

MARIN EMERGENCY RADIO AUTHORITY

c/o Novato Fire Protection District
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DRAFT: 1/4/18

NEXT GENERATION PROJECT OVERSIGHT COMMITTEE

MINUTES OF NOVEMBER 29, 2017 MEETING

Call to Order

The meeting was called to order by Chair Cusimano at 2:00 p.m. on November 29, 2017 at the Novato Fire Protection District Administration Office – Heritage Conference Room, Novato, CA.

Committee Members Present:

Central Marin Police Authority	Todd Cusimano
Tiburon Fire Protection District	Richard Pearce
Novato Fire Protection District	Gerald McCarthy
County of Marin Fire	Mark Brown
Novato Police Department	Adam McGill
Marin County Sheriff	Robert Doyle
Town of Ross	Tom Gaffney

Committee Members Absent:

County of Marin

Staff Present:

MERA Executive Officer	Maureen Cassingham
MERA Deputy Exec. Officer – Next Gen. Project	Dave Jeffries
MERA Admin. Assistant – Next Gen. Project	Alex Anderson
MERA Operations Officer	Pat Echols

Guests Present:

Ernest Klock	Marin DPW
Richard Chuck	Marin DPW
Denis Marin	Federal Engineering

Rajit Jhaver	Federal Engineering
Trisha Ortiz	
Kourosh Motashari	MERA General Counsel
Mike De Benedetti	Motorola
Kent Martin	Motorola
Steve Gonzales	Motorola
Rodney Hughes	Motorola
	Motorola

A. Approval of Minutes from June 15, 2017 Next Generation Project Oversight Committee and Finance Committee Joint Meeting

M/S/P Pearce/Gaffney to approve minutes from June 15, 2017 Next Generation Project Oversight Committee and Finance Committee Joint Meeting as presented.

AYES: All
NAYS: None
ABSTENTIONS: None
Motion Carried

B. Update on the Next Gen System Project (Jeffries)

Jeffries gave an update on the progress of the Next Gen System Project, outlining the project's tentative schedule, the status of the Regional Planning Committee application, a review of the coverage maps for the current project design, and maintenance of the current radio system and potential cost implications.

Jeffries presented a tentative project schedule, noting that delays with approval of the Regional Planning Committee application had caused some slippage on the schedule, especially impacting the customer design review process. He also discussed potential schedule impacts of navigating the California Environmental Quality Act (CEQA) process for site development, noting that the project team is already working on laying the ground work for this process. He emphasized that the presented schedule was tentative, and that once the customer design review was completed a more fine-tuned and detailed schedule would be locked in and available for review.

Pearce asked if final system acceptance was still scheduled for 2021. Jeffries responded that, while everyone would like to see the final acceptance date moved up in the schedule, at this point 2021 is the current projected date for system acceptance in the tentative timeline. Gaffney asked what the schedule would have been if there had not been delays with the Regional Planning Committee application. Jeffries responded that there would still be some delays due to work on microwave pathways and CEQA site development.

C. Latest on RPC Application (Marin and Gonzales)

Jeffries presented a coverage map of the imprint of the proposed MERA Next Gen System radio signal leaving Marin County, explaining that the Regional Planning Committee was set up to ensure that MERA's new system would not adversely affect other systems in the greater bay area.

Marin explained that the Region 6 Planning Committee (RPC) is made up of volunteers from several public safety agencies that operate similar types of radio systems. MERA's proposed 700 MHz system comes under the jurisdiction of this committee, which judges how the proposed system may affect other entities around Northern California. Marin explained that Motorola is contractually obligated to pursue the permits required for the new system outside of the county, and that Motorola's lead engineer on the project Steve Gonzales has been the point person to develop the application for the RPC.

Marin noted that the application for approval was provided to the RPC on October 25, 2017. The RPC met on November 9, 2017, but did not have a quorum at the meeting and was therefore unable to approve MERA's application. The next RPC meeting will be held on December 14, 2017 and MERA staff, Marin County staff, Federal Engineering representatives, and members of the Motorola team will be present to help ensure that the application will be approved.

Echols and Marin explained that MERA was able to receive feedback from the RPC at the November 9, 2017 meeting. Marin explained that there are no potential radio interference issues. However, some of the committee members did raise concerns that MERA's new system would take up frequencies other agencies may want to use in the future. Gonzales explained that he had been in contact with the chair of the RPC and was working with him to resolve any potential issues in advance of the next meeting.

Brown asked if the RPC's decision was binding, or if they were just recommendations to the Federal Communications Commission (FCC). Marin explained that MERA must receive approval from the RPC, and then the application would move on to the Frequency Coordination Committee, which would then make a recommendation to approve the frequency application to the FCC.

Pearce asked if there was anything that MERA member agencies could do to help ensure that the application was approved by the RPC, such as sending representatives to the meeting on December 14. Echols said he had invited Marin County Sheriff Robert Doyle and Marin County Fire Chief Jason Weber, and that other representatives were welcome to attend.

D. Coverage Maps (Jeffries and Gonzales)

Jeffries presented a series of coverage maps comparing and contrasting the system's coverage in the contract plan with the coverage of the current proposed plan, including mobile inbound, portable inbound, and in-building inbound in different areas throughout the county. He explained that the maps for the current proposed system are using 97% reliability and a higher Digital Audio Quality (DAQ) of 3.4/ than the DAQ level of 3.0/ used in the Gen I System for mobile radio and portable radio coverage. The maps also showed coverage at 97% reliability at DAQ of 3.4 with an 18 dB loss, as well as coverage at 90% reliability at DAQ 3.0 with an 12 dB loss for in-building coverage. He noted that the lower reliability rate was of particular importance for the in-building inbound maps, demonstrating the difference between slightly lower reliability coverage and potential holes in coverage.

E. Maintaining the Gen 1 System to 2021 (Chuck and Applewhite)

Jeffries explained that with delays in implementation of the new system, there are some concerns with maintaining the existing system until cutover to the new system.

Chuck explained that the current MERA system was contracted for in 1998, with the first sites being completed in early 2000, meaning that the critical components of the system have been running constantly for over 17 years. In June of 2009, MERA learned that the system control computers were no longer supported with minimal parts available. In December of 2009, MERA learned that equipment replacement parts for dispatch consoles were no longer available. MERA does have a full complement of spare boards for the current system. These are in-house spares that have been serving the system for the last 17 years. However, if a major disaster such as a flood or fire damaged the prime site or one of the main sites of the current system, MERA may be left without these spare parts which could potentially result in significant impacts for the current system.

Chuck explained that MERA was looking to work with Motorola to either supply boards, guarantee replacement of boards, or repair boards. MERA is not necessarily looking for new boards, but to repair existing boards. Jeffries noted that there is also a lot of equipment from other vendors besides Motorola, which adds additional complications to current system maintenance. Chuck said he had been in discussions with Motorola regarding what equipment they can and will support in order to better plan for current system maintenance over the next 3 to 4 years.

Gaffney asked if MERA had been in communication with other emergency radio systems in the area that were making a similar transition to a new system. Chuck responded that MERA has been purchasing equipment from other systems in the bay area. He said one of the main problems was not the hardware, but versions of software and firmware that were no longer supported by Motorola.

Martin explained that Motorola was committed to helping MERA maintain its current system until cutover to the new system. He said he and his team have been working on finding additional sources for replacement equipment if needed. He noted that some of the equipment currently used in the MERA system is still repairable by Motorola, but that there is some equipment that is no longer repairable. There are some other systems that have overstock of older equipment, which could potentially be a source for replacement equipment for the current MERA system. Also, a few emergency radio systems in the country which have already begun the transition to a new system and begun to decommission older equipment may be willing to provide replacement equipment. He explained that finding third party equipment was somewhat more challenging, and that he and his team were working on solutions to that problem.

Pearce noted that the costs for replacement parts and extending the life of the current system were not included in the planning for the Next Gen System. He asked if there would be charges from Motorola associated with operations and maintenance of the current system. Martin explained the MERA is not currently under a maintenance contract with Motorola, other than technical support.

McCarthy asked how extending the life of the current system might affect the end user equipment such as fire station alerting, portables and mobiles. Jeffries explained that for the last couple of years MERA has required that new portables and mobiles be dual-band capable. Chuck added that maintaining fire station alerting equipment did present a challenge. Martin said Motorola would look into solutions for extending life of the fire station alerting systems.

F. Potential Next Gen Cost Implications (Applewhite, Klock, Jeffries)

Jeffries explained that there would be additional cost implications with the redesign of the system and the need for two additional tower sites. With the additional sites, there will be costs for new Motorola equipment, as well as site development costs.

Benedetti (For Applewhite) explained that the two additional sites in Mount Tiburon and Mill Valley are necessary based on the requirements placed on the system by the RPC. He said it was Motorola's intent to treat the additional sites as part of the 12 sites in the original system design from the perspective of the scope of work. In other words, Motorola will provide all of the additional equipment as well as backhaul equipment necessary and the services and installation needed to get these two additional sites up to speed as part of the original scope of work. Jeffries clarified that there would be a no-cost change order for these two items.

Echols explained that there would be some additional site development costs for these two new sites not included in Motorola's scope of work. Klock explained that the Mount Tiburon site is an existing site owned by MERA, so there should not be any significant

costs for site development. The Mill Valley site is a brand new site, owned by MERA member agency Marin Municipal Water District, and there will be some site development costs associated with its development. Motorola provided a cost estimate of \$435,000 for the additional site development costs. Klock recommended a 20% contingency for this cost estimate, to bring the total estimate up to around \$522,000. Jeffries explained that this would not need to be change order since MERA had not yet put out site development for bidding.

Pearce asked if there would be any other additional costs associated with the new sites. Jeffries answered that there would likely be additional staff costs from MERA, Marin County Department of Public Works, and Federal Engineering to work on the site development for the new sites.

Jeffries discussed Motorola's offer to upgrade new radios to dual-band or multi-band if equipment was received by September of this year and the offer of a half million dollar discount if radios were received by end of 2017. He explained that these offers were made prior to the delays the project has recently experienced. With recognition of these delays, Motorola has offered to extend the deadline of these offers, though a new date has not yet been set for the offer deadline.

Cusimano asked for clarification on the length of the delay in the project schedule. Jeffries responded that the project had been delayed roughly 24-30 months from the original contract for a variety of reasons. Cusimano requested that any offer from Motorola to help maintain the current MERA system until cutover to the Next Gen System would accordingly cover the time period of the delay, and that the offer was formalized in a written agreement. Benedetti responded that he intended to provide a written response to the request for maintenance support of the current MERA system.

G. Next Steps (Jeffries)

Jeffries asked when would be a good time to reconvene the Next Gen Oversight Committee to provide another snapshot of the progress of the project. A number of members requested an update on the status of the RPC application after the December 14 meeting. Jeffries said that MERA staff was planning on sending a newsletter out to MERA member agencies in the next week or so to provide a general update to a larger audience.

H. Open Time for Items Not on Agenda

None.

I. Adjournment

Cusimano adjourned the meeting at 3:16 pm.

Minutes prepared by:

A handwritten signature in black ink, appearing to read "Alex Anderson".

Alex Anderson,
MERA Administrative Assistant – MERA Next Generation Project

MERA: *NEXT GEN PROJECT OVERSIGHT COMMITTEE*

Wednesday, November 29, 2017



Agenda:

- A. 1. Approve Minutes
- B. 2. Project Schedule Review
- C. 3. Latest on RPC Application
- D. 4. Coverage Maps
- E. 5. Maintaining the Gen I System
- F. 6. Potential Next Gen Cost Implications
- G. 7. Next Steps

Tentative Project Completion Dates

- 03/24/17 Project Kick Off

- 05/29/18 Coverage Re-Design

- 07/25/19 CEQA / Permitting / Construction Mobilization
- 01/29/19 A&E Package Development and Approval

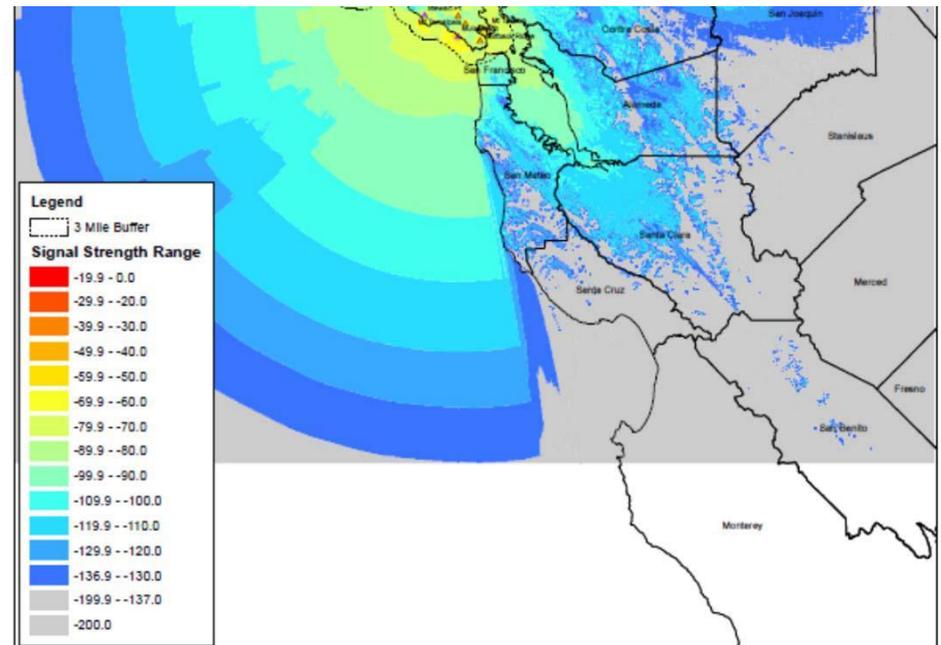
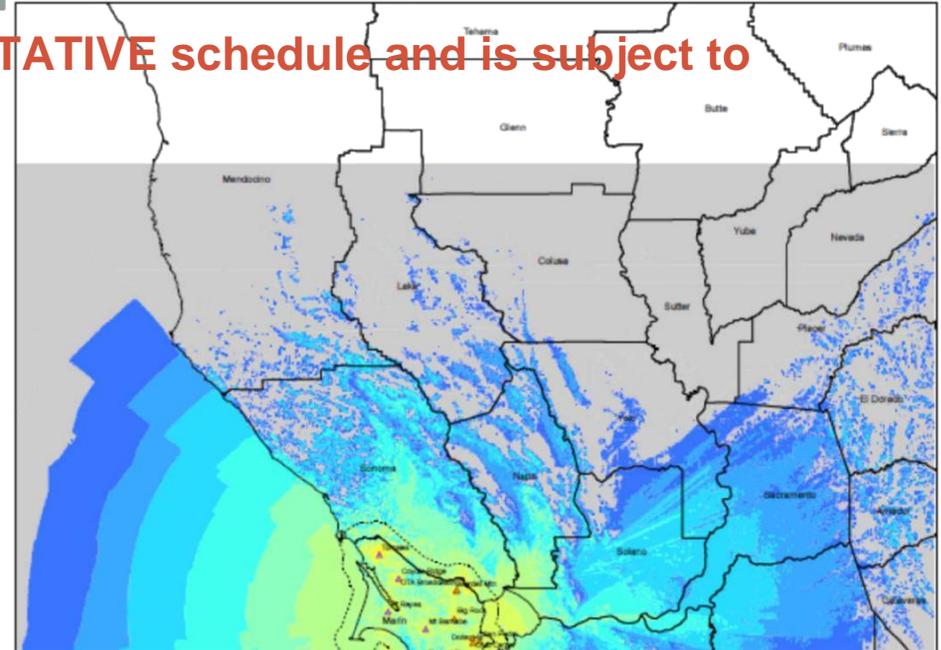
- 03/17/20 Site Development Implementation
- 08/18/20 Dispatch Site Installation and Optimization
- 09/02/20 Site Installation and Optimization

- 02/24/21 Implement Subscriber Gear / Control Stations
- 07/02/21 Final System Cutover
- 07/30/21 Final System Acceptance

The info above is from the current **TENTATIVE** schedule and is subject to change.

Latest on RPC Application

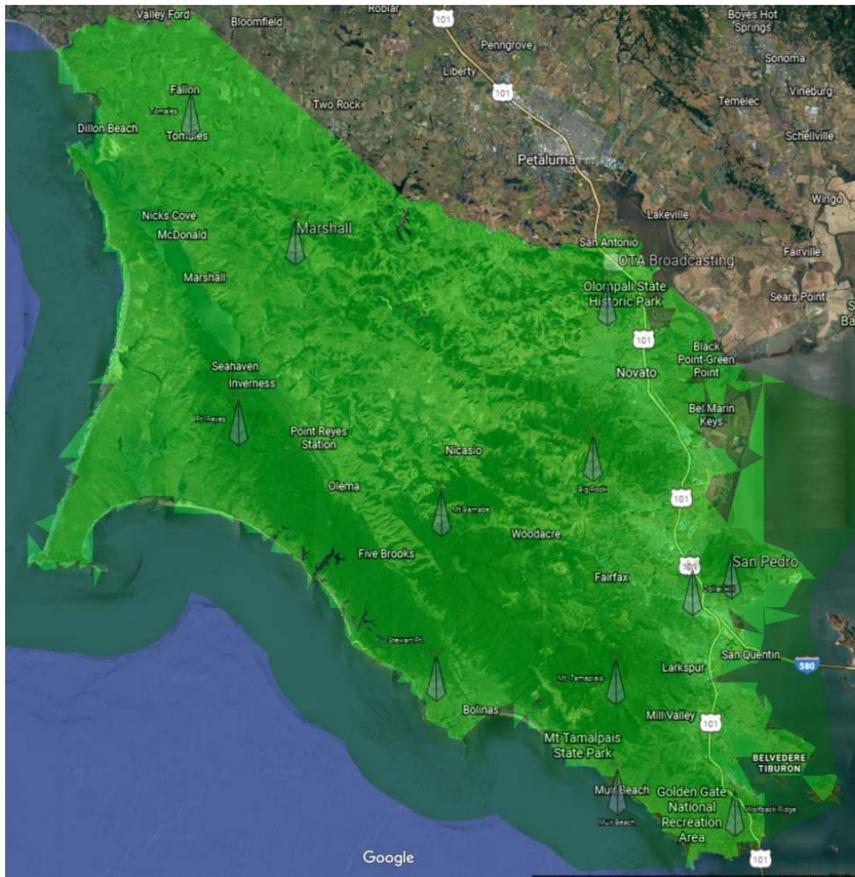
- Preliminary, Unofficial Meeting on 11/09/17
- Review of Feedback and Potential Issues
- Next Meeting – 12/14/2017



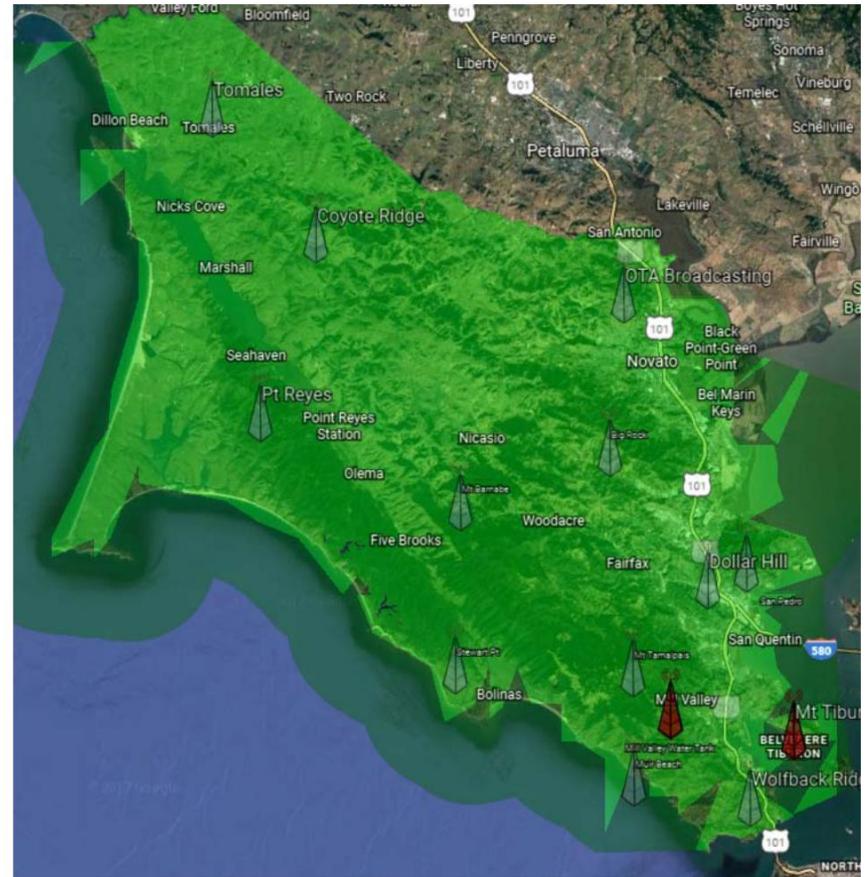
97% Reliability at DAQ 3.4

Coverage Maps – Mobile Inbound

Contract Plan



Current Plan

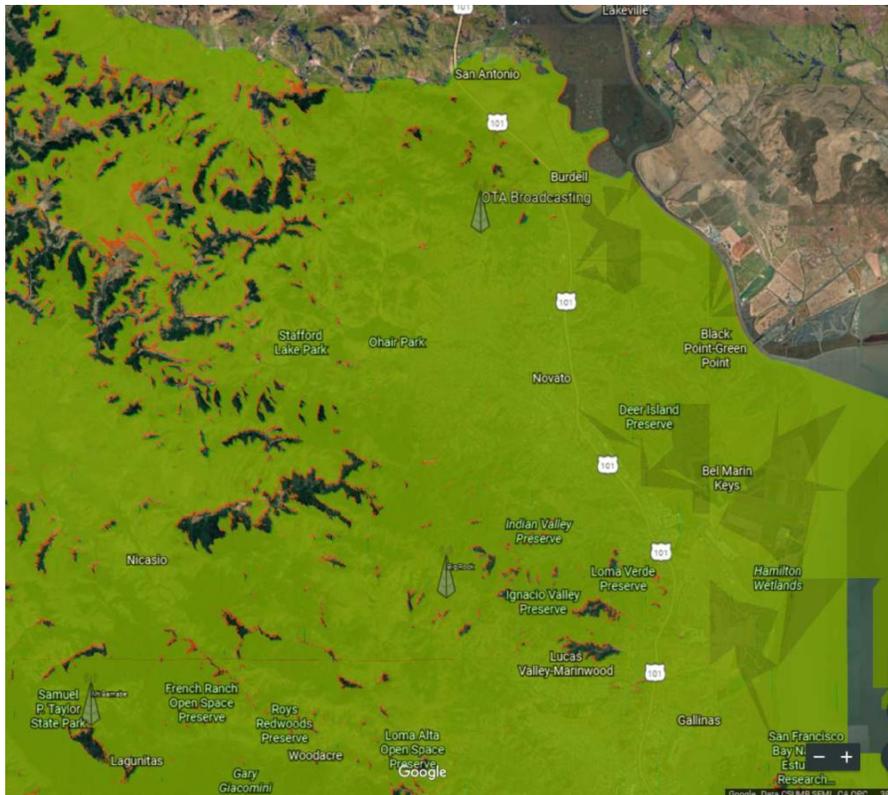


Green – 97% Reliability at DAQ 3.4

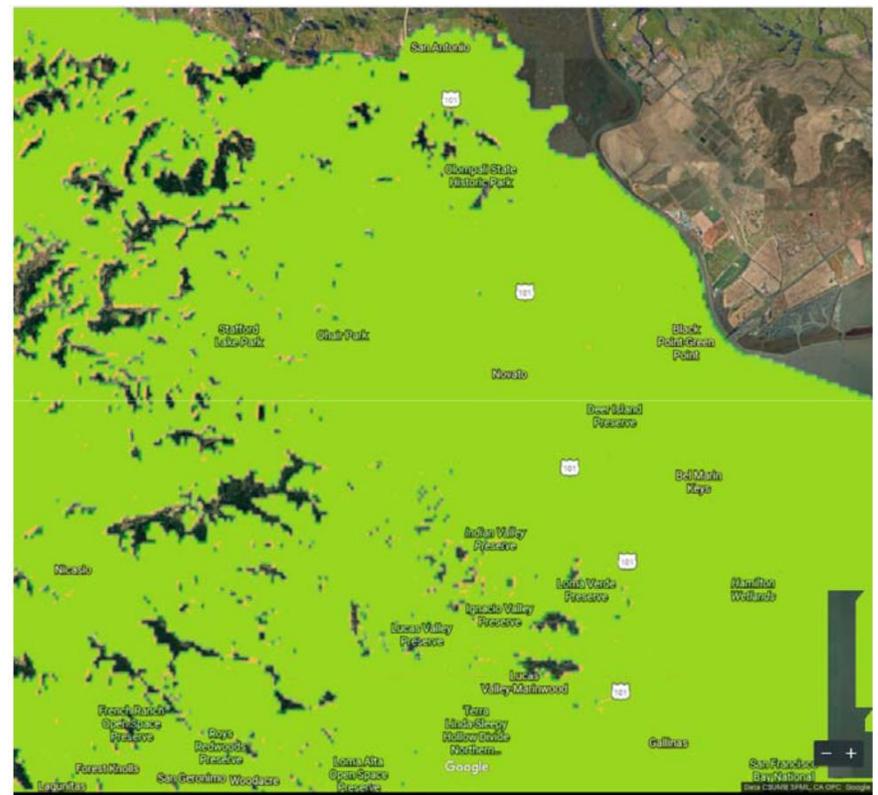
Orange – 90% Reliability at DAQ 3.0

Coverage Maps – Portable Inbound

Contract Plan - Novato



Current Plan - Novato



Green – 97% Reliability at DAQ 3.4

Orange – 90% Reliability at DAQ 3.0

Coverage Maps – Portable Inbound

Contract Plan – San Rafael

Current Plan – San Rafael



Green – 97% Reliability at DAQ 3.4

Orange – 90% Reliability at DAQ 3.0

Coverage Maps – Portable Inbound

Contract Plan – Southern Marin

Current Plan – Southern Marin



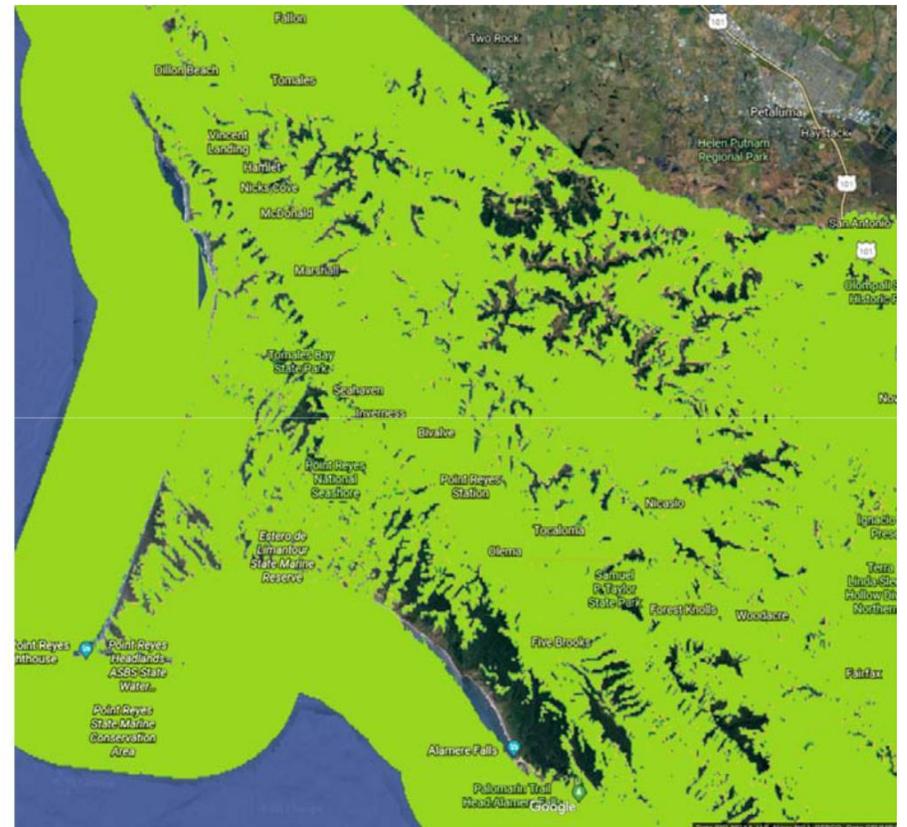
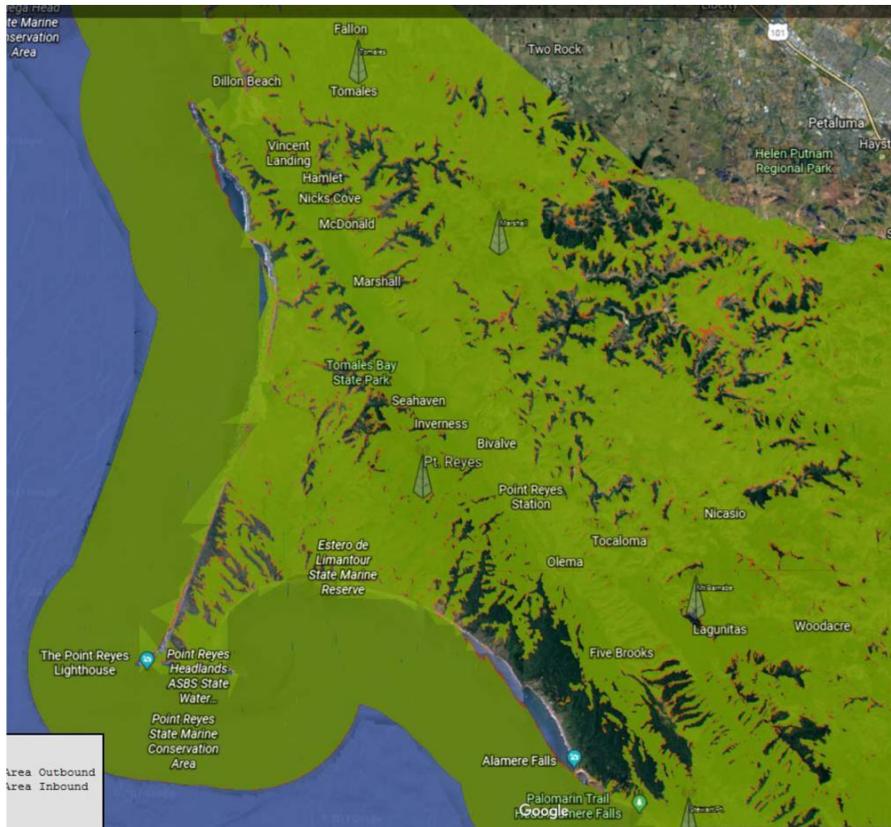
Green – 97% Reliability at DAQ 3.4

Orange – 90% Reliability at DAQ 3.0

Coverage Maps – Portable Inbound

Contract Plan – West County

Current Plan – West County

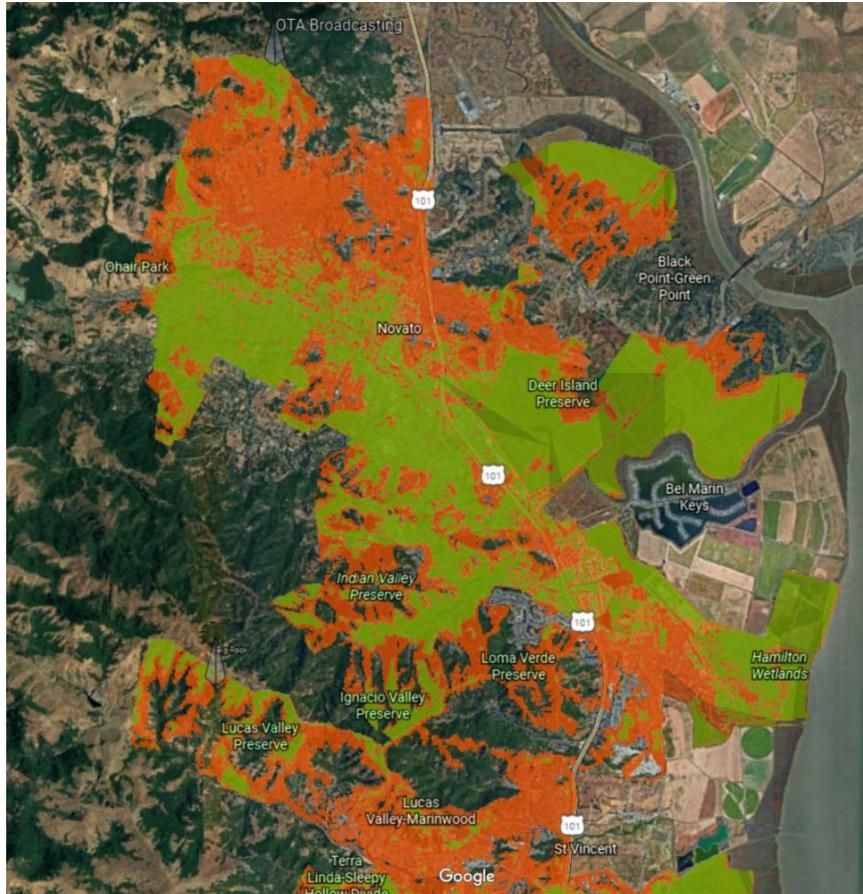


Green – 97% Reliability at DAQ 3.4 / 18 dB

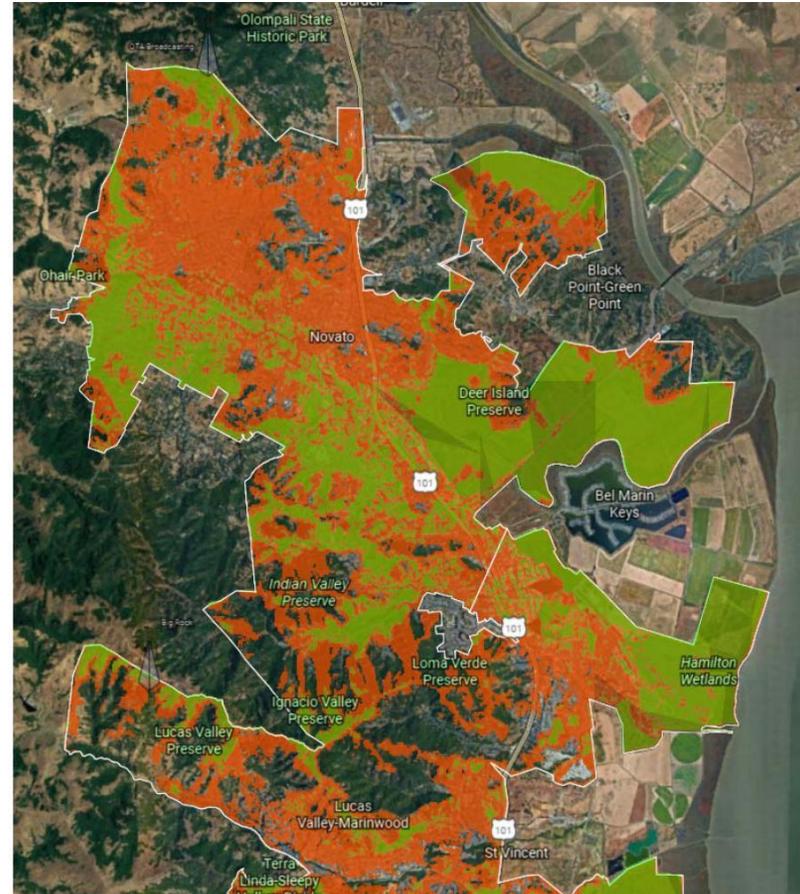
Orange – 90% Reliability at DAQ 3.0 / 12 dB

Coverage Maps – In Building Inbound

Contract Plan - Novato



Current Plan - Novato

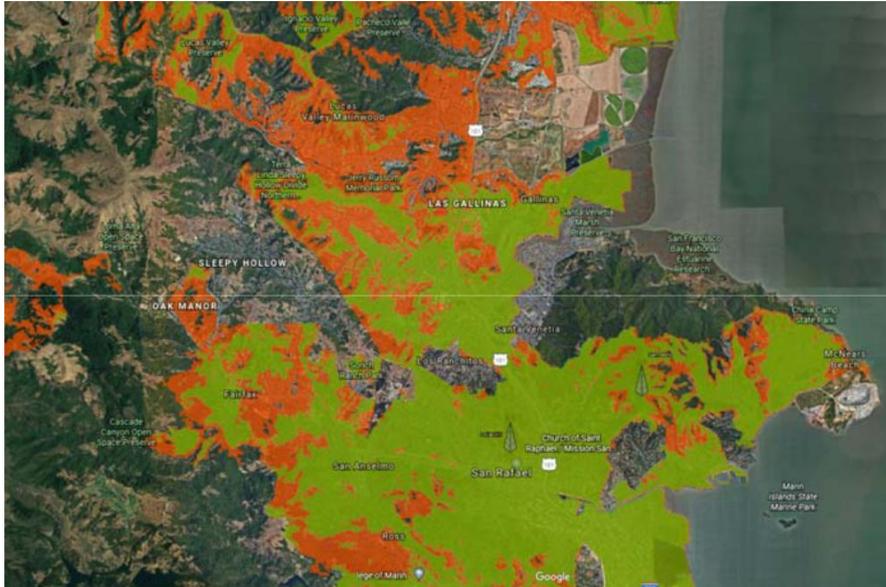


Green – 97% Reliability at DAQ 3.4 / 18 dB

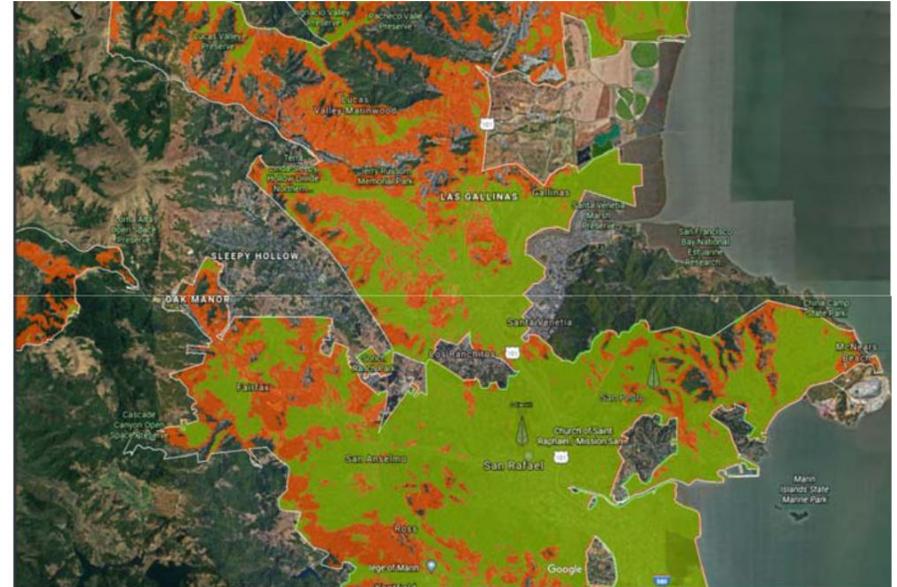
Orange – 90% Reliability at DAQ 3.0 / 12 dB

Coverage Maps – In Building Inbound

Contract Plan – San Rafael



Current Plan – San Rafael



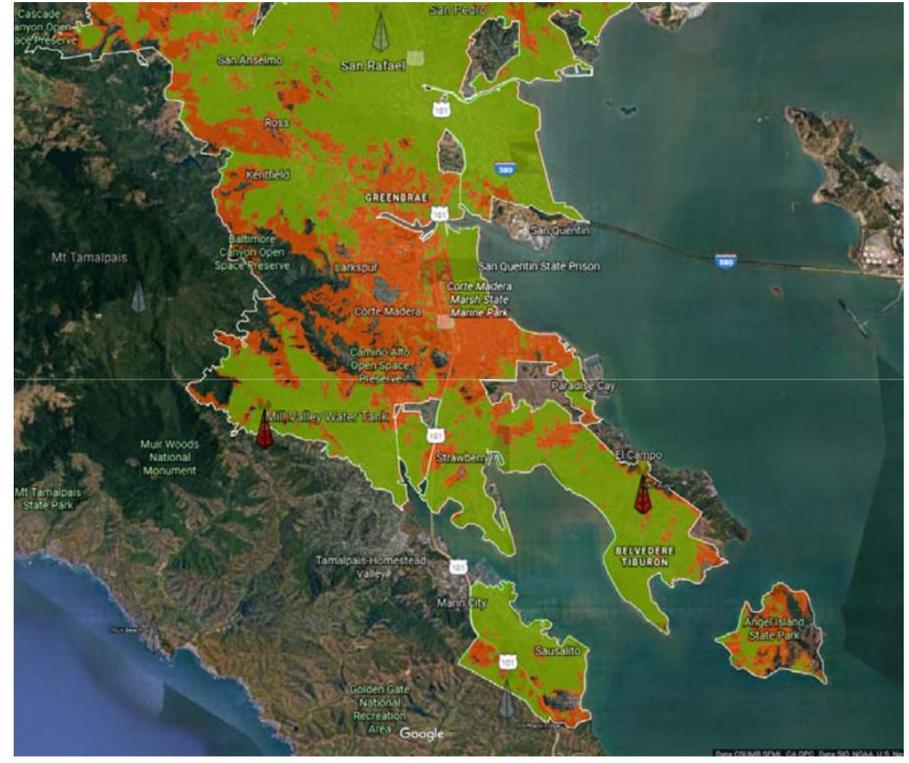
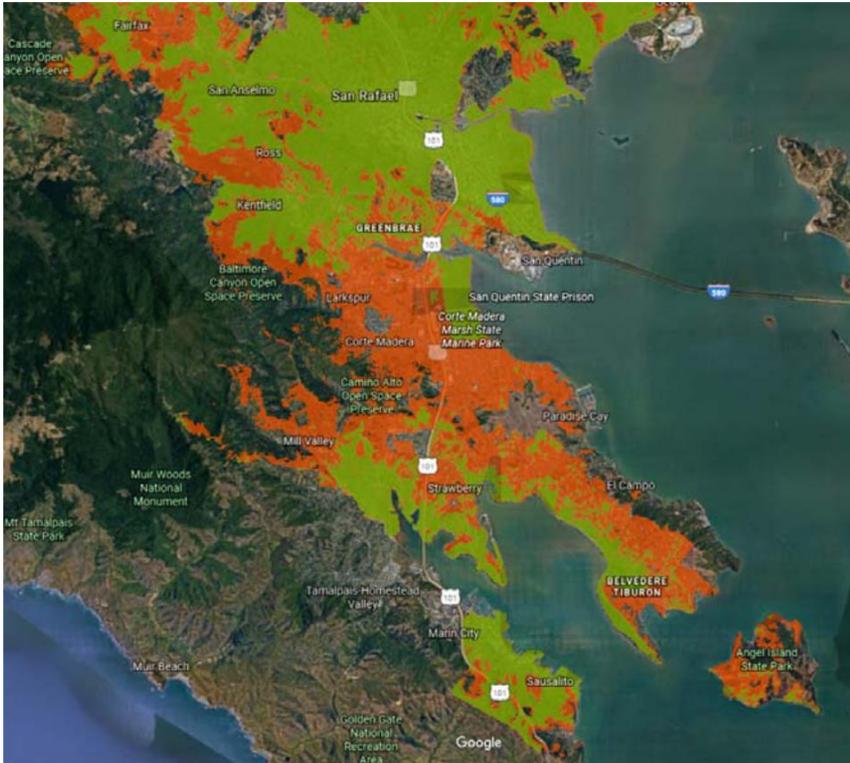
Green – 97% Reliability at DAQ 3.4 / 18 dB

Orange – 90% Reliability at DAQ 3.0 / 12 dB

Coverage Maps – In Building Inbound

Contract Plan – Southern Marin

Current Plan – Southern Marin



Maintaining the Gen 1 System

- MERA Hardware Needs for Gen 1
- Motorola Support

Potential Next Gen Cost Implications

- Proposed Costs for Revised System Design
- Potential Additional MERA Costs
- Multi-Band Radio Offer
- Subscriber Equipment Delivery Discount



MERA: SECONDS SAVE LIVES

Next Steps?

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