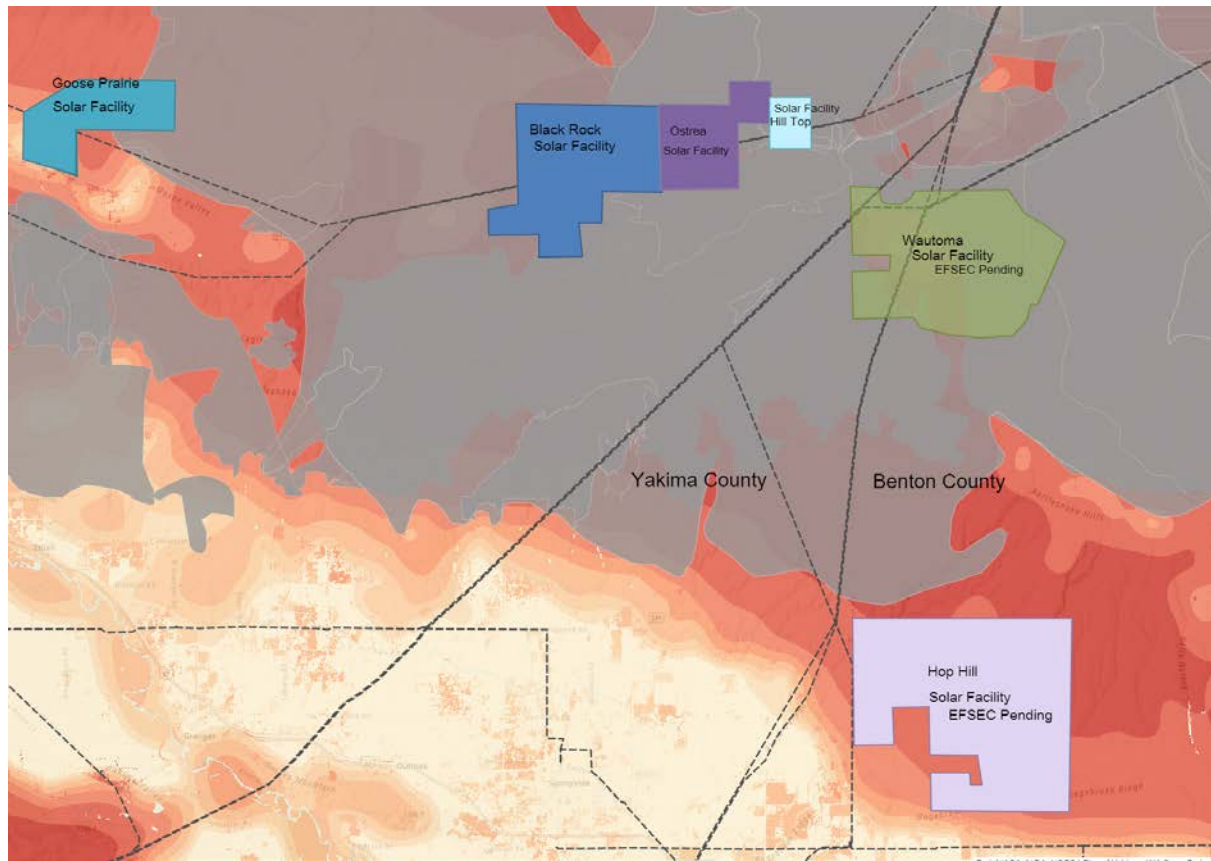


Close in view of  
the Solar  
Facilities near  
the Yakima and  
Benton County  
boundary.



# Lack of Available Fire Protection

## Fire Risks In Yakima County



### Solar Facilities Yakima and Benton Counties

Electric Power Transmission Lines (High Voltage)

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Historical Fires (2020 - 2023)

■

Historical Fires (2011 - 2019)

■

Historical Fires (2000 - 2010)

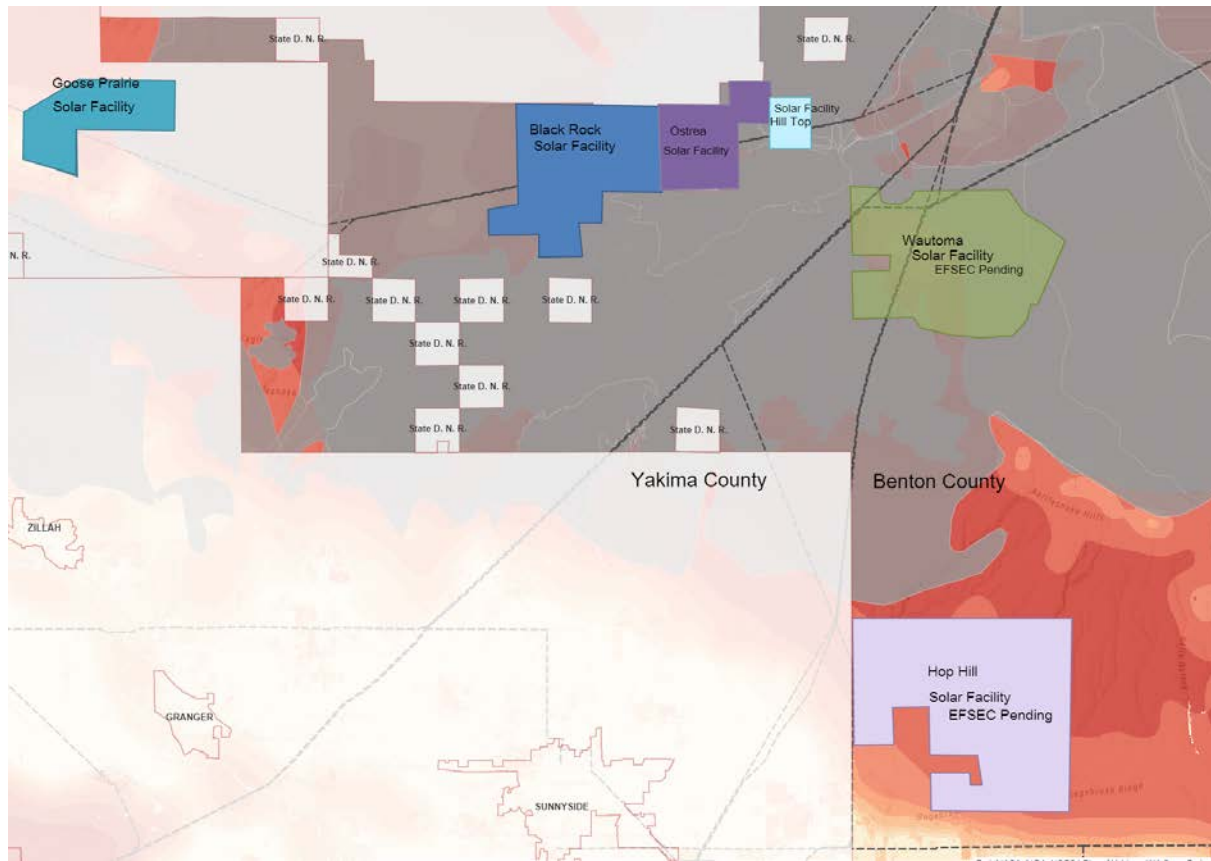
■

Wildfire Likelihood (USDA Forest Service)

0 to 1-in-10,000  
1-in-10,000 to 1-in-4,643  
1-in-4,643 to 1-in-2,154  
1-in-2,154 to 1-in-1,000  
1-in-1,000 to 1-in-464  
1-in-464 to 1-in-215  
1-in-215 to 1-in-100  
1-in-100 to 1-in-46  
1-in-46 to 1-in-22  
1-in-22 to 1-in-8

# Lack of Available Fire Protection

## Fire Risks In Yakima County



All but one of Yakima County's Solar Facilities are outside an established fire district.

Fire Districts



# Lack of Available Fire Protection

## Fire Risks In Yakima County - How to Mitigate Fire Impacts

- All new industrial related land uses like solar facilities, locating in areas outside established fire districts, will need to conduct a Fire Risk Assessment as part of the development of their application for approval.
- The Fire Risk Assessment needs to be developed by professionals using the latest evaluative criteria and industry standards. The consultant needs to have experience and expertise in understanding the potential fire risks involving solar facilities, as well as assigning responsibility to implement the correct fire suppression solutions.
- The Fire Risk Assessment will need to cover all possible scenarios within one plan. These scenarios include fire ignition, fire growth, and response failure.
- Mitigation plans need to be put in place that specifically address how solar companies intend on addressing fire risks, as well as dealing with the environmental consequences after a fire has occurred.

# Lack of Available Fire Protection

## Fire Risks In Yakima County

### Summary

- Solar companies are locating in areas of Yakima County where there is a high-risk of wildfire.
- The high-risk wildfire areas where Solar companies are locating have limited to no fire response.
- Solar companies seeking approval through EFSEC are not being required to adequately address fire hazards.
- Large-scale solar facilities under consideration by EFSEC in Benton County also pose a fire risk to Yakima County.
- A major component of any future land use approval involving a solar facility will require extensive fire assessment studies and mitigation measures to ensure that the solar company can adequately address the fire risks and eventual clean up after the fire.

# Solar Facility Siting Issues

- ▶ Conflicts with the Washington State Growth Management Act (GMA).
- ▶ Lack of Available Fire Protection
- ▶ Potential Loss of Water Rights

# Potential Loss of Water Rights

## How Water Rights Work in Washington State

- ▶ Washington has a prior appropriation water right system, also referred to as a system of “first-in-time, first-in-right.” A person who established a water right first has senior priority and the right to divert all their water before the person with the next junior right (next water right in chronological order).
- ▶ Washington’s water law includes the principle that a water right is confirmed and maintained through beneficial use. People often use the expression “use it or lose it” to describe this principle.
- ▶ RCW 90.14.180 - Any person hereafter entitled to divert or withdraw waters of the state through an appropriation... who abandons or voluntarily fails, without sufficient cause, to beneficially use all or any part of said right for a period of five successive years shall relinquish such right or portion thereof, and such right shall revert back to the state.

# Potential Loss of Water Rights

## Solar Facilities on properties with significant water rights

- ▶ All four approved solar facilities in Yakima County are located in the Agricultural Zone.
- ▶ All inquiries from solar companies have been for properties located in agricultural areas.
- ▶ EFSEC approved facilities do not address potential loss of water rights due to the conversion from agricultural to non-agricultural uses.
- ▶ How does Yakima County ensure that in-county water rights are not lost or sold downstream to out of county users?

# Potential Loss of Water Rights

Ways to ensure water doesn't leave the County.

- ▶ Require all solar facilities to have a Water Right Retention Plan in place that ensures any or all existing water rights are not lost or transferred out of County.
- ▶ Require solar companies and farmers to put the water to beneficial use or place the water rights in the Department of Ecology's Trust Water Rights Program.
  - The Trust Water Rights Program enables Ecology to hold existing water rights in trust without the risk of relinquishment. Water right holders can temporarily donate all or part of their water right to the Trust Water Rights Program. Donors receive their water right back at the end of the temporary donation period without penalty. Water rights held in trust are not subject to relinquishment. There are time limits, however.
- ▶ Prohibit the siting of moderate to large-scale solar facilities in irrigated agricultural areas.



# Solar Facility Siting Issues

## Conclusion

- ▶ Conflicts with the Washington State Growth Management Act (GMA). GMA is clear, designated agricultural lands must be protected from encroachment and conversion to non-agricultural uses. Counties do not have the same “silver bullet” that EFSEC has, thus putting counties at risk when permitting solar facilities in agricultural areas.
- ▶ Lack of Available Fire Protection. Solar companies are looking at properties in close proximity to electrical transmission lines, with wide open spaces, south-facing views, and plenty of sun. That perfectly describes Yakima County’s rangeland and agricultural areas. However, a large portion of those areas are in high-risk wildfire areas and outside a fulltime responding fire districts. These are locations where wildfires occur, so its not a matter of if, but when and what are the true environmental impacts of a fire at a solar facility?
- ▶ Potential Loss of Water Rights. Locating solar in Ag areas means the possible loss of water rights. Agriculture is Yakima County’s economic engine and without water that engine will not run, pure and simple.

# Solar Facility Siting Issues

## Next Steps

- ▶ Present the draft development standards to the Planning Commission.
- ▶ Have interested groups attend future meetings with the Planning Commission to discuss some of the key issues that will arise from their review.
- ▶ Identify potential mapping criteria to be included in the draft development regulations.
- ▶ Hold a public hearing to take testimony on the Planning Commission's proposed draft standards and siting criteria. Deliberate and develop findings and recommendations to be presented to the Board of Yakima County Commissioners for their consideration.

Questions or Comments