

Digital 299 Broadband

Project Summary

Applicant's Name:

Inyo Networks, Inc.

Contact Person:

Michael Ort
1101 Nimitz Ave.
Vallejo, CA 94592
707-551-8220
mort@inyonetworks.com

Project Title:

Digital 299 Broadband

Proposed Project Location:

The proposed Digital 299 project delivers ultra-fast broadband to a poorly served 2,400 square mile area of rural Northern California between Redding and the California coast encompassing portions of Shasta, Trinity, and Humboldt counties. A combination of middle and last mile components will deliver Gigabit and higher levels of connectivity to over 1,000 households and 117 schools, colleges, research institutions, hospitals, clinics, public safety and other governmental Community Anchor Institutions (CAIs). The project will support three tribal lands as well as provide significant backhaul to Last Mile providers in over 12 communities to substantially improve bandwidth delivery. The network is designed to support future datacenter and potential coastline broadband infrastructure in the area. Specific design considerations have been given to disaster recovery, public safety, forest management and intelligent transportation systems.

Project Type:

This project combines Middle Mile and Last Mile solutions.

Total Project Costs: **\$72,816,995**

CASF Funding Request: \$50,971,897**Description of the Project:**

The proposed technology solution selected for the interoffice transport network is a series of six optical packet transport nodes located along the route at Eureka, Arcata, Willow Creek, Weaverville, Redding and Cottonwood. Capable of supporting multiple 100 Gb. wavelengths, the transport nodes will be equipped with reconfigurable optical add drop multiplexers (ROADM) that will provide access for OTN level interconnection switching to other middle mile networks and local distribution facilities. In addition, at the Arcata, Willow Creek, Weaverville, Redding and Cottonwood nodes, Ethernet interfaces in 1 and 10 Gb capacity increments will support ten, fiber-fed cabinet-based, "pico nodes" to serve the communities of Hayfork, Lewiston, Douglas City and Burnt

Ranch. These pico nodes will act as interconnection points for Last Mile distribution facilities and will initially be fed with 10 Gb Ethernet links.

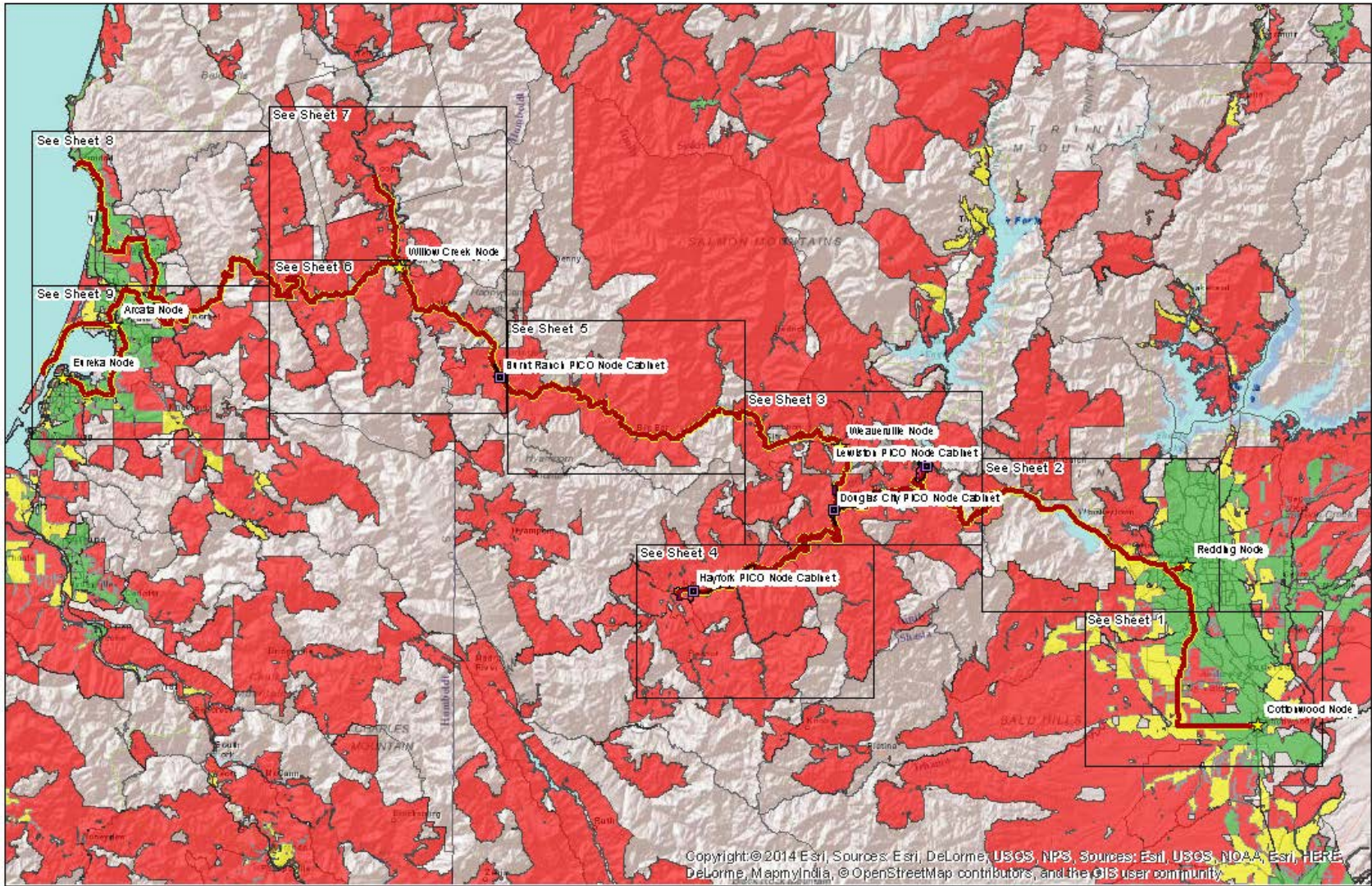
The Last Mile distribution networks are Fiber-to-the-Premises (FTTP) designs utilizing Point-to-Point Protocol over Ethernet (PPPoE) transmission electronics to support voice, data and video services. The selection of optical distribution technology to serve the area is based upon the area’s topography, transmission distances, and the long-term economic development goals of local government. Upon completion, the project will be initially capable of delivering 1 Gigabit symmetrical data along with voice and high definition video. The network is configured to be ultimately upgradable to 10 GB, as future needs require.

Map of Proposed Project:

Please See Pages 3 to 12

List of Census Block Groups and Zip Codes:

Geo	Census Block Group	CBG	Households	Zip Codes
Lewiston	Block Group 1, Census Tract 1.01, Trinity County, California	061050001011	73	96052
Lewiston	Block Group 2, Census Tract 1.01, Trinity County, California	061050001012	233	96052
Lewiston	Block Group 1, Census Tract 1.02, Trinity County, California	061050001021	1	96052
Douglas City	Block Group 2, Census Tract 1.01, Trinity County, California	061050001012	66	96024
Douglas City	Block Group 3, Census Tract 1.01, Trinity County, California	061050001013	120	96024
Hayfork	Block Group 1, Census Tract 3, Trinity County, California	061050003001	98	96041
Hayfork	Block Group 2, Census Tract 3, Trinity County, California	061050003002	117	96041
Hayfork	Block Group 3, Census Tract 3, Trinity County, California	061050003003	286	96041
Burnt Ranch	Block Group 1, Census Tract 2, Trinity County, California	061050002001	38	95527

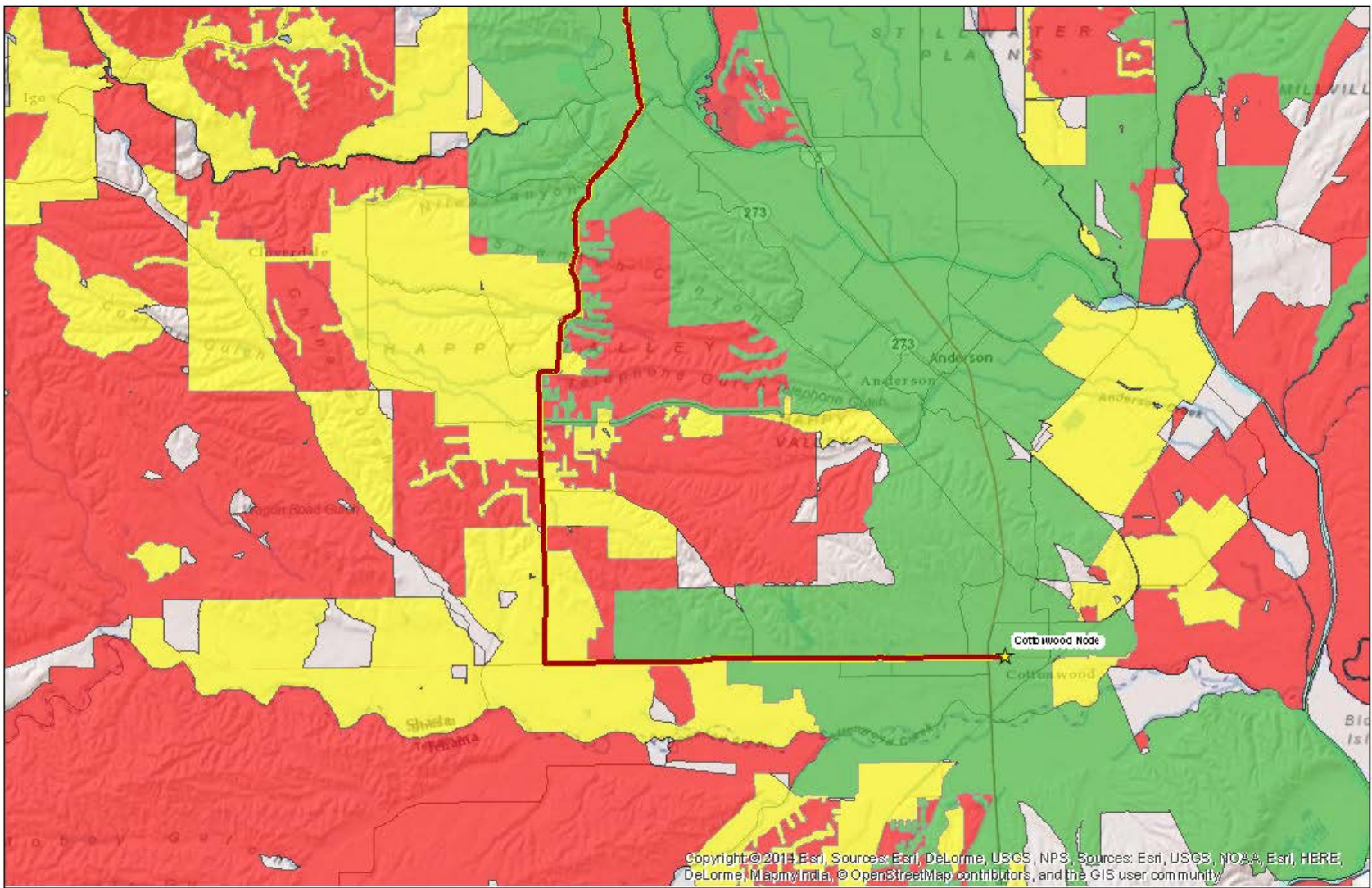


Key Map

Digital 299 Broadband Wireline Service Availability

- D299 PICO Nodes
- D299 Nodes
- D299 Proposed Route
- D299 Project PFSA
- CASF Tool Census Block Groups
- Unserved, Populated
- Served
- Underserved
- Unserved, Unpopulated

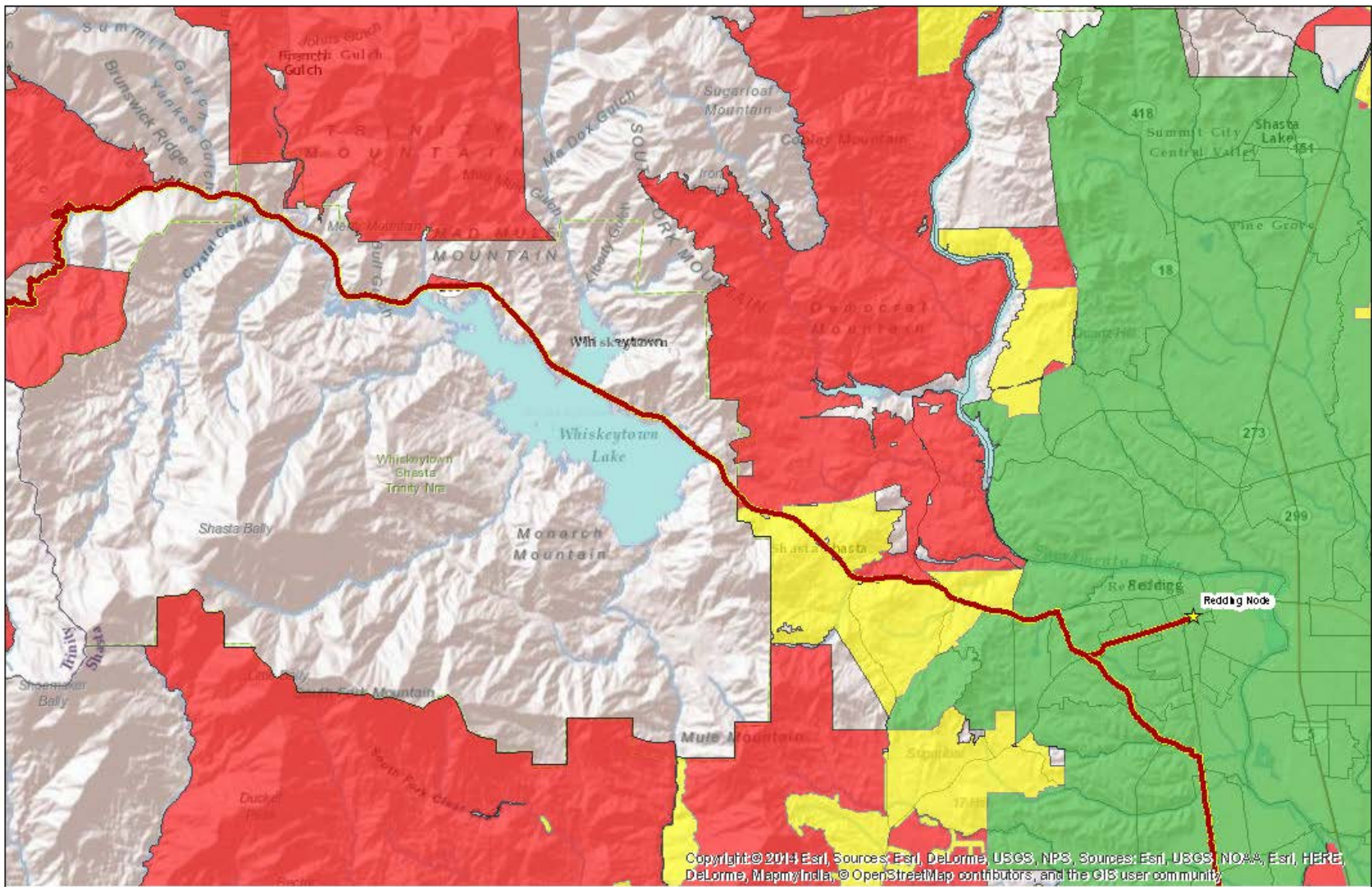




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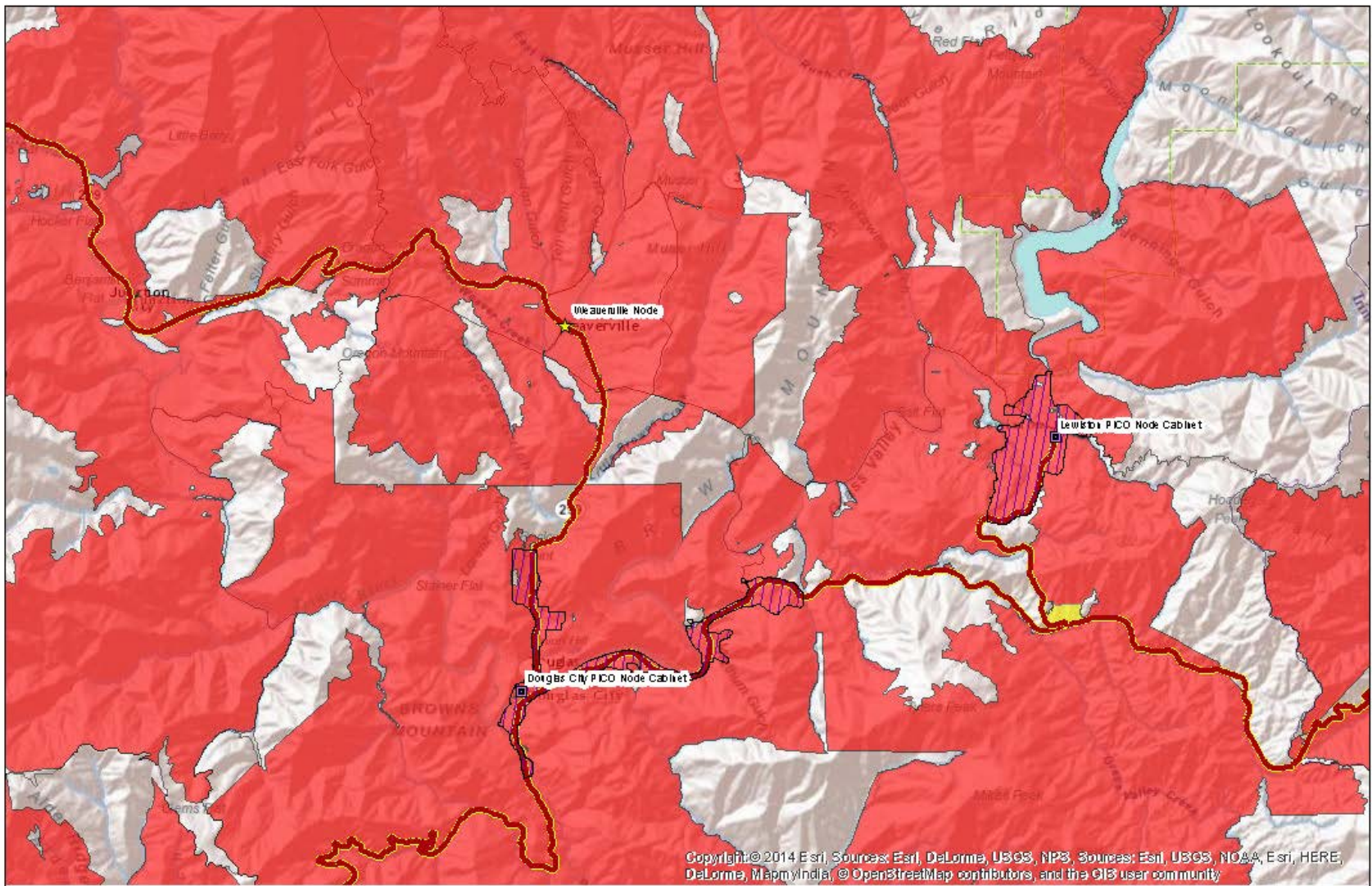


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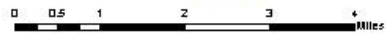
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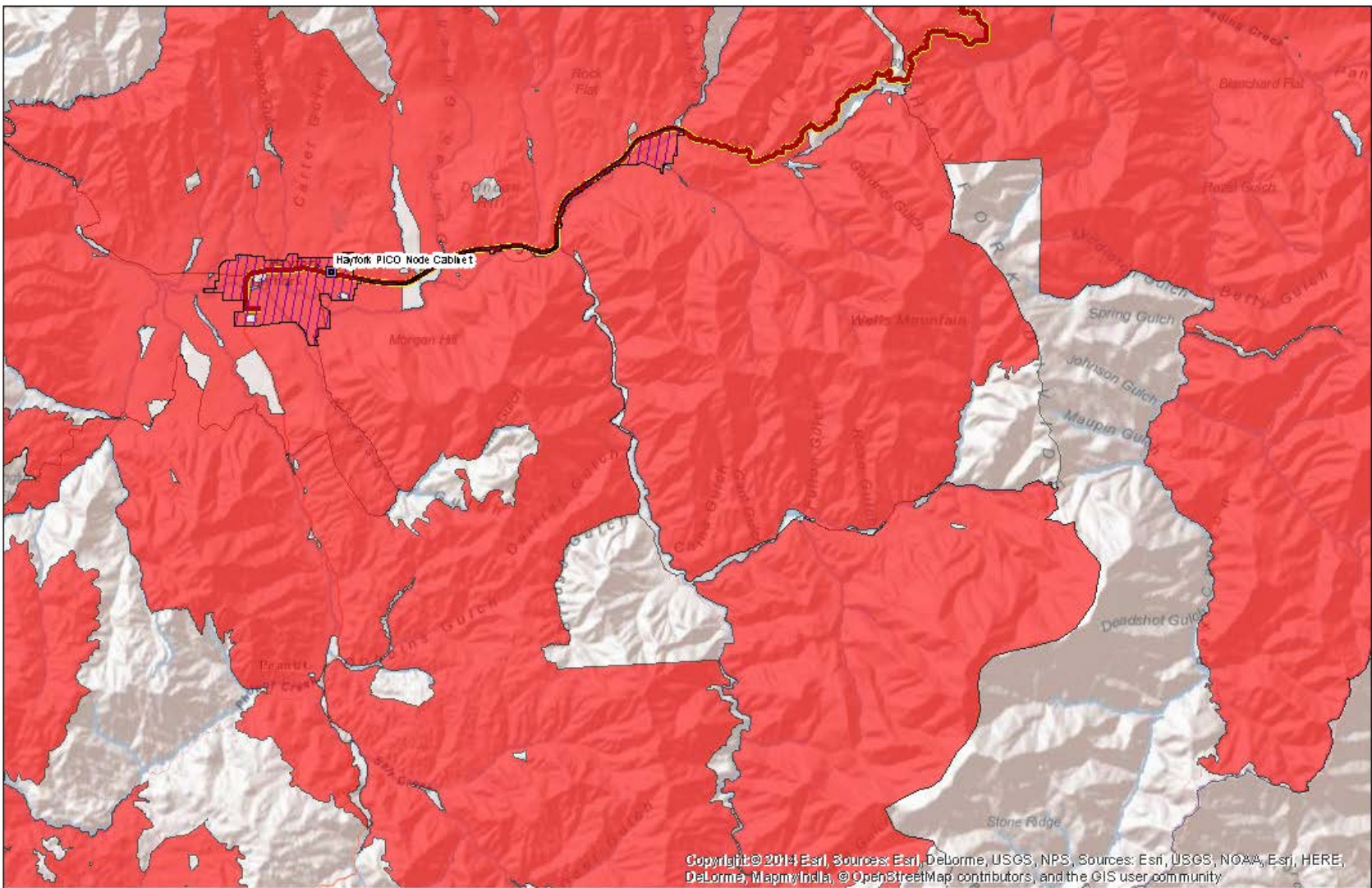




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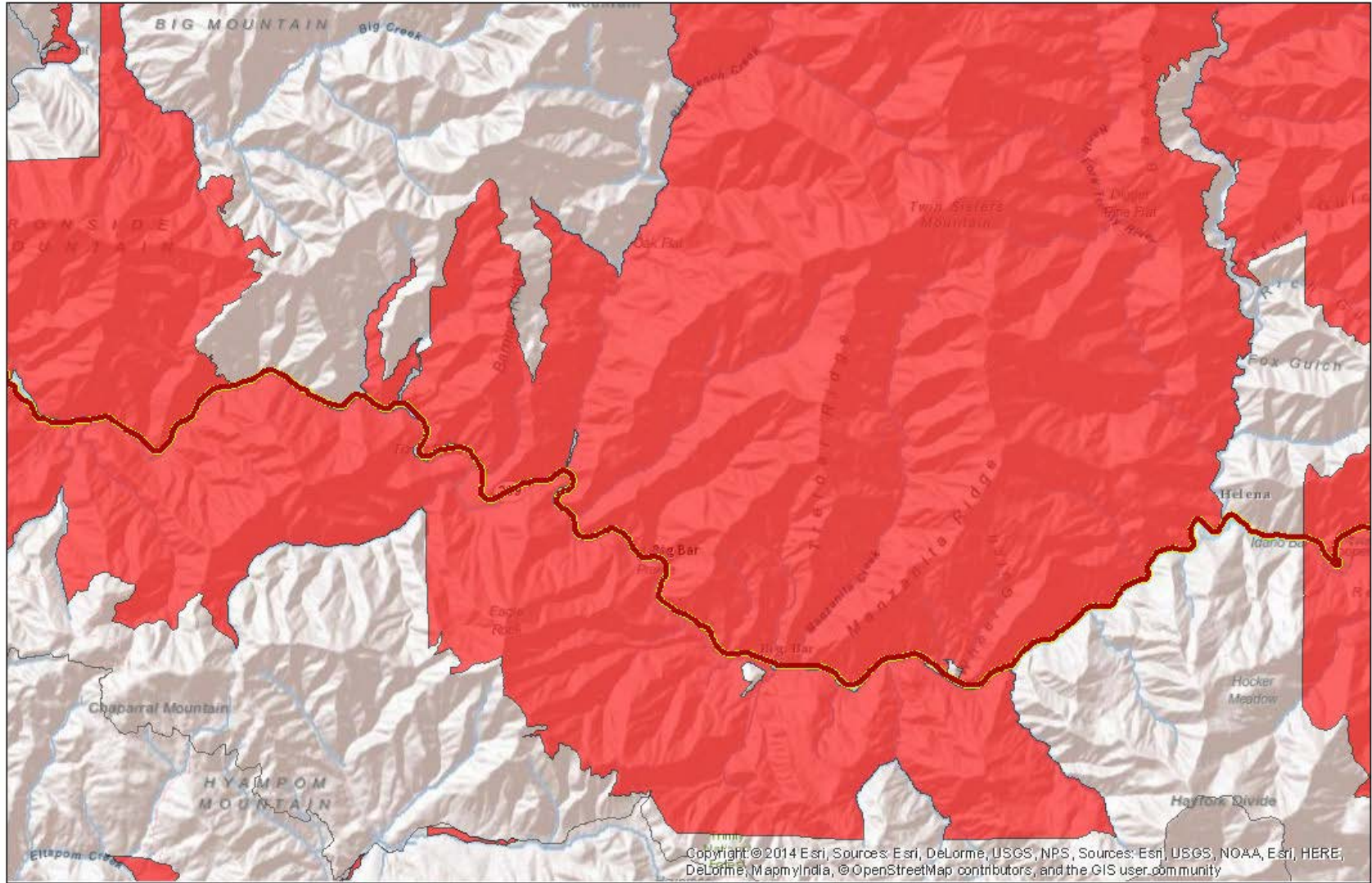




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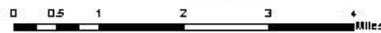


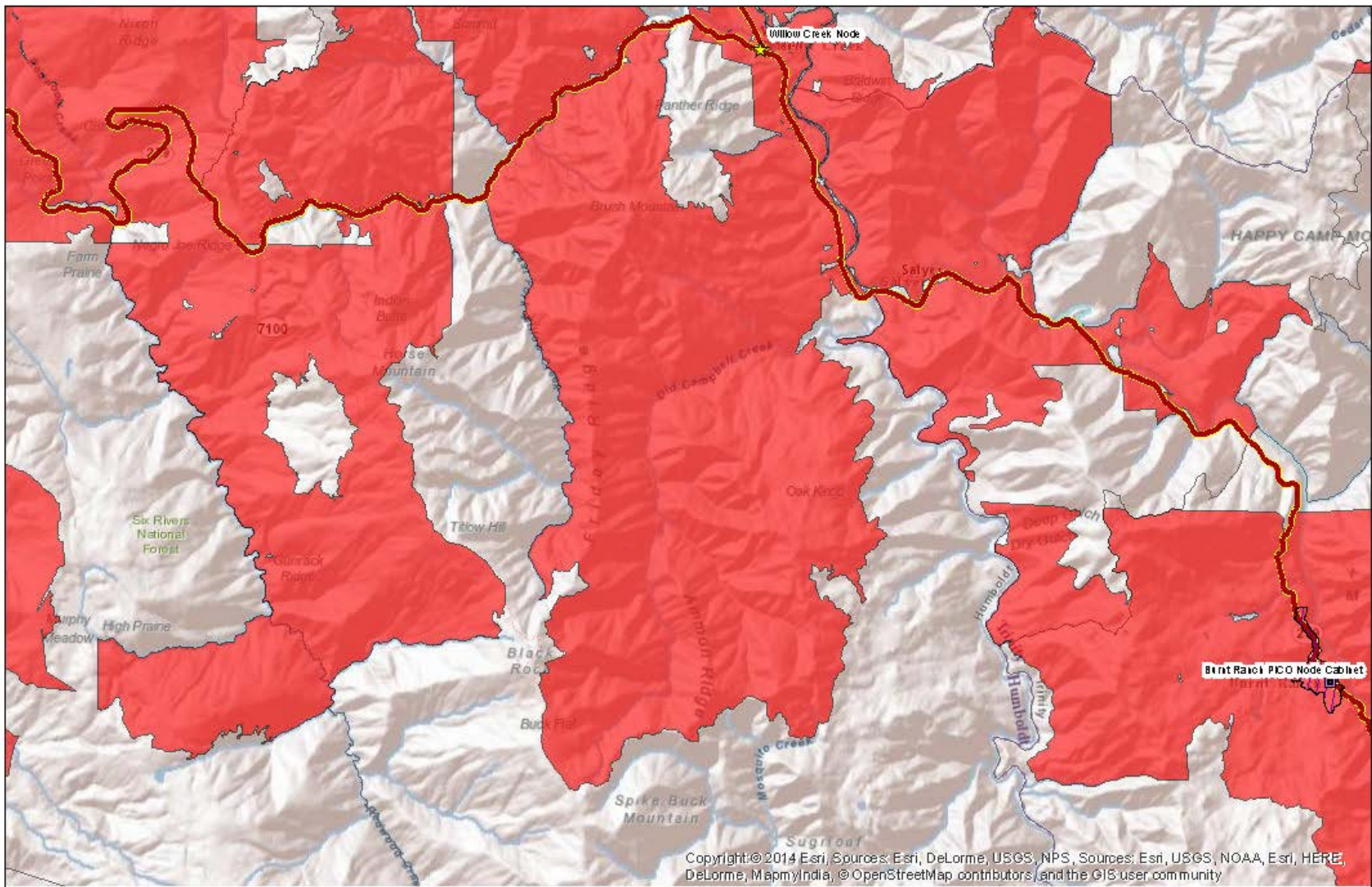


Page 5 of 9

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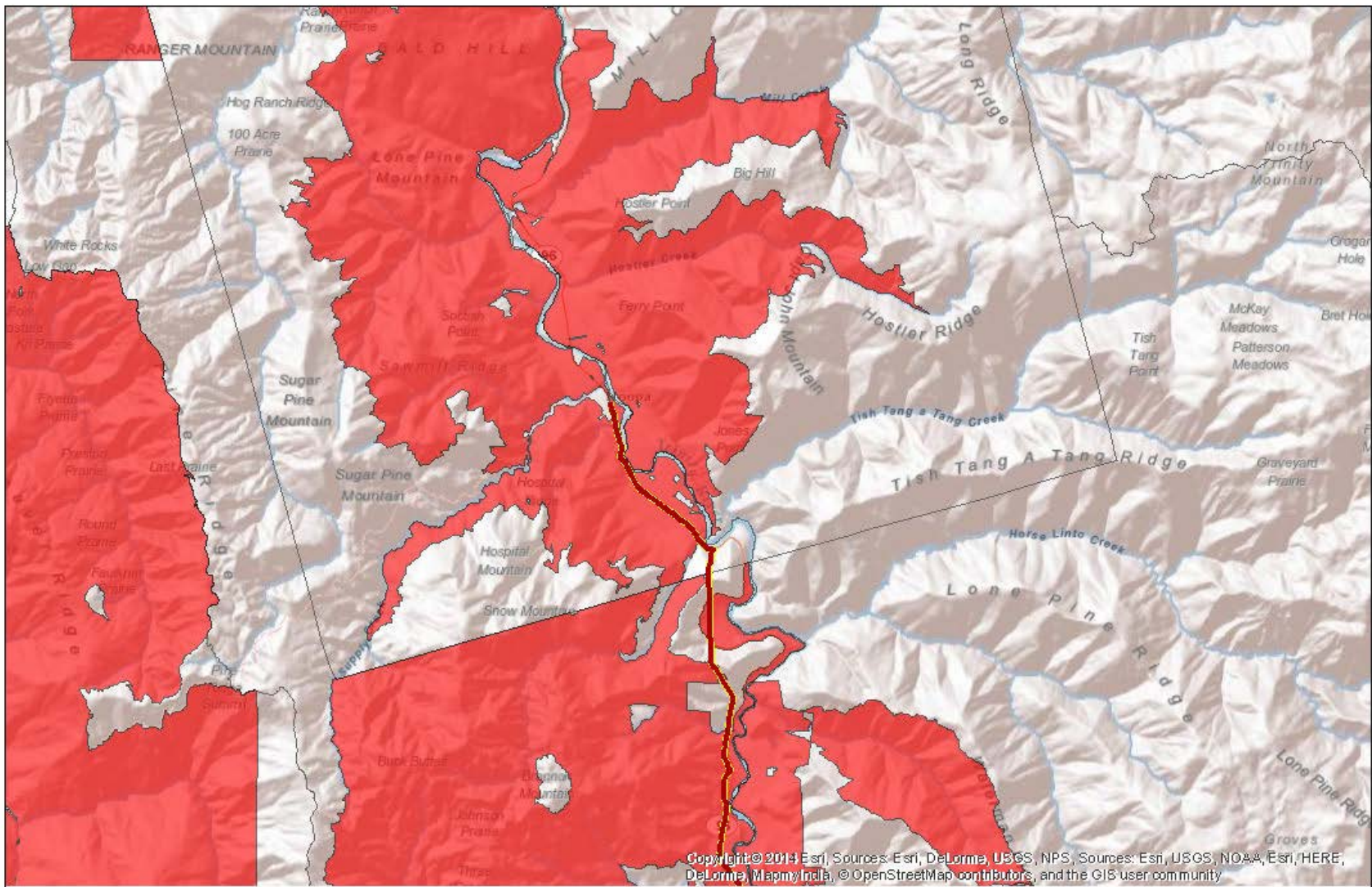


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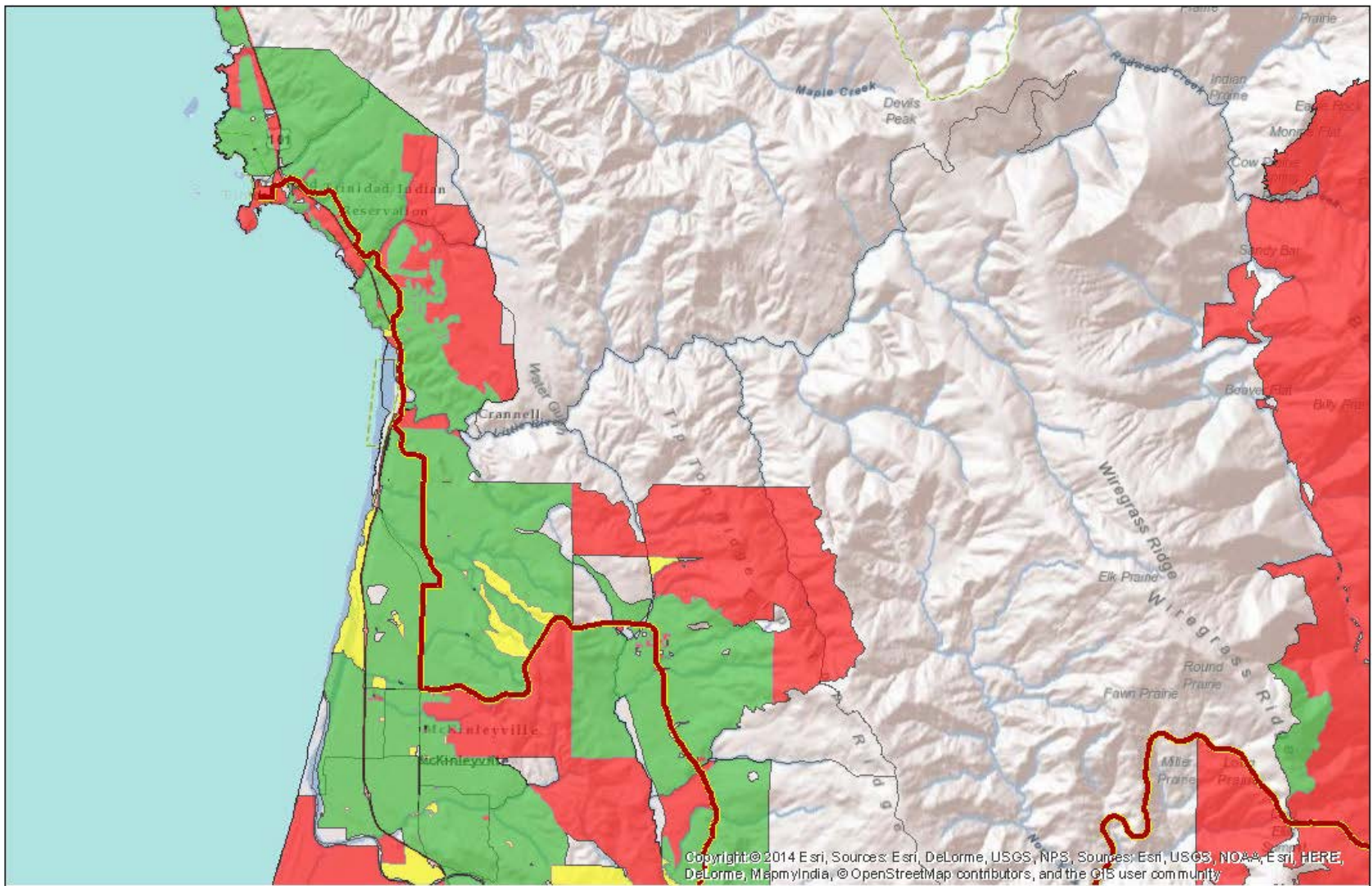




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Page 8 of 9

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