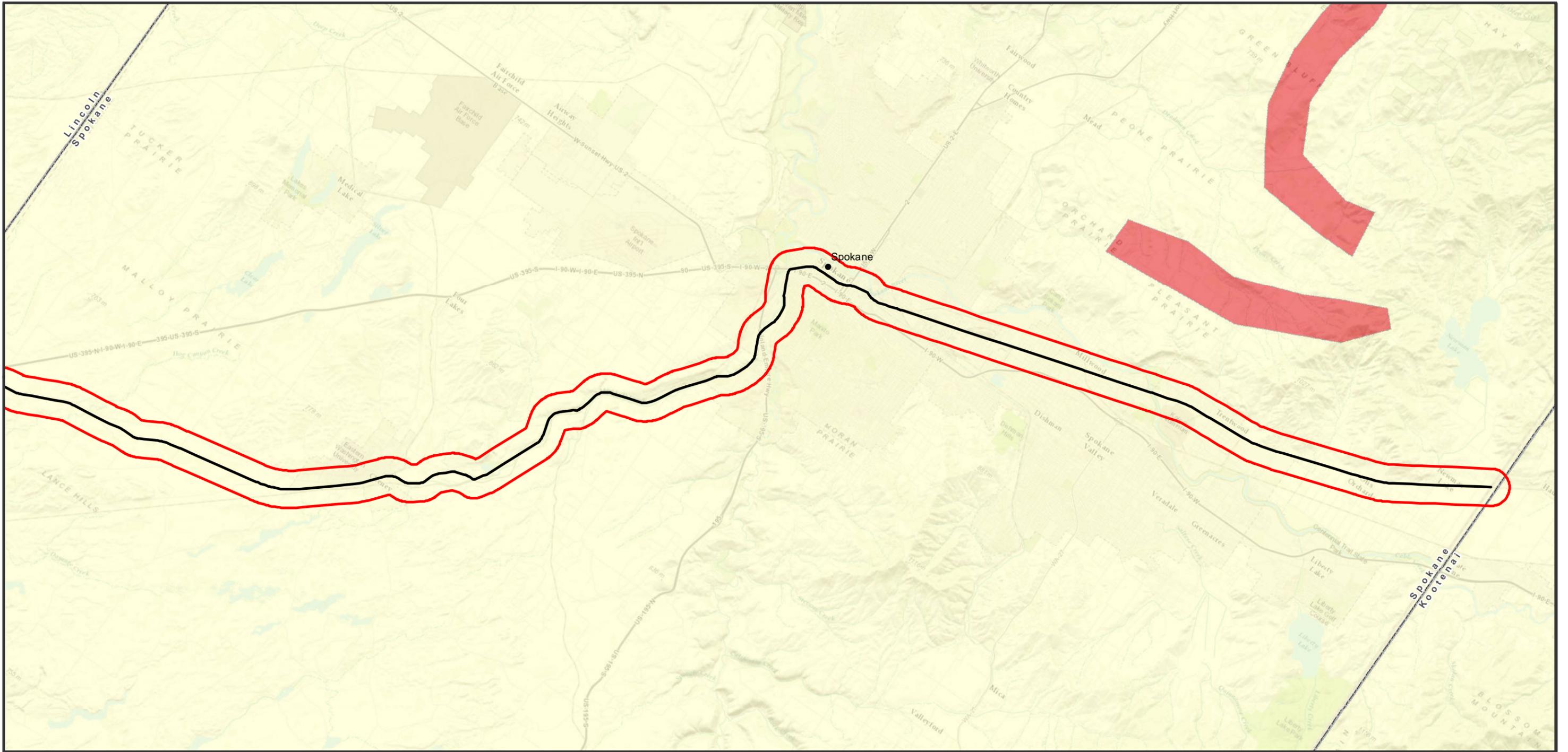


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Appendix P.2  
Landslide Hazards

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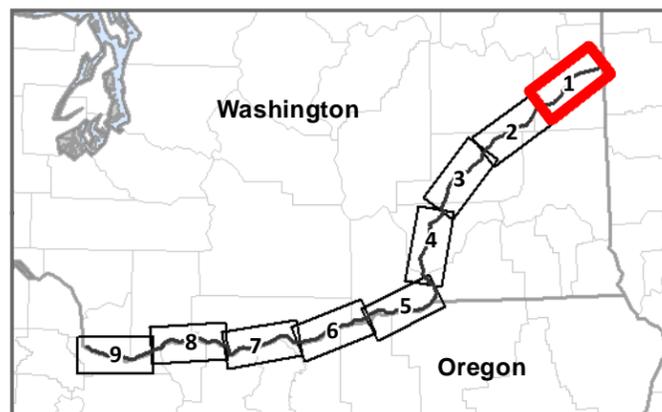
- BNSF Railroad
- County Boundary

**Landslide Probability (WADNR)**

- Certain
- Probable
- Questionable
- Unknown

**Landslides Incidence and Susceptibility (USDOI)**

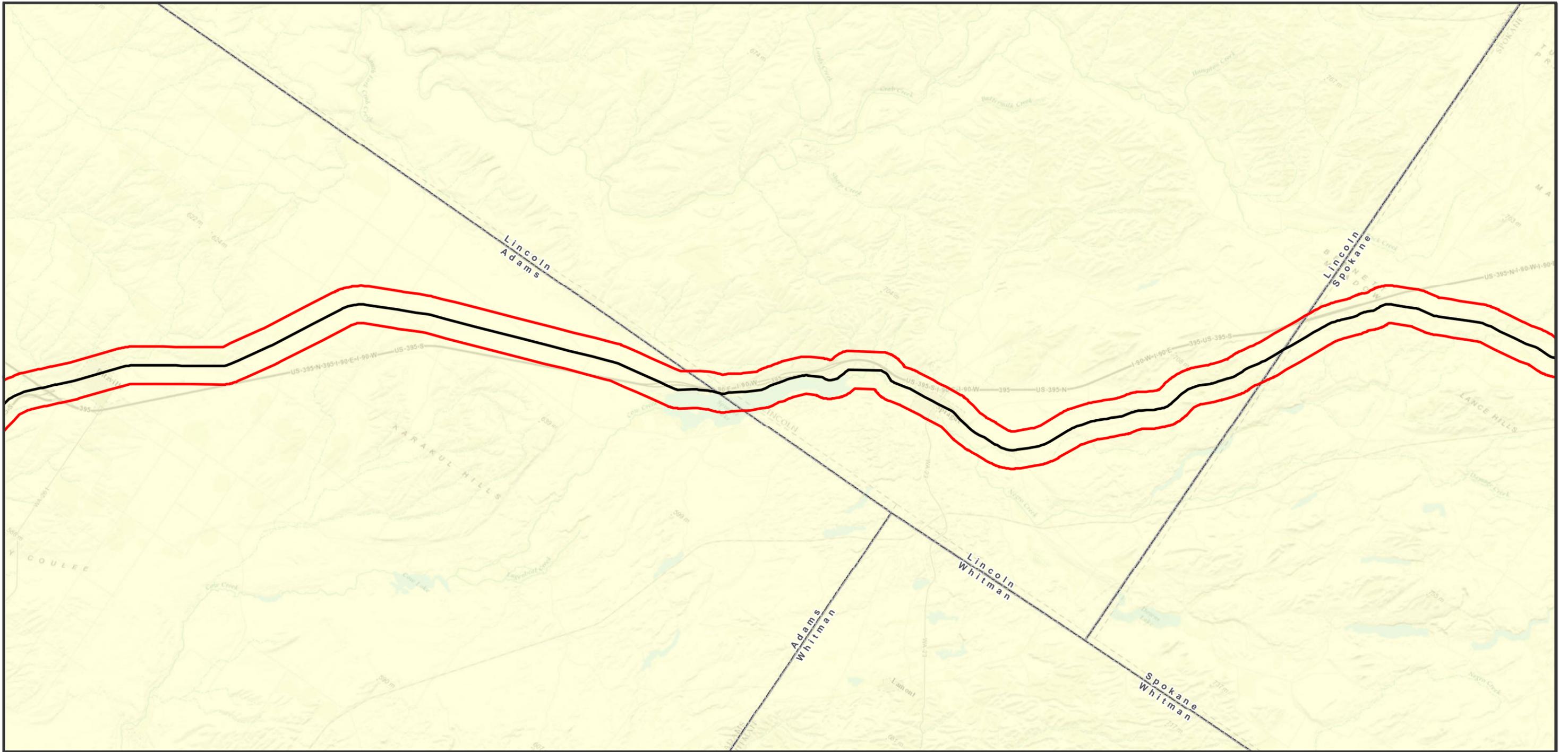
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



**LEGEND**

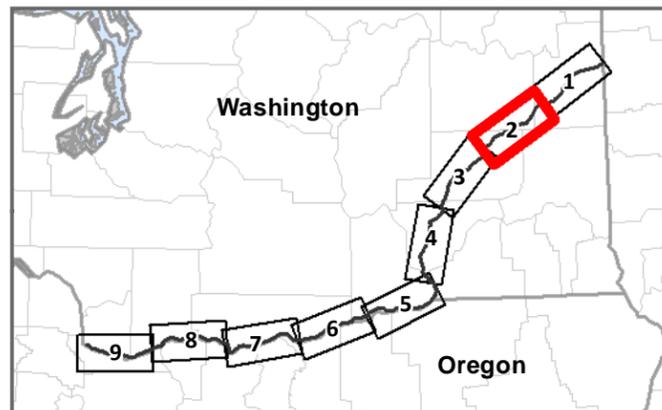
-  BNSF Railroad
-  County Boundary

**Landslide Probability (WADNR)**

-  Certain
-  Probable
-  Questionable
-  Unknown

**Landslides Incidence and Susceptibility (USDOI)**

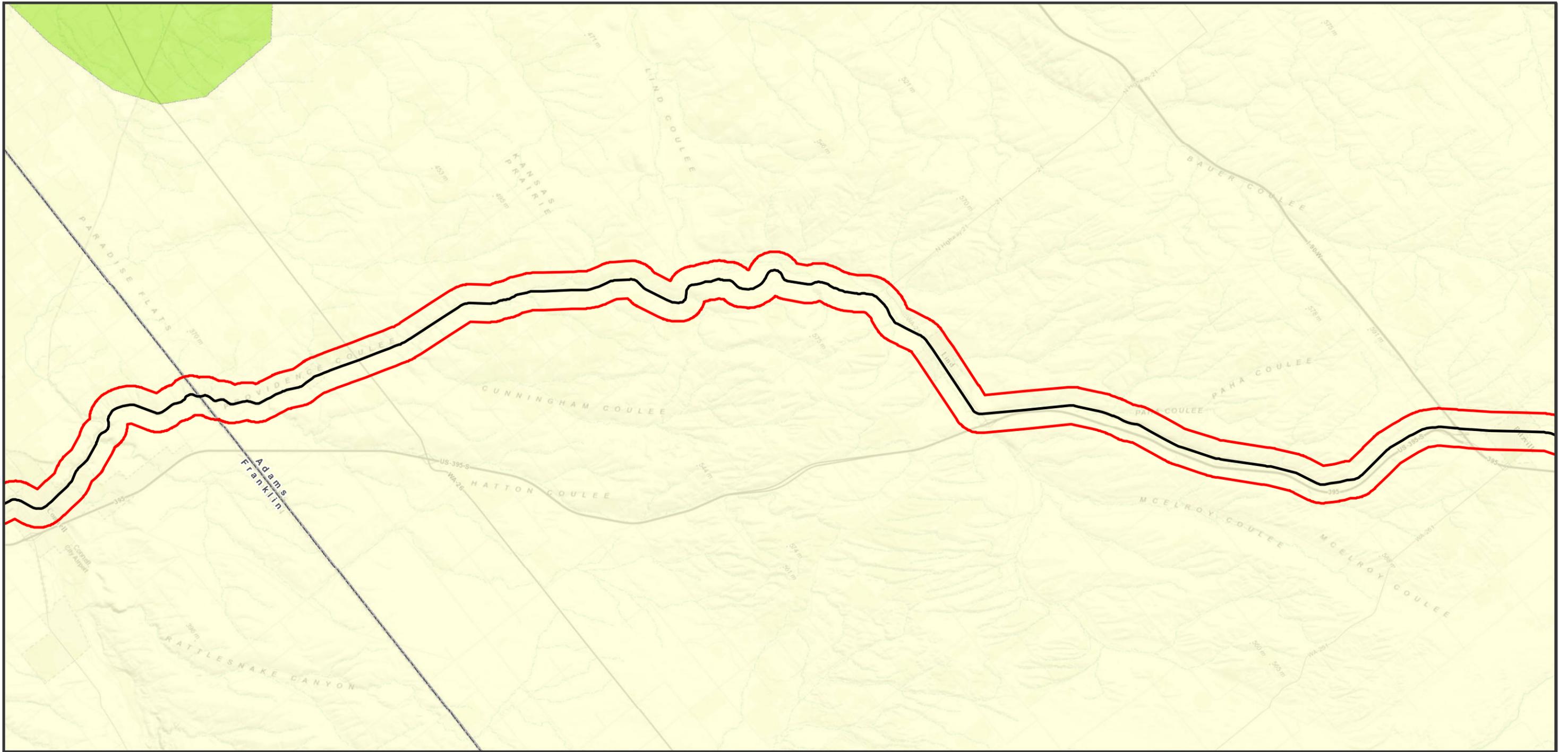
-  High landslide incidence (over 15% of the area is involved in landsliding)
-  Moderate landslide incidence (1.5 - 15% of the area is involved)
-  High susceptibility to landsliding and moderate incidence
-  High susceptibility to landsliding and low incidence
-  Moderate susceptibility to landsliding and low incidence
-  Low landslide incidence (less than 1.5 % of the area is involved)
-  No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



**LEGEND**

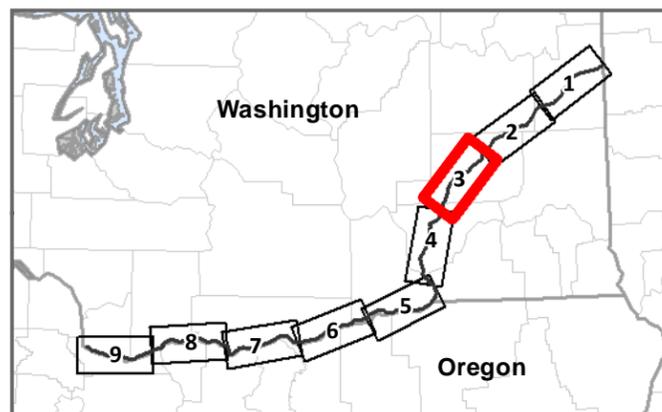
- BNSF Railroad
- County Boundary

**Landslide Probability (WADNR)**

- Certain
- Probable
- Questionable
- Unknown

**Landslides Incidence and Susceptibility (USDOI)**

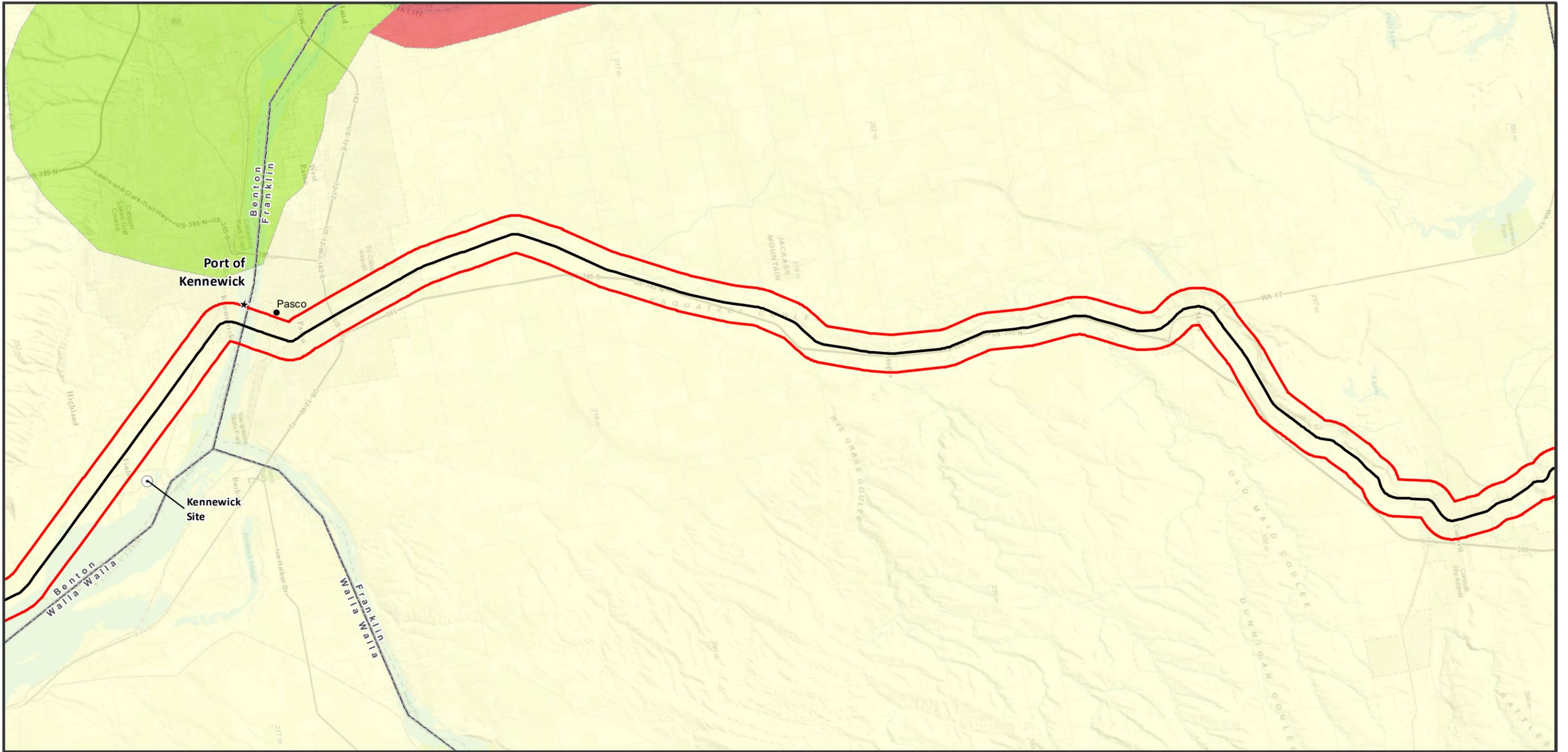
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



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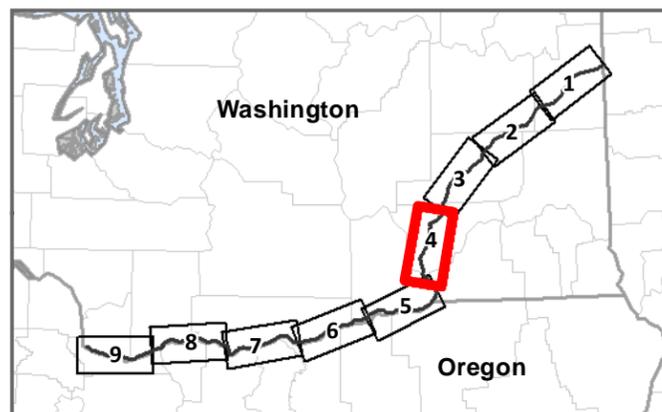
-  BNSF Railroad
-  County Boundary

**Landslide Probability (WADNR)**

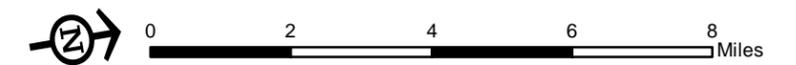
-  Certain
-  Probable
-  Questionable
-  Unknown

**Landslides Incidence and Susceptibility (USDOI)**

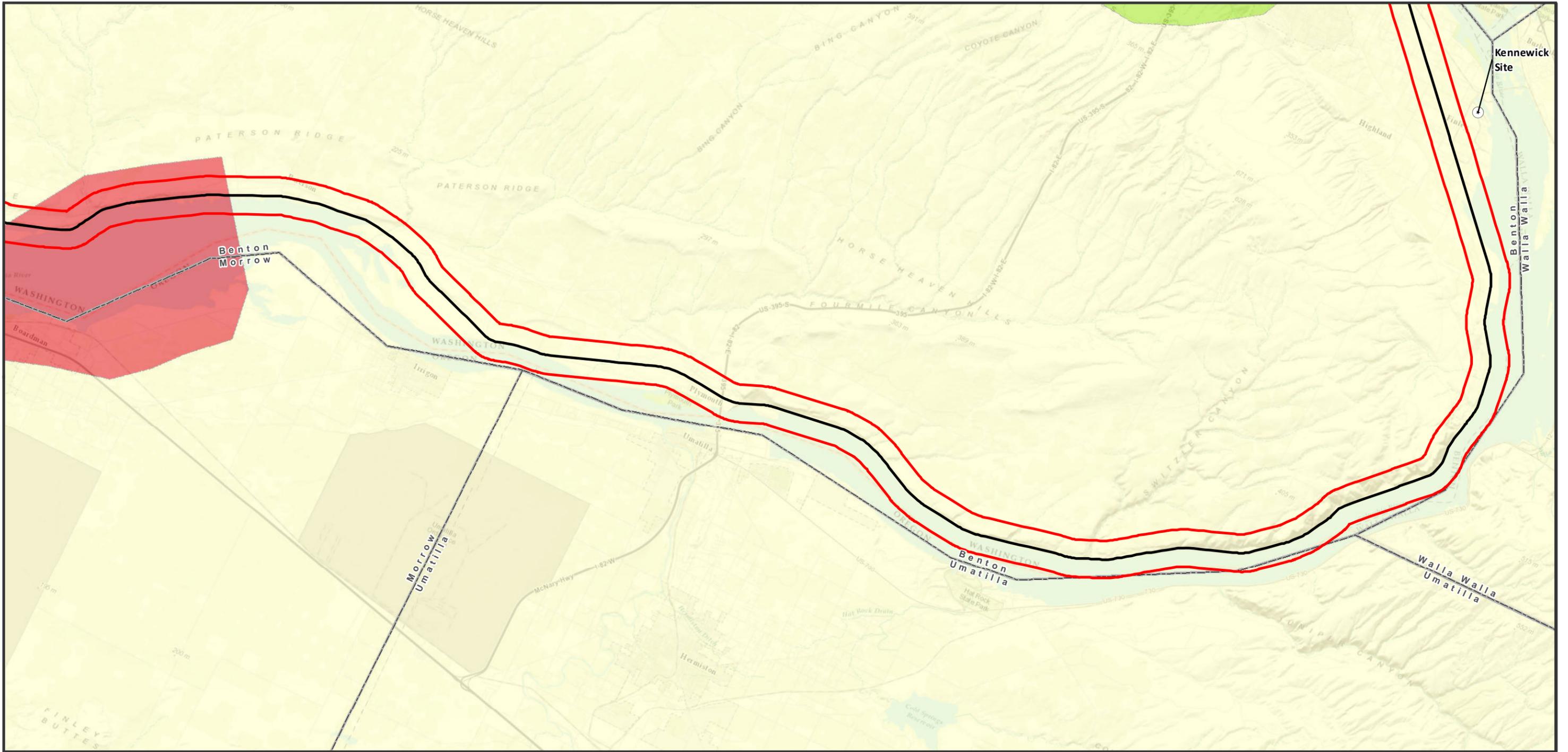
-  High landslide incidence (over 15% of the area is involved in landsliding)
-  Moderate landslide incidence (1.5 - 15% of the area is involved)
-  High susceptibility to landsliding and moderate incidence
-  High susceptibility to landsliding and low incidence
-  Moderate susceptibility to landsliding and low incidence
-  Low landslide incidence (less than 1.5 % of the area is involved)
-  No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



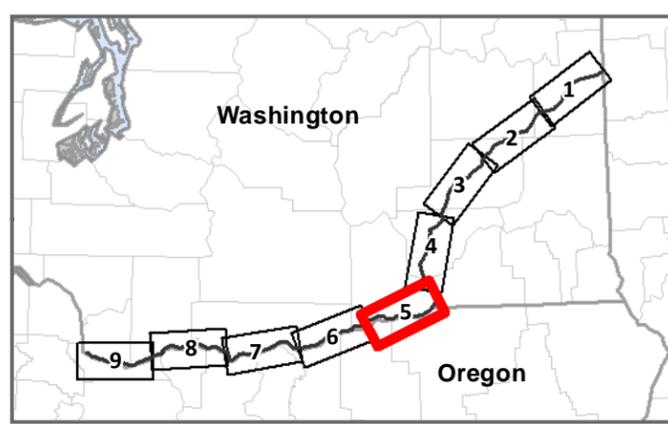
Kennewick Site

**LEGEND**

- BNSF Railroad
- County Boundary

- Landslide Probability (WADNR)**
- Certain
  - Probable
  - Questionable
  - Unknown

- Landslides Incidence and Susceptibility (USDOI)**
- High landslide incidence (over 15% of the area is involved in landsliding)
  - Moderate landslide incidence (1.5 - 15% of the area is involved)
  - High susceptibility to landsliding and moderate incidence
  - High susceptibility to landsliding and low incidence
  - Moderate susceptibility to landsliding and low incidence
  - Low landslide incidence (less than 1.5 % of the area is involved)
  - No data

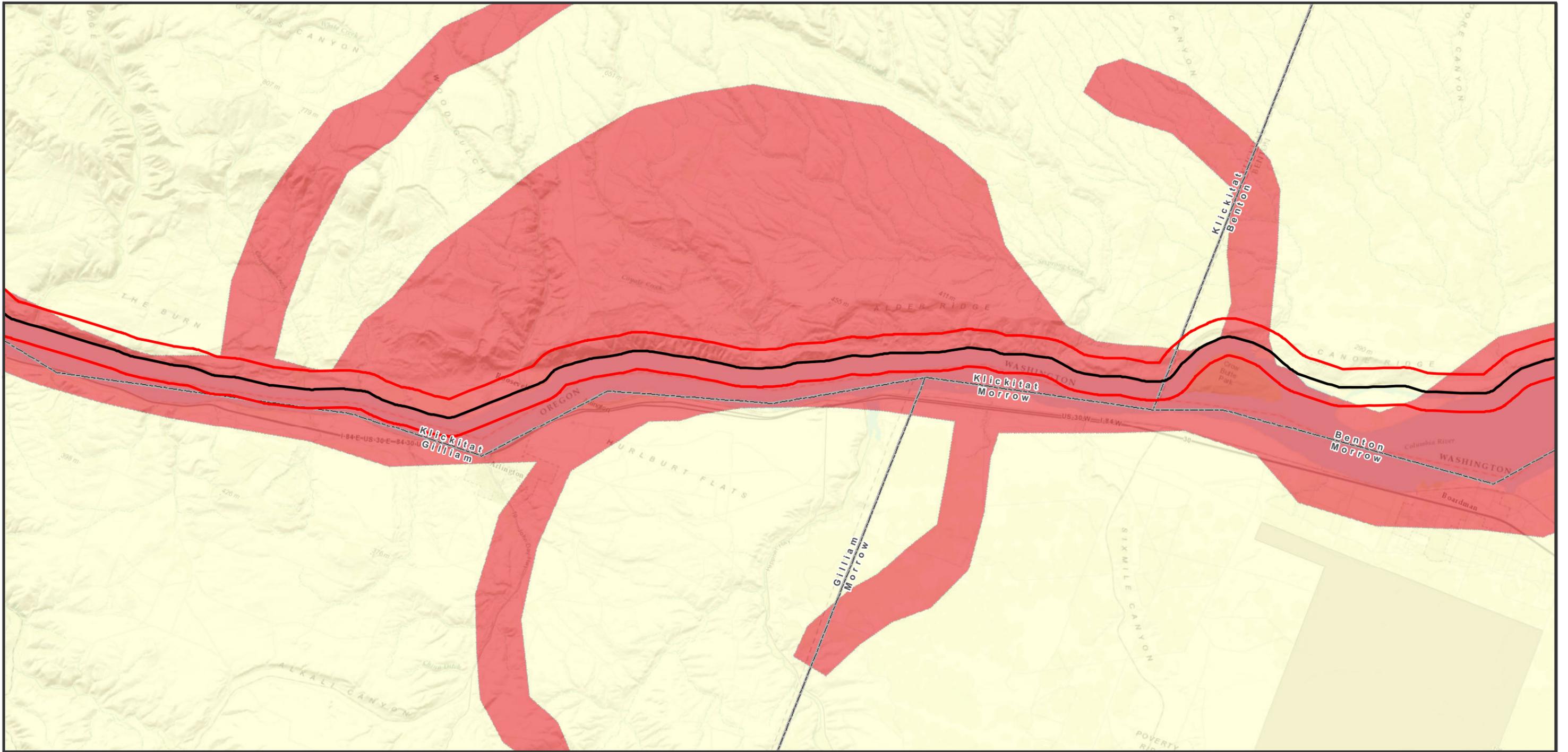


Sheet 5 of 9

Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



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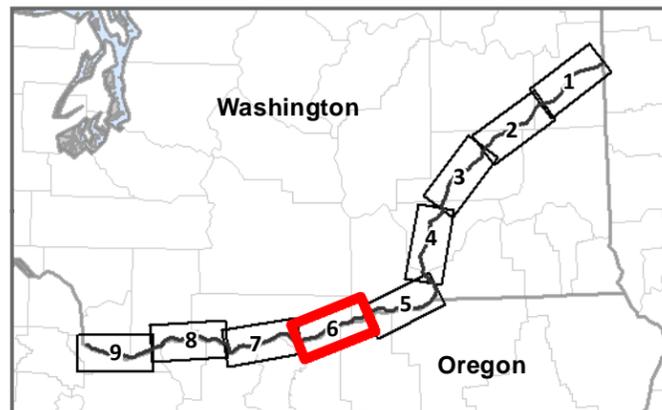
- BNSF Railroad
- County Boundary

**Landslide Probability (WADNR)**

- Certain
- Probable
- Questionable
- Unknown

**Landslides Incidence and Susceptibility (USDOI)**

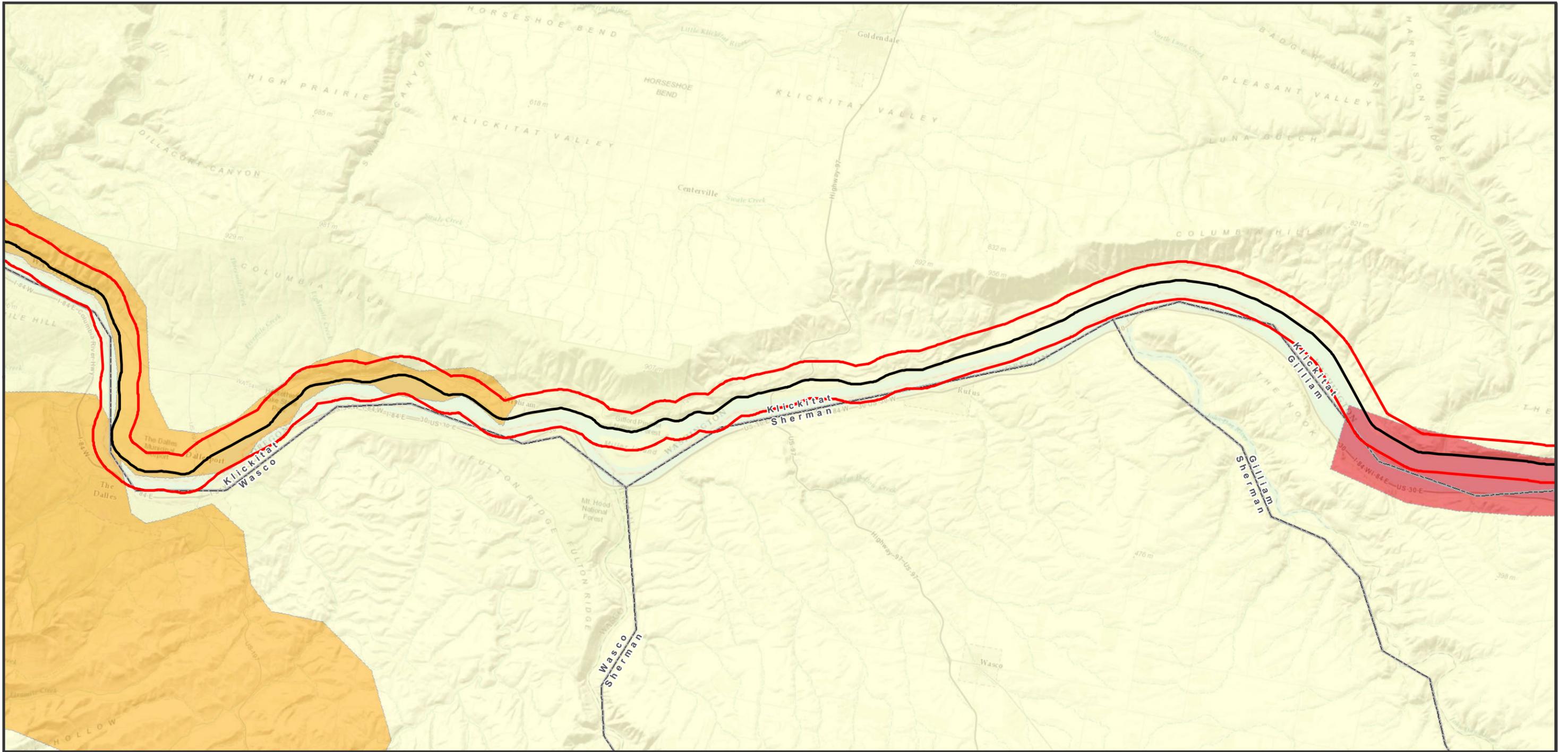
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



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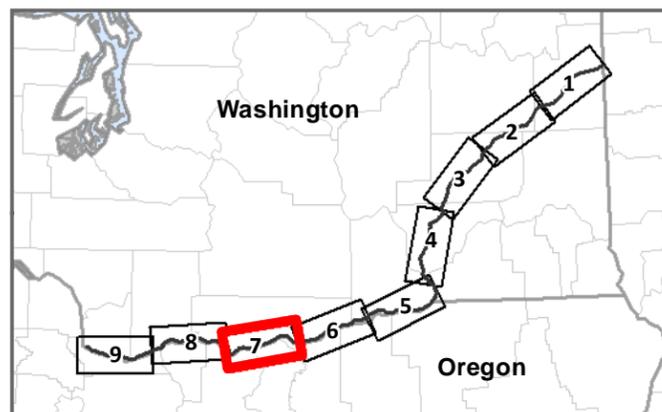
- BNSF Railroad
- County Boundary

**Landslide Probability (WADNR)**

- Certain
- Probable
- Questionable
- Unknown

**Landslides Incidence and Susceptibility (USDOI)**

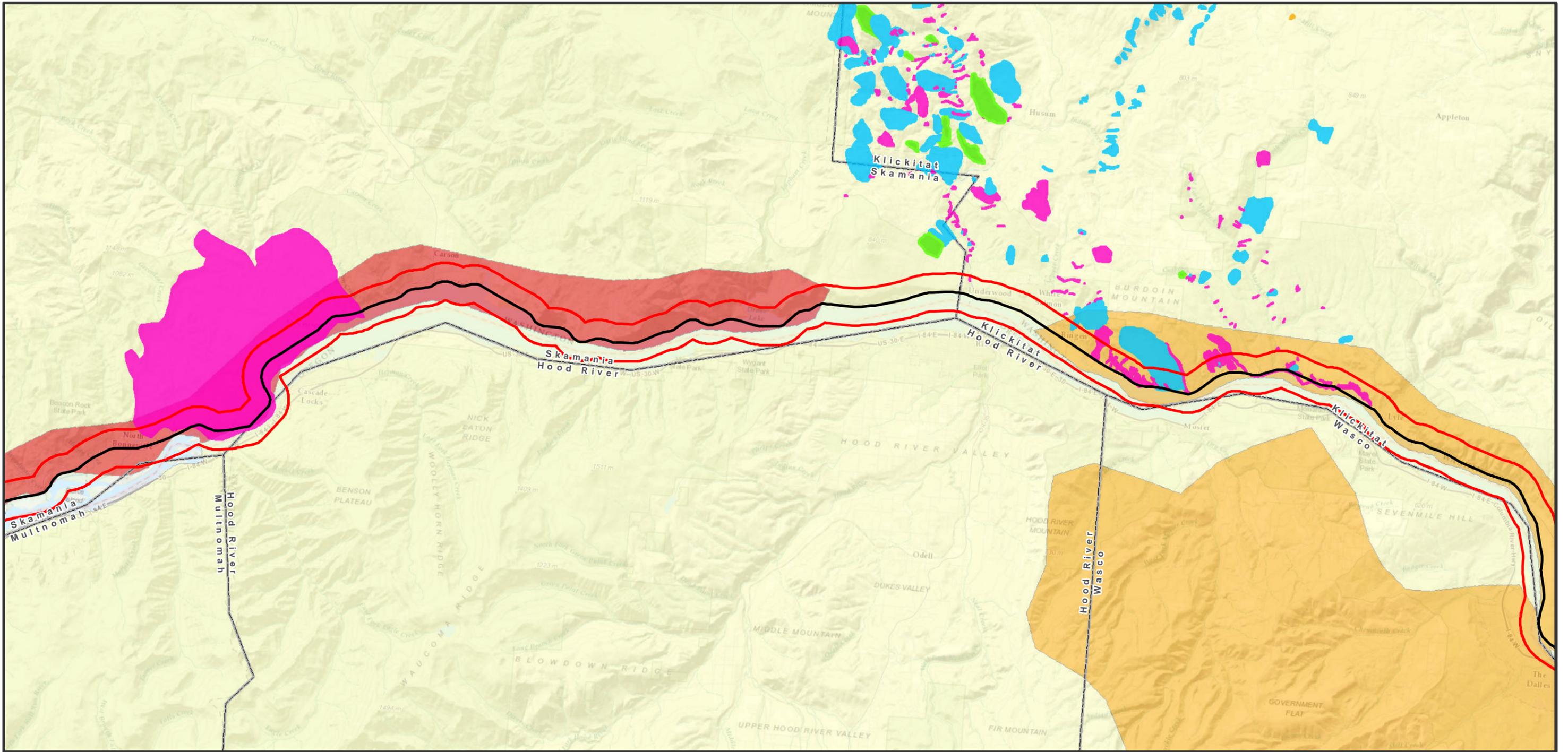
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



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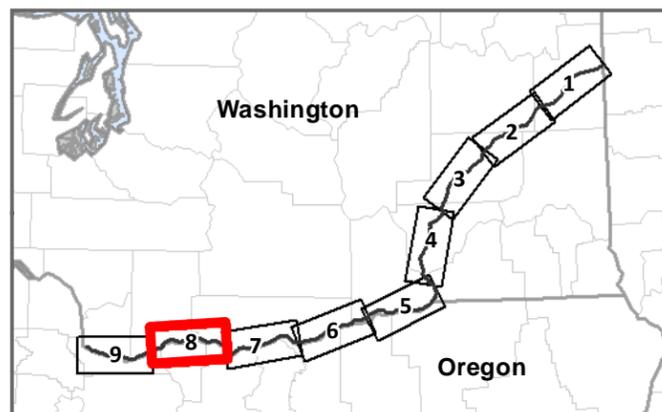
- BNSF Railroad
- County Boundary

**Landslide Probability (WADNR)**

- Certain
- Probable
- Questionable
- Unknown

**Landslides Incidence and Susceptibility (USDOI)**

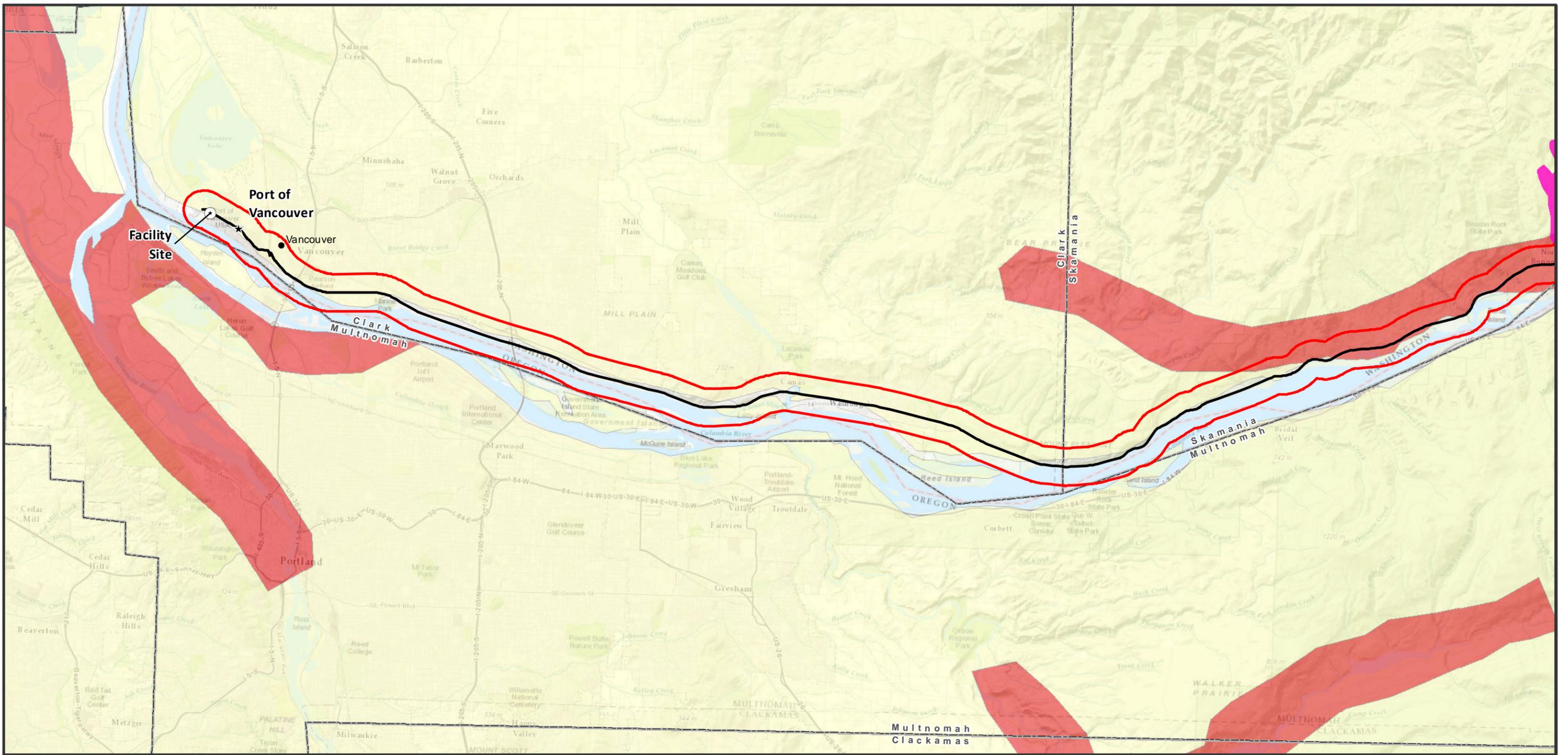
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



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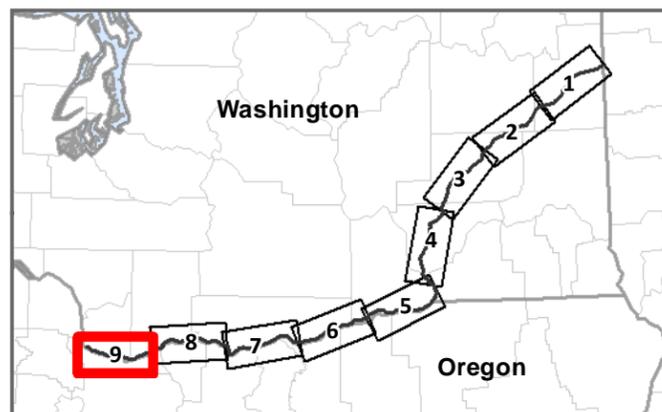
- BNSF Railroad
- County Boundary

**Landslide Probability (WADNR)**

- Certain
- Probable
- Questionable
- Unknown

**Landslides Incidence and Susceptibility (USDOI)**

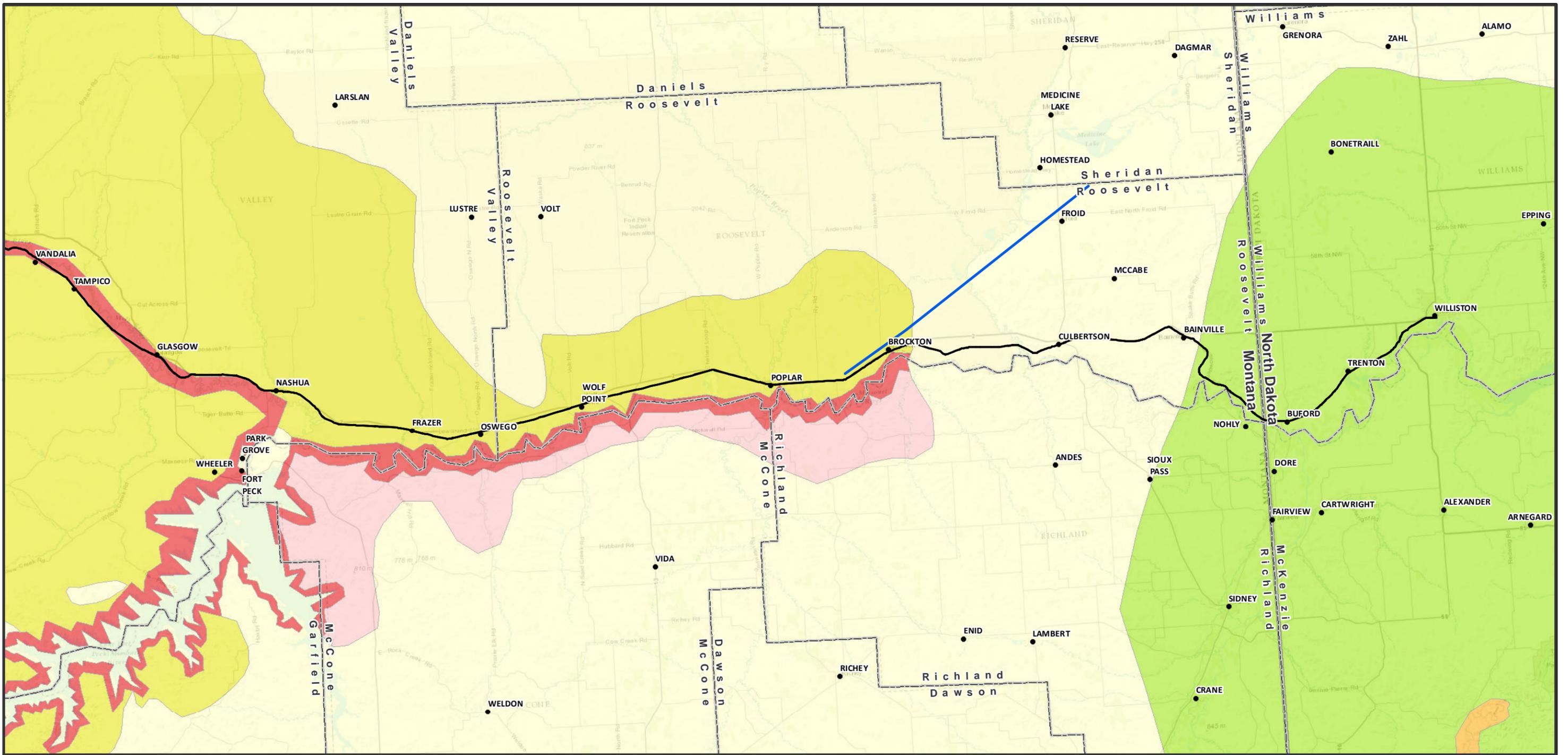
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data



Mapbook K2A  
Potential Landslide Areas  
In State Rail Corridor  
Vancouver Energy



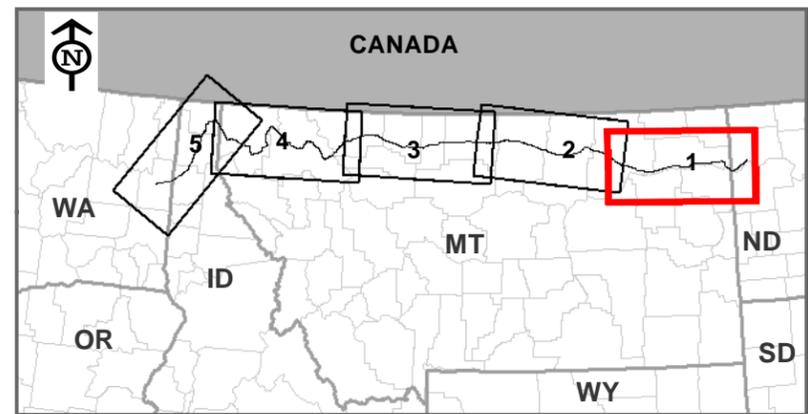
Sources:  
ESRI World Topographic Map Service, 2014.  
Washington State Department of Natural Resources, 2010.  
ESRI USDOI USGS Landslide Map Service.



**LEGEND**

- BNSF Railway
- County Boundary
- State Boundary
- Fault Type**
  - Inferred
  - Moderately constrained
  - Well constrained
- Landslides Incidence and Susceptibility**
  - High landslide incidence (over 15% of the area is involved in landsliding)
  - Moderate landslide incidence (1.5 - 15% of the area is involved)
  - High susceptibility to landsliding and moderate incidence
  - High susceptibility to landsliding and low incidence
  - Moderate susceptibility to landsliding and low incidence
  - Low landslide incidence (less than 1.5 % of the area is involved)
  - No data

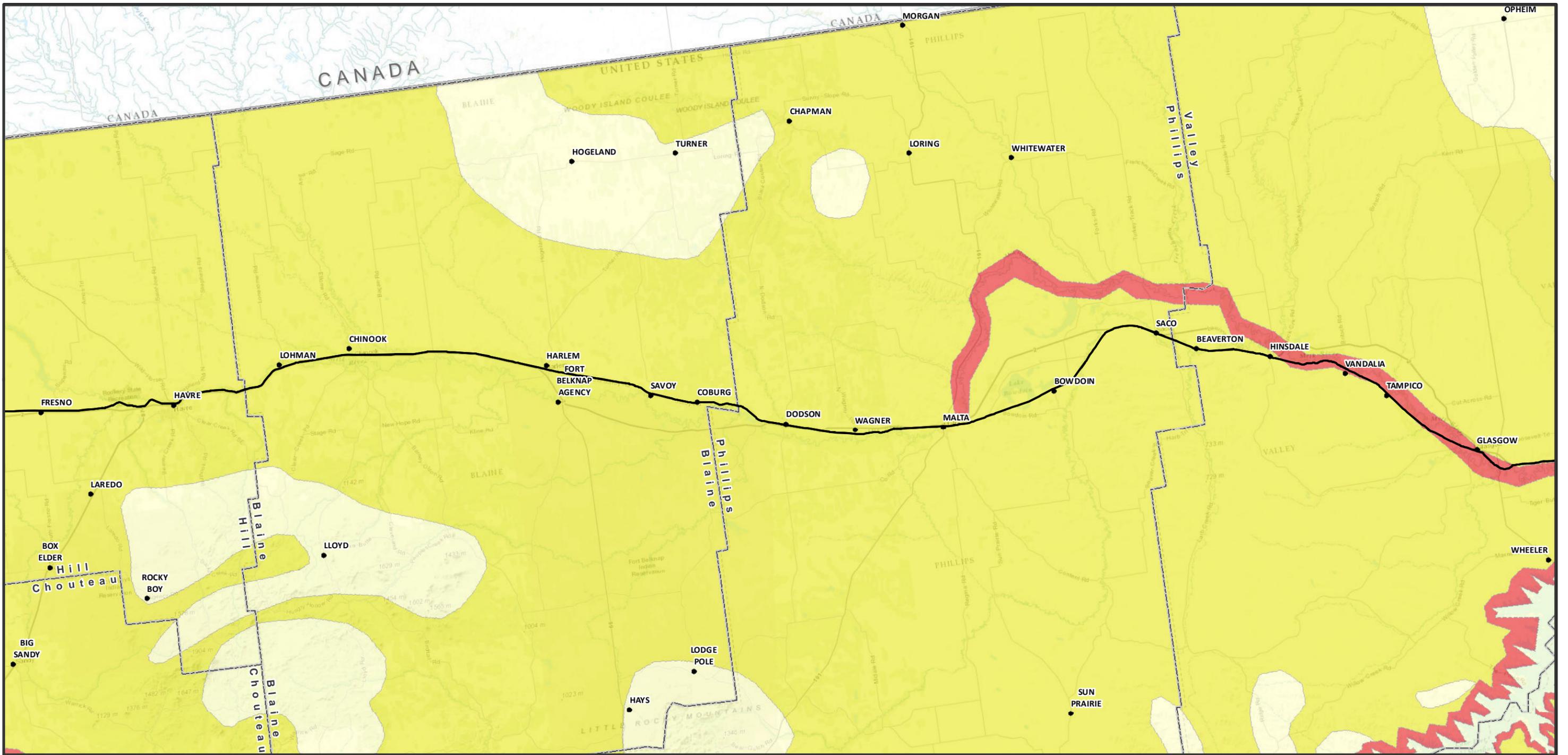
Sheet 1 of 5



Mapbook K2B  
Landslide Susceptibility  
Out of State Rail Corridor  
Vancouver Energy



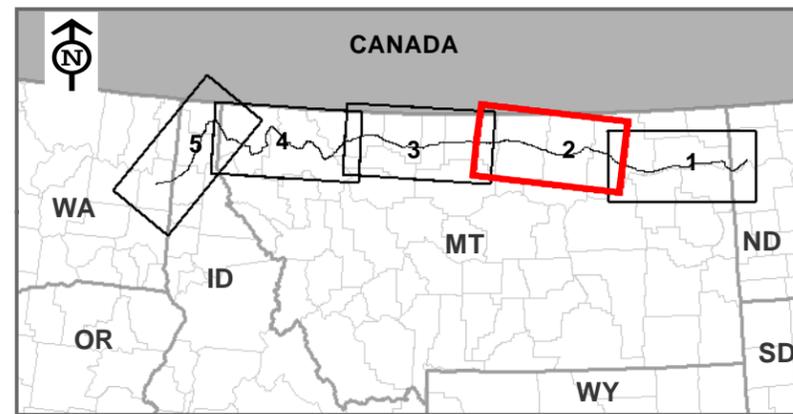
Sources:  
ESRI World Topographic Map Service, 2014.  
ESRI USDOI USGS Landslide Map Service;  
U.S. Geological Survey, 2006.



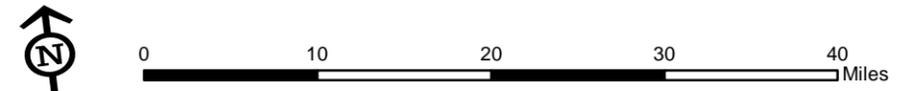
**LEGEND**

- |                 |                        |
|-----------------|------------------------|
| BNSF Railway    | <b>Fault Type</b>      |
| County Boundary | Inferred               |
| State Boundary  | Moderately constrained |
|                 | Well constrained       |
- Landslides Incidence and Susceptibility**
- High landslide incidence (over 15% of the area is involved in landsliding)
  - Moderate landslide incidence (1.5 - 15% of the area is involved)
  - High susceptibility to landsliding and moderate incidence
  - High susceptibility to landsliding and low incidence
  - Moderate susceptibility to landsliding and low incidence
  - Low landslide incidence (less than 1.5 % of the area is involved)
  - No data

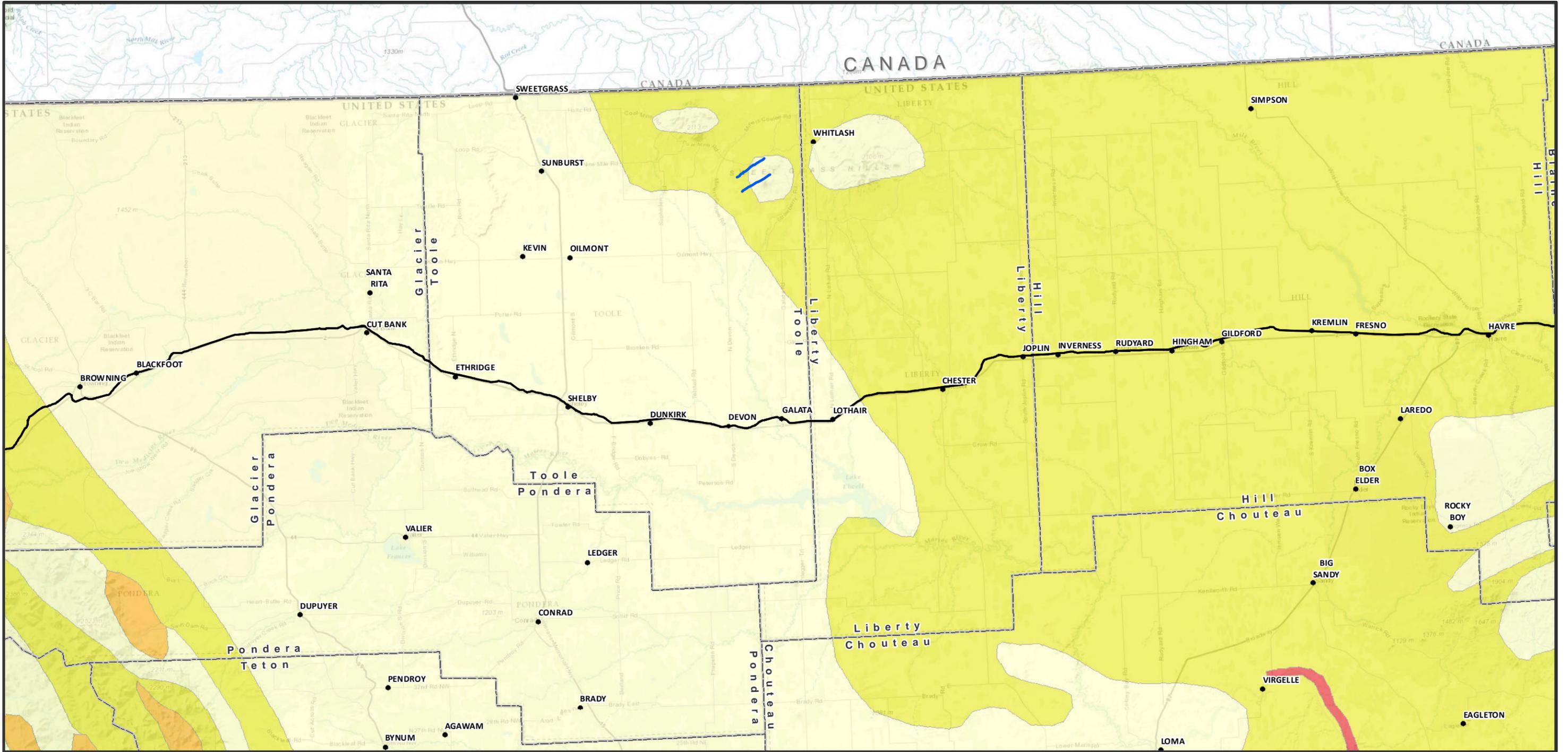
Sheet 2 of 5



Mapbook K2B  
Landslide Susceptibility  
Out of State Rail Corridor  
Vancouver Energy



Sources:  
ESRI World Topographic Map Service, 2014.  
ESRI USDOJ USGS Landslide Map Service;  
U.S. Geological Survey, 2006.

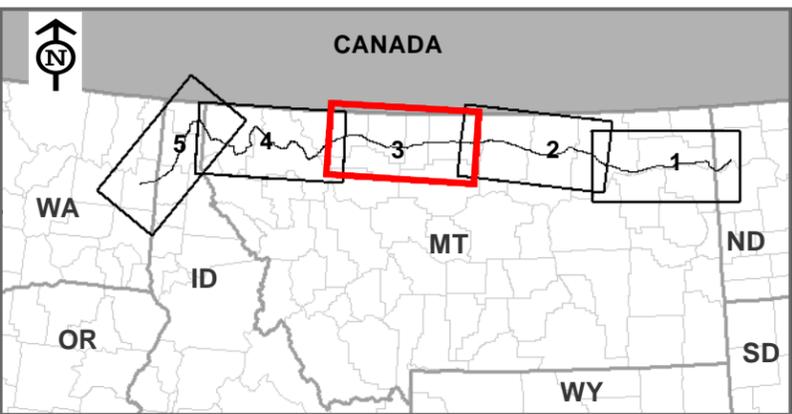


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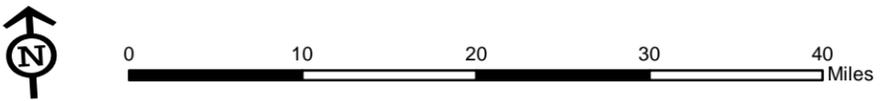
- BNSF Railway
- County Boundary
- State Boundary
- Fault Type**
- Inferred
- Moderately constrained
- Well constrained

- Landslides Incidence and Susceptibility**
- High landslide incidence (over 15% of the area is involved in landsliding)
  - Moderate landslide incidence (1.5 - 15% of the area is involved)
  - High susceptibility to landsliding and moderate incidence
  - High susceptibility to landsliding and low incidence
  - Moderate susceptibility to landsliding and low incidence
  - Low landslide incidence (less than 1.5 % of the area is involved)
  - No data

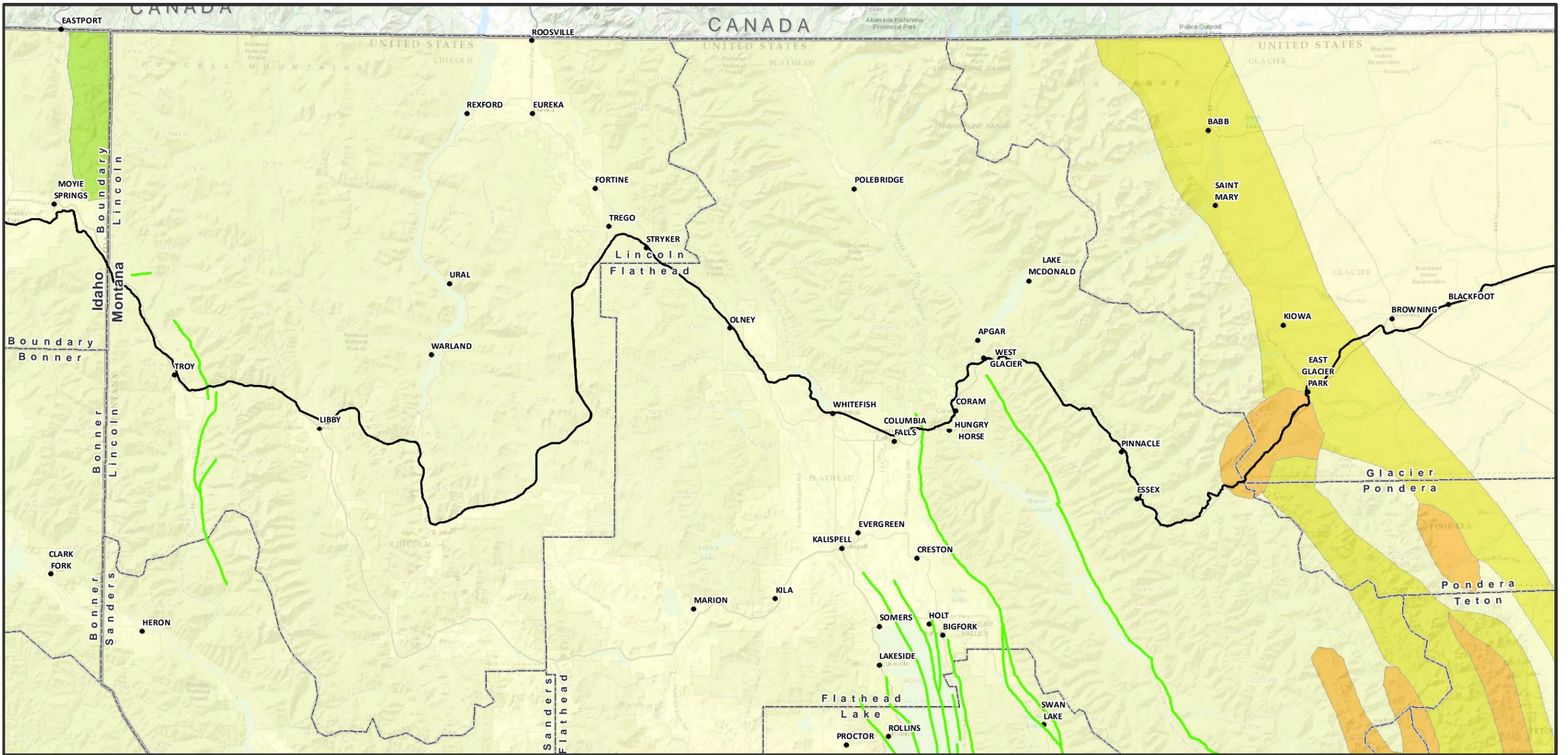
Sheet 3 of 5



Mapbook K2B  
Landslide Susceptibility  
Out of State Rail Corridor  
Vancouver Energy



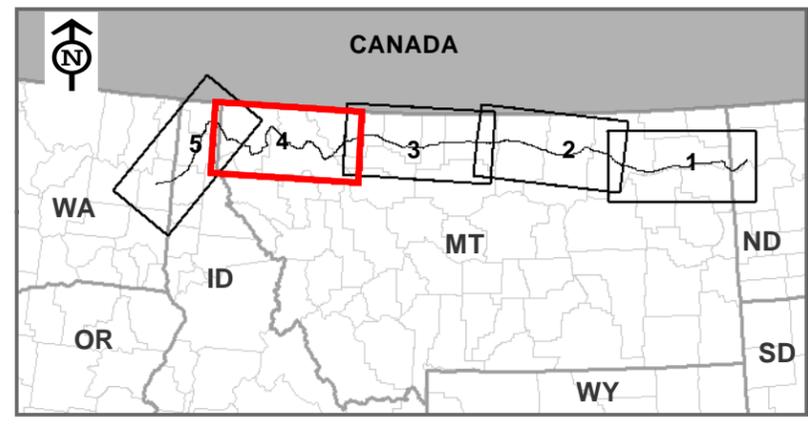
Sources:  
ESRI World Topographic Map Service, 2014.  
ESRI USDOI USGS Landslide Map Service;  
U.S. Geological Survey, 2006.



**LEGEND**

- BNSF Railway
- County Boundary
- State Boundary
- Fault Type**
  - Inferred
  - Moderately constrained
  - Well constrained
- Landslides Incidence and Susceptibility**
  - High landslide incidence (over 15% of the area is involved in landsliding)
  - Moderate landslide incidence (1.5 - 15% of the area is involved)
  - High susceptibility to landsliding and moderate incidence
  - High susceptibility to landsliding and low incidence
  - Moderate susceptibility to landsliding and low incidence
  - Low landslide incidence (less than 1.5 % of the area is involved)
  - No data

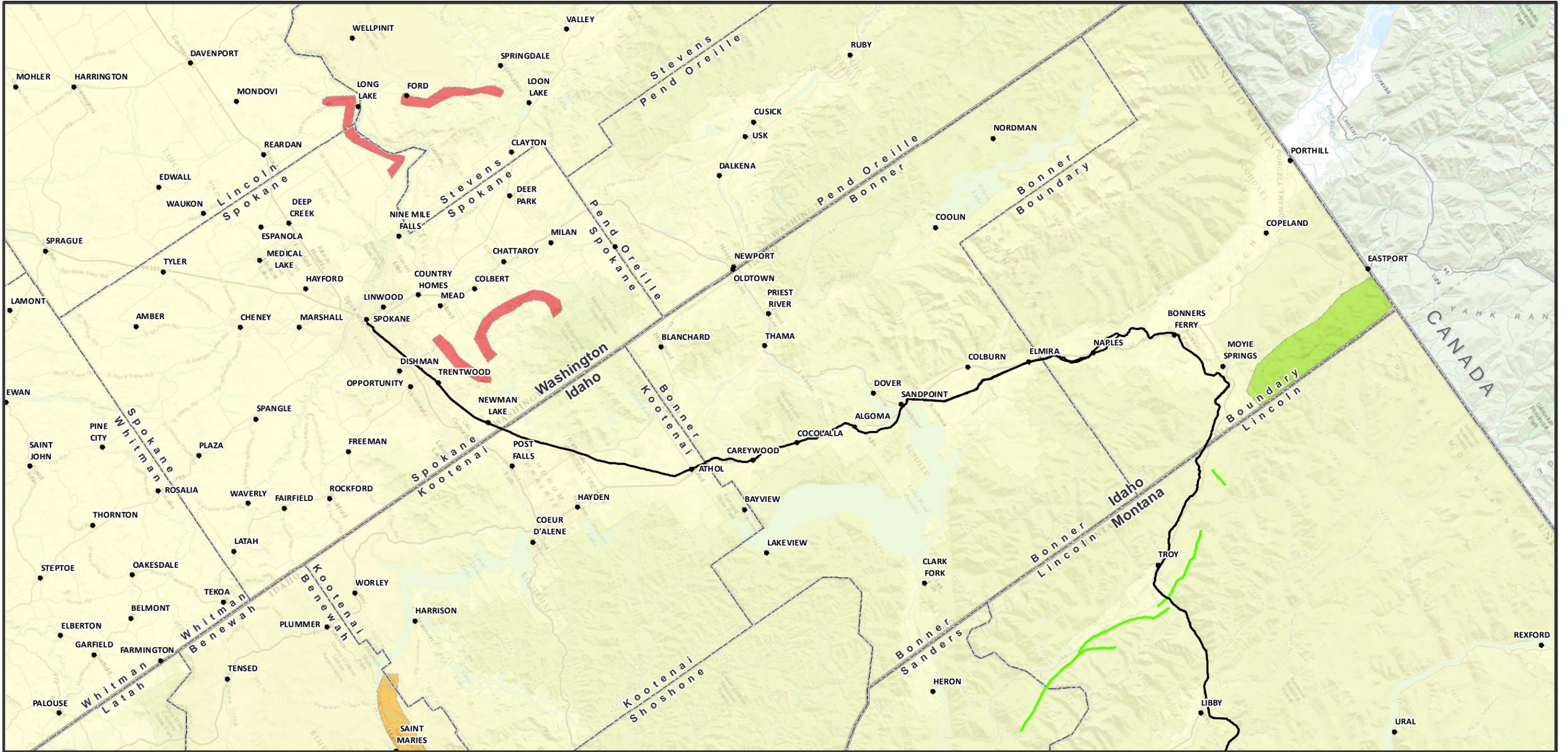
Sheet 4 of 5



Mapbook K2B  
Landslide Susceptibility  
Out of State Rail Corridor  
Vancouver Energy



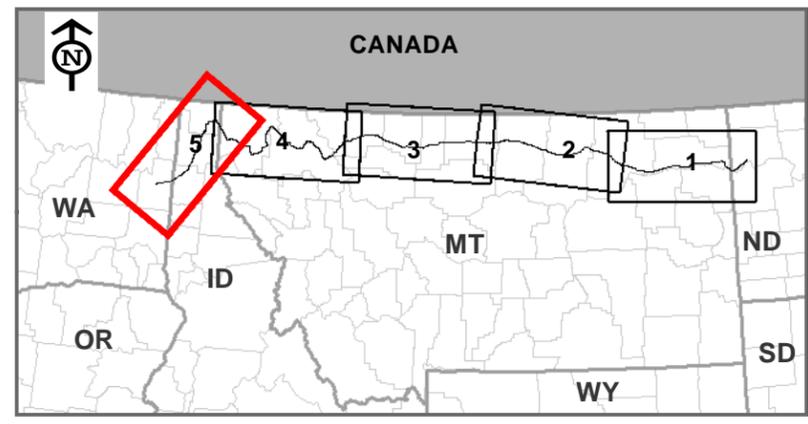
Sources:  
ESRI World Topographic Map Service, 2014.  
ESRI USDOI USGS Landslide Map Service;  
U.S. Geological Survey, 2006.



**LEGEND**

- BNSF Railway
- County Boundary
- State Boundary
- Fault Type**
- Inferred
- Moderately constrained
- Well constrained
- Landslides Incidence and Susceptibility**
- High landslide incidence (over 15% of the area is involved in landsliding)
- Moderate landslide incidence (1.5 - 15% of the area is involved)
- High susceptibility to landsliding and moderate incidence
- High susceptibility to landsliding and low incidence
- Moderate susceptibility to landsliding and low incidence
- Low landslide incidence (less than 1.5 % of the area is involved)
- No data

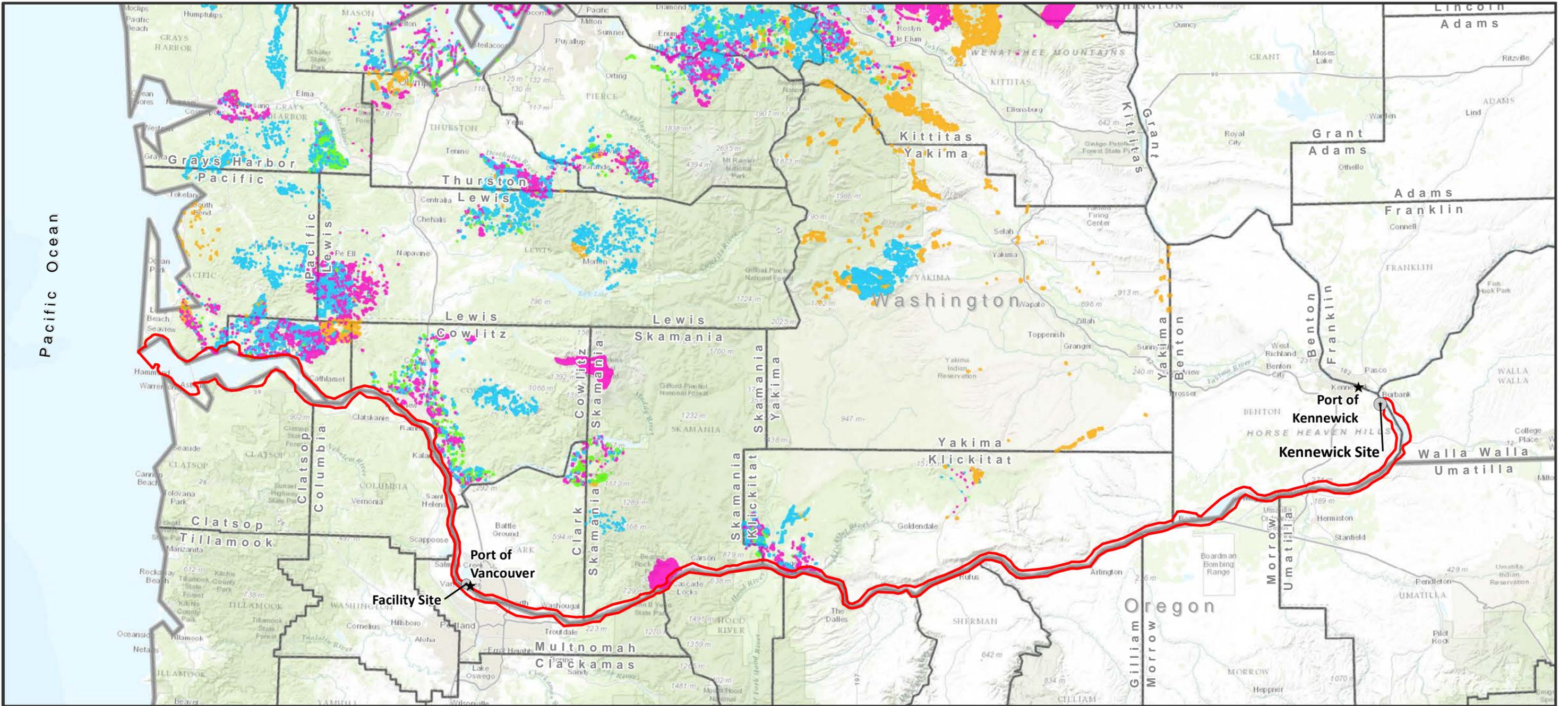
Sheet 5 of 5



Mapbook K2B  
Landslide Susceptibility  
Out of State Rail Corridor  
Vancouver Energy



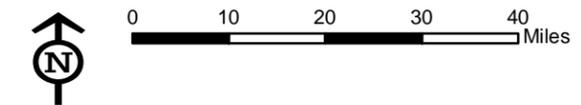
Sources:  
ESRI World Topographic Map Service, 2014.  
ESRI USDOI USGS Landslide Map Service;  
U.S. Geological Survey, 2006.



**LEGEND**

- Columbia River 1/4 Mile Buffer
- State Boundary
- County Boundary
- Landslide Probability
- Certain
- Probable
- Questionable
- Unknown

Mapbook K2C  
 Potential Landslide Areas  
 Columbia River Marine Corridor  
 Vancouver Energy



ESRI World Topographic Map Service, 2014.  
 Washington State Department of Natural Resources, 2010.