

# DEPARTMENT OF PUBLIC WORKS

People serving people.

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May 8, 2013

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Re: Report on Coverage Committee

Dear Directors,

We have been meeting with Executive Board members Pearce and Gray to review short term options and Next Generation system option to address coverage issues identified by MERA members.

Accounting

Southern Marin coverage issues: Contacted Golden Gate Bridge Highway and Transportation District regarding the feasibility of locating Mera Equipment at the Toll Plaza – 3/4/13 spoke with both Kary Witt and Kevin Radditz. Discussed possible mutually agreeable solutions to address interoperability issues and coverage. At this time there is only 3 inches of space in one rack that is available. They did mention that the land around their area is owned by NPS (part of the area in Marin County that we are looking for solutions for is NPS land in Marin). They are fully aware of the fact that Southern Marin Fire is responsible for first responder activities on the bridge and for fire suppression of NPS land within Marin. They are open to further discussions for the future as long as NPS is part of the discussion.

Airport

Building Maintenance

Capital Projects

Certified Unified Program  
Agency (CUPA)

Communications  
Maintenance

County Garage

Inverness Fire coverage issues: Contacted Inverness Fire Chief Jim Fox – 3/6/13. Provided Chief Fox with options to investigate his intermittent audio (Digital Soup) concerns. He will get back to the DPW Communication Division regarding preventative maintenance for District radios.

Disability Access

Engineering & Survey

Stinson Beach Fire coverage issues: March 28, 2013 had meeting with Chief from Stinson Beach. The Chief stated that he is interested in short/mid-term options. He would like to see if there is something that can be done before MERA Next Generation other than his present mode of operation using workarounds.

Flood Control &  
Water Resources

Land Development

Purchasing

Results of discussions on options:

Real Estate

Option 1: Sharing a talkgroup with GGNRA – would have infrastructure costs, additional subscriber costs and would involve costs for the Master Prime site and obtaining a MOU with GGNRA. This would also have limited coverage beyond what they presently have. **LIMITED BENEFIT VERSUS COSTS**

Reprographic Services

Road Maintenance

Stormwater Program

Option 2: Car-to-Car What they do today STATUS QUO

Transportation &  
Traffic Operations

Waste Management

Option 3: Addition of a conventional relay site in the Stinson Beach area. The Chief identified a location along Route 1 that was tested, with limited benefit. Subsequently, he has identified a Muir Beach Water tank that might offer a location for a MERA relay site. This has not been tested for viability. If tests prove to be operational could be a viable site for near term solutions and MERA Next Generation. NEEDS FURTHER EVALUATION

Option 4: Low band radio operations. LIMITED BENEFIT VERSUS COSTS

Option 5: Troposcatter NOT FOUND TO BE A VIABLE OPTION

Option 6: MERA Next Generation with additional sites. We were requested to provide four different scenarios for review. #1 Present T-Band System Map 15 sites, #2 Next Generation RPF map - 15 sites, #3 RFP plus Martha - 16 sites, #4 Additional Coverage - 22 sites.

Map #1 present system

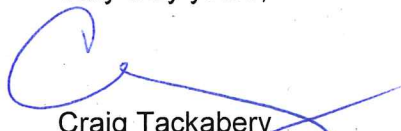
Map #2 RFP September 2010 moved Bayhill to Tomales and added Wolfback Ridge, removed Civic Center as a Receive only site and added a north county site.

Map #3 same as Map #2 and add Martha Company Development site.

Map #4 is a map that includes coverage areas that have been identified as concerns. This map is similar to Map #3 with adding a Muir Beach site, a Redwood Landfill site, a Stinson Beach site, a Toll Plaza site, and adding back in the Bay Hill and Civic Center receive sites.

The Next Generation System budget provided to the Finance Committee included three new sites as recommended by the Operations Advisory Committee. The cost to add new MERA sites can vary due to the unique nature of each site. This includes items like access roads, sitework, environmental compliance and permitting, and acquiring easements/property rights. We estimate the cost for a new MERA site could vary between \$2.5 and \$4 million.

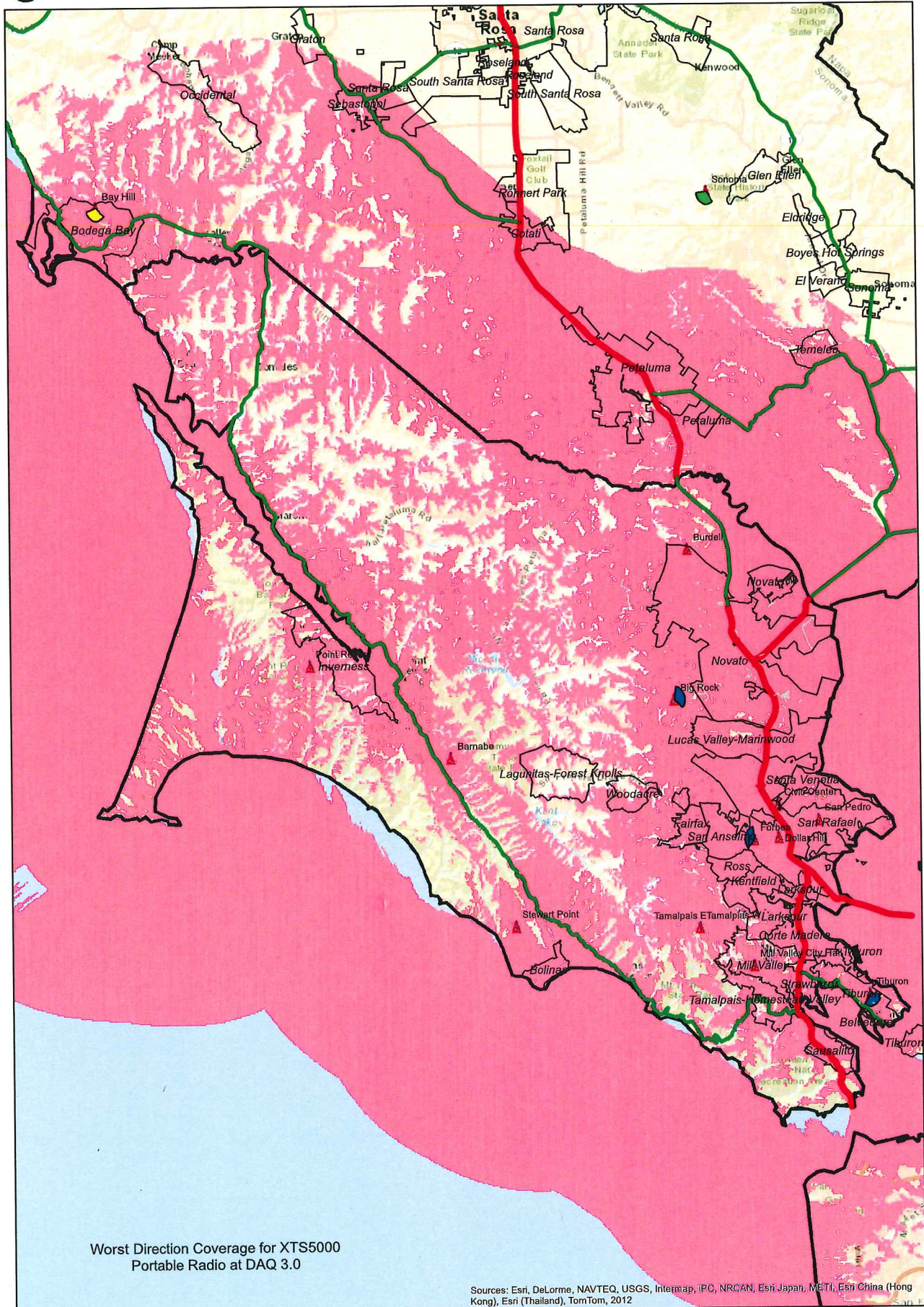
Very truly yours,

  
Craig Tackabery  
MERA Operations Officer



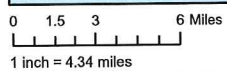
# For Informational Purposes Only

T-Band UHF 15 Sites, 2 Simulcast, 3 IR Subsystem Coverage



Worst Direction Coverage for XTS5000 Portable Radio at DAQ 3.0

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, IPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

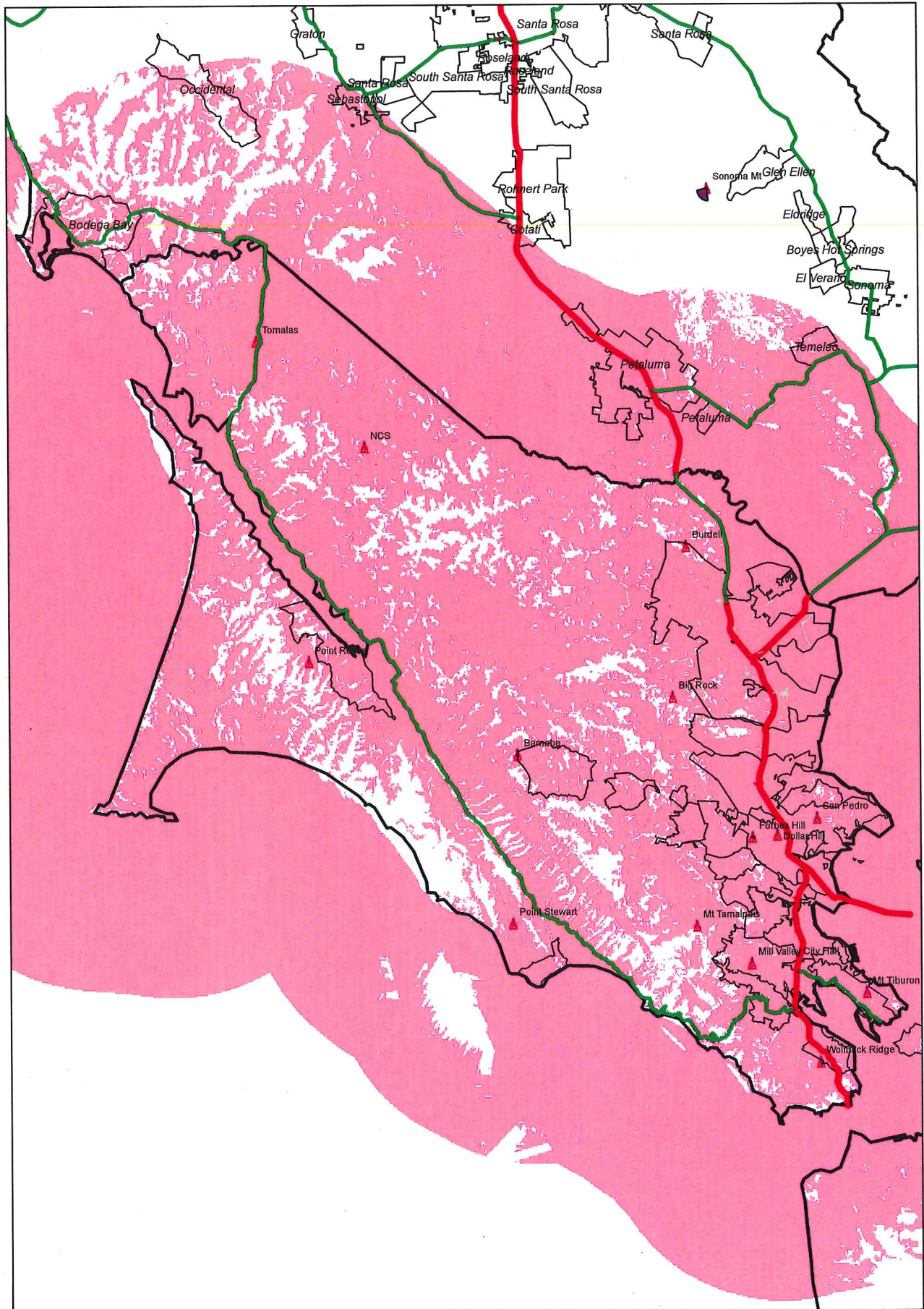


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CJL069-32, Run 10  
QNP684

**INFORMATIONAL MAP ONLY**

700MHz WORST DIRECTION COVERAGE, MAP 2, 14 SIMULCAST AND 1 ARS SITES



0 1.5 3 6 Miles

1 inch = 4.34 miles

Apr 21, 2013

Hydra 4.5.1153.0

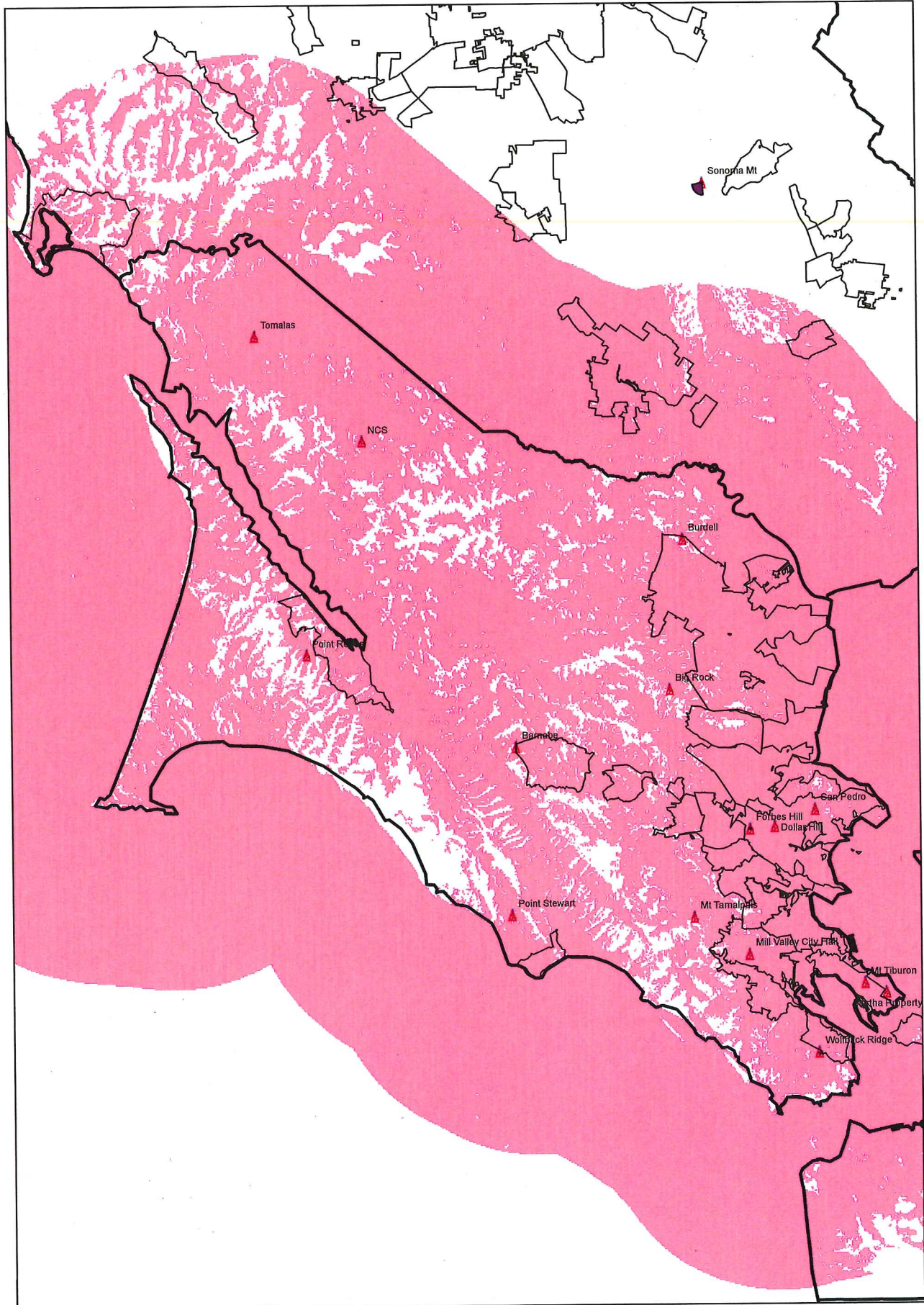
Marin County, CA

Steven Riddle

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**INFORMATIONAL MAP ONLY**

700MHz WORST DIRECTION COVERAGE, MAP 3, 15 SIMULCAST AND 1 ARS SITES



0 1.5 3 6 Miles

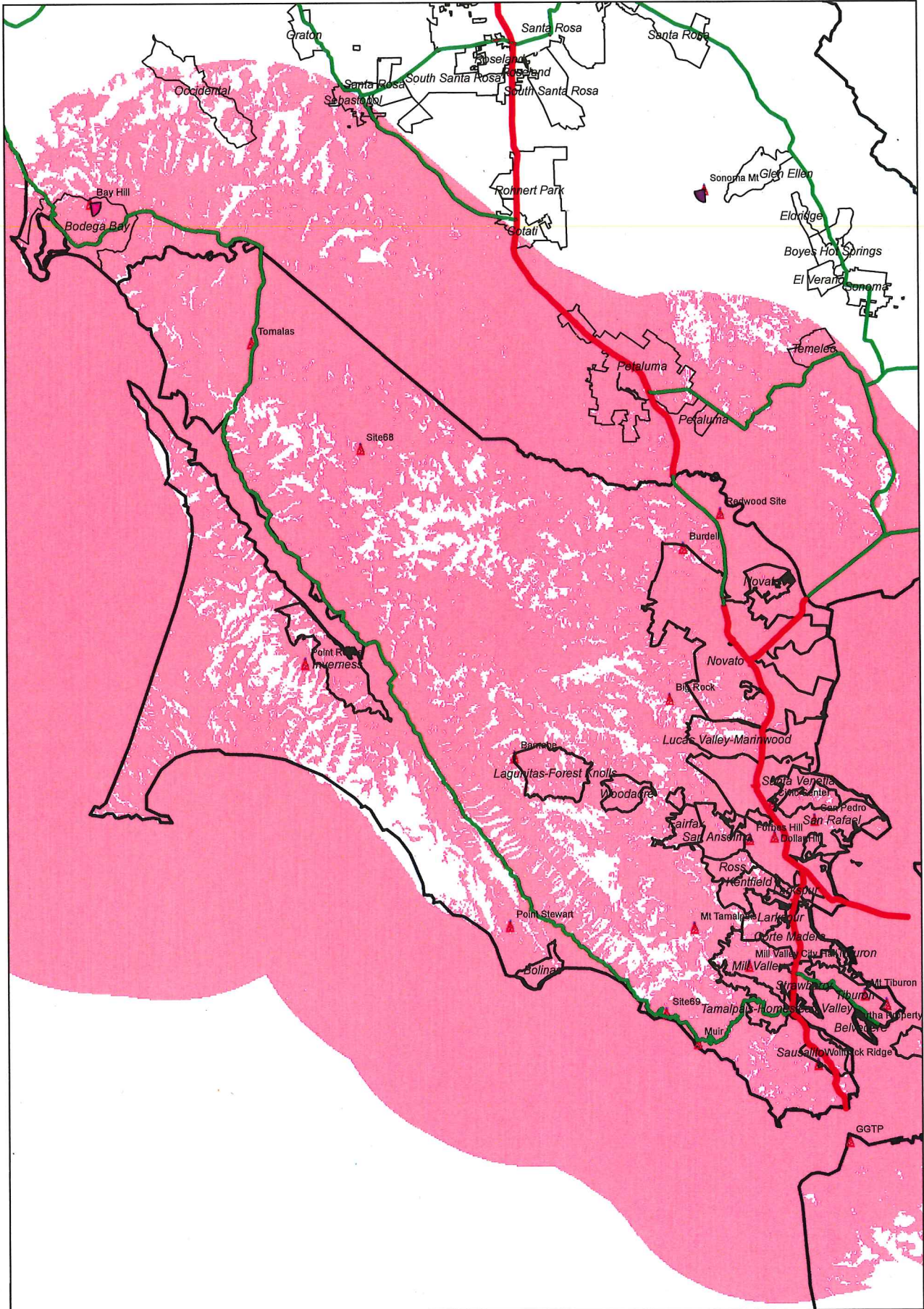
1 inch = 4.34 miles

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**INFORMATIONAL MAP ONLY**

700MHz WORST DIRECTION COVERAGE, MAP 4, 19 SIMULCAST WITH 1 RX ONLY, 2 ARS SITES



0 1.5 3 6 Miles

1 inch = 4.34 miles

Apr 20, 2013

Hydra 4.5.1153.0

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