

Staff Subcommittee on Telecommunications

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Mobility Fund II – What's Mobilizing?

Connecting America; Mobility Fund II

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Presentation to the
National Association of Regulatory Utility
Commissioners
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FCC Mobility Fund Phase II

- FCC Mobility Fund Phase II Order (MFII) provides \$453 million in annual universal service for ten years for deployment of 4G LTE
- Mobility Fund I offered carriers up to \$350 million in one-time funding to spur deployment of advanced wireless services in unserved areas, including Tribal lands



FCC Findings: Areas Lacking 4G LTE

- 3 million people lack access to 4G LTE service or are served only by subsidized 4G LTE providers



- 4G LTE is absent from or only provided with support in one-fifth of the area of the United States excluding Alaska

MF II Eligible Areas

- *Eligible areas*: Geographic areas defined by any portion of a census block not fully covered by unsubsidized 4G LTE coverage with 5 Mbps minimum advertised download speed
- *Petitions for Reconsideration* filed urging the FCC to change eligibility speed criteria to include 10 mbps down and 1 up to conform to CAF standard. Reconsideration requested for “challenge” process for served vs. eligible areas
- The Communications Act directs the FCC to fund “reasonably comparable” services and rates in rural areas to those commonly available in urban areas. 47 U.S.C. § 254(b)(3)



The FCC recognized: “Tribal lands likely will be more expensive to serve than non-Tribal lands due to their lower population density and income levels, as well as the lack of power or roads in some parts of Indian country and the need for federal approval (such as from the Bureau of Indian Affairs) before broadband can be deployed there.”



Jack Norton Elementary School on the Yurok Reservation lacks electricity access or telephone service and relies on diesel generators.



Tribes commenting on MF II and CAF II emphasized that lack of access to electricity and roads increased service costs and greatly complicate service feasibility

FCC reserved up to \$34 million of the total \$453 million of annual support for 4G LTE on eligible Tribal lands.

Securing and coordinating Electric buildout funding is critical to broadband mobile and wireline deployment.

Photo: End of the Electric Line, Yurok Reservation, California.

*Electricity built and energized for portions of the Eastern part of the Yurok Reservation in June 2013.

*Funded by a federal RUS grant and a now expired CPUC Rural Infrastructure grant program.



Cell Towers need reliable power sources

Solar variability and limited production hours make it an unreliable power source for a cell tower

Diesel back-up or storage can run out

Need funding to connect to electric lines

Often 5-10 ten year buildout for electric line funding and construction

MF II buildout requirements after starting point:
40 percent by three years
60 percent by four years
80 percent by five years
85 percent by six years





American Indian Chamber of Commerce of California

FCC declined to adopt a formal Tribal engagement obligation

Tribal consultation prior to bidding, seeking environmental or construction permits, or construction is strongly advised.

Tribes are sovereign nations. Tribal consultation facilitates deployment and service.

The FCC declined to adopt a bidding credit for Tribally-owned-and-controlled entities



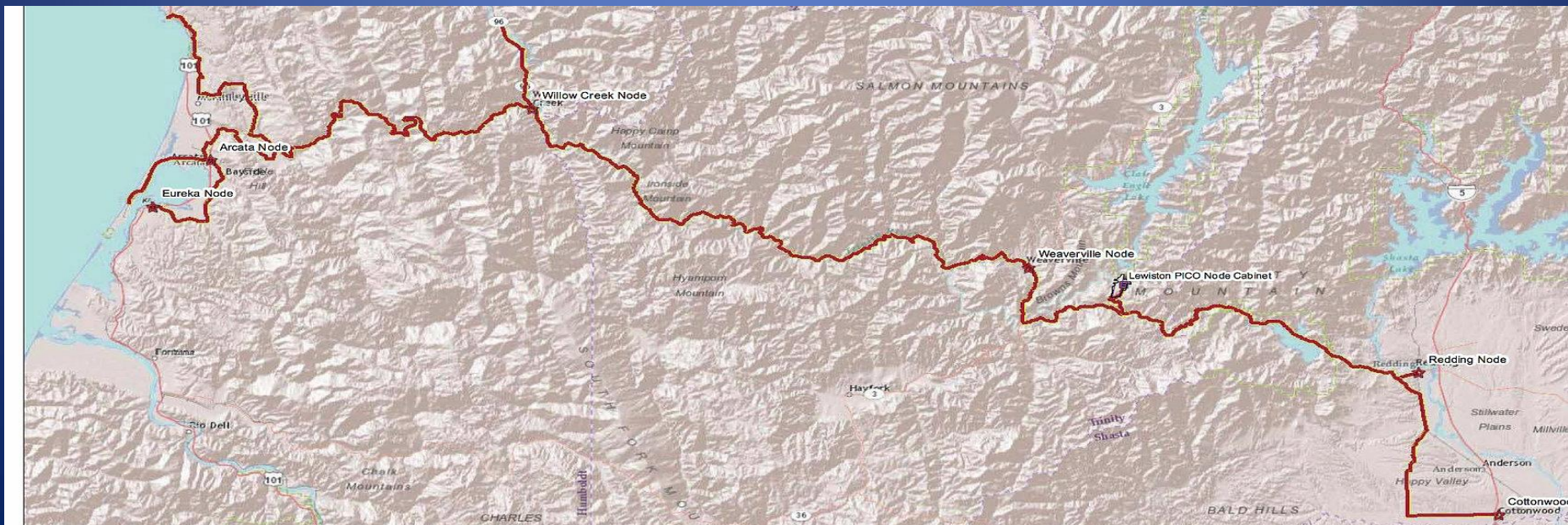
Photo: Consultation with the Yurok Tribe and the California Public Utilities Commission Low Income Oversight Board

Mobility Fund Phase II

- *Service requirements:*
 - Median data speeds of 10 Mbps down 1 up
 - Latency of less than 100 milliseconds (ms)
 - Rates that are reasonably comparable to urban rates
- *Reverse Auction to secure funds:* Market-based, multi-round reverse auction.

Middle Mile Networks and Interconnection

- Mobility requires access to a backhaul network at towers as well as electricity at towers
- CPUC funded Digital 299 project through California Advanced Services Fund to build middle mile facilities to attract cell towers and support connections to rural communities



Qualifications for Mobility Fund II

- MF-II applicant must demonstrate access to spectrum capable of the appropriate level of service in the geographic areas to be served
- Applicant must certify financial and technical capability to provide service in the timeframe
- *Petition for Reconsideration* about:
- Letter of credit requirements
- Colocation of new towers vs. all towers (MF II Order required colocation of all towers)
- Eligible area definition

Further Notice of Proposed Rulemaking

- Challenge process about areas eligible for support
- FCC seeks comment on guiding principles for the challenge process including use of form 477 data.
- How should the FCC determine accuracy of coverage estimates?
- ? About coverage gaps that should make an area eligible for MF II support.
- Should there be minimum size or requirements about gaps to deem the area eligible?

Measuring Eligible Areas

- H.R. 1546 The Rural Wireless Act of 2017, introduced by Dave Loebsack (D-IA) would direct the FCC to establish a methodology for mobile wireless coverage data that reflects actual consumer connectivity experience.
- Mississippi Public Service Commission (MPSC) urged the FCC to seek input from states that have instituted programs to identify areas lacking coverage
- FCC decided to rely principally on FCC Form 477 data.
- FCC will consider State and other coverage data in challenge process



Speed the Auction Process

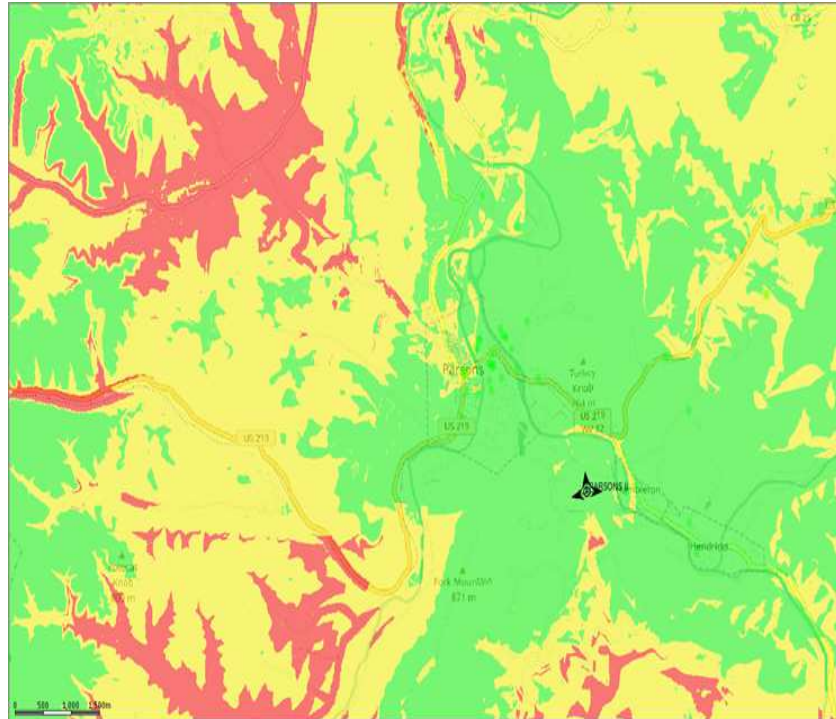
- FCC is four years behind the planned MF II auction date
- Parties urge speedy start of auction process
- Petitions for Reconsideration request resolution before Auction
- FNPRM requests comment on eligibility challenge process
- Goal: Communities need reliable, comparable, and affordable mobile communications services

Thank you!

- For more information, please contact:
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 - Csandoval@scu.edu



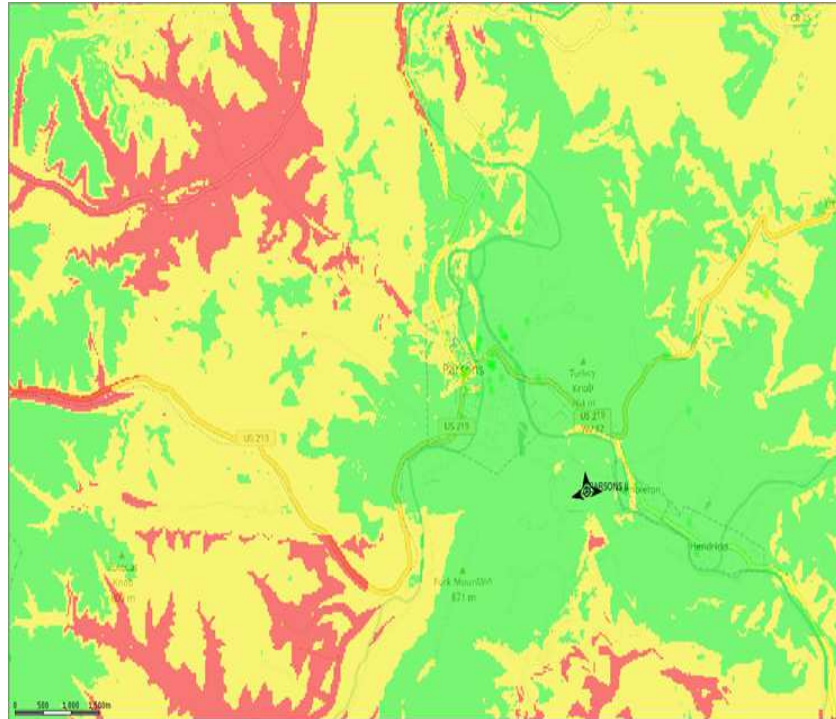
Zoom of 5m Resolution RSRP Plot



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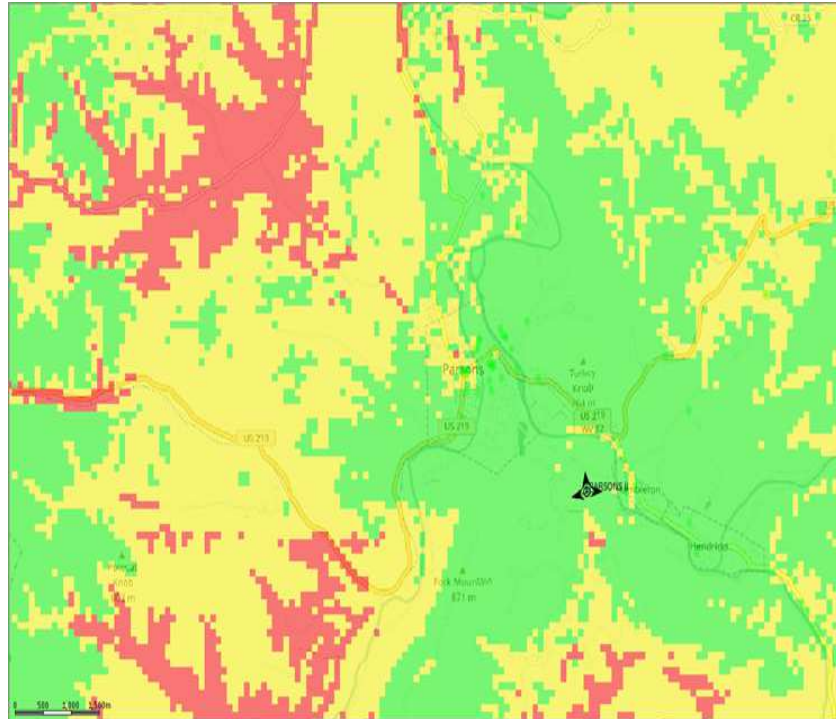
Zoom of 30m Resolution RSRP Plot



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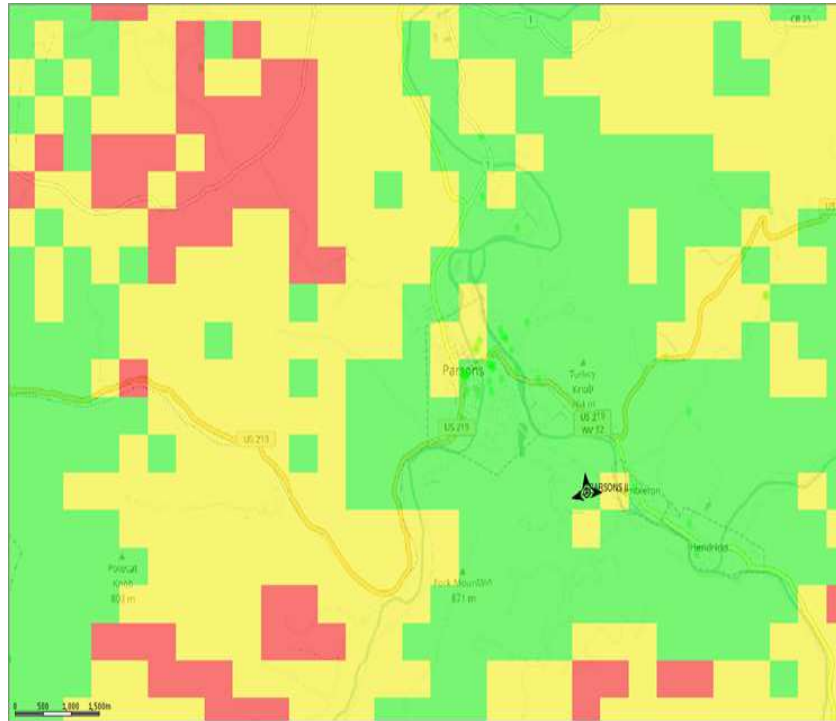
Zoom of 100m Resolution RSRP Plot



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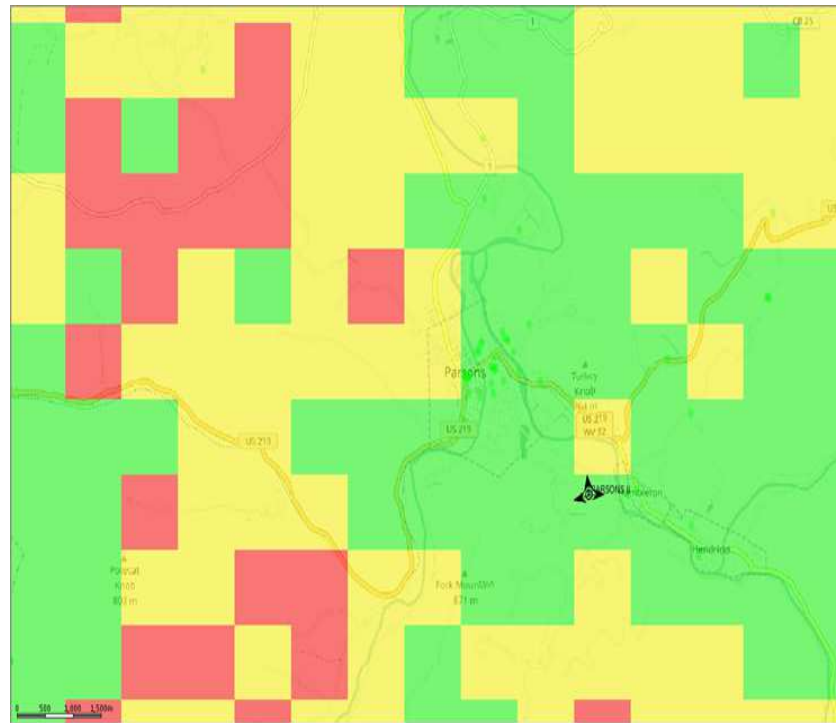
Zoom of 500m Resolution RSRP Plot



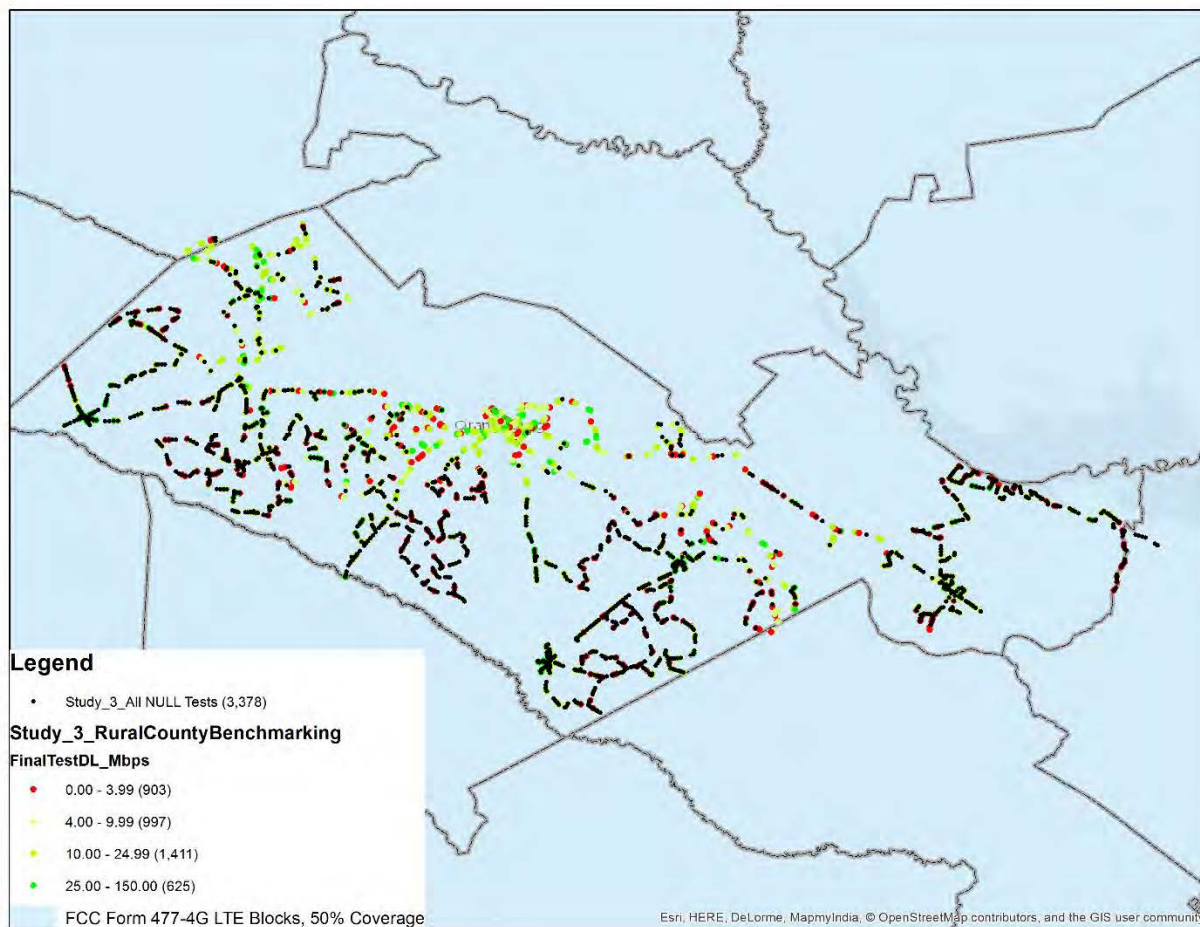
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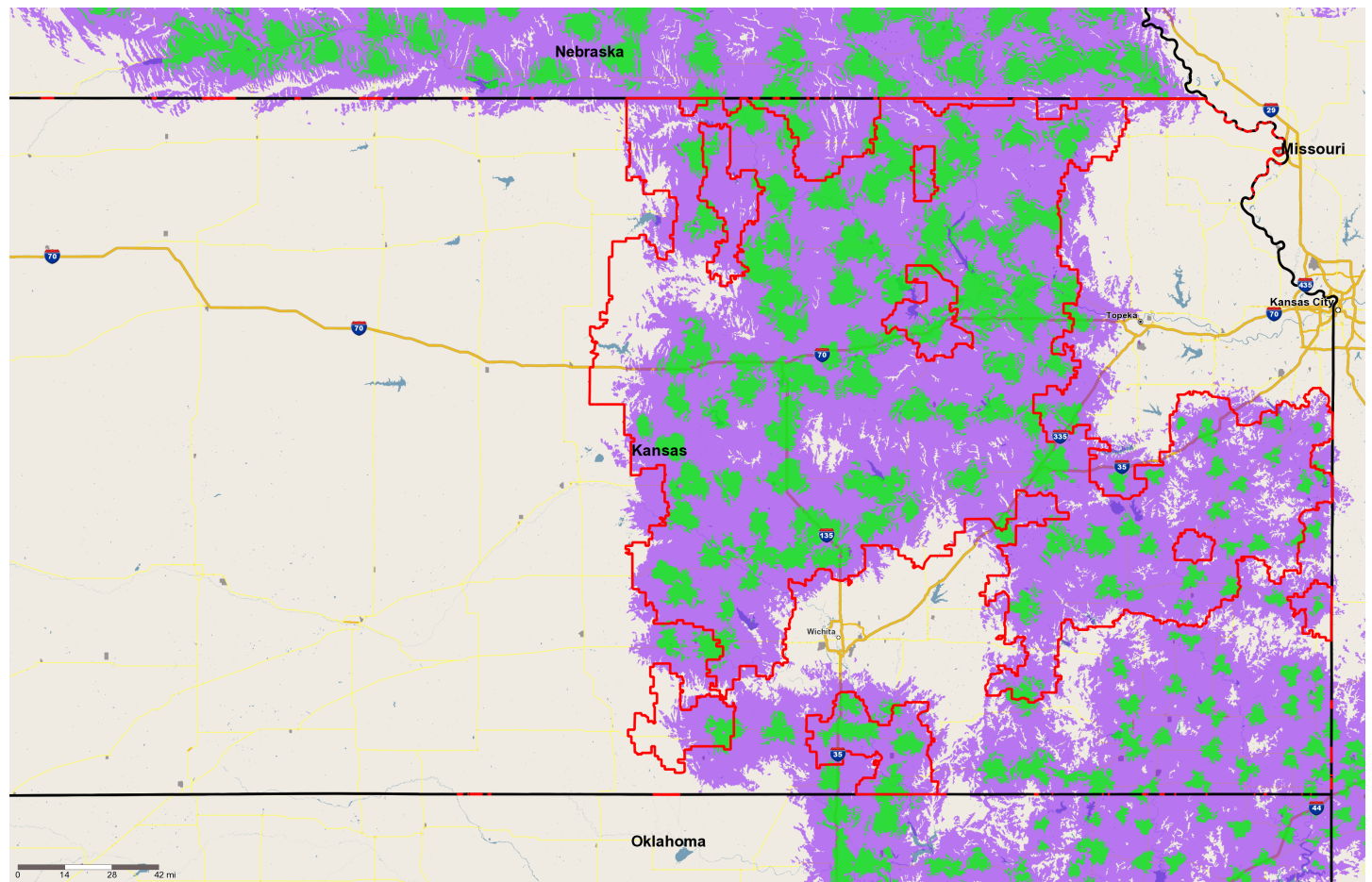
Zoom of 1000m Resolution RSRP Plot





CostQuest Associates Drive Test - 2016
Orangeburg County, SC



February 15, 2017



- N** USF Boundaries
 USCC_700MHz_-85dBm_RSRP
 USCC_700MHz_-105dBm_RSRP



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