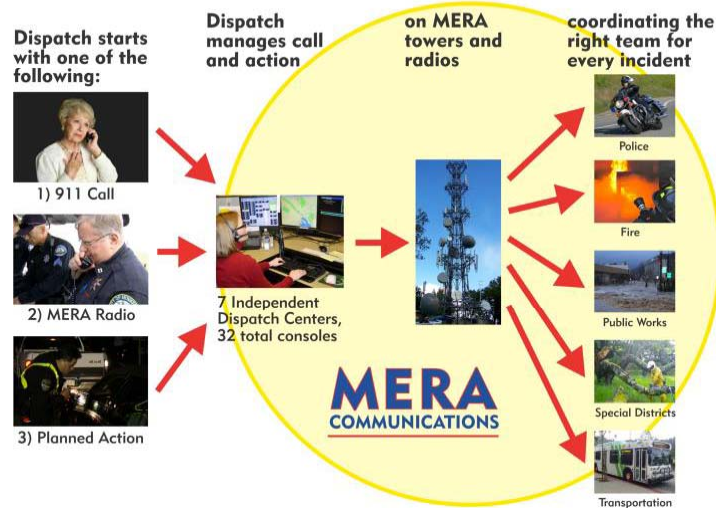


MERA: *WHEN SECONDS SAVE LIVES*

The history and future of the
Marin Emergency Radio Authority



How Emergency Calls Are Handled



Before MERA



MERA was developed following a series of frustrating incidents in the 1990's where one agency could not communicate effectively with another agency working on the same emergency.

Problems were:

- Multiple radios were required
- Signals were dropped
- Radio static caused delays
- Sometimes, radio traffic from the Midwest US would carry on local channels

What Is MERA Today?

The Marin Emergency Radio Authority (MERA) is a Joint Powers Authority in Marin County to plan, implement and manage a countywide public safety and emergency radio system for the use of all member agencies. MERA went live on January 24, 2004.

It includes:

- 911 Dispatch
- Nearly 2,900 radios deployed across the county
- Uniform radio communications shared by every major safety agency in the county
- Instantaneous "Talk Group" capacity for incidents and events

CONNECTED BY TECHNOLOGY

How MERA's engineering and technology is
"Connecting the Dots" in safety communication

Connecting 25 Member Agencies:

Local Government, Fire, Police, Public Works, Special Districts,
Transportation and other Emergency Responders

1. County of Marin
2. City of Belvedere
3. Town of Corte Madera
4. Town of Fairfax
5. City of Larkspur
6. City of Mill Valley
7. City of Novato
8. Town of Ross
9. Town of San Anselmo
10. City of San Rafael
11. City of Sausalito
12. Town of Tiburon
13. Bolinas Fire Protection District
14. Central Marin Police Authority
15. Inverness Public Utility District
16. Kentfield Fire Protection District
17. Marin Community College District
18. Marin Transit
19. Marin Municipal Water District
20. Marinwood Community Services District
21. Novato Fire Protection District
22. Ross Valley Fire Department
23. Southern Marin Fire Protection District
24. Stinson Beach Fire Protection District
25. Tiburon Fire Protection Dist.

Capable of Connecting to Other Agencies & Systems

FIRE & MEDICAL

1. Multi-Agency Coordination
2. Large Incident Fire Command
3. Field EMT's to Hospital
4. Medical Mutual Aid
5. State Emergency Management
6. City of San Rafael local Interoperability

LAW ENFORCEMENT

1. On-scene Law Enforcement
2. CHP Dispatch Channels
3. Agency to Agency Coordination
4. Petaluma Police Dispatch
5. Sonoma Sheriff Dispatch

MUTUAL AID

1. National Mutual Aid
2. State Mutual Aid
3. Regional Mutual Aid
4. State Travel and Strike Teams
5. Statewide Coordination

OTHER AGENCIES

1. Golden Gate Transit Dispatch
2. US Coast Guard
3. Pt. Reyes Seashore Dispatch
4. Golden Gate National Recreation Area Dispatch

MERA VIDEO

- Insert Video Here

SHOWING SIGNS OF AGE

Our current system cannot last forever, and regulatory deadlines loom on the horizon

System Age Challenges

MERA system was designed in 1998:

- Some critical system control equipment is no longer available
- Repair parts are becoming difficult to find
- Designed in 1998 to accommodate 1,580 mobile and portable radios with expansion to 2,500 over a 20 year period
- Today there are 2,897 radios on the system – over 15% more than planned
- Agencies still want to add more radios
- About 100 digital Talk Groups

Regulatory Deadlines Ahead

- January 1, 2013: FCC deadline for Narrowbanding Phase 1 technology – MERA is compliant
- 2017: - Deadline for Narrowbanding 6.25 KHz technology: Phase 2
- Specific deadline date has not been promulgated
- Current MERA system is not compliant or upgradable
- 2018: Proposed MERA migration to Next Gen – 700MHz system FCC Phase 2 compliant
- February 2021: HR 3630 Legislation – deadline for MERA's current frequency giveback to FCC

The Future Is Bright

MERA's Next Generation System will:

- Continue as a countywide system with new radios, 911 dispatch terminals and computer hardware & software
- Improve capacity and coverage
- Allow any of our radios in the region to operate seamlessly in all Bay Area counties
- Comply with FCC mandates, including new channels and bandwidth technologies

The next question is: How do we pay for this?

MEETING PUBLIC EXPECTATIONS

Results from our countywide poll
(601 interviews, MOE +/- 4.0%, conducted March 4-10, 2013)

What the Public Expects

- Day to day communications
- Emergency response to disasters
- Fastest response times possible
- Reliability and durability

Key Poll Findings

- Initial support for a \$45 annual parcel tax funding a new countywide emergency communications system was broad (58%), but fell short of the two-thirds vote threshold.
- However, it increased notably (64%) after a simple explanation of why the measure is being considered and what it would fund.
- Voters have positive impressions of first responders and they are not overly worried about their ability to provide emergency services.
- Voters place more value in the new system's ability to maintain reliability over the new technologies a system would use.
- The most compelling reasons to support a finance measure:
 - How critical the communication system is to first responders
 - The need to upgrade the system to manage the aftermath of a major emergency or natural disaster.

Other Findings

- Other methods of generating revenue yielded far less support:
 - 1/8 cent sales tax had 49% support
 - General Obligation (GO) Bond had only 28% support
- Including a Citizens Oversight Committee led 64% of voters to say they would be “more likely” to support the measure
- Voters want these funds to be spent for Capital purposes, such as construction, communication equipment and towers, not for Operating purposes like administration, salaries and pensions

How We Arrived at this Solution

- We have a population that demands the highest quality emergency response, no excuses
- At the same time, the funding has to be reasonable and fair to all communities and users
- Working with our poll results, we looked for ways to trim the project budget to meet voters' willingness to pay for this project

Meeting the Public's Expectations

After conducting a poll, a countywide parcel tax study, and fine-tuning the budget and financing, we were able to:

- Craft a base plan that improves coverage
- Replace old radios with new ones
- Maintain our ability to supply fast, reliable emergency services
- All at a price our voters will support

FINANCING THE SOLUTION

We can meet these challenges with the right financing structure

Cost of Next Generation System

SLIDE UNDER REVIEW

• Site development and upgrades, environmental compliance, licensing and leases	\$8.9 M
• Radio communication system, site equipment and dispatch consoles	\$12.7 M
• Microwave system	\$3.6 M
• Mobile and portable radios	\$11.9 M

= SUBTOTAL CAPITAL COSTS*	\$37.1 M
*(includes contingency)	
+ Capitalized Interest	\$4.3 M
+ Reserve Fund	\$4.0 M
+ Issuance Costs	\$0.3 M

= BOND ISSUE TOTAL	\$45.7 M

(Each Additional Site – \$2.5 to \$4 million)

SLIDE UNDER REVIEW

Funding Options

Funding Requirement \$45.7 M

Possible Contributions

- Grants \$5 M +
- Low Interest Loans \$5 M +

Parcel Tax

- Annual, after expenses \$3.5 M
- SFR under \$30
- Overall Average under \$40

NEXT STEPS

Where do we go from here?

Action Plan

- Round I - Presentations to all MERA members
 - August – November 2013
- Review Feedback and Questions
 - November 2013 – January, 2014
- Round II - Request Endorsement by all MERA members
 - February – May, 2014
- Request made to Board of Supervisors for countywide ballot measure
 - August 2014



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www.MEROnline.org